The Role of Disgust in Pathogen Resistance and Ethical Behavior

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Abstract
Disgust, one of the six universally recognized emotions, plays an indispensable role in disease avoidance and morality. While previous studies have demonstrated its evolutionary significance and its role in pathogen resistance and morality, much remains unknown about how these findings could be applied to other areas of the social world. This paper reviews the relevant literature regarding the origin of disgust, its role in pathogen resistance and morality, and offers future directions on how disgust could be applied in other social settings that could be useful in policy research.

Introduction
Disgust has been acknowledged as one of the six fundamental human emotions [1]. With a distinct facial expression [2], disgust has been suggested to serve as a mechanism for disease avoidance behavior [3] and could be connected to one’s sense of morality [4]. Despite advances in knowledge regarding the role of disgust in the social world, much remains unclear regarding how these findings could be applied to other social settings that could be useful in policy research.

Origin and Characteristics of Disgust
As one of the six fundamental human emotions, disgust possesses a unique facial expression that is found to be recognizable across cultures and is commonly characterized by furrowing of the eyebrows, wrinkling of the nose, closing of the eyes, constriction of the pupils, and a curled upper lip and gaping jaw [1,5]. It also has a specific behavior, characterized by holding oneself back from the object [6], and certain physiological manifestations, such as lowered blood pressure, lowered galvanic skin response, and nausea [7].

While the substances that can elicit disgust may vary from culture to culture, there appears to be some common elicitors of disgust. Phillips et al. suggested that human waste products can stimulate disgust [8] while Rozin and Fallon suggested that substances of animal origin, poor hygiene, violations of the body envelope, and death could promote disgust [9]. They also suggested that physical contact with unpleasant or unknown people and violations of social norms could evoke disgust [10-11].

Disgust has been suggested to have originated from distaste, a type of food-averse drive caused by the swallowing of unpleasant substances [7,12]. However, disgust differs from distaste in that it is not
as closely associated with the sensory characteristics of stimuli as distaste [9]. In addition, substances that are perceived to be disgusting often elicit a more powerful feeling than those that are considered to be distasteful [13].

Role of Disgust in Pathogen Resistance: An Evolutionary Function

Given that the elicitors of disgust are concerned with the process of contamination, it can thus be inferred that disgust has a critical role in pathogen resistance. From an evolutionary perspective, disgust is therefore a process that helps prevent contact with infectious threats [7]. Given that the human immune system is a reactive system that cannot prevent one from the source of infection, Schaller and Duncan have suggested that natural selection designed a second defensive response that uses perceptual cues to detect the potential sources of disease. These perceptual cues can trigger aversive cognitive and emotional responses that can lead to behavioral avoidance. In this regard, disgust serves as the underlying mechanism that signals the notion that an object may be physically contaminated [14].

Role of Disgust in Ethical Behavior

The role of disgust in serving as the underlying mechanism in pathogen resistance could be expanded onto the social and moral sphere. For instance, disgust has been suggested to play a critical role in moral judgments as previous studies have reported that individuals feel disgusted to actions that were regarded to be immoral [11] and that they are more inclined to consider particular reactions as immoral if they feel disgusted more easily [15]. In addition, the acts of stealing and lying have been demonstrated to elicit subjective reports of disgust [16]. However, whether disgust plays a role in affecting non-moral judgments is still unclear as there is limited knowledge in this area.

Disgust could also play a role in ethical behavior. Winterich et al. discovered that when individuals feel disgusted, they tend to protect themselves and begin to engage in small cheating behaviors in order to gain small advantages. On the other hand, they also discovered that cleanliness helps people return to ethical behavior [17].

Future Directions for Policy Research

While the theoretical underpinnings of disgust have been relatively established, it still remains unknown how this knowledge could be applied to other settings of the social world. For instance, while it is known that disgust could promote ingroup bias [18] and outgroup dehumanization [19], whether these findings could explain common social behaviors remains unknown. For instance, whether disgust could serve as the underlying mechanism of various global issues, such as racism, still remain to be answered. In addition, given that the cultural variability in disgust could be explained by the adaptive responses to ecologically specific conditions of various cultural groups [20-21], whether there is any cultural variation to these global problems remains to be answered.

Conclusion

As one of the six fundamental human emotions, disgust has been suggested to serve as a mechanism for disease avoidance behavior [3] and could be connected to one’s sense of morality [4]. Despite advances in knowledge regarding the role of disgust in the social world, future research is needed to
determine how these findings could be applied to other social settings that could be useful in policy research.

REFERENCES:


