

DISGUST

Although there is much dispute about exactly what emotions are, everyone, starting with Charles Darwin in the 19th century, agrees that disgust is one of them. Disgust is almost always considered a basic emotion, often along with anger, fear, sadness, happiness, and surprise. Basic emotions, as defined most clearly by the psychologist Paul Ekman, are differentiated from more complex emotions on the grounds that basic emotions have some presence in nonhuman animals, are expressed and recognized universally in humans, and have a distinct facial expression.

Although disgust was clearly described by Charles Darwin in 1872 in his classic work, *Expression of Emotions in animals and Man*, unlike anger, fear, and sadness, it was studied very little in psychology until the past few decades.

Behavioral, Expressive, and Physiological Responses

Like other basic emotions, the elicitation of disgust causes a set of predictable responses. Behaviorally, there is a withdrawal from the object of disgust. There is a characteristic facial expression, including a closing of the nostrils, a raising of the upper lip, and sometimes a lowering of the lower lip (gaping). The lowered lip is sometimes accompanied by tongue extension. Physiologically, the signature of disgust is nausea. Unlike fear and anger, the two most similar basic emotions, disgust is not accompanied by physiological arousal (e.g., increased heart rate). These three types of response (behavioral, expressive, and physiological) are generally accompanied by a feeling of revulsion.

Elicitors

It is in the domain of understanding the elicitors of disgust that the greatest challenge is encountered. So many things can elicit a disgust response. It is natural to look at nonhuman animals to get an idea of the basic core or origin of disgust. An expression very much like the human facial expression of disgust is seen in many mammals. It typically occurs in response to tasting a food that is either innately unpleasant (like something very bitter) or something that has been associated with nausea (e.g., a contaminated food). This fact, plus the

fact that the disgust facial expression functions to eject things in the mouth and close off the nostrils, suggests that disgust, in its primitive form, is about food rejection. Further evidence for this comes from the very name of the emotion, *disgust*, which means bad taste. And the nausea that is part of the disgust response has the very specific effect of discouraging eating. These facts caused Darwin to describe disgust as a response to bad tastes and caused the psychoanalyst Andras Angyal to describe disgust as a form of oral rejection based on the nature of a particular food.

This type of bad taste or distaste disgust seems to be the origin of disgust and may be a way that animals both reject food and communicate to other members of its species that a particular food should be rejected. Similar expressions and functions for distaste can be observed in human infants. However, by the age of 5 years or so, humans show disgust responses to many potential foods that neither taste innately bad nor have been associated with illness. Feces is a universal disgust, acquired in the first 5 years of life, along with disgust responses to other body products, rotted foods, and many types of animals (such as worms and insects, depending on the culture). Almost all foods that produce a disgust response are of animal origin. From about age 5 on, the human disgust response shows a uniquely human feature: contamination sensitivity. If a disgusting entity (say, a cockroach) touches an otherwise edible food, it renders that food inedible. This is not true of distasteful substances (such as a bitter food) for humans, and no animal (or human infant) has been shown to show the contamination response. Some believe that true disgust is a distinctly human response that uses the same expressive system as the distaste response seen in human infants and nonhuman animals but is a response not to the sensory properties (e.g., bitterness) of a food but rather to its nature or origin. People find worms disgusting because of what they are and not because of what they taste like (most people don't even know what they taste like).

Some researchers view basic disgust in humans as Angyal described it, a form of oral rejection based on the nature of a particular food, with animal foods accounting almost entirely for disgusting foods. The distaste system of animals has been appropriated for expression of a related but more conceptual form of food rejection, which is called *core disgust*.

But many things are disgusting to humans besides potential foods and body products. One category of

disgust elicitors includes things like dead bodies, deformed or gored bodies, sexual activities between inappropriate partners (such as humans with animals), and filthiness (poor hygiene). This group of disgust elicitors can be described as reminders of humans' animal nature; animals die, have disgusting substances inside them, are perceived as filthy, and engage in what people would call inappropriate sex (e.g., with other animals). All of these elicitors, along with those related to eating, are reminders of our animal nature. People, cross-culturally, tend to be uncomfortable with the idea that humans are just animals and are particularly upset with one feature of animalness: mortality. The extension of the disgust response to exposure of the animal features of humans seems to be a way for humans to pull away from reminders of their animal nature and their mortality. Notably, the classic odor of disgust is the odor of decay, which is, of course, the odor of death.

There are many other disgust elicitors besides foods, body products, and other animal nature reminders. One major class is other people. Contact with other people a person doesn't like, whether because of personal experience with them or their membership in groups a person doesn't like, tends to elicit disgust. Disgust responses are common to wearing the clothing of disliked people, sharing food with them, and so forth. Finally, people find certain types of moral offenses disgusting, so that, in all cultures, some of the elicitors of disgust have to do with immorality. One might say that child abuse is disgusting, for example, and it has been found that very few people feel comfortable even wearing a sweater that had been worn by Adolf Hitler. Notice that this is an example of contamination; by contacting Hitler, the sweater took on negative Hitler properties, just as if it had been contacted by a cockroach. This cannot simply be a fear of illness or infection, as might be the case for contaminated and rotten meat. Hitler is no more likely to convey illness than anyone else. Furthermore, research has shown that a heat-sterilized cockroach, which is perfectly safe, is almost as disgusting as the usual, less clean creature. So, although disgust and contamination may have originated as a way to avoid infection, in its full-blown cultural form, it seems to have a life of its own.

Variations

This progressive extension from potentially contaminated food to moral offenses can be described as a

shift from disgust as a response to protect the body to disgust as a response to protect the soul, from "get this out of my mouth" to "get this out of *me*." It seems that cultures have discovered that they can easily enforce rejection of certain entities or activities by making them disgusting. In this sense, disgust can be thought of as the emotion of civilization; to be civilized is to show disgust toward a wide class of objects and activities. The evolution of disgust from food rejection is beautifully described by Leon Kass in his book *The Hungry Soul*, and the greater of expansion of disgust into the moral world is very effectively described by William Miller in *The Anatomy of Disgust*.

Disgust, as described here, is not present in infants and probably originates in development in the process of toilet training. This universally creates the first offensive substance: feces. Within culture, individuals vary greatly in disgust sensitivity: On the low sensitive end, some Americans don't mind eating insects; on the very sensitive end, some people are disgusted by sharing food even with close friends and will not touch the door knob of a public restroom door. It is not known what causes this variation.

While disgust is a universal emotion, and feces are a universal disgust, there is a great deal of cultural variation. Americans tend to find somewhat decayed meat disgusting but enjoy rotted milk (cheese), Inuits enjoy fairly rotten meat, Chinese enjoy rotted soy beans (soy sauce) and eggs but find milk and cheese disgusting, and so on. Japanese may be more sensitive than Americans to the interpersonal disgust of contact with strangers (hence not liking used clothing or handling money), whereas they seem less sensitive to contact within their close-knit group, as in sharing their family bath. In India, disgust plays a major social role in enforcing avoidance of lower castes; upper-caste individuals are disgusted by food prepared by individuals of lower castes. In general, in Hindu India, disgust seems to be a more moral/interpersonal, and a less animal-nature avoidance, emotion than it is in the United States.

Disgust has recently come to the attention of neuroscientists, who have discovered that people with certain kinds of brain damage (e.g., Huntington's disease) show deficits in recognizing disgust. A few brain areas have now been associated with disgust, such that damage to these areas leads to poor disgust recognition and probably low disgust sensitivity.

A final turn in this fascinating cultural history is that disgust is often funny. Laughter is a common response to encounters with disgusting objects or

situations—but only when they are at least moderately distant. Disgust is a major component of jokes and other forms of humor, and in this sense, the experience of mild disgust is often sought by individuals. Aren't humans complex? They find a negative emotion pleasant in certain situations. But then humans also find sadness (as in sad movies) and fear (on roller coasters) pleasant as well. Humans seem to like to experience negative emotions when they are not really threatened.

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See also Emotion; Facial Expression of Emotion

Further Readings

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DISPLACED AGGRESSION

Definition

Direct aggression follows the tit-for-tat rule that governs most social interaction: A provocation or frustration elicits verbally or physically aggressive behavior that is directed toward the source of that provocation or frustration, typically matching or slightly exceeding its intensity. In displaced aggression, an aggressive behavior is directed at a person or other target (e.g., a pet) that is not the source of the aggression-arousing provocation or frustration. Displaced aggression occurs when it is impossible or unwise to respond aggressively toward the source of the provocation or frustration.

History and Modern Usage

Sigmund Freud discussed displaced aggression. For example, if a man receives strong criticism from his boss, it would be unwise to retaliate by verbally or physically assaulting him. Instead, at a later time, he might insult his own wife or kick his dog. Each of these behaviors can be viewed as a displacement of the aggressive behavior that the man would have preferred to direct at the original source of the provocation—his boss.

In direct aggression, little time usually elapses between the provocation and the aggressive response to it. But in displaced aggression, the time between the provocation and the aggressive response can range from minutes to hours or days. After a provocation or frustration, physiological measures (e.g., heart rate) typically show increased arousal. This increase ordinarily lasts about 5 or 10 minutes but can persist for about 20 minutes. It may or may not contribute to displaced aggression. Rumination (persistent thought) about the provoking event, however, allows displaced aggression to occur long after the physiological arousal has subsided.

Triggered Displaced Aggression

Probably more common than displaced aggression is *triggered* displaced aggression. Instead of being totally innocent, the target of triggered displaced aggression provides a minor irritation that is seen by the aggressor as justifying his or her displaced aggression. As in displaced aggression, the magnitude of the aggressive act clearly violates the tit-for-tat matching rule.

The Relation Between Triggered Displaced Aggression and Excitation Transfer

Although the concept *excitation transfer* seems similar to triggered displaced aggression, they differ. In excitation transfer, arousal from another source (e.g. loud noise, exercise, or sexual stimulation) combines with the arousal from a provocation or frustration and produces a stronger retaliation than would have been the case without that other source of arousal. Thus, the increased arousal might be viewed as similar to a trigger. For excitation transfer to occur, however, the other source of arousal must have happened within about 5 minutes of the provocation. Moreover, one must be unaware that the other arousal still persists.