

Who Decided Smell Is Shameful?

Microbes, Cleanliness and the Social History of Odour

Written by: Tan Bee Ru (Mechanical Engineering)

Personal motivation for choice of topic

I chose this topic because body odour and bad breath feel small and ordinary, but they affect social life in strong ways. My interest in this topic became more personal after seeing someone I knew become very self-conscious about their bad breath. They would keep using mints before speaking to others and seemed constantly worried that people were noticing it. What struck me was that the issue was not treated as a health concern, but as something embarrassing that could affect how others judged them. People rarely discuss about them unless they become a joke, a source of embarrassment, or a reason to judge someone. Unlike epidemic diseases, they are not usually treated as major historical subjects, but they still affect dignity, confidence, attractiveness and belonging.

What drew me in most was the gap between microbiology and judgment. Sweat itself is mostly odourless and what we call body odour usually appears only when skin bacteria break down sweat-related compounds into volatile molecules [1], [2]. Bad breath, likewise, is often caused by oral bacteria producing volatile sulfur compounds in the mouth rather than by some vague idea of “dirtiness” [3], [4]. In other words, smell is a microbial process, yet in daily life, people often interpret unpleasant smell as laziness, poor hygiene or lack of discipline.

I found that contradiction meaningful as it shows the influence of microbes apart from health. They also affect how people are perceived. I believe that people are often shamed due to modern socio-cultural factors - advertising, consumer culture as well as social expectations about cleanliness, attractiveness and self-control [5], [6]. These aspects allow me to use microbiology to deep dive and understand how a bodily process caused partly by microbes can become a source of social exclusion, self-consciousness and judgment.

Smell begins as microbiology: how microbes cause body odour and bad breath

In the case of body odour, the smell does not originate from sweat alone. Reviews on axillary odour explain that odour is produced when bacteria metabolize compounds in sweat and secretions into volatile odorants, with the final smell depending on gland activity, the local microbiome as well as other intrinsic and extrinsic factors such as sex, hormones, diet, clothing, and hygiene habits [1]. Research on children and teenagers similarly shows that human sweat is initially odourless and that bacteria help generate the characteristic smells associated with body odour [2].

Bad breath, or halitosis originates in the mouth [3], [4]. It is a common ailment, concerning an estimated 15% to 60% of the human population [3]. A halitosis review suggests that about 85% of the cases are intra-oral, which helps explain why oral bacteria are so central to this condition [4]. Review articles describe intra-oral halitosis as being strongly associated with anaerobic bacteria producing volatile sulfur compounds such as hydrogen sulfide and methyl mercaptan, especially on the tongue and in periodontal niches [3]. Bacterial genera often linked to oral malodour include *Fusobacterium*, *Porphyromonas*, *Prevotella*, *Solobacterium* and *Veillonella* [3]. In other words, one of the most embarrassing everyday experiences in human life begins with an interaction between the body and microbes.

In daily conversation, unpleasant smell is often treated as a sign of poor hygiene. Someone who smells bad is often described not just as unpleasant, but as “unclean”. Microbiology challenges that simplification as someone may smell because of puberty, microbiome composition, oral disease, medication, dietary factors, stress or broader health conditions [1], [3], [4]. None of these can be reduced neatly to personal virtue. Before smell becomes a social judgment, it is first a biological event.

How smell became a social problem, more specifically, source of embarrassment?

If odour begins as microbiology, then the more interesting question is how it became shame. In this discussion, I believe that sociology and psychology become relevant and important to unpack the link. Smell is not just detected but interpreted as odour that originates directly from the body which is harder to control than appearance. Research shows that body odour carries social

information and affects first impressions, and that fragrance can alter how others perceive someone's attractiveness and self-esteem [7], essentially linked to identity.

This helps explain why body odour and halitosis can cause so much distress. A 2023 systematic review found that adolescents and young adults with halitosis often reported embarrassment, social discomfort and poorer quality of life, especially in relationships and public interactions [8]. Another multidisciplinary review describes halitosis as having a large social and economic impact as it affects communication, confidence and everyday life [4]. A clinical study on genuine halitosis patients found that people with stronger social anxiety traits had more difficulty overcoming their anxiety even after treatment, suggesting that the psychological burden of smell can persist beyond the biological problem itself [9].

This is significant because it shows that smell is not simply a sensory nuisance. It can become a social identity. Once a person believes they smell bad or suspects that others think so, the effect may spread into friendships, dating, school and work. A microbial process in the mouth or on the skin can become a social label affecting how a person perceives themselves.

Advertising did not create odour, but it made odour shameful in another way

Microbes can explain the origin of smell but they may not fully explain why modern society fear it. Studies on deodorant advertising show that early twentieth-century companies had to persuade consumers that underarm odour was not merely a private inconvenience but a serious social flaw. Sivulka's study of Odorono demonstrates how advertising from 1910 to 1925 used the language of psychology and personal insecurity to make deodorant relevant especially by suggesting that women could unknowingly offend others and damage their social prospects [5].

A similar pattern appears in the history of mouthwash. A paper by Fine explained that Listerine was originally developed in 1879 as a surgical antiseptic and only later promoted against halitosis [10]. More recent study explicitly refers to the "medicalization" of bad breath and shows how aggressive advertising campaigns turned halitosis into a recognizable social and medical problem for mass consumers [11]. Even though body odour or oral malodour are real biological phenomena, the deeper point is that advertising amplified them into constant

personal risks. It told consumers that smell could ruin romance, friendship and professional success unless they bought the right product [5], [11].

Once smell became a market problem, “freshness” became a proof of self-management. Deodorants, antiperspirants and mouthwashes still have legitimate practical uses, and recent reviews explain that they may work by masking odour, reducing bacterial activity or decreasing sweat production [12]. However, these products succeed not only because they work, but also because society treats smell as something that needs to be controlled. Once odour is tied to belonging and respectability, managing it can start to feel like a moral obligation. Bacteria may cause the smell, but culture shapes how people judge it.

The politics of cleanliness, class and social judgement

Modern ideas about hygiene may look purely scientific but they are also influenced by social expectations and politics. Smell does not offend everyone equally and people are not judged equally for it. Expectations about who must smell “fresh” are shaped by gender, class, work and social setting. Early deodorant campaigns, for instance, often targeted women by linking smell to femininity, romance and respectability [5]. That suggests that microbial smell was not merely managed as it was folded into gendered norms of self-presentation.

The same can be said of class. To smell “clean” in modern society often requires access to water, healthcare and products. However, when people smell unpleasant, the reaction they receive is usually personal blame rather than understanding. This is why smell can operate as an underlying mechanism of social exclusion. Recent historical work on the “stigma of smell” argues that anti-perspirant and deodorant industries developed alongside social processes that stigmatized sweat and smell while legitimizing commercial solutions [6]. In this way, smell is more than a bodily issue. It can also be used to draw social boundaries, shaping who seems respectable, attractive, employable or “civilized.”

This does not mean hygiene is unimportant. Oral disease, distressing halitosis and severe body odour can and should be treated seriously. The problem is that a judgmental approach does not really address the issue. Reviews of halitosis emphasize that diagnosis is complex. Some cases are extra-oral and pseudohalitosis also exists, where people believe they have bad breath even when no objective malodour is present [3], [4]. It shows that smell belongs partly to perception and anxiety as well. When society becomes too obsessed with

being completely odourless, even normal bodily differences may be judged too harshly.

Why this topic still matters today

This topic is especially relevant today because the ideal of complete bodily control has become stronger. People now live in a culture of intense self-surveillance. Social media and beauty culture encourage the idea that the body should not only look polished but also be permanently “fresh.”

At the same time, the body is not something that can or should be made completely sterile. The skin and mouth both support microbial life [1], [3]. So instead of trying to remove every odour-producing microbe, it makes more sense to manage the problem carefully: treat illness where necessary, reduce discomfort, and practice hygiene without turning body odour into a moral issue.

A more humane way of thinking about odour

An interdisciplinary approach therefore leads to a more balanced conclusion. Microbiology explains that body odour and halitosis come largely from microbial metabolism [1]–[4]. Psychology shows that smell affects social impressions and self-perception [7]–[9]. History and sociology reveal that modern shame around smell was intensified by advertising, commercial culture and norms of respectability [5], [6], [11]. When considered together, these disciplines suggest that smell should be understood with both accuracy and compassion.

The key lesson here is that harsh moral meanings attached to unpleasant odour are not inevitable. Society can acknowledge that smell matters while still resisting the assumption that it reflects laziness, inferiority or bad character. In that sense, this essay’s main argument is not that hygiene products are bad or that body odour should be ignored. Rather, it is that microbes create smell while society creates shame. Once we understand that difference, we can approach smell in a way that is more evidence-based, less judgmental and more humane.

Reflections on what I discovered while writing

Writing this essay changed how I think about both microbes and people. Before researching the topic, I mostly saw body odour and bad breath as awkward but simple hygiene issues. I now see that they are much more complicated. They begin as microbial processes, but their effects are social, emotional and even historical. A bacterial reaction in sweat or the mouth can shape confidence,

attraction, relationship, and self-worth [3], [8], [9]. This helped me realize how deeply microbiology is woven into everyday human life.

I was also surprised by how much modern shame around smell has been shaped by consumer culture. Advertising did not invent underarm odour or halitosis, but it taught people to interpret them as signs of failure that required constant correction [5], [10], [11]. That insight changed the way I think about products like deodorant and mouthwash. They are also part of a wider social system that links cleanliness with discipline, desirability, and social acceptability.

Most importantly, this topic made me more careful about judging others. Someone who smells unpleasant may be dealing with microbiome differences, oral disease, puberty, stress, anxiety, limited resources or medical conditions rather than simple neglect [1], [3], [4]. My biggest takeaway is that better scientific understanding should make us not only more informed but also kinder. Perhaps the most mature response to smell is not immediate disgust, but a more thoughtful and humane understanding of what that smell actually means.

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