Musings on Mind from Cambridge, MA

2008
Fucking became the subject of congressional debate in 2003, after NBC broadcast the Golden Globe Awards. Bono, lead singer of the mega-band U2, was accepting a prize on behalf of the group and in his euphoria exclaimed, “This is really, really, fucking brilliant” on the air. The Federal Communications Commission (FCC), which is charged with monitoring the nation’s airwaves for indecency, decided somewhat surprisingly not to sanction the network for failing to bleep out the word. Explaining its decision, the FCC noted that its guidelines define “indecency” as “material that describes or depicts sexual or excretory organs or activities” and Bono had used fucking as “an adjective or expletive to emphasize an exclamation.”

Cultural conservatives were outraged. California Representative Doug Ose tried to close the loophole in the FCC’s regulations with the filthiest piece of legislation ever considered by Congress. Had it passed, the Clean Airwaves Act would have forbade from broadcast the words “shit”, “piss”, “fuck”, “cunt”, “asshole”, and the phrases “cock sucker”, “mother fucker”, and “ass hole”, compound use (including hyphenated compounds) of such words and phrases with each other or with other words or phrases, and other grammatical forms of such words and phrases (including verb, adjective, gerund, participle, and infinitive forms).

The episode highlights one of the many paradoxes that surround swearing. When it comes to political speech, we are living in a free-speech utopia. Late-night comedians can say rude things about their nation’s leaders that, in previous centuries, would have led to their tongues being cut out or worse. Yet, when it comes to certain words for copulation and excretion, we still allow the might of the government to bear down on what people can say in public. Swearing raises many other puzzles—linguistic, neurobiological, literary, political.

The first is the bone of contention in the Bono brouhaha: the syntactic classification of curse words. Ose’s grammatically illiterate bill not only misspelled cocksucker, motherfucker, and asshole, and misidentified them as “phrases,” it didn’t even close the loophole that it had targeted. The Clean Airwaves Act assumed that fucking is a participial adjective. But this is not correct. With a true adjective like lazy, you can alternate between Drown the lazy cat and Drown the cat which is lazy. But Drown
The strange emotional power of swearing suggests that taboo words tap into deep and ancient parts of the brain.

In general, words have not just a denotation but a connotation: an emotional coloring distinct from what the word literally refers to, as in *principled* versus *stubborn* and *slender* versus *scrawny*. The difference between a taboo word and its genteel synonyms, such as *shit* and *feces*, *cunt* and *vagina*, or *fucking* and *making love*, is an extreme example of the distinction. Curses provoke a different response than their synonyms in part because connotations and denotations are stored in different parts of the brain.

The mammalian brain contains, among other things, the limbic system, an ancient network that regulates motivation and emotion, and the neocortex, the crinkled surface of the brain that ballooned in human evolution and which is the seat of perception, knowledge, reason, and planning. The two systems are interconnected and work together, but it seems likely that words’ denotations are concentrated in the neocortex, especially in the left hemisphere, whereas their connotations are spread across connections between the neocortex and the limbic system, especially in the right hemisphere.

A likely suspect within the limbic system is the amygdala, an almond-shaped organ buried at the front of the temporal lobe of the brain (one on each side) that helps invest memories with emotion. A monkey whose amygdalas have been removed can learn to recognize a new shape, like a striped triangle, but has trouble learning that the shape foreshadows an unpleasant event like an electric shock. In humans, the amygdala “lights up”—it shows greater metabolic activity in brain scans—when the person sees an angry face or an unpleasant word, especially a taboo word.

The response is not only emotional but involuntary. It’s not just that we don’t have earlids to shut out unwanted sounds. Once a word is seen or heard, we are incapable of treating it as a squiggle or noise; we reflexively look it up in memory and respond to its meaning, including its connotation. The classic demonstration is the Stroop effect, found in every introductory psychology textbook and the topic of more than four thousand scientific papers. People are asked to look through a list of letter strings and to say aloud the color of the ink in which each one is printed. Try it with this list, saying “gray,” “black,” or “white” for each item in turn from left to right:

gray black white black white gray

Easy. But this is much, much, harder:

gray black white black white gray

The reason is that, among literate adults, reading a word is such an over-learned skill that it has become mandatory: You can’t will the process “off,” even when you don’t want to read the words but only pay attention to the ink. That’s why you’re helped along when the experimenters arrange the ink into a word that also names its color and slowed down when they arrange it into a name for a different color. A similar thing happens with spoken words as well.
that a speaker or writer can use a taboo word to evoke an emotional response in an audience quite against their wishes. Thanks to the automatic nature of speech perception, an expletive kidnaps our attention and forces us to consider its unpleasant connotations. That makes all of us vulnerable to a mental assault whenever we are in earshot of other speakers, as if we were strapped to a chair and could be given a punch or a shock at any time. And this, in turn, raises the question of what kinds of concepts have the sort of unpleasant emotional charge that can make words for them taboo.

The historical root of swearing in English and many other languages is, oddly enough, religion. We see this in the Third Commandment, in the popularity of hell, damn, God, and Jesus Christ as expletives, and in many of the terms for taboo language itself: profanity (that which is not sacred), blasphemy (literally “evil speech” but, in practice, disrespect toward a deity), and swearing, cursing, and oaths, which originally were secured by the invocation of a deity or one of his symbols.

In English-speaking countries today, religious swearing barely raises an eyebrow. Gone with the wind are the days when people could be titillated by a character in a movie saying “Frankly, my dear, I don’t give a damn.” If a character today is offended by such language, it’s only to depict him as an old-fashioned prude. The defanging of religious taboo words is an obvious consequence of the secularization of Western culture. As G. K. Chesterton remarked, “Blasphemy itself could not survive religion; if anyone doubts that, let him try to blaspheme Odin.” To understand religious vulgarity, then, we have to put ourselves in the shoes of our linguistic ancestors, to whom God and Hell were a real presence.

Say you need to make a promise. You may want to borrow money, and so must promise to return it. Why should the promisee believe you, knowing that it may be to your advantage to renege? The answer is that you should submit to a contingency that would impose a penalty on you if you did renege, ideally one so certain and severe that you would always do better to keep the promise than to back out. That way, your partner no longer has to do better to keep the promise than to back out. We mortgage our house, giving the bank permission to repossess it if we fail to repay the loan. But, before we could count on a commercial and legal apparatus to enforce our contracts, we had to do our own self-handicapping. Children still bind their oaths by saying, “I hope to die if I tell a lie.” Adults used to do the same by invoking the wrath of God, as in May God strike me dead if I’m lying and variations like As God is my witness, Blow me down, and God blind me!—the source of the British blimey.

Such oaths, of course, would have been more credible in an era in which people thought that God listened to their entreaties and had the power to carry them out. Even today, witnesses in U.S. court proceedings have to swear on the Bible, as if an act of perjury undetected by the legal system would be punished by an eavesdropping and easily offended God. But, even if these oaths aren’t seen as literally having the power to bring down divine penalties for noncompliance, they signal a distinction between everyday assurances on minor favors and solemn pledges on weightier matters. Today, the emotional power of religious swearing may have dimmed, but the psychology behind it is still with us. Even a parent without an inkling of superstition would not say “I swear on the life of my child” lightly. The mere thought of murdering one’s child for ulterior gain is not just unpleasant; it should be unthinkable if one is a true parent, and every neuron of one’s brain should be programmed against it.

This literal unthinkability is the basis of the psychology of taboo in general, and it is the mindset that is tapped in swearing on something sacred, whether it be a religious trapping or a child’s life. And, thanks to the automatic nature of speech processing, the same sacred words that consecrate promises—the oath-binding sense of “swearing”—may be used to attract attention, to shock, or to inflict psychic pain on a listener—the dirty-word sense of “swearing.”

As secularization has rendered religious swear words less powerful, creative speakers have replaced them with words that have the same degree of affective clout according to the sensibilities of the day. This explains why taboo expressions can have such baffling syntax and semantics. To take just one example, why do people use the ungrammatical Fuck you? And why does no one have a clear sense of what, exactly, Fuck you means? (Some people guess “fuck yourself,” others “get fucked,” and still others “I will
fuck you," but none of these hunches is compelling.) The most likely explanation is that these grammatically baffling curses originated in more intelligible religious curses during the transition from religious to sexual and scatological swearing in English-speaking countries:

- Who (in) the hell are you?
- Who the fuck are you?
- I don't give a damn.
- I don't give a fuck.
- I don't give a shit.

Holy Mary!
- Holy shit! Holy fuck!

For God's sake.
- For fuck's sake; For shit's sake.

Damn you! → Fuck you!

Of course, this transmutation raises the question of why words for these particular concepts stepped into the breach—why, for example, words for bodily effluvia and their orifices and acts of excretion became taboo. *Shit, piss, and asshole,* to name but a few, are still unspeakable on network television and unprintable in most newspapers. The *New York Times,* for example, identified a best-seller by the philosopher Harry Frankfurt as *On Bull****.

On the whole, the acceptability of taboo words is only loosely tied to the acceptability of what they refer to, but, in the case of taboo terms for effluvia, the correlation is fairly good. The linguists Keith Allan and Kate Burridge have noted that *shit* is less acceptable than *piss,* which in turn is less acceptable than *fart,* which is less acceptable than *snot,* which is less acceptable than *spit* (which is not taboo at all). That's the same order as the acceptability of eliminating these substances from the body in public. Effluvia have such an emotional charge that they figure prominently in voodoo, sorcery, and other kinds of sympathetic magic in many of the world's cultures. The big deal that people ordinarily make out of effluvia—both the words and the substances—has puzzled many observers. After all, we are incarnate beings, and excretion is an inescapable part of human life.

The biologists Valerie Curtis and Adam Biran identify the reason. It can't be a coincidence, they note, that the most disgusting substances are also the most dangerous vectors for disease. Feces is a route of transmission for the viruses, bacteria, and protozoans that cause at least 20 intestinal diseases, as well as ascarisis, hepatitis A and E, polio, amoebiasis, hookworm, pinworm, whipworm, cholera, and tetanus. Blood, vomit, mucus, pus, and sexual fluids are also good vehicles for pathogens to get from one body into another. Although the strongest component of the disgust reaction is a desire not to eat or touch the offending substance, it's also disgusting to think about effluvia, together with the body parts and activities that excrete them. And, because of the involuntariness of speech perception, it's unpleasant to hear the words for them.

Some people have been puzzled about why *cunt* should be taboo. It is not just an unprintable word for the vagina but the most offensive epithet for a woman in America. One might have thought that, in the male-dominated world of swearing, the vagina would be revered, not reviled. After all, it's been said that no sooner does a boy come out of it than he spends the rest of his life trying to get back in. This becomes less mysterious if one imagines the connotations in an age before tampons, toilet paper, regular bathing, and antifungal drugs.

The other major source of taboo words is sexuality. Since the 1960s, many progressive thinkers have found these taboos to be utterly risible. Sex is a source of mutual pleasure, they reason, and should be cleansed of stigma and shame. Prudery about sexual pleasure, they reason, and should be cleansed of stigma and shame. Prudery about sexual pleasure, they reason, and should be cleansed of stigma and shame. Prudery about sexual pleasure, they reason, and should be cleansed of stigma and shame. Prudery about sexual pleasure, they reason, and should be cleansed of stigma and shame. Prudery about sexual pleasure, they reason, and should be cleansed of stigma and shame.

The comedian Lenny Bruce was puzzled by our most common sexual imprecation. In a monologue reproduced in the biopic *Lenny,* he riffs:

* What's the worst thing you can say to anybody? “Fuck you, Mister.” It's really weird, because, if I really wanted to hurt you, I should say “Unfuck you, Mister.” Because “Fuck you” is really nice! "Hello, Ma, it's me. Yeah, I just got back. Aw, fuck you, Ma! Sure, I mean it. Is Pop there? Aw, fuck you, Pop!”

Part of the puzzlement comes from the strange syntax of *Fuck you* (which, as we saw, does not in fact mean “Have sex”). But it also comes from a modern myopia for how incendiary sexuality can be in the full sweep of human experience.

Consider two consenting adults who have just had sex. Has everyone had fun? Not necessarily. One partner might see the act as the beginning of a lifelong relationship, the other as a one-night-stand. One may be infecting the other with a disease. A baby may have been conceived, whose welfare was not planned for in the heat of passion. If the couple is related, the baby may inherit two copies of a deleterious recessive gene and be susceptible to a genetic defect. There may be romantic rivals in the wings who would be enraged with jealousy if they found out, or a cuckolded husband in danger of raising another man's child, or a two-timed wife in danger of losing support for her own children. Parents may have marriage plans for one of the participants, involving large sums of money or an important alliance with another clan. And, on other occasions, the participants may not both be adults, or may not both be consenting.

Sex has high stakes, including exploitation, disease, illegitimacy, incest, jealousy, spousal abuse, cuckoldry, desertion, feuding, child abuse, and rape. These hazards have been around for a long time and have left their mark on our customs and our emotions. Thoughts about sex are likely to be fraught, and not entertained lightly. Words for sex can be even more touchy, because they not only evoke the charged thoughts but imply a sharing of those thoughts between two people. The thoughts, moreover, are shared “on the record,” each party knowing that the other knows that he or she has been thinking about the sex under discussion. This lack of

Frankly, my dear, I don't give a damn.

-Rhett Butler
times violent, that can accompany sexual freedom. The ideal of sex as a sacred communion between a monogamous couple may be old-fashioned and even unrealistic, but it sure is convenient for the elders of a family and a society. It’s not surprising to find tensions between individuals and guardians of the community over casual talk about sex (accompanied by hypocrisy among the guardians when it comes to their own casual sex).

Another sexual conflict of interest divides men from women. In every act of reproduction, females are committed to long stretches of pregnancy and lactation, while males can get away with a few minutes of copulation. A male can have more progeny if he mates with many females, whereas a female will not have more progeny if she mates with many males—though her offspring will do better if she has chosen a mate who is willing to invest in them or can endow them with good genes. Not surprisingly, in all cultures men pursue sex more eagerly, are more willing to have casual sex, and are more likely to seduce, deceive, or coerce to get sex. All things being equal, casual sex works to the advantage of men, both genetically and emotionally. We might expect casual talk about sex to show the same asymmetry, and so it does. Men swear more, on average, and many taboo sexual terms are felt to be especially demeaning to women—hence the old prohibition of swearing “in mixed company.”

A sex difference in tolerance for sexual language may seem like a throwback to Victorian daintiness. But an unanticipated consequence of the second wave of feminism in the 1970s was a revived sense of offense at swearing, the linguistic companion to the campaign against pornography. As a result, many universities and businesses have published guidelines on sexual harassment that ban telling sexual jokes, and, in 1993, veteran Boston Globe journalist David Nyhan was forced to apologize and donate $1,250 to a women’s organization when a female staffer overheard him in the newsroom using the word pussy-whipped with a male colleague who declined his invitation to play basketball after work. The feminist writer Andrea Dworkin explicitly connected coarse sexual language to the oppression of women: “Fucking requires that the male act on one who has less power and this valuation is so deep, so completely implicit in the act, that the one who is fucked is stigmatized.”

Though people are seeing, talking about, and having sex more readily today than they did in the past, the topic is still not free of taboo. Most people still don’t copulate in public, swap spouses at the end of a dinner party, have sex with their siblings and children, or openly trade favors for sex. Even after the sexual revolution, we have a long way to go before “exploring our sexuality” to the fullest, and that means that people still set up barriers in their minds to block certain trains of thought. The language of sex can tug at those barriers.

Which brings us back to fucking—Bono’s fucking, that is. Does a deeper understanding of the history, psychology, and neurobiology of swearing give us any basis for deciding among the prohibitions in the Clean Airwaves Act, the hairsplitting of the FCC, and the libertinism of a Lenny Bruce?

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When it comes to policy and law, it seems to me that free speech is the bedrock of democracy and that it is not among the legitimate functions of government to punish people who use certain vocabulary items or allow others to use them. On the other hand, private media have the prerogative of enforcing a house style, driven by standards of taste and the demands of the market, that excludes words their audience doesn’t enjoy hearing. In other words, if an entertainer says fucking brilliant, it’s none of the government’s business; but, if some people would rather not explain to their young children what a blow job is, there should be television channels that don’t force them to.

What about decisions in the private sphere? Are there guidelines that can inform our personal and institutional judgments about when to discourage, tolerate, and even welcome profanity? Here are some thoughts.

Language has often been called a weapon, and people should be mindful about where to aim it and when to fire. The common denominator of taboo words is the act of forcing a disagreeable thought on someone, and it’s worth considering how often one really wants one’s audience to be reminded of excrement, urine, and exploitative sex. Even in its mildest form, intended only to keep the listener’s attention, the lazy use of profanity can feel like a series of jabs in the ribs. They are annoying to the listener and a confession by the speaker that he can think of no other way to make his words worth attending to. It’s all the more damning for writers, who have the luxury of choosing their words off-line from the half-million-word phantasmagoria of the English language.

Also calling for reflection is whether linguistic taboos are always a bad thing. Why are we offended—why should we be offended—when an outsider refers to an African American as a nigger, or a woman as a cunt, or a Jewish person as a fucking Jew? I suspect that the sense of offense comes from the nature of speech recognition and from what it means to understand the connotation of a word. If you’re an English speaker, you can’t hear the words nigger or cunt or fucking without calling to mind what they mean to an implicit community of speakers, including the emotions that cling to them. To hear nigger is to try on, however briefly, the thought that there is something contemptible about African Americans and thus to be complicit in a community that standardized that judgment into a word. Just hearing the words feels morally corrosive. None of this means that the words should be banned, only that their effects on listeners should be understood and anticipated.

Also deserving of reflection is why previous generations of speakers bequeathed us a language that treats certain topics with circumlocution and restraint. The lexical libertines of the 1960s believed that taboos on sexual language were pointless and even harmful. They argued that removing the stigma from sexuality would eliminate shame and ignorance and thereby reduce venereal disease, illegitimate births, and other hazards of sex. But this turned out to be mistaken. Sexual language has become far more common since

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the early ’60s, but so has illegitimacy, sexually transmitted disease, rape, and the fallout of sexual competition like anorexia in girls and swagger-culture in boys. Though no one can pin down cause and effect, the changes are of a piece with the weakening of the fear and awe that used to surround thoughts about sex and that charged sexual language with taboo.

Those are some of the reasons to think twice about giving carte blanche to swearing. But there is another reason. If an overuse of taboo words, whether by design or laziness, blunts their emotional edge, it will have deprived us of a linguistic instrument that we sometimes sorely need. And this brings me to the arguments on the pro-swearing side.

To begin with, it’s a fact of life that people swear. The responsibility of writers is to give a “just and lively image of human nature,” as poet John Dryden wrote, and that includes portraying a character’s language realistically when their art calls for it. When Norman Mailer wrote his true-to-life novel about World War II, The Naked and the Dead, in 1948, his compromise with the sensibilities of the day was to have soldiers use the pseudo-epithet fug. (When Dorothy Parker met him, she said, “So you’re the man who doesn’t know how to spell fuck.”) Sadly, this prissiness is not a thing of the past: Some public television stations today fear broadcasting Ken Burns’ documentary on World War II because of the salty language in his interviews with veterans. The prohibition against swearing in broadcast media makes artists and historians into liars and subverts the responsibility of grown-ups to learn how life is lived in worlds distant from their own.

Even when their characters are not soldiers, writers must sometimes let them swear in order to render human passion compellingly. In the film adaptation of Isaac Bashevis Singer’s Enemies: A Love Story, a sweet Polish peasant girl has hidden a Jewish man in a hayloft during the Nazi occupation and becomes his doting wife when the war is over. When she confronts him over an affair he has been having, he loses control and slaps her in the face. Fighting back tears of rage, she looks him in the eye and says slowly, “I saved your life. I took the last bite of food out of my mouth and gave it to you in the hayloft. I carried out your shit.” No other word could convey the depth of her fury at his ingratitude.

For language lovers, the joys of swearing are not confined to the works of famous writers. We should pause to applaud the poetic genius who gave us the soldiers’ term for chipped beef on toast, shit on a shingle, and the male-to-male advisory for discretion in sexual matters, Keep your pecker in your pocket. Hats off, too, to the wordsmiths who thought up the indispensable pissing contest, cr**k of shit, pussy-whipped, and h**r’s ass.

Among those in the historical record, Lyndon Johnson had a certain way with words when it came to summing up the people he distrusted, including a Kennedy aide (“He wouldn’t know how to pour piss out of a boot if the instructions were printed on the heel”), Gerald Ford (“He can’t fart and chew gum at the same time”), and J. Edgar Hoover (“I’d rather have him inside the tent pissing out than outside pissing in”).

When used judiciously, swearing can be hilarious, poignant, and uncannily descriptive. More than any other form of language, it recruits our expressive faculties to the fullest: the combinatorial power of syntax; the evocativeness of metaphor; the pleasure of alliteration, meter, and rhyme; and the emotional charge of our attitudes, both thinkable and unthinkable. It engages the full expanse of the brain: left and right, high and low, ancient and modern. Shakespeare, no stranger to earthy language himself, had Caliban speak for the entire human race when he said, “You taught me language, and my profit on’t is, I know how to curse.”

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**What the F***, continued from p. 24**

be expired, you would be alerted by the presence of hydrogen ions, which render your food slightly sour.

From the tongue, the activity of many taste cells merges onto cranial nerves, fibers which convey electrochemical impulses—your dessert in digital—through the brainstem to the thalamus, a sensory relay station. From the thalamus, the signal spreads to the primary gustatory cortex in the parietal lobe for further processing.

As in vision or hearing, the taste percept is thought to be derived from the global activity of receptor cells, and comparisons among groups of them. If your brain relied upon this pathway alone, however, all dining would seem rather bland. Try eating chocolate cake with a plugged nose, and you might wonder why the restaurant charged so much. For what we know as “flavor” is actually a blend of taste and smell, the latter vastly expanding our rather course palate.

Similar to taste perception, smell employs thousands of receptor cells that line your nasal cavity to detect the chemicals diffusing through the wind you inhale. But in contrast to your tongue’s limit of five main tastes, your nose can discern tens of thousands of different scents. As fragrant chemicals stimulate the olfactory receptor cells, electrochemical signals propagate to the olfactory cortex and higher brain regions. Neuroscience-minded chefs will even consider smell’s contribution when composing a layered dish. For instance, they might place aromatic ingredients on top, boosting their impact as more scent molecules migrate from your mouth to your nasal pathways.

Scent information also converges on the amygdala and hippocampus with signals from the tongue, allowing emotional associations—delight or disgust, say—to be yoked with your menu selections.

Ultimately, your experience of mousse cake depends on an even broader range of pathways linking diverse inputs to the brain. There’s even a role for the somatosensory system, as a food’s texture influences your perception of the meal. Freezer-burned ice cream, for example, feels distinctly icy because your tongue can sense bulky crystals in each bite. Ben and Jerry whip up a smooth pint by freezing their cream as fast as possible, curbing the size of offensive crystals. As for temperature, ice cream of course triggers specialized “cold” receptors in your mouth. As you bite, if the ice cream is too cold, you might not notice your tongue’s cold receptors firing at all.

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**Tracing Taste, continued from p. 2**

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