WHAT THE F
WHAT SWEARING REVEALS ABOUT OUR LANGUAGE, OUR BRAINS, AND OURSELVES
BENJAMIN K. BERGEN
OFFENSIVENESS OF ENGLISH PROFANITY

Taboo Word Type

Religion  Copulation  Body (Functions)  Slurs

goddamn  cocksucker  shithead  cunt

motherfucker  buttfuck

bitch  slurs

nigger  fag  chink

offensiveness

1  2  3  4  5  6  7
**SYLLABLE STRUCTURE**

<table>
<thead>
<tr>
<th>Open (ends with V)</th>
<th>Closed (ends with C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td>sass</td>
</tr>
<tr>
<td>spy</td>
<td>spit</td>
</tr>
<tr>
<td>rue</td>
<td>runt</td>
</tr>
</tbody>
</table>

Only ≈ 5% of profane English monosyllabic words

And ≈ 95% of profane English monosyllabic words
PROFANE MONOSYLLABLES

C onset

Open Syll

Closed Syll

sC onset

Profaneness Rating

0

0.2

0.4

0.6

0.8

1

1.2

1.4

1.6

dee foo vurr
deeve fooze vurd
etc.

etc.

skoo smurr stee
skoom smurb steeet
eetc.
eetc.
• Snowballing from a random seed?
• Non-childlike language?
• Suitability to the functions of profanity?
Some languages/cultures have been reported to not have any equivalent to profanity

- In Japan, there’s no class of words deemed intrinsically offensive.
- *Baka* ‘fool’ or *chinchin* ‘wee-wee’ are about as bad as words get
Why You Don’t Know Dick
WHY YOU DON’T KNOW DICK
INCREASED HEART RATE

Change in heart rate (bpm)

Nonswearing  Swearing

Males  Females
A cultural belief that some words are bad (in some contexts).

That belief applied to specific words.
  – That are likely to be drawn from certain semantic fields
  – That may pattern together in sound

Cultural structures for reinforcing those norms (punishment, censorship, etc.)
Speech is peppered with errors

Errors may reflect otherwise unstated and repressed thought (Freud, 1901)

If these repressed thoughts are more likely to be about taboo topics than not, then speech errors should be more likely to result in taboo language than not.
**Mean Speech Errors Per Participant**

![Bar Chart]

- **Y-axis**: Number of errors

- **Legend**:
  - Taboo
  - Neutral

Motley et al., 1981; 1982
ERRROR-FREE TABOO-ELICITING *(HIT SHED)*
MINUS NEUTRAL PAIRS *(HIT SAID)*

Right inferior frontal gyrus
(implicated in inhibitory control)

Severens et al., 2012
PICTURE-WORD INTERFERENCE
PICTURE-WORD INTERFERENCE
Picture-Word Interference

Dhooge & Hartsuiker, 2011
LANGUAGE CENTERS OF THE BRAIN

- Broca's Area
- Wernicke's Area
- Primary Auditory Cortex
“the most forceful oath of the tongue, which begins with an ‘f’ and which our Dictionaries have never dared to print”

Lordat, 1843
“E.C.'s attempts to reply to questions immediately after operation were totally unsuccessful. He would open his mouth and utter isolated words, and after apparently struggling to organize words for meaningful speech, recognized his inability and would utter expletives or short emotional phrases (e.g., 'Goddamit!'). Expletives and curses were well articulated and clearly understandable.”

Smith, 1966
“could not provide the correct expletive for situations described to him nor could he complete a curse”

Speedie et al., 1993
COPROLALIA

Associated with Tourette Syndrome (10%-50% incidence)

Characteristic, attested phrases (Lancker & Cummings, 1999)

- fuck, shit, cunt, mother-fucker, prick, dick, cocksucker, nigger, cockey, bitch, pregnant-mother, bastard, tits, whore, fu . . . , doody, penis, queer, pussy, coitus, cock, ass, shi . . . , bowel movement, homosexual, screw, fag, faggot, schmuck, blow-me, wop, God damn it, damn fool, fuck my your, fucking, fucking. fucking. fucking. cunts, fuck, shit, ass, bitch, cock, fart, suck, you fucking idiot, asshole, fuck you, shit on you, fucka, fu . . .

What brain mechanisms are impaired in Tourette Syndrome?
TWO VOCALIZATION PATHWAYS IN HUMANS
THANK YOU.