

Lecture 11: What can we learn from slips of the tongue?

We all experience the phenomenon of parapraxes or slips of the tongue, when we're tired, excited, confused or distracted in some way. My grandmother was particularly prone to tongue slips. One that became legendary in our family was the following: Looking at a picture of the Pope on T.V. she burst out with:

"That man thinks he's inflammable."

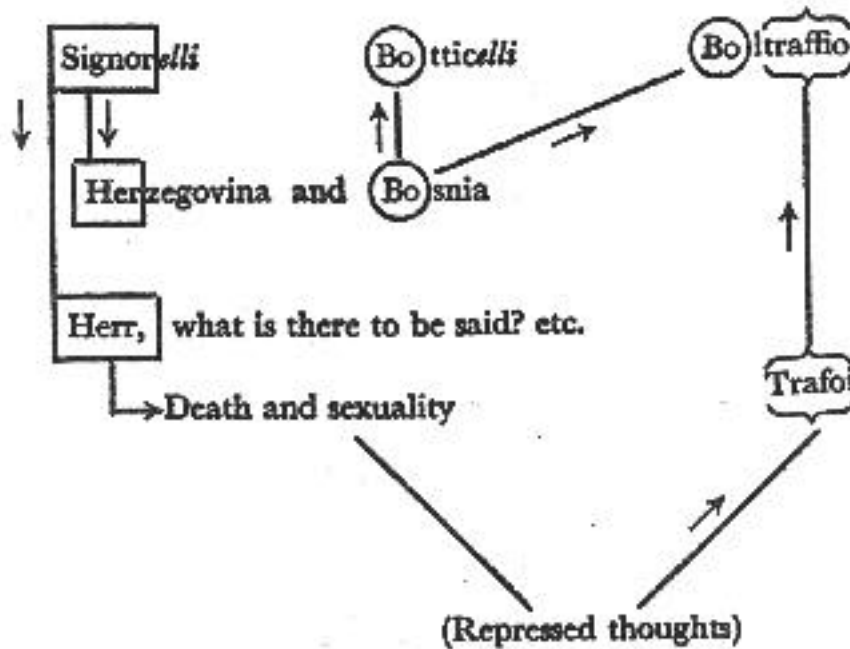
This is a classic example of a malapropism - a sound confusion error where "infallible" is replaced by the very similar sounding word "inflammable". The name malapropism is derived from Sheridan's "Mrs Malaprop", a character in his play "The Rivals". As I will illustrate throughout the course of this lecture, this particular slip bears many of the hallmark features of a slip of the tongue.

Freud was the first person to pay serious attention to slips of the tongue as psychological data. He gave such slips the more scientific sounding name of parapraxes and subsumed them to his hypothesis of psychic determinism. He believed that every slip was a consequence of deeper unconscious motivations that were allowed expression through such errors. In other words, nothing in mental life is accidental according to Freud, everything is determined by deeper motivations. We acknowledge his theory when we call such errors "Freudian slips".

An example he provides is of the President of the Lower House of the Austrian parliament opened one sitting of the house thus:

Gentlemen, I take notice that a full quorum of members is present and herewith declare the sitting closed.

Freud states that this parapraxis has a sense: the President expected nothing good of the sitting and would have been glad if it could have been brought to an immediate end. A more characteristically Freudian example is given at the beginning of "The Psychopathology of Everyday Life". Freud himself was trying to remember the name of the artist who painted the frescos of "The Four Last Things" in Orvieto Cathedral. He produced "Botticelli", then "Boltraffio" when the word he really wanted was "Signorelli". He drew the following diagram of his analysis of this slip:



Prior to trying to recall the artist's name he had been discussing Herzegovina and Bosnia with his travelling companion and these sound sequences activated a representation of "Bo" and "Herr". Of course, being Freud, this superficial priming effect was only the beginning of his analysis. The Signor at the beginning of Signorelli and the Her at the beginning of Herzegovina multiply determine a deeper level of meaning for Herr: when they had been talking earlier about Turks in Bosnia Freud had suppressed an association to the topic, a Turkish patient of his saying "Herr, you must know that if *that* comes to an end then life is of no value", where "that" refers to sexual passion. In addition his thoughts on death and sexuality led him to remember that when in Trafoi a few weeks before, he had heard of the suicide of one of his patients with an incurable sexual disorder. The associational interlinkages between sound and meaning form the material for Freud's interpretation in terms of sex, death and repression.

In this lecture I will be much less concerned with unconscious motivation than with what slips of the tongue can reveal about the nature of the mental lexicon. What is striking about slips of the tongue from this viewpoint is the extent to which they preserve linguistic structure.

Slips of the tongue can be classified into the following broad categories:

	Single Errors	Blends
MEANING	I wonder who invented <u>crosswords</u> (jigsaws)?	I don't <u>expose</u> (expect/suppose) anyone will eat that
SOUND	There were lots of little <u>orgasms</u> (organisms) floating in the water	Abkar Khan was a <u>lustrious</u> (lustful/illustrious) and passionate man.
MEANING/SOUND	I don't have much sympathy with rich looking <u>burglars</u> (beggars)	My <u>tummach</u> (tummy/stomach) feels funny.

Sound Errors

To return material from my earlier lecture on the sounds of language, when speech sounds are inadvertently rearranged, the output always conforms to the ordinary rules for combining consonants and vowels. As you read in Pinker, we have extensive, albeit unconscious, knowledge of the permissible sound sequences in English. The linguist Morris Halle demonstrates this with the following nonsense words: Which of the following ten nonsense words form permissible English words?

1.ptak	2.thole	3. hlad	4.plast	5.sram
6.mgla	7. vlas	8.flitch	9.dnom	10.rtut

nose	lip	chin
/iz/	/s/	/z/
flitch	plast	thole

If a word ends in a phoneme that is dental-alveolar and fricative (formed by raising the tongue blade and directing the airstream at the upper teeth) add /iz/ if the preceding stipulation does not apply and the word ends in a phoneme that is unvoiced, add /s/; otherwise, add /z/.

You follow this complicated rule when forming plurals quite unthinkingly. Similarly, when you make slips you will still sound sequences that are permissible in English. Slips of the tongue can give us clues about the speech mechanisms which are normally hidden because they are "rule-governed".

Malapropisms

Words are stored unevenly, some parts are more prominent than others. In malapropisms over 80% of the initial sounds and over 70% of word endings are identical or very similar to the target. This is known as the bathtub effect, by analogy with someone lying in the tub with only their head and feet visible. The inflammable Pope example I opened with is a good example of the consequences of the bathtub effect for slips of the tongue. The same inequality of representation is evident with tip-of-the-tongue effects, it is often possible to remember the beginning and end sounds of words that you cannot completely call to mind.

A word can be likened to a body: flesh (the sounds) cover an underlying skeleton which gives it its shape. A basic feature of the skeleton is the number of syllables. In malapropisms there is a high rate of syllable number retention. Words have a basic rhythm of alternating strong and weak syllables. When malapropisms maintain the number of syllables, they also retain the metrical structure.

What are you incinerating (insinuating)?

If a malapropism departs from this pattern, an unstressed syllable is likely to disappear.

You need a translation (transformation).

Semantic Slips

Examining the form of slips of the tongue reveals the multifarious links between words in the mental lexicon. Words are stored in semantic fields and words that cluster together at the same level of detail are known as coordinates. Aphasic patients often produce a coordinate or close relative of the target: orange for lemon, table for chair, diving for swimming. Many similarities have been found between the errors of aphasics and slips of the tongue of normal speakers. Muddling up left and right is possibly the commonest semantic tongue slip of all, closely followed by the confusion of yesterday, today, and tomorrow. A common form of this type of coordinate semantic tongue slip in my family is confusion of modes of transportation.

Hotopf collected many examples of semantic tongue slips and found that he could place them into three categories:

1) contrasting coordinates	apple -> pear red -> blue Monday -> Tuesday
2) opposites	up -> down fat -> thin man -> woman
3) semantic cousins	Saturday -> January

Garrett (1992) looked at errors in which a body part was supplanted by another word. Out of 32 errors, 28 were other body parts, such as "shoulder" for "elbow", "finger" for "toe". The 4 that did not fit were probably sound pattern errors, such as "soldier" for "shoulder". A similar pattern was found for other fields, such as foods, clothing and colors. These findings indicate that the strong constraints placed on substitutions by the semantic field boundaries.

Blends

Blends, where two words are amalgamated into one, occur most often where the words concerned mean more or less the same thing, and when either word would have been appropriate. For example, "That's terrible" (terrible + horrible). Blends provide the clearest evidence that alternative words are often considered in the course of speech.

Don't frowl (frown/scowl) like that!
Not in the sleat (slightest/least)
She chuttled (chuckle/chortle) at the news.

The large number of examples of such blends suggests that we consider both options when there are two equally useful words to fill a slot, especially when those words have sounds in common.

Blends can also be found in the speech of some aphasics.

I forget seeing you before, sir. I remember the other documen and was plazed to see the other documen. My brother was with me. And he was queen that I was hoddle with our own little mm...bog, my thing of mogry, you know.

There are many difficulties with this 72-year-old solicitor's speech, but blends appear to predominate among the different types of errors. Documen may be a blend of document and gentleman, perhaps reinforced by document, a word that would have been very common in the patient's profession. Plazed might be a combination of pleased and glad. The slips of ordinary people and some aphasics

suggest that it is normal to consider more than one possibility in word selection.

Return of the Freudian

Blends are typically composed of two equally suitable words, but sometimes unsuitable alternatives or interlopers block the production of the desired word. The Botticelli for Signorelli example of Freud's is a case in point. Such errors indicate that it is normal to activate a number of words in the area of the required word and then suppress those which are not wanted. This provides a good explanation for the left/right example: both words are activated and the wrong one was suppressed. The mind overprepares itself.

This can be seen in the experimental induction of "Freudian slips". Motley and his collaborators had a provocatively dressed woman read male subjects pairs of words, and found that many more subjects said "fast passion" for "past fashion", "happy sex" for "sappy hex" and "bare shoulders" for "share boulders" than in a comparable control group. Words are easily aroused in relation to the topic one is thinking about. It is normal to activate many more words than are actually used in conversation.

Preservation of Word Class

When people pick one word in mistake for another, the errors almost always preserve the word class of the target. Atchison gives us this metaphor:

We should regard words as coins, with meaning and word class together on one side, a combination sometimes called the lemma, and the sounds on the other.

Lexical selection and phonological encoding are wildly different processes. Finding words involves at least two operations: selecting the abstract meaning and word class (the lemma), then finding the sounds to clothe this word.

The Internal Architecture of Words

Slips of the tongue suggest that inflectional suffixes are quite often added on in the course of speech.

She wash upped the dishes.
I'll forget abouten doing that.

This idea is supported by the finding of lack of inflectional endings in Broca's aphasia. In a number of slips only the suffix remains:

She goes in for pornographic (hydroponic) gardening.

Inflectional suffixes are commonly added as needed in the course of speech, but derivational prefixes and suffixes are already attached to their stems.

Sources:

- Aitchison, Jean (1994) *Words in the Mind: An introduction to the mental lexicon*, Blackwell: New York.
- Motley, M.T. (19) *Slips of the Tongue*, *Scientific American*,
- Trask, R.L. (1995) *Language: The Basics*, Routledge: New York.
- Freud, S. (1901) *The Psychopathology of Everyday Life*, Norton: New York.