
<table>
<thead>
<tr>
<th>Men's form</th>
<th>Women's form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>hara</td>
<td>onaka</td>
<td>stomach</td>
</tr>
<tr>
<td>tukemono</td>
<td>okookoo</td>
<td>pickles</td>
</tr>
<tr>
<td>mizu</td>
<td>ohiya</td>
<td>water</td>
</tr>
<tr>
<td>bentoo</td>
<td>obentoo</td>
<td>box lunch</td>
</tr>
<tr>
<td>kane</td>
<td>okane</td>
<td>money</td>
</tr>
<tr>
<td>hasi</td>
<td>ohasi</td>
<td>chopsticks</td>
</tr>
<tr>
<td>umai</td>
<td>oisii</td>
<td>delicious</td>
</tr>
<tr>
<td>kuu</td>
<td>taberu</td>
<td>eat</td>
</tr>
<tr>
<td>kutabaru/sinu</td>
<td>nakanaru</td>
<td>die</td>
</tr>
</tbody>
</table>

All the traditionally "female" nouns have the polite or honorific prefix /o-/.

**Terminology: sex vs. gender**

**Biology/sex/language**

Two relevant biological differences: the larynx and the brain.

**The larynx**

Males and females differ little in stature before puberty, but post-pubescent males are about 8-9% taller.

The vocal folds of post-pubescent males average about 50-60% longer than those of females of the same age. So, adult human males have significantly lower voices than females do.

Larynx also drops lower in the neck in post-pubescent males, so overall adult male vocal tract length is about 15% longer on average. This means that resonance frequencies are also about 15% lower in adult males as compared to females - about 175% of the difference expected on the basis of the average overall size differences (8-9%).

None of the other species of apes shows a similar sexual dimorphism of the vocal organs.

**Brain anatomy and physiology**

The corpus callosum (an array of neural fibers that connects the two hemispheres of the cortex) of females is on average larger when adjusted for total brain size, especially in the posterior portion known as the splenium.
It is claimed (de Lacoste et al. 1986) that human sex differences in the corpus callosum appear by 26 weeks prenatal.

The sexual dimorphism of the corpus callosum is said to contrast with other aspects of brain. Such differences suggest that interhemispheric communication may differ between the sexes. Speech/language tend to be localized on the left (dominant) side of the brain ("lateralized"), while visuospatial integration, emotional appreciation of context lateralized on the opposite side.

Some functional studies found sex differences in cerebral lateralization for language-related activities. Finally, there are some differences in patterns of disability following stroke.

In neurophysiology, just as in neuroanatomy, there is a great deal of individual variation, and the overall similarities between the sexes are much greater than the differences.

**Developmental studies of cerebral lateralization**


Auditory Evoked Potentials (AEP) (recordings from scalp electrodes: intensity of the recorded signal depends on the amount of activity in the neural tissues in the brain region near the electrode location). When a sudden sound, typically a beep-like "tone pip," is heard, there is a corresponding burst of AEP over a period of a second or so.

The tones were presented in three conditions, called music, verbal and baseline: difference between right & left side of the head (3-month-old male vs 3-month-old female)

Male: right-side electrodes show higher activity regardless of the background condition.
Female: higher activity in the left-side electrodes, regardless of conditions.

At six months, male: same pattern of greater right-side response regardless of background.
Female six-month-olds: no significant difference (lateralization) for the baseline condition, verbal condition with more activity on the left side, music condition shows more activity on the right side.
This is the pattern expected for adult subjects.
No one knows what these infant AEP differences mean.

**Evidence from fMRI studies**

A 1995 study by Shaywitz et al., using functional magnetic resonance imaging (fMRI), found that in phonological tasks (rhyme detection): phonological processing was more strongly lateralized in males than in females.
Evidence from aphasia

Kimura 1993, Kumura and Hampson 1994 show that in patients suffering damage to the left hemisphere of the brain, more men (48.5%) than women (30%) show signs of aphasia.

When the left anterior portion of the frontal cortex is damaged, somewhat more women than men suffer aphasia. When the the left posterior portion of the frontal cortex is damaged, more men than women suffer aphasia.

Some other researchers have called the conclusions into question, since the men and women in the study also differed in typical size of brain lesions.

Functional differences

No one knows why the sex difference in the human corpus callosum exists, if indeed it has any function. Nor does anyone really know why human larynx size and position differ between the sexes.

Evolutionary theorists: from "sexual selection". Plausible for larynx size and position

Educational Testing Service reiterates the general finding that females tend to score somewhat higher than males on language-related tests.

Average differences in skills between men and women are fairly small, and that there is a great deal of variation among individuals of either sex.

Culture/gender/language

Grammatical differences: Japanese, some Native American languages

However, this is not the norm; we usually find differences in the frequency of certain things (words, or pronunciations, or constructions, or intonations, or whatever)

Peter Trudgill: Linguistic sex varieties arise because... language... is closely related to social attitudes.

Female speech tends to be evaluated as more "correct" or more "prestigious", less slangy, etc. On the other hand, women are usually in the lead in changes in pronunciation.

Two broad classes of explanations: difference theories and dominance theories.

Difference theories (two-culture theories), men and women inhabit different cultural (and therefore linguistic) worlds. Deborah Tannen's 1990 “You just don't understand”: "boys and girls
grow up in what are essentially different cultures, so talk between women and men is cross-cultural communication."

*Dominance* theories: men and women inhabit the same cultural and linguistic world, in which power and status are distributed unequally, and are expressed by linguistic as well as other cultural markers.

**What about the other genders?**

Human sexuality is not nearly as binary as the basic opposition between XX and XY chromosomal complements, since gender characteristics may be present to varying degrees across individuals, or for a particular individual across occasions.

There has been considerable interest in *gay and lesbian language*. The detailed linguistic characteristics of marked varieties of gay male speech, and their relationship to actual or stereotypical female speech varieties, remain largely unexplored.

**Pop psychology**

Deborah Tannen's 1990 work *You just don't understand*. John Gray, *Men are from Mars, women are from Venus*.

**Research results or stereotypes?**

What does the two-culture theory say?

Tannen's version: women use language to achieve intimacy, resulting in what she calls "rapport talk." Men, use language to convey information, resulting in what Tannen calls "report talk"; also for men, conversation becomes negotiation for status in which each participant attempts to establish or improve his place in a hierarchical social order.

It is difficult to test the broadest generalizations offered – e.g. about "rapport" vs. "report".

In studies on other aspects, predicted differences are sometimes found but sometimes are not. Linguistic behavior is influenced by many other factors-- age, class, ethnicity, social setting, and individual personality -- and gender effects interact with other factors in complex and interesting ways.

**A case study: use of tag questions**

Tag questions:

1. You were missing last week, *weren't you?*
2. Thorpe's away, *is he?*

*Language and Women's Place* (1975) Robin Lakoff: lots of tag questions in female speech
Cameron et al. (1988): tag questions in a 45,000 word sample from a British corpus (SEU): 60 tag questions used by men, and only 36 by women.

Holmes (1984) distinguishes two functions of tag questions: modal vs. affective.

Modal tags "request information or confirmation of information of which the speaker is uncertain": But you've been in Reading longer than that, haven't you?

Affective tags "are used not to signal uncertainty on the part of the speaker, but to indicate concern for the addressee": Open the door for me, could you? (softener tag) His portraits are quite static by comparison, aren't they? (facilitative tag)

Modal tags (true uncertainty) -- much more likely to be used by men, affective tags -- somewhat more likely to be used by men:

First, in this database there is no significant overall difference in tag usage between the sexes.

Second, men continue to use modal tags relatively more often, and affective tags relatively less often.

The power effect: it is only the people who are in charge of the conversations -- the "powerful" speakers -- who use affective tags (almost regardless of gender).

Language, gender and politics

Overall, the interpretation of gender differences in language use -- and the extent to which such differences are emphasized in the first place -- seems to have a strong political component.

Tannen vs Kipling vs Penelope Eckert and Sally McConnell-Ginet:

Women's language has been said to reflect their (our) conservatism, prestige consciousness, upward mobility, insecurity, deference, nurturance, emotional expressivity, connectedness, sensitivity to others, solidarity. And men's language is heard as evincing their toughness, lack of affect, competitiveness, independence, competence, hierarchy, control [...] When we recombine all these abstractions, we really do not know what we have. Certainly we don't seem to find real women and men as sums of the characteristics attributed to them.