Lecture 1:
Introduction to Gender
in Natural Language

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Slides are available at:
`http://ucl.ac.uk/~ucjtudo/gender/Lecture1.pdf`

Gender is the most puzzling of the grammatical categories. It is a topic which interests non-linguists as well as linguists and it becomes more fascinating the more it is investigated. In some languages gender is central and pervasive, while in others it is totally absent. One of its attractions for linguists is that there are interesting aspects of the study of gender in each of the core areas of linguistics.   (Corbett 1991: p.1)

Goals of Today's Lectures

Lecture 1: Introduction

‣ What is gender?
‣ Some theoretical issues

Lecture 2: The semantics of natural gender (evidence from Greek)

What is Gender

Gender Agreement

In some languages, different nouns require different forms of determiners, adjectives, and/or predicates. Non-agreeing forms are ungrammatical.

(1) *Greek*

    a. **o νεαρός** άνδρας
       o nearos andras
       the.m young.m man

       'the young man'

    b. **η νεαρή** γυναίκα
       i neari gineka
       the.f young.f woman

       'the young woman'

    c. **το νεαρό** παιδί
       to nearo pedhi
       the.n young.n child

       'the young child'

(2) *Russian*

    a. **один новый** дом
       odin novyj dom
       one.m new.m house

       'one new house'

    b. **одна новая** книга
       odna novaja kniga
       one.f new.f book

       'one new book'

    c. **одно новое** письмо
       odno novoe pis'mo
       one.n new.n letter

       'one new letter'

Agreement-Based Definition

Definition:

If two nouns require different forms of determiners, adjectives or verbs, then these nouns have different genders.

Greek and Russian have three genders

In languages like English, Japanese, Korean, Turkish, Mandarin, etc. nouns generally don't require specific forms of determiners, adjectives, or predicates.

(One could say nouns in these languages have the same gender)

Cross-linguistic Variation

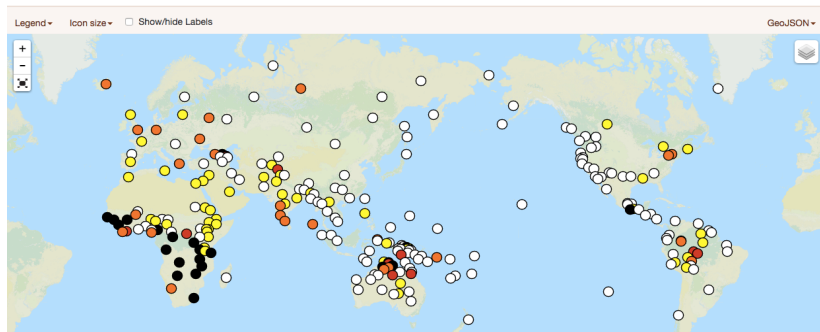Two genders: e.g. Romance languages (Romanian is a bit complicated), Dutch, Danish

Four genders: e.g. Zande (Niger-Congo)

Exponents

Common **exponents** of gender include:

- Determiners/articles
- Adjectives
- Numerals
- Demonstratives
- Possessives
- Verbs
- Participles
- Relative pronouns

See Corbett (1991: Ch.5) for data.

Ex: Demonstrative and Participle Agr in Russian

(3) a. **тот**   журнал   лежащ **ий** на столе
      tot   žurnal   ležašč **ij**   on table
      that.m magazine lying.m   on table

   'that magazine lying on the table'

   b. **та**   книга лежащ **ая** на столе
      ta   kniga ležašč **aja** on table
      that.f book   lying.f   on table

   'that book lying on the table'

   c. **то**   письмо лежащ **ee** на столе
      to   pis'mo ležašč **ee** on table
      that.n letter   lying.n   on table

   'that letter lying on the table'

(adapted from Corbett1991:106)

Rare Exponents of Gender

(4) *Adverbial agreement in Lak*
k'i-**j**-a ars ša-**w**-a ∅-ušar.
two.I son at.home.I I-be

'Two sons are at home.'

(5) *Postpositional agreement i Abkhaz*
Àxra **yə**-zɂ̀
Axra 3sg.human.male-for

'for Axra'

(6) *Complementizer agreement in West Flemish*
a. ... **datje** (jij) komt
that (he) comes
b. ... **dase** (zie) komt
that (she) komt
c. ... **dat** (et) komt
that (it) comes

(all from Corbett 1991:113)

Some Complications

Complication: If we include 'agreement' with pronouns in the definition of gender, English and Japanese will have multiple genders.

(7)   *English*
    a.   Each **boy** painted *her/**his** room.
    b.   Each **girl** painted **her**/*his room.

Corbett (1991:135) stresses that classifiers (as in Japanese, Mandarin, etc.) are not gender agreement, although they might have historical source for agreement.

Semantics and Gender Assignment

Semantically Transparent Gender Assignment

Gender assignment in Tamil is determined by the semantics:

- ‣ Nouns denoting male humans and gods are masculine.
- ‣ Nouns denoting female humans and gods are feminine.
- ‣ Other nouns (including animal nouns) are neuter.

Gender	Examples	
masculine	aaɲ	'man'
	civaɴ	'Shiva'
feminine	peɲ	'woman'
	kaaɭ	'Kali'
neuter	maram	'tree'
	viiʈu	'house'

(Corbett 1991:9)

There are very few exceptions, and they are systematic (e.g. nouns denoting heavenly bodies are masculine).

Grammatical Gender

Some languages have nouns whose gender cannot be predicted by the meaning (**grammatical gender**, alt.: arbitrary gender).

Russian (Corbett 1991:35)

Masculine		Feminine		Neuter	
žurnal	magazine	gazeta	newspaper	pis'mo	letter
dom	house	škola	school	zdanie	building
čaj	tea	voda	water	vino	wine
avtomobil'	car	mašina	car	taksi	taxi
večer	evening	noč'	night	utro	morning
flag	flag	emblema	emblem	znamja	banner
zakon	law	glastnost	openness	doverie	trust

Grammatical Gender (cont.)

French (Fathi & Lowenstamm 2016:(2))

Masculine		Feminine	
soleil	'sun'	lune	'moon'
toit	'roof'	porte	'door'
clou	'nail'	vis	'screw'
pied	'foot'	main	'hand'
sable	'sand'	terre	'dirt'
ocean	'ocean'	mer	'sea'
jour	'day'	nuit	'night'
sang	'blood'	lymphe	'lymph'
fleuve	'stream'	rivière	'river'
jus	'juice'	sauce	'sauce'

Animate Nouns with Grammatical Gender

Greek has a number of neuter animate nouns, which can be thought of as cases of grammatical gender. More on these in Lecture 3.

κορίτσι	koritsi	'girl'
αγόρι	agori	'boy'
παιδί	pedhi	'child'
μέλος	melos	'member'

Natural vs. Grammatical Gender

Every language with multiple genders has nouns with semantically interpreted gender (**natural gender**):

> *[A purely formal] system is not found in any natural language: gender always has a basis in semantics. Furthermore, when semantic and formal criteria are both involved in gender assignment, they always overlap to some extent.*   *(Corbett 1991:63)*

Natural Gender

There are several kinds of nouns with natural gender:

- ‣ Independent masculine-feminine forms:
  e.g.   *brother-sister*
- ‣ Related masculine-feminine forms:
  e.g.   *αδερφός* (brother)-*αδερφή* (sister) in Greek,
         waiter-waitress
- ‣ One form that shows both masculine and feminine
  agreement (**epicene nouns**):
  e.g.   *врач (doctor)* in Russian
         γιατρός (doctor) in Greek

  (NB: Epicene nouns are different from gender-invariant
  nouns, e.g. French *genie* is always masculine.)

Morphological Markedness

It is often considered that in language like Indo-European languages, masculine is *less marked* relative to feminine.

Roman Jakobson's notion of **morphological unmarkedness** (Bobaljik & Zocca 2003): Feminine forms are often morphologically more complex:

French

Masculine	Feminine	
/etydiã/	/etydiãt/	'student'
/ʒapɔnɛ/	/ʒapɔnɛz/	'Japanese'
/ša/	/šæt/	'cat'
/læpɛ̃/	/læpin/	'rabbit'
/ʁənæʁ/	/ʁənæʁd/	'fox'
/ljõ/	/ljɔn/	'lion'
/lu/	/luv/	'wolf'

Default Natural Gender (Cont.)

German (Bobaljik & Zocca 2003:163f)

Masculine	Feminine	
Elefant	Elefantin	'elephant'
Hund	Hündin	'dog'
Ungar	Ungarin	'Hungarian'
Ausländer	Ausländerin	'foreigner'
Österreicher	Österreicherin	'Austrian'
Pilot	Pilotin	'pilot'
Student	Studentin	'student'
Stadtrat	Stadträtin	'city councillor'
Rektor	Rektorin	'headmaster, headmistress'
Leiter	Leiterin	'principle'
Kunde	Kundin	'customer'
Prinz	Prinzessin	'prince, princess'
König	Königin	'king, queen'
Graf	Gräfin	'count, countess'
Baron	Baronin	'baron, baroness'
Enkel	Enkelin	'uncle, aunt'
Schwäger	Schwägerin	'brother-in-law, sister-in-law'

Semantic Markedness

In addition, for some plural masculine-feminine pairs, the masculine form can be used to describe mixed-gendered groups, but the feminine form.

(8) *French pronouns*
   a. ils (they.m) ⇒ at least one male
   b. elles (they.f) ⇒ all female

(9) *Greek*
   a. δάσκαλοι (dhaskali) 'teachers.m' ⇒ at least one male
   b. δασκάλες (dhaskales) 'teachers.f' ⇒ all female

More on this in Lecture 2.

Some Extra Stuff

See Corbett (1991:Ch.7) and Kramer (2015:Ch.5) for languages where feminine is unmarked.

Food for thought: French has both masculine and feminine gender-invariant nouns:

Masculine		Feminine	
génie	'genius'	vigie	'lookout'
tyran	'tyrant'	sentinelle	'sentry'
individu	'individual	brute	'brute'
modèle	'model'	personne	'person'
pilote	'pilot'	sage-femme	'midwife'
capitaine	'captain'	vedette	'star'
kangourou	'kangaroo'	hyène	'hyena'
leopard	'leopard'	girafe	'giraffe'
serpent	'snake'	tortue	'turtle'
corbeau	'crow'	souris	'mouse'

(adapted fromFathi & Lowenstamm 2016: (8),(10))

Morphology and Gender Assignment

Gender vs. Inflection Classes

It is important to distinguish gender and **inflection/declension types**.

Inflection classes are defined by inflectional patterns and are purely morphological.

There are often correlations between genders and noun classes, but the correlations are not free from exceptions. Thus, we need to distinguish these two notions.

(See Ralli (2002), Alexiadou (2004), Giorgos's work for Greek; Lowenstamm (2012), Fathi & Lowenstamm (2016) for French)

Example: Russian

		I	II	III	IV
Sg.	Nominative	zakon	škola	kost'	vino
	Accusative	zakon	školu	kost'	vino
	Genitive	zakona	školy	kosti	vina
	Dative	zakonu	škole	kosti	vinu
	Instrumental	zakonom	školoj	kost'ju	vinom
	Locative	zakone	škole	kosti	vine
Pl.	Nominative	zakony	školy	kosti	vina
	Accusative	zakony	školy	kosti	vina
	Genitive	zakonov	škol	kostej	vin
	Dative	zakonam	školam	kostjam	vinam
	Instrumental	zakonami	školami	kostjami	vinami
	Locative	zakonax	školax	kostjax	vinax
		'law'	'school'	'bone'	'wine'

(Corbett 1991:36)

Example: Russian (cont.)

Correlation with inflection classes and gender:

‣ Most nouns in Class I are masculine.
‣ Most nouns in Classes II and III are feminine.
‣ Most nouns in Class IV are neuter.

However, there are some discrepancies:

‣ *Дядя (djadja)* 'uncle' and *дедушка (deduška)* 'grandfather' are Class II nouns, but they are masculine.
‣ *Путь (puť)* 'way' is a Class III noun but is masculine.
‣ *Врач (vrač)* 'doctor' is a Class I noun, but when it denotes a female doctor, its gender (optionally) becomes feminine, i.e. it's an epicene noun.

Derivational Morphology and Gender

Some affixes in German determine the gender (Corbett 1991:49f):

(10) *-ung, -heit, -erei, -schaft, -keit* → feminine
diminutive suffixes *-lein, -chen* → neuter
collective prefix *ge-* → neuter

e.g. *Strauch* 'bush' (masculine) → *Gesträuch* 'shrubbery' (neuter)

Greek derivational affixes that determine the gender (Ralli 2002):

(11) *-tis, -mos* → masculine
deverbal *-ia, -isa* → feminine
-ma, -aki → neuter

Phonology and Gender Assignment

Phonologically Transparent Gender Assignment

In some languages, the phonological form of the noun is a good predictor of its gender.

Corbett (1991:§3.2.1) discusses Qafar (Cushitic; Ethiopia, Djibouti), which has two genders, masculine and feminine.

‣ If the citation form of a noun ends in an accented vowel, the noun is feminine;
‣ If not, it is masculine.

Only few exceptions, e.g. *doònik* 'sailboat' is feminine, *abbà* 'father' is masculine.

(Ralli 2002 argues that phonology is not a reliable predictor for gender in Greek, although she presents no numerical evidence)

Qafar

Masculine		Feminine	
bàxa	'son'	baxà'	'daughter'
toobokòyta	'brother'	toobokoytà	'sister'
barisèyna	'male teacher'	bariseynà	'female teacher'
kùta	'dog'	kutà	'bitch'
cedèr	'supper time'	catò	'help'
gilàl	'winter'	karmà	'autumn'
tàmu	'taste'		
baànta	'trumpet'		

(Corbett 1991:51)

French

French has two genders, masculine and feminine.

One can identify morphological rules, e.g.

(12)   Compound nouns formed from a verb are masculine.
       e.g. *porte-monnaie* 'purse' is masculine (while *monnaie*
       'money' is feminine).

However, phonological rules alone account for the majority of
cases.

Tucker et al.'s (1977) rules classify 84.5% of the nouns in the *Petit
Larousse* correctly, only from the phonological forms.

Final Segments and Gender in French

Final C	# of nouns	%Masc	Final V	# of nouns	%Masc
/ʒ/	1453	94.2	/œ̃/	17	100
/m/	1406	91.9	/ɑ̃/	1963	99.3
/f/	301	89.0	/ɛ̃/	938	99.0
/r/	5175	76.8	/ø/	189	97.4
/g/	235	73.2	/o/	865	97.2
/k/	833	66.6	/ɛ/	625	90.2
/b/	129	65.1	/u/	171	87.7
/l/	1581	58.4	/a/	970	82.6
/t/	2269	51.2	/y/	201	71.6
/p/	214	48.6	/e/	2791	50.1
/ŋ/	69	39.0	/ɔ̃/	2665	29.8
/s/	1380	38.5	/i/	2336	24.6
/d/	714	38.1			
/ʃ/	290	34.0			
/j/	352	32.4			
/v/	143	31.5			
/n/	1135	31.5			
/z/	612	10.0		(Corbett 1991:59)	

Non-Final Segments

When non-final segments are included, the predictions become more reliable:

- 92.6% (924/997) of /te/ are feminine. 73.9% (1325/1794) of the rest of /e/ are masculine.
- 99.8% (1689/1693) of /sjɔ̃/ are feminine. This includes all the *-ation* nouns. Similarly, 98.4% (62/63) of /zjɔ̃/, 100% (5/5) of /ʒjɔ̃/, 76.5% (13/17) of /tjɔ̃/ are feminine. 92.9% (157/169) of the other /jɔ̃/ are masculine.
- 97.1% of /ɔ̃/ but not /zɔ̃/ or /jɔ̃/ are masculine.
- 80.9% (72/89) of /zɔ̃/ are feminine. Among /zɔ̃/, 98.5% (64/65) of /ɛzɔ̃/ are feminine, and 66.7% (16/24) of the rest are masculine.

The following accounts for 98.2% (2617/2665) of /ɔ̃/:

(13)   a.   /-ɛzɔ̃/, /-sjɔ̃/, /-zjɔ̃/, /-ʒjɔ̃/, /-tjɔ̃/ → feminine
            e.g. *maison, action, persuasion, contagion, question*
       b.   other cases of /-ɔ̃/ → masculine
            e.g. *jambon, rayon, carillon camion, bâton*.

French: Some Complications

Lowenstamm (2012) points out the possibility that most of the /ʒ/-final nouns (94.2% masculine) involve the productive suffix *-age*, which creates a masculine noun. If these cases are excluded, the gender is not so productive for /ʒ/-final nouns.

Phonology alone doesn't explain homophonous pairs (Fathi & Lowenstamm 2016: (1)):

	Masc	Fem		Masc	Fem
/vis/	'vice'	'screw'	/fil/	'thread'	'queue'
/fwa/	'liver'	'faith'	/sɛl/	'salt'	'saddle'
/sɔl/	'ground'	'sole (fish)'	/kɔl/	'collar'	'glue'
/tuʁ/	'turn'	'tower'	/livʁ/	'book'	'pound'
/bæʁ/	'pub'	'bar'	/bæl/	'dance'	'ball'

French: Some Complications (cont.)

Fathi & Lowenstamm (2016) list nouns for which many native speakers do not have clear intuitions:

tentacule	'tentacle'	hémisphère	'hemisphere'
pétale	'petal'	après-midi	'afternoon'
effluve	'exhalation'	balustre	'baluster'
câpre	'caper'	oasis	'oasis'
HLM	'city council apartment'	clope	'fag, ciggy'
taffe	'puff of cigarette'	tique	'tick'

They raise these as evidence for the irrelevance of phonology. But they could be used as evidence for the relevance of phonology: Most of these nouns have phonological properties that do not correlate strongly with either gender.

The Syntax of Gender in Nouns

Issues
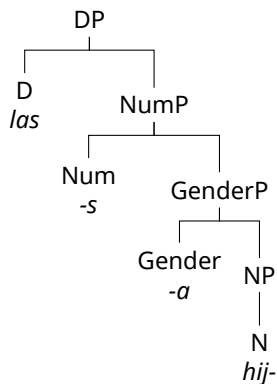
Where is the gender stored? It seems natural to assume that nouns are specified for gender in the lexicon.

However:

- Epicene nouns, e.g. *врач (vrač)* in Russian, *γιατρός (jatros)* in Greek, can agree in masculine or feminine, depending on the meaning. This suggests that gender is not simply lexically specified, at least for some nouns.
- For masculine-feminine pairs like *chat-chatte* (cat) in French and *αδερφός-αδερφή* (sibling) in Greek, it seems attractive to decompose them into a gender-less stem and some other component, encoding the gender.

Gender is in GenderP

Gender has its own projection GenderP (in analogy with *v*P) (Picallo 1991):

```
              DP
          ┌────┴────┐
          D        NumP
         las    ┌────┴────┐
               Num      GenderP
               -s     ┌────┴────┐
                    Gender     NP
                     -a         │
                                N
                               hij-
```

Ritter (1993), Alexiadou (2004) and Kramer (2015) criticize this approach. For example, Picallo is conflating gender and inflectional classes.

Gender is on Num

Ritter (1993) claims that gender is on Num in Romance languages and on N in Hebrew.

She observes that gender is a derivational suffix in Hebrew:

Masculine		Feminine	
magav	'wiper'	magev-et	'towel'
magav-im	'wipers'	magav-ot	'towels'
maxsan	'warehouse'	maxsan-it	'magazine'
maxsan-im	'warehouses'	maxsani-ot	'magazines'
amud	'page'	amud-a	'column'
amud-im	'pages'	amud-ot	'columns'

Gender is on *n*

Kramer (2015) claims that gender is on *n*.

There are a number of masculine-feminine pairs that share the same root.

(14) *Amharic* (Kramer 2015:32)
      hakim-u   doctor-def.m   'the male doctor'
      hakim-wa   doctor-def.f   'the female doctor'

(15) *Greek*
      αδερφός   adherfos   'male sibling, brother'
      αδερφή   adherfi   'female sibling, sister'

Gender is on *n* (cont.)

Kramer's (2015) analysis of Amharic:

(16)   *Types of n in Amharic*
   a.   *n i*[+Fem]   natural feminine
   b.   *n i*[−Fem]   natural masculine
   c.   *n*   no natural gender
   d.   *n u*[+Fem]   grammatical feminine

- ‣ Natural gender: Kramer assumes that certain roots $\sqrt{mist}$ 'wife' and $\sqrt{bal}$ 'husband' are licensed only under (16a) and (16b), respectively. Roots like $\sqrt{tämari}$ 'student' are licensed under both (16a) and (16b).
- ‣ Grammatical gender: Masculine inanimates are those roots that are licensed under (16c). Feminine inanimates are those roots that are licensed under (16d).

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