

Agreement in Brazilian Portuguese

– A case of register variation –

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Introduction

Our **phenomenon**:

the pronoun *a gente* ‘we’ in Brazilian Portuguese and its **grammatical** and **register-driven variation** with respect to agreement.

- ▶ grammar → agreement variation
- ▶ register → usage preferences

Main questions:

- ▶ How can we account for the variation? → **grammar**
- ▶ How can we predict the usage preferences? → **register**
- ▶ How can we embed **register-knowledge** in a **formal theory of grammar**?



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Variation 1: 1PL pronouns

In Brazilian Portuguese, there are **two different pronominal forms** to express 1.PL 'we':

- (1) a. *nós*
- b. *a gente*

The form *a gente* is “**relatively new**” and has developed from the NP ‘the people’, (= *a* ‘the’ + *gente* ‘people’).

- (2) *A gente toca jazz.*
A GENTE play.3.SG jazz
‘We play jazz.’

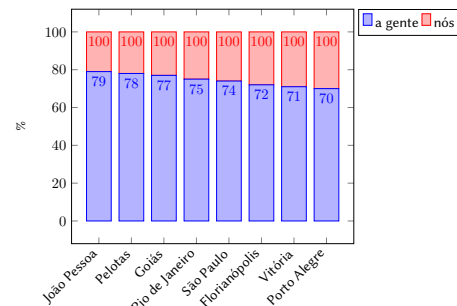
The phenomenon is present in European Portuguese (EP) and Brazilian Portuguese (BP), but it is more widespread and stable in BP.

(Lopes 1999; Seara 2000; Zilles 2005, 2007; de Alencar 2013; Freitag 2016: i.a.)



In **spoken language**, *a gente* is the **most productive variant** across all varieties of BP.

Prevalence of *a gente* ranges **between 79% and 70%** (all regions).



João Pessoa: Fernandes (2004),
Vianna & Lopes 2012: 98)
Pelotas: Borges (2004: 129)
Goiás: Mattos (2013: 108)
Rio de Janeiro: Lopes (2004: 69)
São Paulo: Rubio & Gonçalves
(2012: 1016)
Florianópolis: Seara (2000: 181)
Vitória: Mendonça (2012: 4)
Porto Alegre: Zilles (2002: 302)

Fig. 1: *a gente* vs. *nós* alternations in BP varieties



A gente and *nós* can be **used interchangeably** (cf. (3a) & (3b)).

- (3) a. *Nós tocamos jazz.*
1.PL play.1.PL jazz
‘We play jazz.’
- b. *A gente toca jazz.*
A GENTE play.3.SG jazz
‘We play jazz.’

Difference (at least in standard varieties): *a gente* retains the **morphosyntactic behaviour** of 3.SG – consistent with the properties of the noun *gente* (cf. (3b) & (4)) – in spite of its semantic 1.PL status.

(Lopes 2004: 52-53)

- (4) *A atriz toca jazz.*
the actress play.3.SG jazz
‘The actress plays jazz.’

... but ...



Variation 2: subject-verb agreement

Morphosyntactically, *a gente* is associated with **two patterns** of subject-verb agreement:

- ▶ *a gente* agrees with the verb in 3.SG (5a).
- ▶ *a gente* agrees with the verb in 1.PL (5b).

- (5) a. *A gente come batata.*
A GENTE eat.3.SG potato
- b. *A gente comemo(s) batata.*
A GENTE eat.1.PL potato



The most frequent variant of subject-verb agreement with *a gente* is **3.SG**.

(Rubio & Gonçalves 2012: 1018)

3.sg	1.pl
94%	6%
(1505/1603)	(98/1603)

Table 1: Subject verb agreement with *a gente*



Variation 3: anaphoric agreement

Bound pronominal forms are generally required to agree with their antecedents (**anaphoric agreement**): (Pollard & Sag 1994; Kratzer 2009; i.a.)

- (6) a. **The actresses₁** think that {**they₁** / ***she₁** / ***he₁**} should win
 b. **The actresses₁** saw {**themselves₁** / ***herself₁** / ***himself₁**} on TV

Also in BP:

- (7) a. **As atrizes₁** disseram que a Ana viu {**elas₁** / ***ela₁** / ***ele**}
 the actresses said that the Ana saw them.FEM her him
 ‘The actresses₁ said that Ana saw them₁’
 b. **As atrizes₁** viram {**elas mesmas₁** / ***ela mesma₁** / ***ele mesmo**} na TV
 the actresses saw them.FEM same her same him
 same on.the TV
 ‘The actresses₁ saw themselves₁ on TV’



In local contexts, *a gente* can anaphorically agree with the reflexive proclitic *se*.

(Menuzzi 2000; Reuland 2011)

- (8) **A gente₁ se₁** viu na TV.
 A GENTE REFL saw.3.SG on-the TV
 ‘We₁ saw ourselves₁ on TV.’

Traditionally, *se* is taken to be an exponent for third-person anaphors, but it is semantically underspecified in contemporary BP:

(Pereira 2007; Brito 2008; Menuzzi & Lobo 2016)

- (9) a. **Tu₁ se₁** lava(s) todos os dias.
 You REFL wash all the days
 ‘You₁ wash yourself₁ everyday’
 b. **Nós₁ se₁** lavamo(s) todos os dias.
 we REFL wash all the days
 ‘We₁ wash ourselves₁ every day.’



Anaphoric agreement between *a gente* and the underspecified reflexive *se* is by far **the most common pattern**.

(Varaschin & Machicao y Priemer 2022)

This seems to support proposals where local binding of anaphors is **syntactically mediated** by the formation of **agreement chains**.

(Chomsky 1986; Reuland 2011; Rooryck & Vanden Wyngaerd 2011; Sundaresan 2018: i.a.)

- (10) [T' se_[uφ] _i ama_[u3sc] _j [vp a gente_[3sc] [vp t_i t_j]]]
 ⇒ [TP a gente_[3sc] _k [T' se_[uφ] ama_[u3sc] [vp t_k [vp t_i t_j]]]
 ... but ...



Local anaphoric agreement with the 1.PL reflexive *nos* is **also attested**.

(Taylor 2009; Brito & Sedrins 2017; Carvalho et al. 2018; Varaschin 2021b)

- (11) [...] *a gente*₁ acaba *nos*₁ iludindo
A GENTE end-up.3.SG REFL.1.PL deceiving
'We₁ end up deceiving ourselves₁.'
- (12) O amigo é um presente que *a gente*₁ *nos*₁ dá.
the friend is a present that A GENTE REFL.1.PL give.3.SG
'Friends are a gift that we₁ give to ourselves₁.'
- (13) É mais fácil *a gente*₁ *nos*₁ alegrarmos depois de passar
is more easy A GENTE REFL.1.PL make-happy.1.PL after of pass
o dia.
the day
'It is easier for us₁ to make ourselves₁ happy after the day is over.'



The choice between these two variants must be handled in terms of a single grammar:

- (14) *A gente*₁ *se*₁ gostava muito, sempre que *a gente*₁ *nos*₁
A GENTE REFL liked.3.SG much, every-time that A GENTE REFL.1.PL
cumprimentava, eu sentia que ela gostava de mim.
greeted.3.SG, I felt that she liked of me
'We₁ liked each other₁ a lot, every time we₁ greeted each other₁, I
felt that she liked me.'



Interim summary

An overview of the attested **local agreement patterns**:

	attested patterns	most common pattern
verbal agreement	3.SG 1.PL	3.SG
local anaphoric agreement	underspecified (<i>se</i>) 1PL(<i>nos</i>)	underspecified (<i>se</i>)

Table 2: Summary of local agreement patterns with *a gente*

An adequate theory needs to account for both the **grammar-internal variation** and the **usage preferences** among the possible variants.



Interim summary

Some of these usage preferences are **strong** to the point that they have been argued to reflect **grammatical constraints**.

Several researchers have claimed that local anaphoric agreement between *a gente* and *nos* is **ungrammatical**.

(Menuzzi 2000; Reuland 2011; Costa & Pereira 2013; Marcotulio et al. 2013)

We do not think this is plausible, but the fact that some of the less common patterns are **perceived as less than fully acceptable** requires an explanation.



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Analysis (Proposal)

A **descriptively adequate grammar** should be consistent not only with **large-scale generalizations**, but also with **marked and infrequent patterns** attested, for instance, in corpora.

(cf. Meurers & Müller 2009; Culicover et al. 2022)

This should hold too for the different existing patterns of *a gente*.



We will focus on accounting for the following variation:

- ▶ subject-verb agreement (SVA):
 - ▶ *a gente* triggers 3.SG verb agreement
 - ▶ *a gente* triggers 1.PL verb agreement
- ▶ local anaphoric agreement (LAA):
 - ▶ *a gente* binds *se*, an underspecified REFL clitic
 - ▶ *a gente* binds *nos*, a REFL.1.PL clitic
- ▶ attested combinations of SVA+LAA:
 - ▶ *a gente* — *se* — V.3.SG
 - ▶ *a gente* — *se* — V.1.PL
 - ▶ *a gente* — *nos* — V.3.SG
 - ▶ *a gente* — *nos* — V.1.PL



Basic ingredients

What do we need to give an analysis of the different agreement patterns?

- ▶ framework: HPSG (Pollard & Sag 1994)
- ▶ CONCORD/INDEX distinction (Kathol 1999; Wechsler 2021; i.a.)
- ▶ inflectional rules for the phonetic form of the verb
- ▶ rules for anaphoric agreement



The CONCORD/INDEX distinction

The fact that *a gente* can trigger 3.SG SVA and 1.PL LAA simultaneously suggests that we need a single structure with two sets of ϕ -features:

- (15) O amigo é um presente que *a gente*₁ *nos*₁ dá.
 the friend is a present that A GENTE REFL.1.PL give.3.SG
 'A friend is a gift that we₁ give to ourselves₁.'

We don't see how multiple incompatible ϕ -feature sets could be implemented under standard minimalist assumptions.

(Chomsky 2000; Adger 2003, 2006b; Den Dikken 2011; Collins & Stabler 2016: i.a.)

But there is a precedent for this in HPSG: the CONCORD/INDEX distinction.

(Kathol 1999; Wechsler & Zlatić 2003; Levine 2010; Wechsler 2021)



CONCORD is a HEAD feature and its value gathers syntactic information relevant to the morphophonological realization of agreement:

$$(16) \left[\text{HEAD} \left[\text{CONCORD} \left[\begin{array}{l} \textit{phi} \\ \text{PERS } \textit{pers} \\ \text{NUM } \textit{num} \\ \text{GEN} \textit{gend} \end{array} \right] \right] \right]$$

INDEX is a CONTENT feature and its value plays a role analogous to that of individual variables in first-order logic or discourse referents in DRT.

$$(17) \left[\text{CONTENT} \left[\text{INDEX} \left[\begin{array}{l} \textit{nom-obj} \\ \textit{phi} \\ \text{PERS } \textit{pers} \\ \text{NUM } \textit{num} \\ \text{GEN} \textit{gend} \end{array} \right] \right] \right]$$



nós: The values of CONCORD (syntactic PER and NUM values) and INDEX (semantic PER and NUM values) are **the same**.

- (18) Lexical entry for the pronoun *nós*

$$\left[\begin{array}{l} \text{PHON} \\ \text{SYNSEM} \end{array} \left[\begin{array}{l} \langle \textit{nós} \rangle \\ \text{CAT} \left[\text{HEAD} | \text{CONCORD} \left[\begin{array}{l} \text{PERS } \textit{1} \\ \text{NUM } \textit{pl} \end{array} \right] \right] \\ \text{CONT} \left[\begin{array}{l} \textit{ppro} \\ \text{INDEX } \square \end{array} \right] \end{array} \right] \right]$$

a gente: The values of CONCORD and the values of INDEX are **different**.

- (19) Lexical entry for the pronoun *a gente* (to be revised)

$$\left[\begin{array}{l} \text{PHON} \\ \text{SYNSEM} \end{array} \left[\begin{array}{l} \langle \textit{a gente} \rangle \\ \text{CAT} \left[\text{HEAD} | \text{CONCORD} \left[\begin{array}{l} \text{PERS } \textit{3} \\ \text{NUM } \textit{sg} \end{array} \right] \right] \\ \text{CONT} \left[\begin{array}{l} \textit{ppro} \\ \text{INDEX} \left[\begin{array}{l} \text{PERS } \textit{1} \\ \text{NUM } \textit{pl} \end{array} \right] \end{array} \right] \end{array} \right] \right]$$



CONCORD and INDEX values are targeted by different types of agreement...

Anaphoric agreement only targets *a gente*'s INDEX features (1.PL):

- (20) a. *A gente*₁ acha que a Ana gosta {de *nós*₁ / **dela*₁}
 A GENTE think.3.SG that the Ana likes.3.SG of us of-her
 'We₁ think that Ana likes us₁.'
 b. *A gente*₁ abraçou {*nossas*₁ mães / **as mães dela*₁}
 A GENTE hugged.3.SG our mothers the mothers of.her
 'We₁ hugged our₁ mothers.'
 c. *A gente*₁ admira {*nós mesmas*₁ / **ela mesma*₁}
 A GENTE admire us same.FEM.PL her same.FEM.SG
 'We₁ admire ourselves₁.'



HPSG predicts this because INDEX values are used as individual variables:

(21) *A gente*₁ abraçou {*nossas*₁ mães / **as mães dela*₁}
[CONTENT|RELS hug(AG:₁[1.PL], PAT:₁[2][3.PL] (mother(₂[3.PL], ₁[1.PL])))]

Coreference without variable-identity is generally not allowed.
(Reinhart 1983; Koornneef & Reuland 2016; Krifka 2018; Varaschin 2021a)



NP-internal agreement only targets *a gente*'s CONCORD feature (3.SG):

(22) *A gente brasileiro*-o tem um preconceito danado contra a
A GENTE Brazilian-M.SG have a prejudice damn against the
internacionalização.
internationalization
'We Brazilians have a lot of prejudice against internationalization.'

(23) {*Nós* / **A gente*} *brasileir-os* joga(mos) futebol.
we A GENTE Brazilian-M.PL play football
'We Brazilians play football.'

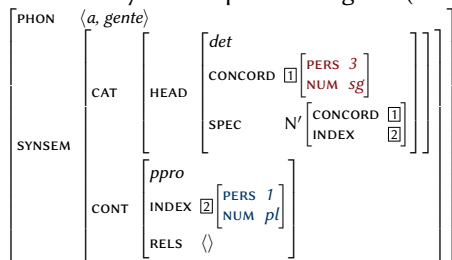
(24) {*Nós* / **A gente*} *três* joga(mos) futebol.
we A GENTE three play football
'We three play football'



Follows if *a gente* is a **determiner** (like most other pronouns). (Taylor 2009)

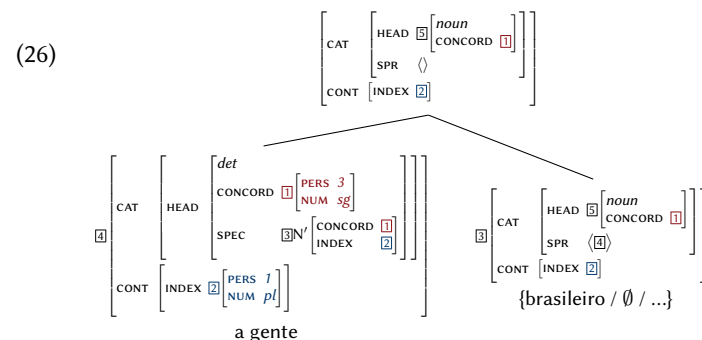
As a determiner, *a gente* selects an N' whose CONCORD and INDEX values are **structure shared** with its own.

(25) Lexical entry for the pronoun *a gente* (final)



We assume **mutual selection**: N selects Det through its SPR attribute, while the Det selects N' through its SPEC(IFIED) feature.

(Pollard & Sag 1994; Machicao y Priemer 2017; Machicao y Priemer & Müller 2021)



N's ϕ -features come entirely from from D. (Pollard & Sag 1994: 50)

Right result: bare nouns in BP have been argued to be **number neutral**.

(Müller 2002; Munn & Schmitt 2005: i.a.)



Subject verb agreement can target **CONCORD** and **INDEX** values alike:

- (27) a. **A gente** ama futebol.
 A GENTE love.3.SG football
 ‘We love football.’
- b. **A gente** amamos futebol.
 A GENTE love.1.PL football
 ‘We love football.’



Inflectional rules for verbal agreement

We offer a **realizational account** for subject verb agreement (and its mismatches), based on two lexical rules that specify the **CONCORD** value of the verb w.r.t. its subject.

We assume that **verbs** have also a **CONCORD feature**.

(following AGR in Kathol 1999)



The inflectional realisation of a verb is determined by a **paradigm function** Φ , which takes a *stem* (e.g. *am-* for ‘love’) and the **CONCORD** value of the *verb-word* and outputs the corresponding phonetic form.

(following Wechsler & Zlatić 2003)

(28) Constraint on *verb-word*

$$\text{verb-word} \Rightarrow \left[\begin{array}{l} \text{PHON } \Phi(\underline{2}, \underline{1}) \\ \text{STEM } \underline{2} \\ \text{SYNSEM} \mid \text{CAT} \mid \text{HEAD} \mid \text{CONCORD } \underline{1} \end{array} \right]$$

(29) a. $\Phi(\text{am-}, [\text{CONCORD } 1.\text{pl}]) = \text{am-amos}$

b. $\Phi(\text{am-}, [\text{CONCORD } 3.\text{sg}]) = \text{am-a}$

(30) a. $\Phi(\text{com-}, [\text{CONCORD } 1.\text{pl}]) = \text{com-emos}$

b. $\Phi(\text{com-}, [\text{CONCORD } 3.\text{sg}]) = \text{com-e}$



(31) LR1 for **CONCORD** agreement (morphosyntactic agreement)

$$\left[\begin{array}{l} \text{SYNSEM} \mid \text{CAT} \mid \text{HEAD} \\ \text{verb-lexeme} \end{array} \right] \left[\begin{array}{l} \text{VFORM } bse \\ \text{verb} \end{array} \right] \mapsto \left[\begin{array}{l} \text{SYNSEM} \mid \text{CAT} \mid \text{HEAD} \\ \text{ARG-ST} \\ \text{verb-word} \end{array} \right] \left[\begin{array}{l} \text{VFORM } fin \\ \text{CONCORD } \underline{1} \\ \text{verb} \end{array} \right] \left\langle \text{NP} [\text{CONCORD } \underline{1}], \dots \right\rangle$$

(28) Constraint on *verb-word*

$$\text{verb-word} \Rightarrow \left[\begin{array}{l} \text{PHON } \Phi(\underline{2}, \underline{1}) \\ \text{STEM } \underline{2} \\ \text{SYNSEM} \mid \text{CAT} \mid \text{HEAD} \mid \text{CONCORD } \underline{1} \end{array} \right]$$

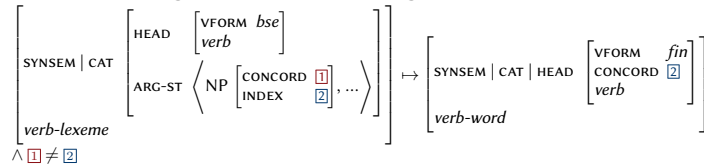
(32) a. LR1 \rightarrow a gente + am-a

b. LR1 \rightarrow nós + am-amos

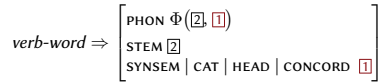
c. a gente + am-amos



(33) LR2 for INDEX agreement (semantic agreement)



(28) Constraint on verb-word



- (34) a. LR1 → a gente + am-a
 b. LR1 → nós + am-amos
 c. LR2 → a gente + am-amos



LR2 is independently needed to explain other instances of non-canonical agreement with **plurilinguals**:
 (Den Dikken 2001)

- (35) Hoje passando por pinhalzinho a galera foram as
 today passing by pinhalzinho the group.FEM.SG went.3.PL to.the
 compras.
 shopping
 ‘Today, passing by Pinhalzinho, the group went shopping.’



Rules for anaphoric agreement

Anaphoric agreement in (36) is grammatically enforced by **Principle A**:
 (Pollard & Sag 1994: 254)

- (36) a. A gente₁ {nos₁ / se₁} {ama / amamos}
 A GENTE REFL.1.PL REFL love.3.SG love.1.PL
 ‘We₁ love ourselves₁’



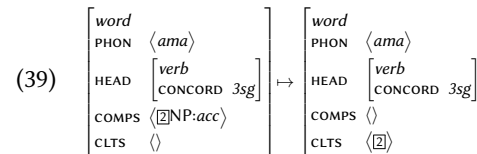
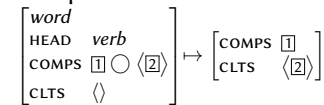
- (37) **Principle A:**
 An anaphor has the same INDEX as a local o-commander.

The **variation** between *se/nos* follows from the fact that there are **two phonological realisations** for an anaphoric clitic with a *1pl* index.



Clitics are introduced by a **lexical rule**:
 (adapted from Monachesi 1999)

(38) Complement Cliticization Lexical Rule (CCLR)



CLTS provides an **interface with morphophonology**: it contains information which is relevant for the realization of the cliticized verb.

There are different realization rules corresponding to each clitic *synsem*.



The *synsem* in the realisation rule that yields verbs marked with *nos* is fully specified for CONCORD and INDEX:

(40) Clitic Realization 1 (CR1)

$$\left[\begin{array}{l} \text{word} \\ \text{PHON } [1] \\ \text{CLTS } \left\langle \text{NP} \left[\begin{array}{l} \text{CONCORD } [2] \text{ 1pl} \\ \text{INDEX } [2] \end{array} \right] \right\rangle \right] \Rightarrow [\text{PHON } \langle \text{nos} \rangle \oplus [1]]$$

The *synsem* that gets realized as the proclitic *se* is underspecified for INDEX.

(it is only specified as having *ana* CONTENT)

(41) Clitic Realization (CR2)

$$\left[\begin{array}{l} \text{word} \\ \text{PHON } [1] \\ \text{CLTS } \left\langle \text{NP} \left[\begin{array}{l} \text{CONCORD } 3 \\ \text{CONT } \textit{ana} \end{array} \right] \right\rangle \right] \Rightarrow [\text{PHON } \langle \textit{se} \rangle \oplus [1]]$$



A structure containing whose clitic is solely specified as [INDEX 1pl] satisfies the conditions for both CR1 and CR2:

(42) a. **A gente**₁ {**nos**₁ / **se**₁} {**ama** / **amamos**}

A GENTE REFL.1.PL REFL love.3.SG love.1.PL

'We₁ love ourselves₁'

b. $\left[\begin{array}{l} \text{CLTS } \langle [2] \rangle \\ \text{ARG ST } \left\langle \text{NP:ppro} \left[\begin{array}{l} \text{CONCORD } 3\text{sg} \\ \text{INDEX } [1] \text{ 1pl} \end{array} \right], [2] \text{NP:ana} [\text{INDEX } [1]] \right\rangle \right]$

The cliticized verb in (42a) can be realized with *nos* (CR1) and *se* (CR2).

The PHON of the verb that the clitic exponents *nos/se* get appended to will depend on LR1 or LR2.



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Register

Register variation: intra-individual variation in linguistic behaviour influenced by situational and functional settings

(Lüdeling et al. 2022; Pescuma et al. 2023)

That is: In which **communicative situation** do we prefer a **linguistic form** over another?

This type of variation interacts with all levels of linguistic description:

(43) Ich { **habe es** / **hab's** } gekauft.

I have it have.it bought

'I have bought it.'

(44) Meine Frau ist { **Polizistin** / **Bulle** }.

my wife is policewoman cop

'My wife is a policewoman.'

(45) I will arrive at { **3:32** / **half past 3** }.

(cf. Solt 2015)



Questions related to register:

- ▶ Which **grammatical framework** is well suited to deal with register variation? (Jackendoff & Audring 2020; Adger 2006a; Paolillo 2000; Bender 2001)
- ▶ Should we assume **multiple grammars** (one for each register) or **one single grammar**? (Yang 2002; Adger 2006a; Machicao y Priemer et al. 2022)
- ▶ Are we dealing with **discrete** or **probabilistic** differences? (Paolillo 2000; Asadpour et al. 2022; Schäfer et al. 2022; Machicao y Priemer et al. 2022)

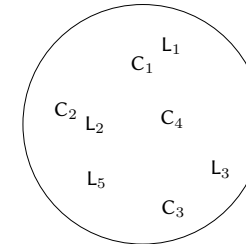


Conceptualising Register

Grammar acquisition:

In the course of our life, we acquire **lexemes** and **constraints** to combine or transform linguistic objects (i.e. phonology, morphology, syntax).

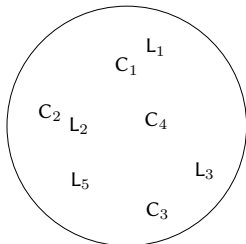
Grammar



Register acquisition:

Through **social interaction**, we learn that there are different **external factors** in the “real world” (e.g. socio-cultural factors), which lead to different kinds of **behaviour**.

Grammar



External Factors

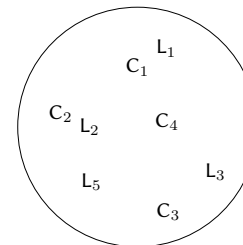
close relation
distant relation
place: church
official communication
private communication
...



Register acquisition:

The different **external factors** are clustered into (abstract) **situations** that lead to **similar (or same) behavioural patterns**.

Grammar



Situations

S₁: formal

S₂: informal

...

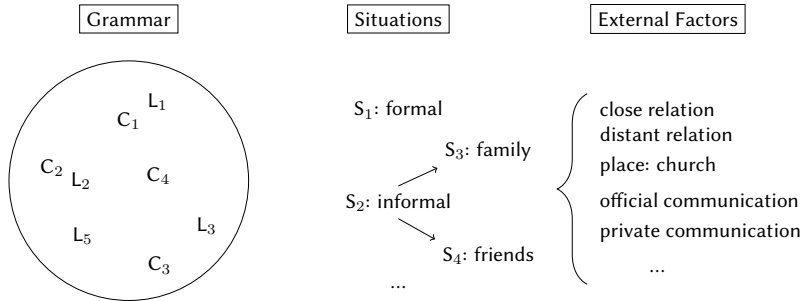
External Factors

close relation
distant relation
place: church
official communication
private communication
...



Register acquisition:

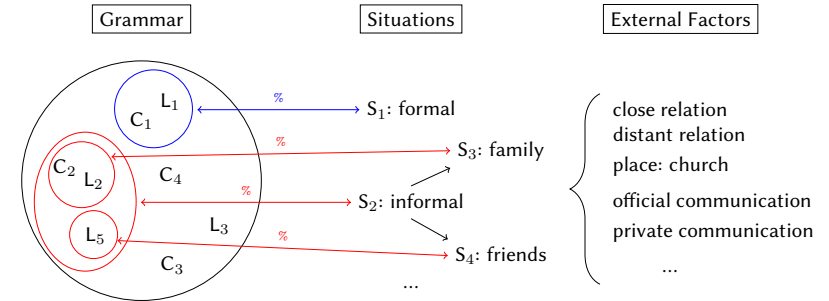
Through further **social interaction**, we might build **subtypes of situations** which are **compatible** with the **supertypes**, but less compatible with the other subtypes.



Register acquisition:

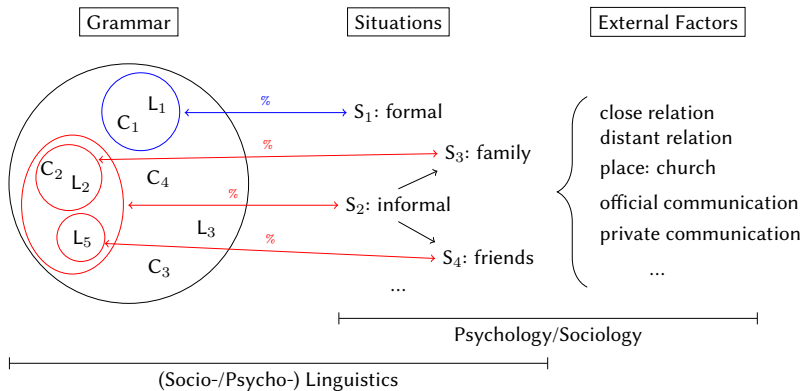
Our **use of grammar** as an **externalisation of behavioural patterns** reflects the **abstract situations** (super- and subtypes).

→ building registers



We assume the **categorisation of situations** out of external factors to be a main research question for **psychology** and **sociology**.

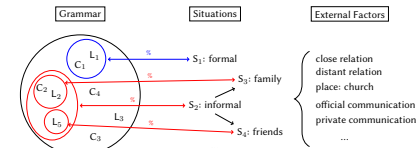
The **conceptualisation of situations** as predictors for linguistic behaviour is a main research question for **(psycho-/socio-)linguistics**



Our current conceptualisation of register:

Registers

Subsets of constraints in the grammar that are used with a higher probability in a specific situation.



- ▶ We assume a single grammar.
- ▶ The relation between registers and situations is probabilistic.
- ▶ Grammar and Register acquisition are parallel but not equal.
- ▶ Register knowledge is more **dynamic** than grammatical knowledge (cf. “youth language”) → registers can change over time
- ▶ We use **social meanings** to encode situational information in the grammar.

(following Paolillo 2000; Bender 2007; Asadpour et al. 2022)



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Distribution of the data

Our **grammar** can produce all attested patterns,
but w.r.t. **usage** they are evaluated differently by speakers:

- (46) a. LR1 → a gente + am-a [acceptable, frequent]
 b. LR2 → a gente + am-amos [odd, rare]
- (47) a. LR1 + CR1 → a gente + nos + ama [odd, rare]
 b. LR1 + CR2 → a gente + se + ama [acceptable, frequent]
 c. LR2 + CR1 → a gente + nos + amamos [odd, rare]
 d. LR2 + CR2 → a gente + se + amamos [odd, rare]

How do we predict these judgments and frequency effects?

→ **Social meaning!**



External factors: *a gente* vs. *nós*

External factors identified for variation between *a gente/nós*:

- ▶ **age**: *a gente* is more widespread among **younger speakers** than among older ones. (Seara 2000; Zilles 2005; Maia 2009; Rubio & Gonçalves 2012)
- ▶ **education**: *a gente* is more widespread among **less educated speakers** than among more educated ones. (Monteiro 1994; Omena 1996; Lopes 1998; Seara 2000; Rubio & Gonçalves 2012)
- ▶ **gender**: *a gente* is more widespread among **female speakers** than among more males. (Monteiro 1994; Seara 2000; Zilles 2005; Borges 2004; Mendonça 2012)
- ▶ **modality/text type**: *a gente* is more widespread in speech or in writings about personal experiences. (Brustolin 2009; Aguiar 2015)



Some of these these mappings between *a gente* and social categories arguably become reflected in a difference in **social meaning** in comparison to the standard 1.PL form *nós*. (cf. also Eckert 2012; McCready 2019)

Hence, *a gente* is perceived as “**less old**”, “**less educated**”, “**less masculine**”, “**less formal**”.

In contrast, *nós* is more **positively evaluated in careful and formal styles**. (Zilles 2005, 2007)

Several subjective reaction studies demonstrate that speakers do in fact perceive *a gente* as more **informal** and less **educated** than *nós*.

(Vianna 2006; Brustolin 2009; Freitag 2016; Freitag et al. 2018; Freitas & Carvalho 2020)



External factors: Subject-verb agreement

External factors identified for 1.PL verbal agreement

- ▶ **age:** 1.PL subject-verb agreement is more widespread among **older speakers** than among younger ones. (Naro et al. 1999; Mattos 2013)
- ▶ **modality/text type:** 1.PL is more frequent in more formal writing situations than it is in speech (Marcotulio et al. 2013; Aguiar 2015)

Subjective evaluation experiments: the presence of **1.PL** morphology on verbs (regardless of the subject) is perceived as more appropriate in **formal situations** (especially among less-educated speakers).

(Brustolin 2009; Freitag 2016: 214)

Hence, verbs with [CONCORD *1pl*] are perceived as “old”, “formal”, etc.



External factors: Local anaphoric agreement

We are not aware of studies that directly address the social embedding of **local anaphoric agreement variation** with *a gente*.

Indirect evidence from attitude studies:

- ▶ Clitic forms like *nos* are in fact perceived as more **educated** or **intelligent** than their corresponding tonic counterparts (e.g. *nós* and *a gente*). (Schwenter et al. 2022)
- ▶ In transitive sentences, the object clitic *nos* is evaluated as **more formal** than *a gente*. (Freitag et al. 2018)

Hence, structures with [CLTS (NP:[CONCORD *1pl*])] are plausibly perceived as “educated”, “formal”, etc.



Interim summary

Our **grammar** can license the utterances that are **attested** in the data.

The **judgements** w.r.t. the different combinations **vary** according to some external factors.

- ▶ *A gente* is perceived as **informal**
- ▶ *Nós* is perceived as **formal**
- ▶ **1.PL subject-verb agreement** is perceived as **formal**
- ▶ the **1.PL verbal clitic** *nos* is perceived as **formal**

To which extent can this be reflected by the grammar?

→ register variation



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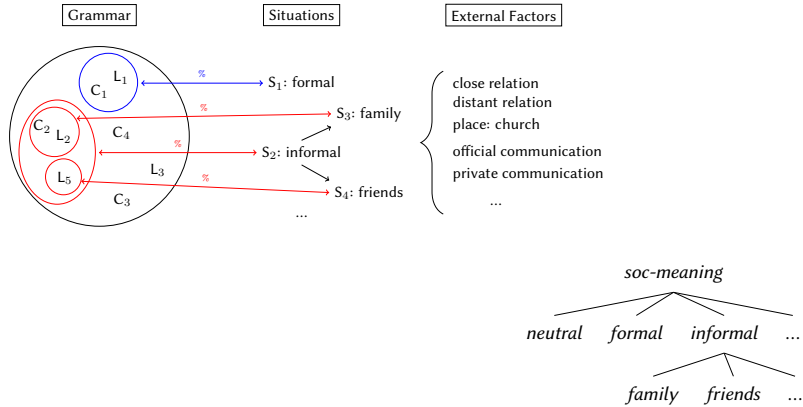
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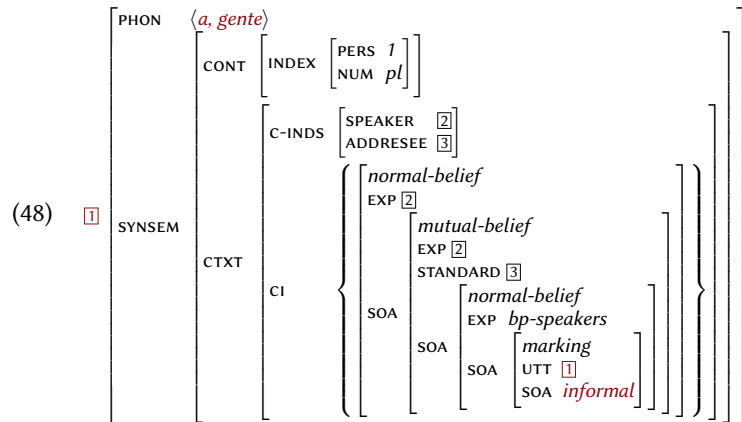
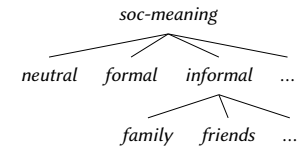
First, we need different **types of social meanings** which reflect the situations in which we use expressions.



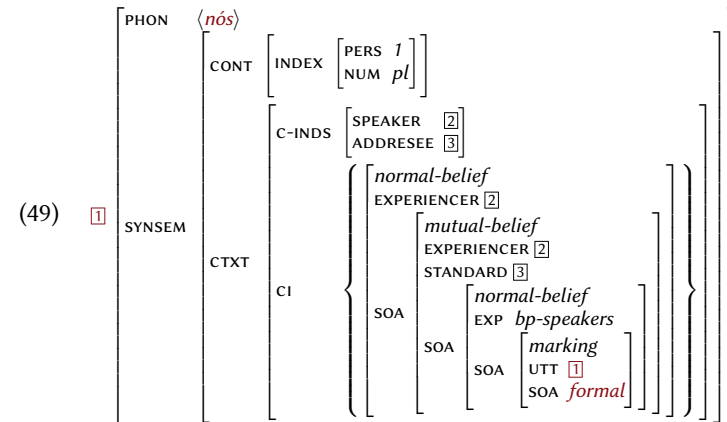
Second, since the combination of linguistic expressions with different social meanings (i.e. register clash) is **possible** and **grammatical**, but **less adequate**, they enrich the meaning of linguistic expressions as **conventional implicatures**.

They are values inside the CONTEXT feature of signs.

(following Green 1994; Paolillo 2000; Bender 2001; Asadpour et al. 2022)



The **speaker** believes that it is a **mutual belief** between speaker and addressee that it is the **normal belief** that BP speakers mark *a gente* as **informal**.
(following Asadpour et al. 2022)

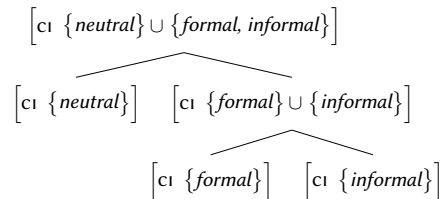


The **speaker** believes that it is a **mutual belief** between speaker and addressee that it is the **normal belief** that BP speakers mark *nós* as **formal**.
(following Asadpour et al. 2022)



Third, we need a way to **project the conventional implicatures** of the parts when combining them to larger phrases.

(Simplified) CI PROJECTION PRINCIPLE (Paolillo 2000; Asadpour et al. 2022)



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Predicting the judgments

Our **grammar** can license the utterances that are **attested** in the data.

The **judgements** and **frequencies** w.r.t. the different combinations **vary** according to whether there is a clash between the social meanings, making it hard to assign the **complex utterance to any specific register**.



The sociolinguistic studies suggest:

(50) *nós* ⇒ *formal*

(51) *a gente* ⇒ *informal*

(52) *am-amos*: $\left[\begin{array}{c} verb \\ CONCORD \ 1pl \end{array} \right] \Rightarrow formal$

(53) *am-a*: $\left[\begin{array}{c} verb \\ CONCORD \ 3sg \end{array} \right] \Rightarrow neutral$

(54) *nos+am-a/-amos*: $\left[CLTS \ \langle NP[CONCORD \ 1pl] \rangle \right] \Rightarrow formal$

(55) *se+am-a/-amos*: $\left[CLTS \ \langle NP[CONCORD \ 3] \rangle \right] \Rightarrow neutral$



The cases that are perceived as less-than-fully acceptable are those that wind up with a set of **conflicting social meanings** (i.e. register clash):

- (56) a. a gente + ama^[verb CONCORD 3sg]
→ {informal, neutral} [acceptable, frequent]
- b. a gente + amamos^[verb CONCORD 1pl]
→ {informal, formal} [odd, rare]
- (57) a. a gente + nos [CLTS ⟨NP[CONCORD 1pl]⟩] + ama^[verb CONCORD 3sg]
→ {informal, formal, neutral} [odd, rare]
- b. a gente + se [CLTS ⟨NP[CONCORD 3]⟩] + ama^[verb CONCORD 3sg]
→ {informal, neutral, neutral} [acceptable, frequent]
- c. a gente + nos [CLTS ⟨NP[CONCORD 1pl]⟩] + amamos^[verb CONCORD 1pl]
→ {informal, formal, formal} [odd, rare]
- d. a gente + se [CLTS ⟨NP[CONCORD 3]⟩] + amamos^[verb CONCORD 1pl]
→ {informal, neutral, formal} [odd, rare]



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Conclusions

- ▶ on a **grammatical level**
 - ▶ the grammar allows for all attested variations
 - ▶ difference between CONCORD and INDEX agreement by means of LR1 & LR2
- ▶ on a **usage level**
 - ▶ frequencies and acceptability judgments are explained by the interaction between **grammatically encoded social meanings** and **external communicative situations**
 - ▶ structures with conflicting social meanings may be **unacceptable** because they are hard to assign to any coherent communicative situation
- ▶ open:
 - ▶ How do we relate the **frequencies** to the grammatical component?



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