

Soft & Hard Constraints on Anaphoric Forms

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1. Introduction

- Central tenets of optimality-like approaches (cf. Prince & Smolensky 1993, Burzio 1995): (i) grammatical constraints are universal and violable, or *soft*; (ii) grammatical structures are the winners of competition (among alternative outputs for the same input).
 - Some of the issues that arise:
 - how to solve conflicts between constraints?
 - Are *all* grammatical conditions *soft*, or are there *hard* constraints, too?
 - Is there any systematic difference between soft and hard constraints?
- ☞ OT: focus on (1a), which motivates constraint ranking! This talk: bringing (1b,c) to the agenda by looking at soft versus possible hard constraints in binding, i.e., in the competition between anaphors and pronouns.

2. Binding & Soft Constraints

- Std BT: anaphors vs. pronouns determined by *absolute* conditions specific on NP types (Conditions A and B).
- Burzio (1989, 1991, 1992):
 - independent conditions on NP types make *complementary distribution* an accident:

Reflexives		Antecedents				
Type	Paradigm	Object	1st/2nd	3rd pl	3rd sing	Impersonal
Inflected:	English objects	✓	✓	✓	✓	✓
Uninflected:	Russian objects	✗	✓	✓	✓	✓
	Romance objects	✗	✗	✓	✓	✓
	Danish Possessives	✗	✗	✗	✓	✓
	French <i>soi</i>	✗	✗	✗	✗	✓
Absent:	W Flemish objects	✗	✗	✗	✗	✗
	O English objects	✗	✗	✗	✗	✗
	English possessives	✗	✗	✗	✗	✗

✓ = reflexives allowed, pronouns excluded

✗ = reflexives excluded, pronouns allowed

ii) the distributional patterns correlate with properties of anaphors only, not with properties of pronouns: locally bound pronouns only where no anaphor is available, independently of the restriction on the anaphor!

Burzio's solution (roughly):

- MORPHOLOGICAL ECONOMY [ME]: A bound NP must be maximally underspecified (= Binding Hierarchy: anaphors > pronouns > R-expressions)
- LOCALITY [LOCAL]: Anaphors must be locally bound.

For ME, anaphors are always the best choice; an anaphor's violation of LOCAL, or absence of anaphors, turn the pronoun the best option, despite ME; i.e., ~~ME~~ ME is a *soft* constraint!!

- Further evidence for constraint interaction in binding: NO GENDER effects in Romance (Braz. Port. [BP], European Portuguese [EP] and Argentinian and Continental Spanish [Sp]; cf. Menuzzi 1996, in progress).

i) NO GENDER: antecedents such as ‘nobody’, ‘who’, ‘everybody’, are strongly disfavored with pronominal forms specified for *gender* (gender of a pronominal form is determined by range of antecedents; exx. in Sp):¹

- (4) a *Juan cree que {___/él} es un tonto*
Juan believes that {pro/he} is a fool
‘Juan believes that he is a fool’
 b *Nadie cree que {___/*él} es un tonto* {pro vs. *él}
*Nobody believes that {pro/*he} is a fool*
‘Nobody believes that he is a fool’
- (5) a *Juan cree que {su patrón/?el patrón de él} es un tonto*
Juan believes that {SE(poss) boss/?the boss of-him} is a fool
‘Juan believes that his boss is a fool’
 b *Nadie cree que {su patrón/*el patrón de él} es un tonto* {su vs. *de él}
*Nobody believes that {SE(poss) boss/*the boss of-him} is a fool*
‘Nobody believes that his boss is a fool’
- (6) a *Juan cargaba {con él/?consigo} una bolsa llena de dinero*
Juan carried {with him/?with-SE} a bag full of money
‘Juan carried a bag full of money with himself’
 b *Nadie ha cargado {*con él/consigo} la bolsa con el dinero* {P si vs. *P él}
*Nobody has carried {*with him/with-SE} the bag with the money*
‘Nobody carried a bag full of money with himself’
- (7) NO GENDER: *[NOBODY_i ... X [+gender]_i]

ii) NOGENDER is *soft*: (a) strong effects only when genderless forms are available (e.g., no strong effects in Std Eng, but in Dutch and German, which have genderless anaphors); (b) *NOGENDER (on overt pronouns) interacts with *LOCAL (on anaphors): *LOCAL may not be strong enough to supplant *NOGENDER (exx. in BP):

- (8) a *O João jamais reconheceria* [_{NP} uma foto {de ??si/dele}] *tirada pela Maria* ✓ NOGENDER, *LOCAL
João recognized [_{NP} a picture {of ??SE/of-him}] *taken by Maria*
 b *Ninguém jamais reconheceria* [_{NP} uma foto {de si/*dele}] *tirada pela Maria* *LOCAL > *NOGENDER
Nobody ever would-recognize [_{NP} a picture {of SE/*of-him}] *taken by Maria*
- (9) a *O João jamais me ouviu* [_{IP} t falar mal {de (?) *si/dele}]
João never me heard [_{IP} t speak ill {of (?) *SE/of-him}]
 b *Ninguém jamais me ouviu* [_{IP} t falar mal {de ?si/*dele}]
Nobody ever me heard [_{IP} t speak ill {of ?SE/*of-him}]
- (10) a *O João jamais admitiria* [_{CP} que a Maria desconfiasse de { *si/ele}]
João never would-admit [_{CP} that Maria be-suspicious of { *SE/him}]
 b *Ninguém admitiria* [_{CP} que a Maria desconfiasse de {(?) ?si/(?) *ele}]
Nobody would-admit [_{CP} that Maria be-suspicious of {(?) ?SE/*him}]

But *LOCAL is incremental (proportional to embedding) and eventually supplant *NO GENDER:

- (11) *Ninguém jamais admitiria* [_{CP} que o Paulo contasse ao João [_{CP} que a Maria desconfiava de { *si/?ele}]]
Nobody never would-admit [_{CP} that Paulo tell João [_{CP} that Maria was-suspicious of { *SE/?him}]]
 *NOGENDER > **LOCAL

■ CONCLUSION: there are at least three *soft* constraints on anaphoric forms: MORPHOLOGICAL ECONOMY, LOCALITY and NO GENDER.

¹ Acceptability judgements: *no mark* = sentence is OK, i.e., fully acceptable and natural; *?* = acceptable, perhaps not very natural; additional discourse justification may be needed; *??* = marginal; perhaps acceptable with strong discourse justification; *** = sentence is unacceptable. Conventions for ‘conflated’ judgments: *(?)* = from OK to *?*; *(?)?* = from *?* to *??*; *(??)* = from OK to *??*; *(?)** = from *??* to ***; *(*)* = from *?* to ***; *(*)* = from OK to ***.

3. Hard Constraints on Anaphoric Forms?

Candidates to hard constraints: whose interaction with soft constraints is unattested. In Romance:

❶ NULL LICENSED:

i) Null pronominals are available only in specific, *licensed* positions; in Romance, only subjects (exx. in Sp):

- (12) (Speaking of *Juan*:)
- | | | |
|---|---|-----------|
| a | { <i>Él</i> /___} es inteligente | (Subject) |
| | { <i>He/pro</i> } is intelligent | |
| b | María { <i>lo</i> /*___} vió | (Object) |
| | María { <i>him</i> /* <i>pro</i> } saw | |
| c | María siempre habla de { <i>él</i> /*___} | (Oblique) |
| | María always speaks of { <i>him</i> /* <i>pro</i> } | |

ii) *NULL LICENSED never wins over *OTHERCOND's, e.g., over *NOGENDER (see also Montalbetti 1984):

- (13) a *Nadie* dijo que {*él*/___} es inteligente ✓ NULLLICENSED, *NOGENDER
Nobody said that {**he/pro*} is intelligent
- b *Nadie* dijo que María {(?)?/*lo*/*___} vió *NOGENDER > *NULLLICENSED
Nobody said that María {(?)?/*him*/**pro*} saw
- c *Nadie* dijo que María siempre habla de {(?)?/*él*/*___}
Nobody said that María always speaks of {(?)?/*him*/**pro*}

❷ CASE COMPATIBILITY [CASECOMP]:

i) Case-specified NPs occupy only positions compatible with their specification, e.g. clitics in EP:

- (14) a *O João* disse que a Maria {*o*/**lhe*} viu no cinema (Accusative, Gender-marked: *NOGENDER)
João said that Maria {*him*/**to-him*} saw in-the cinema
'João said that Maria saw *him* in-the cinema'
- b *A Maria* disse que o João {*a*/**lhe*} viu no cinema
Maria said that João {*her*/**to-her*} saw in-the cinema
- (15) a *O João* disse que a Maria {*lhe*/**o*} deu um presente (Dative, Genderless: ✓ NOGENDER)
João said that Maria {*to-him*/**him*} gave a present
- b *A Maria* disse que o João {*lhe*/**a*} deu um presente
Maria said that João {*to-her*/**her*} gave a present
- c *Ninguém* admitiu que o João *lhe* tivesse dado propinas
Nobody admitted that João *to-him* had given bribes

ii) *CASECOMP never wins over *OTHERCOND's, e.g., *NO GENDER:

- (16) *Ninguém* admite que a Maria {(?)?/*o*/**lhe*} tenha visto no cinema *NOGENDER > *CASECOMP
Nobody admits that Maria {(?)?/*him*/**to-him*} has seen in-the cinema
'Nobody admits that Maria has seen *him* in-the cinema'

iii) where it appears *CASECOMP > *NO GENDER: actually, 'old' Dat form is synchronically compatible with Acc, e.g., BP (also, 'leista' Sp):

- (17) a *Ninguém* admite que a Maria tenha {?/*lhe*} visto {(?)?/**ele*} recebendo propinas
Nobody admits that Maria has {?/*to-him*} seen {(?)?/**him*} receiving bribes
- b *O senhor* não admite que a Maria tenha *lhe* visto recebendo propinas
The gentleman not admits that a Maria has *to-him* seen receiving bribes
'You(fml) do not admit that Maria has seen *you* receiving bribes

❸ *LD CL SE [No Long-Distance-Bound Clitic SE Anaphor]:

i) The basic generalization: reflexive clitics cannot be long-distance bound (cf. Napoli 1979, Everaert 1986):

- (18) a *La signora* lascia [che io giaccia presso di sè] (LD sè Italian)
 The woman allows [that I lie near of SE]
 b **La signora* permette [che io *si* baci]
 The woman allows that I SE kiss
- ii) even if competing forms violate some constraint, e.g. NOGENDER or CASE COMP (exx. in EP):
- (19) *Ninguém* admite [CP que a Maria {(?)?o/*lhe/*se} tenha visto no cinema]
 Nobody admits [CP that Maria {(?)?him/*to-him/*SE} has seen in-the cinema]
- iii) *LD CL SE is *not* *LOCAL: with non-clitic *si*, *NOGENDER > **LOCAL, but *LOCAL > *NOGENDER:
- (20) a *Ninguém* jamais admitiria [CP que o Paulo contasse ao João [CP que a Maria desconfiava de { *si/??ele }]]
 Nobody never would-admit [CP that Paulo tell João [CP that Maria was-suspicious of { *SE/??him }]]
 b *Ninguém* admitiria [CP que a Maria desconfiasse de { ?si/(?) *ele }]
 Nobody would-admit [CP that Maria be-suspicious of { ?SE/*him }]
- CONCLUSION: there are three candidates to *hard* constraints: NULL LICENSED, CASE COMPATIBILITY and NO LD CLITIC SE.

4. Conclusion: Hard versus Soft Constraints on Anaphoric Forms

- (21) a Soft constraints: MORPHOLOGICAL ECONOMY, LOCALITY and NO GENDER
 b Hard constraints: NULL LICENSED, CASE COMPATIBILITY and NO LD CLITIC SE
- MORPHOLOGICAL ECONOMY in (2): applies to *bound* forms in general, hence, to *binding*.
- LOCALITY in (3): *binding of anaphors* has to be local.
- NO GENDER in (7): on *binding of gender-specified forms* by NOBODY-type of NP's!
- GENERALIZATION 1: *soft* constraints concern a relation between anaphoric form and antecedent!
- NULL LICENSED: available theories attribute licensing of null pronominals to properties of *governing head*:
- i) Rizzi (1986): the governing head must be a formal licenser and phi-feature-specified;
 ii) Jaeggli & Safir (1989): must belong to a morphologically uniform paradigm and assign Case.
- CASE COMPATIBILITY: Nominal Case is determined by *governing head*: in English, INFL assigns Nom, Vs and Ps Acc/Obl, and Ns Gen; in Romance, INFL assigns Nom, Vs Acc and Dat, Ps assign Obl; etc.
- GENERALIZATION 2: *hard* constraints concern a relation between anaphoric form and governing head!
- *LD CL SE?
 - i) Pica (1984, 1987, 1991): derivable from the intrinsic properties of clitic reflexives themselves [1984: clitics are non-arguments; 1987: non-pronominal; 1991: heads] ⇨ *incompatible* with Generalization 2!
 - ii) Reuland (1990): [Romance] cliticization is a morphological operation; hence, a reflexive clitic 'operates' in the domain of the morphological unit it cliticizes to, i.e., the verbal head ⇨ This *is* compatible with Generalization 2: clitic SE *is* 'licensed' by a property of the verbal head (reflexivity at the argument structure representation)!!
 - ⇨ Also fully compatible with Burzio's (1986) account of Romance reflexive SE: either (a) a base-generated clitic, and all relations involving base-generated clitics must exist at all levels (most importantly, at D-Structure!), or (b) SE is a lexical affix absorbing subject θ-role and object Case. In particular, wrt. (a): D-Structure is a representation of the thematic structure of heads!!
- (22) *Hard versus Soft Constraints on Anaphoric Forms*:
- a Hard constraints concern the local relation between the anaphoric form and a governing head;
 b Soft constraints concern the relation between the anaphoric form and the antecedent.
- How to distinguish violable/soft from inviolable/hard constraints in OT?
 - i) *Constraint Ranking* is no good: if different constraint rankings define different grammars, no explanation for the systematic highest-ranking of universally *hard* constraints!!

ii) Hard constraints as properties of *Generator*: candidates violating hard constraints would never be generated, hence, never considered for evaluation wrt. the set of soft constraints!!

■ CONSEQUENCES, if (22) is to be generalized:

i) from (22a): constraints on the relations between heads and head-governed elements (e.g., on Case- and θ -Role-assignment) should be incorporated into syntactic *Gen*, that is, follow from the procedure of building up syntactic representations, rather than being checked after the representation was built!

ii) from (22b): constraints on antecedence relations (e.g., binding, antecedent-government, chain-formation) should be checked after the syntactic representation was built!

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