No condition B? Context-dependent surface-form preference!*

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Outlook

Overarching Questions:

- \rightarrow Can binding theoretic principles be predicted from competitions among forms?
- \rightarrow If so, what are those competitions?

Key Data:

- (1) **Fiecare politician**₂ a vorbit despre <u>el_2</u> / sine₂. Every politician has talked about <u>him</u> / self 'Every politician talked about him / himself'.
- (2) **Lockhart**₁ se₁ iubeşte pe <u>el_1</u> / sine₁. Lockhart REFL.CL loves ACC him / self 'Lockhart loves himself'.

Claims:

- \rightarrow Competition can capture BT facts. However, Romanian is currently an outlier.
- $\rightarrow\,$ Competition occurs at different levels. We'll focus on two:
 - the interpretation of a form in a given context, and
 - the syntax-semantics of available forms.

1 Why Romanian?

Romanian presents a puzzle for both classic and competition-based approaches to Condition B, neither of which can predict the bound reading of a personal pronoun in (1) and (2).

To zoom in on competition-based, Principle B effects are obtained by competition between dedicated anaphora and other pronominals in the same positions.

(3) A KEY PREDICTION

The presence of Condition B effects depends on whether a language has a **dedicated reflexive** form. The absence of Condition B effects correlates with the absence of specialized reflexive anaphors.

(Rooryck & Vanden Wyngaerd, 2011)

This prediction is supported by languages like Jambi (Cole et al., 2017) and Chamorro (Wagers et al., 2017).

A note about French

French, like Romanian, can allow for locally bound pronouns.

(4) a. Jean₁ prend soin de $lui_{1/2}$.

Jean takes care of him

'Jean takes care of him/himself.'

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b. *Jean₁ prend soin de soi₁.
Jean takes care of self
'Jean takes care of himself'.
(adapted from ex. (40c) & (41a) from Rooryck & Vanden Wyngaerd (2011), p. 26)

Rooryck & Vanden Wyngaerd (2011) argue that French is predicted by (3), because the dedicated reflexive, *soi* and the pronoun *lui* are in complementary distribution, as shown in (4), above: crucially, coreferent *lui* is grammatical where *soi* is not.

As for Romanian, (1) and (2) illustrate that locally bound pronouns and reflexives are both grammatical in the same context, conflicting with the (Rooryck & Vanden Wyngaerd, 2011) prediction.

2 Setting the stage: context-dependent competition

Traditional Binding Theory accounts were aimed at capturing the complementary distribution of anaphora and pronouns in sentences like (5) by means of separate, independent conditions.

- (5) a. Lockhart₁ talked about $\lim_{*1/2}$. b. Lockhart₁ talked about $\lim_{*1/2}$.
- (6) Chomskian Binding Conditions
 Principle **A**: An anaphor must be bound in its binding domain.
 Principle **B**: A pronoun must be free in its binding domain.
 (Chomsky, 1981, 1986)

Reinhart (1983) \rightarrow disjoint reference effects are a result of an Interface rule (Rule I²), which favors the use of a bound variable over a pronoun which could express the same meaning.

While various other proposals ensued (Grodzinsky & Reinhart, 1993; Safir, 2004; Schlenker, 2005; Reuland, 2011; Safir, 2014), for the moment, let us focus on that of Roelofsen (2010), which both directly

compares pronouns to reflexives, and encodes **context-dependence** in the choice of an alternative over another.

(7) Coreference Rule

A speaker will never use a logical form LF <u>in a context C</u> if the LF is semantically indistinguishable from one of its *binding alternatives*.

(Roelofsen, 2010, p. 119)

(8) Binding Alternatives

Let C be a context, let LF be a logical form, and let A and B be two DPs in LF such that A and B corefer in C and A c-commands B in LF. Then, the structure obtained from LF by QRing A (if it hasn't already been) or replacing B with a (possibly reflexive) pronoun bound by A is called a binding alternative of LF in C.

(Roelofsen, 2010, p. 120)

With (7) and (8) set in place, for any given sentence where two DPs corefer, a speaker would generate all the LFs where the c-commanded DP is bound. If any of these bound alternatives have the same meaning, then that alternative is chosen.

The issue, however, is how to distinguish between the various bound alternatives. This is where Grice comes in. Based on Grice's Maxim of Manner (be as unambiguous as possible), we propose the following modification to (7):

(9) COREFERENCE RULE MUSHED UP WITH GRICE
If S and S' have indistinguishable interpretations in a context C,
and the set of possible interpretations for S' is a proper subset
of the set of possible interpretations for S, speak S'.

In (10) and (11), both pronominals are bound by the c-commanding antecedent and they are binding alternatives of each other. Their different meanings come about in the following contexts:

¹The notion of binding domain, although not crucial for this talk, has proved difficult to capture.

²In Reinhart (2006), this rule operates outside of syntax proper. Disjoint reference is computed by means of comparing alternatives post-syntactically.

How this works:

Indistinguishable in C

Context: When talking about candidates that voted for themselves...

(10) a. (Only) Hillary₁ voted for herself₁. b. #(Only) Hillary₁ voted for her₁. DISTINGUISHABLE IN C

Context: When talking about candidates that voted for Hillary...

(11) a. #(Only) Hillary₁
voted for herself₁.
b. (Only) Hillary₁
voted for her₁.

Since (9) (to be referred to as GRICE from now on) is a languageuniversal condition, we expect it to hold for Romanian as well. In fact, it can predict the distribution of Romanian clitics.

3 Case Study: Clitic Competition

3.1 Romanian pronominals

Romanian has a rich pronominal system (personal pronouns, reflexive pronouns, demonstratives, possessives, clitics (reflexive, personal, possessives), intensifiers, resumptive pronouns, etc.) Here are some of the key ingredients for today:

- \rightarrow null pronouns are grammatical in subject/DO/IO positions
- \rightarrow clitic doubling (IO/DO) mandatory for null pronouns
- \rightarrow optionally overt pronouns in IO/DO positions

(12) 3rd person (singular) personal pronouns

	Nominative	ACCUSATIVE		DATIVE/GENITIVE	
		PRONOUN	CLITIC	PRONOUN	CLITIC
MASCULINE	el	el	îl, l-	lui	îi, i-
FEMININE	ea	ea	0, -0	ei	îi, i-

(13) 3rd person reflexive pronouns

(14) 3rd person (singular) intensifier reflexive adjectives

	Nominative / Accusative	DATIVE/GENITIVE
MASCULINE FEMININE	$egin{array}{c} (el) \; \hat{i}nsusi \ (ea) \; \hat{i}nsar{a}si \end{array}$	(lui) însuși (ei) înseși

Reflexive clitics can be resumed either by null or overt pronouns.

- (15) a. Băieții $_2$ s- au ajutat \varnothing . NULL boys.THE REFL.CL have helped pro
 - b. Băieţii₂ s- au ajutat pe ei₂. PERSONAL boys.THE REFL.CL have helped ACC them
 - c. Băieţii₂ s- au ajutat pe ei înşişi₂. +INT boys.THE REFL.CL have helped ACC them INT.MASC.PL
 - d. Băieţii₂ s- au ajutat pe sine₂. REFLEXIVE boys.THE REFL.CL have helped ACC self 'The boys helped themselves.'

Crucially, referential DPs cannot resume a reflexive clitic - as shown in (16). We assume that the movement of the reflexive clitic se to the T (or v head first) leaves behind a trace, which is either unpronounced (pro), or spelled-out as a resumptive pronoun.

(16) *Băieţii₂ s- au ajutat pe băieţi₂. DP boys.THE REFL.CL have helped ACC boys 'The boys helped themselves.'

While overt pronouns are optional, reflexive clitics are $\underline{\text{mandatory}}$ for null/overt pronouns in DO/IO position. Compare (15) to (17).

- (17) a. *Băieţii₂ au ajutat \varnothing . boys.THE have helped pro
 - b. *Băieţii₂ au ajutat pe ei₂. boys.THE have helped ACC them
 - c. *Băieţii₂ au ajutat pe ei înşişi₂.
 boys.THE have helped ACC them INT.MASC.PL
 - d. *Băieţii₂ au ajutat pe sine₂. boys.THE have helped ACC self 'The boys helped themselves.'

Pronominal clitics can be resumed by silent or overt proforms³, but they are obligatorily present for DO/IO.

(18) Hermione₁ *(\mathbf{l}_2 -) a rugat (pe el_2) să *($\mathbf{ii}_{1/*2}$)
Hermione CL.MASC.ACC has asked ACC him SUBJ. CL.DAT
facă o poţiune (ei_1)
make a potion (her)
'Hermione₁ asked him to make her₁ a potion'.

As shown in (32), PP arguments do not get clitic doubled.

- (19) a. Hermione vorbeşte despre Lockhart.

 Hermione talks about Lockhart'

 'Hermione talks about Lockhart'
 - b. Hermione vorbeşte despre el.
 Hermione talks about him 'Hermione talks about him'

The only possible referent for reflexive clitics is the surface subject of the same clause. (20a) and (20b) illustrate the reflexive clitic cannot take a non-local subject as an antecedent (in (20b), there are two reflexive clitics, both referring to Trump).

In (20c), while the accusative reflexive clitic is ungrammatical (since the sentence is a passive), the dative reflexive clitic must take the passive subject as an antecedent.

- (20) a. Ron₁ a spus că Lockhart₂ $\mathbf{s}_{2/*1}$ a lăudat. Ron has said that Lockhart REFL.CL.ACC has praised. 'Ron said that Lockhart praised himself.'
 - b. Hillary a spus că Trump $_1$ şi $_1$ Hillary has said that Trump DAT.REFL.CL s $_1$ a descris (pe sine $_1$) (sieşi $_1$). ACC.REFL.CL has described (ACC self) (self.DAT) 'Hillary said that Trump described himself to himself.'
 - c. Trump₁ şi₁- a fost descris (sieşi₁) (de Trump DAT.REFL.CL has been described (self.DAT) (by către sine).
 self)
 'Trump was described to himself (by himself)'.

The data in (20) present evidence that the reflexive clitic is a 'well-behaved' Condition A obeying anaphor, which is necessarily bound by a c-commanding DP in an A-position (intervening c-commanding elements - via scrambling - cannot be antecedents for the reflexive clitic).

Takeaway

Reflexive clitics are necessarily subject-oriented.

While both pronominal and reflexive clitics can be resumed by pronouns, their roles are clear-cut in Romanian: reflexive clitics encode

^{3.2} Reflexive vs. Pronominal Clitics

³And referential DPs.

coreference with the local subject, while pronominal clitics necessarily give rise to disjoint referent interpretations.

LOCAL COREFERENCE

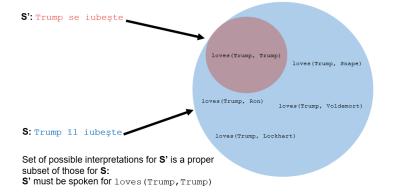
- (21) $\mathbf{Trump}_1 \underline{se}_1$ $\mathbf{Trump} \underline{REFL.CL}$ $\mathbf{iubeşte} \ (\mathbf{pe} \ \mathbf{el}_1).$ $\mathbf{loves} \ \underline{ACC} \ \mathbf{him}$ 'Trump loves $\mathbf{himself}$.'
- (22) Trump₁ se₁
 Trump REFL.CL
 iubeşte (pe sine₁).
 loves ACC self
 'Trump loves himself.'

DISJOINT REFERENCE

- (23) Trump₁ $\hat{1}_{2/*1}$ Trump MASC.CL
 iubeşte (pe $el_{2/*1}$).
 loves ACC him
 'Trump loves him.'
- (24) Trump₁ $\hat{1}_{1/*1}$ Trump MASC.CL
 iubeşte (*pe sine₁).
 loves ACC self
 'Trump loves him.'

We argue that GRICE is responsible for the distribution of reflexive and pronominal clitics in Romanian. Assuming that pronominal clitics could also be bound by local subjects, (23) would have two possible interpretations: Trump loves himself and Trump loves some other man. However, (21) only has the former reading, so its interpretations are a proper subset of the interpretations of the alternative (23). Their set/subset interpretation relations are schematized in (25).

(25) Interpretations for (21) and (23)



The competition between the subject-oriented reflexive and the pronominal clitic leads to pronominal clitics only being used to express disjoint reference. An argument in favor of this competition driving disjoint reference effects comes from 1^{st} and 2^{nd} person clitics.

Both local and disjoint reference are possible with 1/2 reflexive clitics and pronouns. Since there is no 1/2 form which is necessarily subject-oriented, there is no competition, hence GRICE doesn't apply: 1/2 pronominal forms can express either referential relation.

Local Coreference

- (26) $\mathbf{Eu}_1 \ \underline{m}\underline{a}_1$ $\mathbf{I} \ 1$ ST.REFL.CL iubesc (pe \mathbf{mine}_1). love ACC me 'I love \mathbf{myself} .'
- (27) Tu₁ te₁ you 2ND.REFL.CL iubeşti (pe tine₁). love ACC you 'You love yourself.'

DISJOINT REFERENCE

- (28) Trump₁ mă_{2/*1}
 Trump 1st.refl.cl
 iubeşte (pe mine_{2/*1}).
 loves ACC me
 'Trump loves me.'
- (29) Trump₁ te_{2/*1}
 Trump 2ND.REFL.CL
 iubeşte (*pe tine₁).
 loves ACC you
 'Trump loves you.'

Takeaway

Competition is alive and well in Romanian!
GRICE can account for the necessarily disjoint reference effects of pronominal clitics based on the assumption that subject-orientation is hardwired in reflexive clitics.

4 Competing bound forms: resuming reflexivity

In the previous section, we saw that reflexive clitics can be resumed by a variety of proforms: null, (intensified) personal pronouns, and reflexive pronouns. The example is repeated below.

(15) a. Băieţii $_2$ s- au ajutat \varnothing . boys.THE REFL.CL have helped pro

- b. Băieții₂ s- au ajutat pe ei₂. PERSONAL boys.THE REFL.CL have helped ACC them
- c. Băieții $_2$ s- au ajutat pe ei înșiși $_2$. $^{+\rm INT}$ boys.THE REFL.CL have helped ACC them INT.MASC.PL
- d. Băieţii₂ s- au ajutat pe sine₂. REFLEXIVE boys.THE REFL.CL have helped ACC self 'The boys helped themselves.'

The choice of one pronominal over the other is context-dependent and can also be accounted for by GRICE.

Let Ron, Harry and Neville be the boys in our context.

- (30) a. DISTRIBUTIVE CONTEXT Harry helps Harry, Ron helps Ron, Neville helps Neville. \checkmark a. \checkmark b. \checkmark c. \checkmark d
 - b. Non-reflexive Context Harry helps Ron, Ron helps Neville, Neville helps Harry. \checkmark a, \checkmark b
 - c. Cumulative context

 Harry, Neville and Ron are working on a potion together.

 They need help, but in the end, they just had to help themselves (together)

✓a, ✓b, ✓d

Grice favors c (the intensified pronoun) in a distributive context.

The reflexive pronoun, d, has a proper subset of the meanings that a and b have in the contexts above. \rightarrow GRICE favors d (the reflexive) in a cumulative context.

The sets of meanings of the null and personal pronoun (they are proper subsets of each other) so GRICE won't distinguish between them.

This is a feature, not a bug. In singular contexts, all pronominals are equally acceptable, since there is no difference in meaning.

- (31) a. Ron₂ s- a a jutat \varnothing . NULL Ron REFL.CL has helped pro
 - b. Ron_2 s- a a jutat pe el_2 . PERSONAL Ron REFL.CL has helped ACC him

c. Ron_2 s- a ajutat pe el înşuşi $_2$. Ron REFL.CL has helped ACC him INT.MASC.SG

d. Ron₂ s- a ajutat pe sine₂. REFLEXIVE Ron REFL.CL has helped ACC self 'Ron helped himself.'

All the alternatives in (31) have indistinguishable meanings - Ron is helping himself in any way he can.⁴ Grice lets all the pronominals in (31) 'win', and they do.

But Grice also undergenerates.

The PP puzzle

Let us go back to the PP example in French.

- (4) a. Jean₁ prend soin de $lui_{1/2}$. Jean takes care of him 'Jean takes care of him/himself.'
 - b. *Jean₁ prend soin de soi₁.
 Jean takes care of self
 'Jean takes care of himself'.

Since the *soi* alternative is ungrammatical, then there is no competitor for *lui* in (4). If there is no S' such that S' is associated with a

⁴ de se vs. non de se contexts do not help when it comes to distinguishing between these alternatives either.

⁵In order to capture *lui-même* vs. *lui*, some other machinery, like BE SMALL! on page 9, is needed.

proper subset of the possible interpretations for S, then, for the French lui above, both local coreference and disjoint reference survive.⁵

In Romanian, however, the reflexive form is acceptable in the same context (it works the same way of $taking\ care\ of$). Since Romanian does not make use of oblique clitics (PP objects are not clitic doubled), (32a) can have both local and disjoint reference interpretations.

- (32) a. Rita₁ hodorogeşte **despre** $\mathbf{ea}_{1/2}$ Rita yaps about her
 - b. Rita₁ hodorogeşte **despre** $sine_{1/*2}$ Rita yaps about self
 - c. Rita₁ hodorogeşte **despre ea însăşi**_{1/*2} Rita yaps about her INT.FEM.SG. 'Rita is yapping about herself'.

According to our Gricean rule, the interpretations associated with (32b) and (32c) are a proper subset of those associated with (32a). This would wrongly predict that (32c) and (32b) would always 'win' over (32a). The task at hand is understanding why (32a) survives.

5.1 Proposal: Minimal bound pronouns

5.1.1 Ingredient: Null vs. Overt pronouns

In languages like German, (see (33), taken from Sauerland (2007)), semantic gender is not presuppositional. In Romanian, however, the opposite is true: *her* cannot refer to an inanimate.

- (33) a. Tim hat eine Gabel gestohlen. Sie war aus Gold. Tim has a.FEM fork stolen pro.FEM was of gold
 - b. Tim a furat o furculiță. (*Ea) era din aur. Tim has stolen a fork.FEM pro.FEM was of gold 'Tim stole a fork. It was made of gold'

The ban on pronominal referents which are not semantically gendered holds only in positions where null pronouns are licensed: Subj, IO, DO.

- (34) a. Eu l- am iubit \varnothing . Essay/Person I MASC.CL have loved pro 'I loved it / him.'
 - b. Eu l- am iubit **pe el**. PERSON
 I MASC.CL have loved ACC him
 'I loved him.'

In positions where null pronouns are ungrammatical (hence they can't compete), overt personal pronouns are no longer constrained to refer to antecedents with semantic gender.

- (35) a. *Lockhart a scris despre \varnothing . Lockhart has written about pro
 - b. Lockhart a scris despre el. ESSAY/PERSON
 Lockhart has written about him
 'Lockhart wrote about it / him / himself.'

The contrast between (34) and (35) illustrates that semantic gender is necessarily interpreted in positions where null pronouns are licensed. When overt pronouns surface as PP objects, however, semantic gender need not be interpreted.⁶

One way of capturing this effect is by means of minimal pronouns.

5.1.2 Pronominal Typology

We propose that null pronouns are **minimal pronouns** (Kratzer, 2009) in Romanian. These pronouns are base-generated as \emptyset_1 - they come with an index, but with no ϕ -features.

We also suggest that Romanian has overt minimal pronouns with uninterpreted ϕ -features. These pronouns have the same morphologi-

⁶This could be obtained through Maximize Presupposition (Heim, 1991). Null pronouns have no presuppositions (other than indexation), so when they compete with overt pronouns and these pronouns win, then the gender presupposition of overt personal pronouns is maximized and they can only refer to referents with semantic gender.

cal form as regular personal pronouns. One argument in favor of this approach comes from resumption 7 :

(36) a. Fata care ţi- am vorbit de **ea** ... girl.THE that 2ND.CL.DAT have talked about her ... 'The girl I told you about her...'

Null and overt minimal pronouns are two sides of the same coin: they are both base-generated as minimal pronouns with no inherent presuppositions (other than indexation).

Minimal pronouns get their features from the antecedent via Feature Transmission (Heim, 2005) - or via Agree. Crucially, these features are not inherent, and, hence *uninterpreted*.

There is a feature-matching condition on the <u>spell-out</u> of these overt minimal pronouns - they can only be spelled-out if their features match with those of their antecedent.

(37) PRONOMINAL TYPOLOGY

	INDEX	Reflexive	GENDER	PERSON	FORM
Ø	√	X	X	X	pro, el, ea
FEATURED	✓	X	\checkmark	\checkmark	el, ea
REFLEXIVE	✓	✓	X	\checkmark	sine
PRO+INT	✓	✓	\checkmark	\checkmark	el însuşi

With the typology in place, we can explain the constraint on semantic gender in (34) and the lack thereof in (35) by means of the competition between null and overt minimal pronouns.

A Gricean principle that looks at the syntax and semantics of these proforms will be able to do just that.

(38) SPEAK CLEARLY!

Let A and B be homophonous DPs with different denotations.

Let A and C be homosemes (having the same denotation) with different pronunciations. If A and C have the same referent

and are in an environment where A, B, or C is licensed: Don't use A.

The constraint in (38) targets a three-way competition (3 DPs): one between two pronominals with the same spell-out form and one between two pronominals with the same denotation.

According to our typology in (37), only null and overt minimal pronouns will have the same denotation, while overt minimal pronouns and regular personal pronouns have the same form.

In the case of (34), repeated below, the null pronoun, the featureless overt minimal pronoun, and the regular pronoun compete for the same slot. The overt minimal pronoun and the regular pronoun have the same form (el), but different denotations - only the regular personal pronoun is specified for ϕ -features.

- (34) a. Eu l- am iubit \varnothing . ESSAY/PERSON I MASC.CL have loved pro 'I loved it / him.'
 - b. Eu l- am iubit **pe el**. PERSON
 I MASC.CL have loved ACC him
 'I loved him.'

According to Speak Clearly!, if there is another pronominal with the same denotation as one of the two els, that pronominal will 'win' the competition. This is the case in (34): the null pro will have the same denotation as the overt minimal pronoun, so the featureless overt minimal pronoun is not chosen - hence only the regular overt pronoun with semantic gender is found in this position.

In the case of (35), repeated below, the null overt pronoun is ungrammatical as an object of a PP, so there is no competition between null and overt minimal pronouns.

(35) a. *Lockhart a scris despre \varnothing .

Lockhart has written about pro

⁷P-stranding is ungrammatical in Romanian. PPs need objects - you either pied-pipe (the girl about which I told you...) or resume.

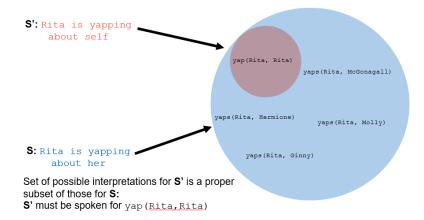
b. Lockhart a scris despre el. ESSAY/PERSON Lockhart has written about him 'Lockhart wrote about it / him / himself.'

Critically, in (35), we are dealing with two different els - one that comes with inherent semantic gender (the featured regular pronoun), and one that comes with no features whatsoever (the overt minimal pronoun). In the case of the former, Lockhart is writing about a person, in the latter, the animacy of the referent does not matter.

5.2 Be Small!

GRICE works for English.

- (39) a. Rita₁ is yapping about herself₁.
 - b. Rita₁ is yapping about $her_{*1/2}$.



Since (39b) has a binding alternative, (39a) which has an indistinguishable interpretation in a context where Rita is talking about Rita, GRICE chooses (39a) as the clear winner.

Going back to the Romanian PP puzzle, the issue that GRICE faces with (32) is that it would wrongly predict that (32a) should not have

a reflexive interpretation.

- (32) a. Rita₁ hodorogeşte **despre** $\mathbf{ea}_{1/2}$ Rita yaps about her
 - b. Rita₁ hodorogeşte **despre** $sine_{1/*2}$ Rita yaps about self
 - c. Rita₁ hodorogeşte **despre ea însăşi**_{1/*2} Rita yaps about her INT.FEM.SG. 'Rita is vapping about herself'.

In (32a), we are dealing with either an overt minimal pronoun or with a regular personal pronoun. Either way, just like null pronouns, they can both express either local or disjoint reference.

 \rightarrow Grice will not distinguish between them.

Since (32b) and (32c) can both only express coreference with the local subject, their meanings overlap.

 \rightarrow Grice will not distinguish between them either.

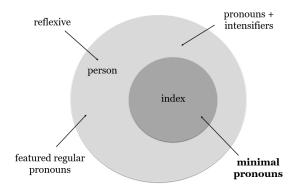
However, when comparing (32a) to (32b) (or (32c)), GRICE predicts that Romanian should be English: the non-reflexive should lose.

In order to capture the fact that (32a) is still alive and well, we need a new contest: one that applies to the overt minimal pronoun and not the gendered one. This is where (40) comes in.

(40) BE SMALL!

If two DPs, A and B, refer to the same individual in some context, and A has a proper subset of the syntactic-semantic content of B, then speak A.

BE SMALL! does not distinguish between null pronouns and overt minimal pronouns, but it favors minimal pronouns (null or overt) over regular personal pronouns, reflexive pronouns and personal pronouns with intensifiers.



According to our typology, minimal pronouns have a subset of the features that overt pronouns do: they only have index. All of the other pronouns in the typology will have person features, so minimal pronouns will always be smaller than pronominals that come equipped with semantic features.

The notion of selecting the *smallest* XP that does the job is, obviously, not new. It is rooted in economy and processing principles (including minimalism - Chomsky (2014)), and it finds various outlets in the literature on pronominal DPs, definite descriptions and their implications for BT (Schlenker (2005); Sauerland (2007); Johnson (2012), a.o).

Importantly, a constraint like BE SMALL! should be a violable, weighted, soft constraint. It predicts the general preference for null pronouns (in languages that have them), but it does just that - predict **preference**, not grammaticality.

Nevertheless, our current system accurately predicts the behavior of bound pronominals in Romanian prepositional phrases.

(41) Competition in PPs

- a. Grice favors unambiguously reflexive pronominals. *sine* (and pronouns with intensifiers) win!
- b. BE SMALL! favors minimal pronouns. Null pronouns are ungrammatical in this position, so overt minimal pronouns

(with uninterpreted features) win!

In this case, since there are no clear winners, all three forms survive.

6 Two final notes

6.1 A matter of preference

BE SMALL!, SPEAK CLEARLY! and GRICE allow for the lack of complementary distribution of bound personal pronouns and reflexives.

Although not grammatically conditioned, the choice of one form over another is subject to context and discourse dependent preference.

In order to understand how these constraints are weighted in Romanian, we need to gather experimental data. One piece of the puzzle is how the set of available antecedents in the discourse plays a role in the interpretation and production of personal pronouns over reflexives.

- (42) a. At Brian's house, Kyle talked about him/self.
 - b. At Lyn's house, Kyle talked about him/self.

6.2 Weird Ellipsis

The flexibility of Romanian personal pronouns presents another puzzle.

- (43) Fiecare₄ profesor a vorbit despre el₄ și Rodica la fel.

 every₄ professor has talked about him₄ and Rodica at kind

 'Every professor talked about himself and Rodica did too'
- (43), just like its counterpart with sine, or just like English, gets a sloppy reading where Rodica talks about herself.

However, (43) also gets another (surprising) 'strict-like' reading where Rodica talks about every professor. Minimal pronouns **may** allow us to derive this reading, but that's a story for another time.

References

Chomsky, Noam. 1981. Lectures on government and binding: The pisa lectures. Walter de Gruyter, New York, 1993, 7th edition.

Chomsky, Noam. 1986. Knowledge of language: Its nature, origin, and use. Greenwood Publishing Group.

Chomsky, Noam. 2014. The minimalist program. MIT press.

Cole, P., G. Hermon, & Yanti. 2017. Grammar of binding in the languages of the world: Unity versus diversity. Cognition 168:370–379.

Grodzinsky, Yosef, & Tanya Reinhart. 1993. The innateness of binding and coreference. Linguistic inquiry 24:69–101.

Heim, Irene. 1991. Artikel und definitheit. In Semantik: Ein internationales Handbuch der zeitgenossischen Forschung, 487–535. Berlin: Mouton de Gruyter.

Heim, Irene. 2005. Features on bound pronouns: semantics or syntax? ms. department of linguistics.

Johnson, Kyle. 2012. Pronouns vs. definite descriptions. Unpublished manuscript). University of Massachusetts, Amherst, United States of America.

Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. Linguistic Inquiry 40:187–237.

Reinhart, Tanya. 1983. Anaphora and semantic interpretation. Taylor & Francis.

Reinhart, Tanya. 2006. Interface strategies. Mit Press Cambridge, MA.

Reuland, Eric J. 2011. Anaphora and language design. MIT Press Cambridge, MA.

Roelofsen, Floris. 2010. Condition b effects in two simple steps. Natural Language Semantics 18:115–140.

Rooryck, Johan, & Guido J Vanden Wyngaerd. 2011. Dissolving binding theory. Oxford University Press.

Safir, Ken. 2004. The syntax of anaphora. Oxford University Press on Demand.

Safir, Ken. 2014. One true anaphor. $Linguistic\ Inquiry\ 45:91-124.$

Sauerland, Uli. 2007. Flat binding: Binding without sequences. Interfaces+ Recursion= Grammar 197–254.

Schlenker, Philippe. 2005. Non-redundancy: Towards a semantic reinterpretation of binding theory. Natural Language Semantics 13:1–92.

Wagers, M., S. Chung, & M Borja. 2017. Competition among pronouns in chamorro grammar and sentence processing. Talk presented at the meeting of the Austronesian Formal Linguistics Assocation 24, Pacific Northwest. April 2017.