

Strengthening lions: a role for syntactic locality in excluded alternatives *

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1 Plot

- Gender on nouns in German and various other languages: unmarked form and marked form¹

(1)	<i>Löwe</i>	lion	‘unmarked’
	<i>Löw-in</i>	lion-FEM (‘lioness’)	‘marked’
- unmarked form seems to denote **lion-species**, but can convey stronger meaning **lion-male** in some contexts²
- well-known pattern for several functional categories in morphology
- rationale (since Jakobson 1932): behavior due to strengthening of unmarked form via competition with marked form
- hypothesis: strengthening in these cases analogous to other cases, e.g., (2) (not a new take, see e.g. recently Doron 2025 for an analogous hypothesis wrt. similar markedness asymmetries for number)

(2)	a.	<i>Ada fed some of the cats.</i>	
	b.	A fed some of the cats & $\neg$ (A fed all of the cats)	strengthened meaning
- strengthening of meaning of expression *X* based on set of alternative expressions, e.g., (3) an alternative for (2-a)

(3)	<i>Ada fed all of the cats.</i>
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- but to derive observable strengthening pattern, alternative set must be constrained
- structural constraint $\approx$ alternatives cannot be more complex than preadjacent (Katzir 2007, Fox & Katzir 2011, a.o.)
- $\Rightarrow$ PUZZLE: alternative *lion-FEM*, based on which we strengthen meaning of *lion* to **lion-male** too complex
 $\Rightarrow$ strengthening via this alternative falsely predicted to be impossible
- at first sight, seems to support view that structural account of alternatives on the wrong track (see e.g., Breheny et al. 2018, Buccola et al. 2022 for such a conclusion based on different data)...
- ...and/or that morphological (as opposed to phrasal) complexity is not part of the structural constraint
- ...and/or that there is a zero-marked *lion-MALE* with the same complexity as *lion-ess*
- point here: pattern suggests an ‘even more structural’ account (and perhaps, an explanation as to why there appears to be a morphological vs. syntactic asymmetry in when ‘structure’ matters)
- more specifically...
 - alternatives can be more complex than preadjacent, but constrained qua structure (Haslinger & Schmitt 2025)
 - but structural considerations compare alternatives relative to the hierarchical positions of the elements in them

*Thanks to Nina Haslinger, Filipe Kobayashi and Susi Wurmbrand for helpful suggestions and discussion.

¹Note: the ‘unmarked’ form still triggers gender agreement; moreover, not all noun pairs with the morphological pattern described above behave the same in terms of inferences about meaning – we address both points below.

²Expressions in boldface represent meanings of these expressions.

- consequences and questions

- we will argue that if correct, notion of alternative must be sensitive to what is conventionalized (rather than possible) in language (*contra* Buccola et al. 2022, cf. Jeretič et al. 2023 for more explicit discussion)
- we will argue against an alternative view that does not assume a structural asymmetry between *lion* and *lionness* (which we will also relate to derivational versus inflectional morphology)

2 Strengthening

- in some pairs unmarked-marked for gender, marked form always conveys information about sex, unmarked form does not when gender not relevant

- (4) a. CONTEXT Bea: *Ada is so pale... what happened?* Carl: *She went to the park and...*
 b. Sie hat einen Löwen gesehen
 she has a.MASC lion seen
 ‘She saw a lion’ **she saw a member of the lion species**
 c. Sie hat eine Löwin gesehen
 she has a.FEM lion-FEM seen
 ‘She saw a lioness’ **she saw a female lion**

- e.g., unmarked form *Löwe* (also English *lion*) can apparently mean **lion-species** – no inference about sex in (4-a)
- but in context where gender relevant, it seems to convey **lion-male**

- (5) a. context Bea: *I know that this zoo has only female animals.* Carl: *That’s weird because*
 b. Ada hat einen Löwen gesehen
 Ada has a.MASC lion seen
 ‘Ada saw a lion’ **she saw a male lion**

- **lion-male** and not **lion-species** also in (6)

- (6) Ada hat einen Löwen oder eine Löw-in gesehen.
 Ada has a.MASC lion or a. FEM lion-FEM seen
 ‘Ada saw a lion or a lioness’

- meaning in (7-a) would violate Hurford’s constraint (Hurford 1974): one disjunct cannot entail the other, (see also Singh 2008, Meyer 2013, Katzir & Singh 2014, Haslinger 2024, Hénnot-Mortier 2025)- (6) predicted as bad as (8).

- (7) a. **Ada saw a member of lion species** ∨ **Ada saw a female lion** (6) predicted #
 b. **Ada saw a male lion** ∨ **Ada saw a female lion** (6) predicted ✓

- (8) # *Ada is from France or Paris.*

- analogous point, (9): Under meaning (9-a), answer not relevant, (9) predicted as bad as (11)

- (9) A: Ist das eine Löw-in? B: Nein, ein Löwe.
 A: Is that a.FEM lion-FEM? B: No, a.MASC lion.
 A: ‘Is that a lioness?’ B: ‘No, a lion.’

- (10) $Q = \{\text{this is a female lion}, \neg(\text{this is a female lion})\}$
 a. **This is a member of the lion species** (9) predicted #
 b. **This is a male lion** (9) predicted ✓

- (11) A: *Is Ada from Paris?* B: # *No, from France.*

3 The puzzle

3.1 Background

- obvious hypothesis (cf. Jakobson, a.m.o.):

- basic lexical meaning *lion* is **lion-species**.
- Strengthening of meaning (of sentence with occurrence) of *lion* to (sentence meaning including) **lion male** by same mechanism as strengthening for e.g. (12-a).

- (12) a. *Ada fed some of the cats*
 b. **A fed some of the cats** $\wedge \neg$ (**A fed all of the cats**)
 c. *Ada fed some or all of the cats.*
 d. A: *Did Ada feed all of the cats?* B: *No, (only) some of them.*

- strengthening via negation of alternative expressions, i.e., alternatives intuitively

- (13) a. *Ada fed some of the cats* competing alternative *Ada fed all of the cats*
 b. *Ada saw a lion* competing alternative *Ada saw a lioness*

- for concreteness we assume: exhaustification via object language *exh* (Fox 2007, Chierchia et al. 2012) (14)³

- (14) For $p \in D_{\langle s,t \rangle}, A \subseteq D_{\langle s,t \rangle}$: $\mathbf{exh}_w(p, A) = [p(w) = 1 \wedge \forall q \in A [p \not\subseteq q \rightarrow q(w) = 0]]$

- for sentential expression ϕ , set of alternatives $\mathcal{A}_c(\phi)$ subset of set of focus alternatives $F(\phi)$ ($F(\phi)$ via replacing focused constituents in ϕ with expressions of same semantic type and arbitrary complexity)
- but equating $\mathcal{A}_c(\phi)$ with $F(\phi)$ too unconstrained

- alternatives that aren't jointly excludable while preajacent true – symmetric (simplified here)

- (15) a. B: *What happened earlier today?* C: *Ada fed some of the cats.*
 b. $F([some\ P\ Q]_F) = \{all\ P\ Q, some\ but\ not\ all\ P\ Q, not\ all\ P\ Q, no\ P\ Q, \dots\}$
 c. $\{all\ P\ Q, (some\ but)\ not\ all\ P\ Q\}$

- symmetric alternatives cannot simply be ignored: some, but not all of them, can be used for strengthening

- (16) a. *Ada fed some of the cats*
 b. $\neg \neg$ (**Ada fed all of the cats**) all $P\ Q$ available
 c. $\neg \rightarrow$ **Ada fed all of the cats** (some but) not all $P\ Q$ not available

$\Rightarrow$ we need some way to break symmetry

- structural account, Katzir 2007, Fox & Katzir 2011: $\mathcal{A}_c(\phi)$ only those elements of $F(\phi)$ that can be derived by substitution and deletion as in (17-a) (we omit a part of their definition for the moment)

- (17) a. $\phi \Rightarrow \psi$ iff ψ is the result of replacing some constituent α of ϕ with (a) a proper subconstituent of α or (b) a syntactic terminal of the same category as α .
 b. $\psi \lesssim \phi$ iff ψ is derivable from ϕ in zero or more $\Rightarrow$ -steps.

- elements of $\mathcal{A}_c(\phi)$ must be relevant in c (sufficient for our purposes here: p **relevant** to question Q_c (partition of logical space $\mathbf{W}$) iff there is an $S \subseteq Q_c$ s.t. $p = \bigcup S$)

- (18) $\mathcal{A}_c(\phi) = \{\psi \in F(\phi) : \psi \lesssim \phi \wedge \llbracket \psi \rrbracket^c \text{ is relevant to } Q_c\}$

- relevance itself cannot break symmetry, but complexity measure can do so:

- (19) $\mathcal{A}_c(some\ P\ are\ Q) = \{some\ P\ are\ Q, all\ P\ are\ Q, some\ but\ not\ all\ P\ are\ Q, not\ all\ P\ are\ Q\}$

³We ignore difference between presuppositional and assertive component for the moment.

3.2 The problem

- our problem: *lion*-FEM too complex to count as alternative for *lion*
- under many current theories: morphological complexity is syntactic complexity
- widely held that morphemes (not whole words) are syntactic terminals – morphological decomposition **is** syntactic decomposition (DM, Nanosyntax, but also 1980s: (Lieber 1980), antecedents back to Chomsky 1957)
- now mainstream assumption e.g., Tense (Infl, C) is separate syntactic terminal from V

(20) lion

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graph TD
    A[ ] --- B[lion]
    A --- C[GENDER]
  
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⇒ *lion*-FEM not derivable by substitution and deletion from *lion* – *lion*-FEM should not be available for strengthening

(21) $\mathcal{A}_c(\textit{lion}) = \{\textit{lion}, \textit{lion-FEM}\}$ falsely predicted unavailable

3.3 An easy way out?

- option 1: full version of structural constraint contains third clause – internal complexity of expressions in immediate discourse invisible (but cf. Trinh & Haida 2015 for problems, Haslinger & Schmitt 2025 for different perspective)

(22) $\phi \Rightarrow_c \psi$ iff ψ is the result of replacing some constituent α of ϕ with (a) a proper subconstituent of α or (b) a syntactic terminal of the same category as α or (c) an expression of the same category as α that occurs elsewhere in ψ or in the immediate discourse context in c .

- maybe internal complexity of *Löwin* invisible because it occurs in discourse context?

(23) A: *Ist das eine Löw-in?* B: *Nein, ein Löwe.*
 A: ‘Is that a lioness?’ B: ‘No, a lion.’

- problem 1: occurrence of expression *lion*-FEM in immediate discourse not necessary

(24) a. CONTEXT Bea: *This zoo has only female animals.* Carl: *That’s weird because...*
 b. CONTEXT Bea: *Does this zoo have any male animals?* Carl: *Yes, because...*
 c. Ada hat einen Löwen gesehen
 Ada has a.MASC lion seen
 ‘Ada saw a lion’ **she saw a male lion**

- problem 2: behavior not observable with nouns lacking partner with gender affix (which we return to below)⁴

(25) a. A: *Ist das ein weibliches Krokodil?* B: # *Nein, ein Krokodil.*
 A: *Is that a.NEUT female.NEUT crocodile?* B: *No, a.NEUT crocodile*
 b. A: *Is that a female crocodile?* B: # *No, a crocodile*

- Note also that with these nouns we do not find the correlate of (24):

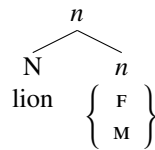
(26) a. CONTEXT Bea: *This zoo has only female animals.* Carl: *That’s weird because...*
 b. CONTEXT Bea: *Does this zoo have any male animals?* Carl: *Yes, because...*
 c. # *Ada hat ein Krokodil gesehen* # *Ada saw a crocodile*

⇒ option 1 not convincing

⁴This in itself is unexpected under the structural constraint (but see our discussion of conventionalization below). Note, however, that the behavior described here only holds for the particular answer form given above. The answer *No, but it is a crocodile.* would permit the **male crocodile** inference in the context where *female crocodile* is mentioned, as expected if mentioning an expression makes its internal structure invisible (but the same answer form would also render *No, but she is from France.* a possible answer to *Is she from Paris?*). Moreover, an ignorance inference is possible with an answer like: *Well, it is a crocodile.* An interesting, potentially related, fact connected to discussion below is that pairs less ‘conventionalized’ forms (relative to a speaker) seem to pattern more with cases of adjectival modification, e.g., for Jonathan, who doesn’t have *vixen* in his ‘actual’ vocabulary, *No, a fox.* is not a possible answer to *Is this a vixen?* (i.e., cannot convey *This is a male fox*), but *No, just a fox* (or *No, but it is a fox* is better).

- option 2: null MASC available, gender morphology symmetric
- e.g., (some) DM "gender is on *n*" (Kramer 2015 a.o.).

(27) [_N lion-]



- problem: derivational vs. inflectional gender (non-trivial relation to declension class)

(28) Italian -o/-a (MASC/FEM)

- il ragazz-o / la ragazz-a ('boy'/'girl')
- il vicin-o / la vicin-a ('neighbour')
- il figli-o / la figli-a ('son'/'daughter')

(29) Russian -Ø/-a (MASC/FEM)

- žurnal-Ø / gazet-a ('magazine'/'newspaper')
- nomer-Ø / komnat-a ('room')
- brat-Ø / sestr-a ('brother'/'sister')

⇒ Suggestive of bi-morphemic structure of simple nouns, with a gender (and number and case) inflectional ending (as in ((27)))

- *but...* The female suffixes in question (*lion-ess*) are distinct from and co-occur with these inflectional suffixes:

(30) Italian -o/-a (MASC/FEM)

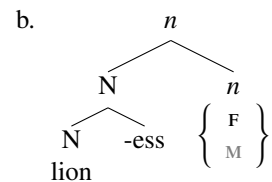
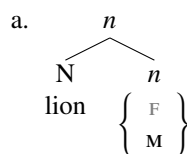
- il leon-e / la leon-**ess**-a ('lion'/'lioness')
- il professor-e / la professor-**ess**-a ('professor')

(31) Russian -Ø/-a (MASC/FEM)

- lëv-Ø / l'v-**ic**-a ('lion'/'lioness')
- osël-Ø / osl-**ic**-a ('donkey')
- učitel'-Ø / učitel'-**nic**-a ('teacher')

- (Even) in languages with binary inflectional gender morphology, the *lion-ess* type construction involves an additional layer. *-ess/-in/-ic* is a derivational suffix.

(32) [_N lion-(ess)-]



- Also, inflectional FEM gender markers attach to female-denoting stems; derivational gender (almost) never redundant (*No Vacuous Affixation Principle* (Marantz 1984)):

(33) 'woman'

- Russian: ženščin-a 'woman-FEM', sestr-a 'sister-FEM, ...
- Italian: la donn-a 'woman-FEM', sorell-a 'sister-FEM, ...
- German: *Frau-in, *Schwest(e)r-in, ...

⇒ option 2 not convincing

⇒ back to our problem: why is *lion*-FEM available as an alternative to *lion* despite being structurally more complex?

4 Proposal and consequences

- will need two properties
 1. permit alternatives that are more complex than prejaent
 2. resulting constraint on alternatives sensitive not only to structural complexity *per se* (i.e., via substitution and deletion) but to where in the hierarchical structure material occurs
- reasoning will build on contrast of *lion* cases and those with nouns lacking partner with feminine suffix, (33), (34)

- (34) a. #Ada hat ein Krokodil oder ein weibliches Krokodil gesehen.
 Ada has a.NEUT crocodile or a.NEUT female crocodile seen
 b. #Ada owns a crocodile or a female crocodile

- intuitively: while in (34) ‘syntactic level’ under consideration (NPs modified by AP) involves symmetric alternatives ‘syntactic level’ in *lion*-cases – N modified by affix – exhibits a gap, so only one alternative

- (35) a. *female crocodile* *male crocodile*
 b. *lion-FEM* *lion-MASC*

⇒ syntactic structure has impact on which alternatives are available for strengthening – but algorithm for determining such alternatives must differ from the original version of the structural account.

4.1 Permitting more complex alternatives

- Haslinger & Schmitt 2025: alternatives constrained not by ‘being no more complex’ than prejaent, but by being ‘maximally similar’: no ‘intervening’ alternatives that are more similar (more of their assumptions below)

- (36) Given a set S of alternatives, the set $\mathcal{M}_c(\phi, S)$ of maximally close alternatives to ϕ in S contains all and only those $\psi \in S$ s.t.
 a. $\psi \succeq \phi$ and there is no $\psi' \in S$ s. t. $\psi > \psi' \succeq \phi$ or
 b. $\psi \preceq \phi$ and there is no $\psi' \in S$ s. t. $\psi < \psi' \preceq \phi$ (where $\phi < \psi$ iff $\phi \preceq \psi$, but $\psi \not\preceq \phi$)

- will in principle permit more complex alternatives
- desired: should block *female crocodile* for *crocodile*, should permit *lion-FEM* for *lion*
- ✓ correct prediction: *female crocodile* and *male crocodile* maximally close qua (36), so no symmetry breaking
 ⇒ neither can be used for strengthening

- (37) a. $S([\phi \text{ Ada saw a crocodile}]) = \{A \text{ saw a crocodile}, A \text{ saw a male crocodile}, A \text{ saw a female crocodile}\}$
 b. $\mathcal{M}_c(\phi, S) = \{A \text{ saw a crocodile}, A \text{ saw a male crocodile}, A \text{ saw a female crocodile}\}$

✗ false prediction: *lion* case analogous to *crocodile*:

definition of maximally close alternatives based on substitution and deletion, so *lion-FEM* counts as maximally close (as desired), but not as ‘closer’ than *male lion*, *female lion* ⇒ alternatives symmetric and no symmetry breaking

- (38) a. $S([\phi \text{ Ada saw a lion}]) = \{A \text{ saw a lion}, A \text{ saw a lioness}, A \text{ saw a male lion}, A \text{ saw a female lion}\}$
 b. $\mathcal{M}_c(\phi, S) = \{A \text{ saw a lion}, A \text{ saw a lioness}, A \text{ saw a male lion}, A \text{ saw a female lion}\}$

– if substitution mechanism sensitive to syntactic category, *lion-FEM* not comparable to *male/female lion*

- (39)
$$\begin{array}{l} [{}_N \text{ lion}] \\ [{}_N [{}_N \text{ lion}] [{}_{\text{GDR}} \text{ FEM}]] \\ [{}_{\text{NP}} [{}_{\text{AP}} \text{ male/female}] [{}_N \text{ lion}]] \end{array}$$

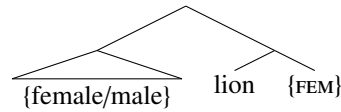
– if substitution mechanism not sensitive to syntactic category, *lion-FEM* equally close as *male/female lion*

⇒ structural factors won’t break symmetry: *lion-FEM* should not be available for strengthening

4.2 Locality and hierarchical structure

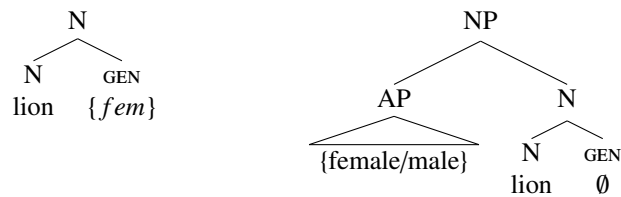
- we will take three assumptions from Haslinger & Schmitt 2025
 - structural considerations play a role in deciding which alternatives are considered (as in Katzir 2007, Fox & Katzir 2011); we also follow them in that only structural considerations, not relevance, can break symmetry)
 - more complex alternatives not blocked by structural considerations *per se*
 - structural considerations adjudicate only between elements of symmetric subsets (not as overall constraint on alternatives (contra Fox & Katzir 2011) – we omit the motivation for this assumption here)
- ⇒ we will only formulate conditions on how to block elements of subsets of symmetric alternatives in a context *c* (sets already filtered by relevance)
- going back to our cases, intuitive difference: position of FEM hierarchically ‘closer’ to *lion* than that of *male/female*

(40)



- ⇒ in order to let *lion* ‘see’ *lion-FEM* while at the same time prevent it from ‘seeing’ *male lion*, we must encode that *male lion* is hierarchically ‘bigger’ than *lion-FEM*
- ⇒ so hierarchical size should be the decisive factor when it comes to deciding between symmetric alternatives
- informal intuition: determining alternatives process that considers incrementally larger sets of alternatives (if they bring in contextually relevant properties), but only to the extent that those sets are asymmetric

(41) [_N lion]



- e.g., starting with noun *lion*, (42) we first consider simple lexical substitutions, (42-a).
- if only gender at issue, none of these relevant; we consider larger structure with gender suffix (42-b): *lioness* more complex than *lion*, but no *lion-MASC*, so no symmetry problem; *lion-FEM* available for strengthening.⁵
- no need to proceed to next level, (42-c) (which would introduce symmetry for sentences considered so far)

(42) [_N lion]

- step 1: [_N giraffe], [_N tiger]... {lion, giraffe, tiger, ...}
- step 2: [_N [_N lion] [_{GEN} FEM]] {lion, lioness}
- step 3: [_{NP} [_{AP} female] [_N [_N lion] [_{GEN} ∅]]], [_{NP} [_{AP} male] [_N [_N lion] [_{GEN} ∅]]] ~~X~~{lion, female lion, male lion}

- different situation for *crocodile*, (43): no word **crocodile-ess*, (43-b), so if gender relevant, syntactic expansions, (43-c), which will introduce symmetry for sentences considered so far)

(43) [_N crocodile]

- step 1: [_N giraffe], [_N tiger]... {crocodile, giraffe, tiger, ...}
- step 2: [_N [_N crocodile] [_{GEN} ∅]] {crocodile}
- step 3: [_{NP} [_{AP} female] [_N [_N lion] [_{GEN} ∅]]], [_{NP} [_{AP} male] [_N [_N crocodile] [_{GEN} ∅]]] ~~X~~{crocodile, female crocodile, male crocodile}

- intuitive way to understand why *lion* can ‘see’ the more complex alternative *lion-FEM*, without at the same time having to ‘see’ the more complex alternative *male lion*
- but how can we encode this intuition more concretely?

⁵But see Doron 2025 for the claim parallel asymmetries for number must include both options.

- in particular given standard assumptions about EXH (or analogous exhaustification process): applies at level where sister (and thus alternatives) denote propositions

(44) [EXH [Ada [saw [a lion]]]]

- two options:

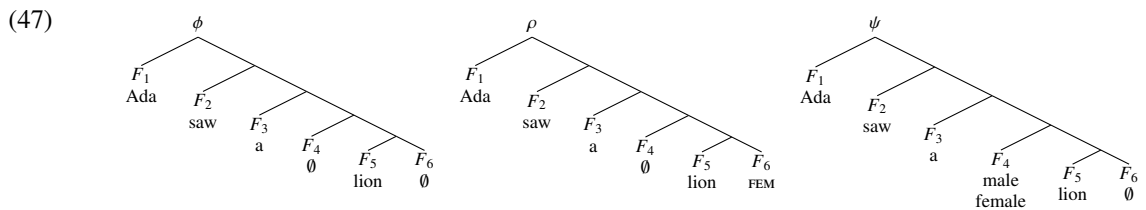
(i) functional sequence fixed (independently motivated) and always represented

- decisive factor appeals to hierarchical position of elements in alternatives directly and compares them

(45) For any two expressions ϕ, ψ , $\psi \sqsubseteq_F \phi$ iff every terminal that is filled in ψ is also filled in ϕ

(46) Given symmetric alternatives ψ, ρ of ϕ in c , ψ is blocked if $\phi \sqsubseteq_F \psi$ and $\phi \sqsubset_F \rho$ and there is a position filled in ψ and not in ρ that c -commands positions filled in ρ

- *male/female lion* would be blocked because *lion*-FEM ‘intervenes’, but *lion*-FEM would not be blocked, (47) (parts of structure not material to discussion are simplified)

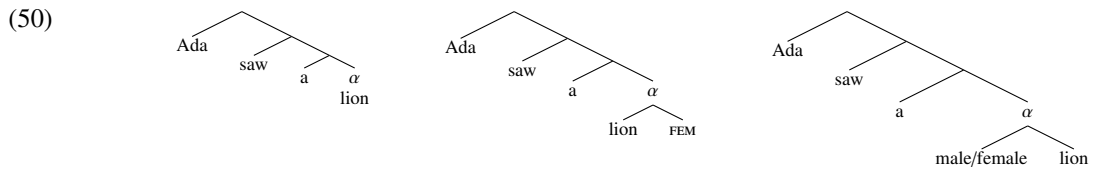


(48) { *A saw a lion*-FEM, *A saw a male lion*, *A saw a female lion* }

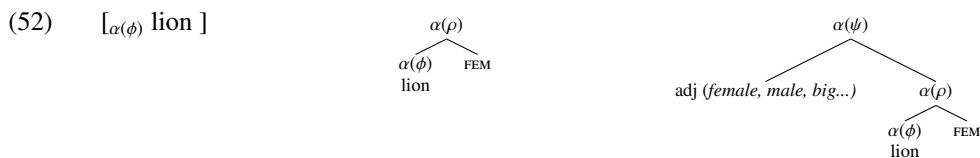
(ii) No need for independent representation of functional sequence

- we reconstruct differences in hierarchical positions by a version of substitution (intuitively like rewrite rule)
- decisive factor appeals to hierarchy by comparing which alternatives ‘fit into’ others

(49) Given structures ϕ, ψ , we identify nodes substitution nodes α_ϕ, α_ψ , s.th. α_ϕ is the smallest node dominating material in ϕ and α_ψ the smallest node dominating material in ψ s.th. everything above α_ϕ and α_ψ is identical in ϕ and ψ



- (51) a. A node β fits in a node γ iff by replacing a subconstituent of γ with β , the result is a grammatical structure (for some lexical material in β, γ)
b. a node β properly fits in a node γ if by replacing a proper subconstituent of γ with β , the result is a grammatical structure and not *vice versa* (for some lexical material in β, γ)



(53) Given symmetric alternatives ψ, ρ of ϕ in c , ψ is blocked if α_ϕ fits in α_ψ and α_ϕ properly fits in α_ρ and α_ρ properly fits in α_ψ .

(54) *[FEM [adj N]] ✓[adj [N FEM]]

(55) { *A saw a lion*-FEM, ~~*A saw a male lion*~~, ~~*A saw a female lion*~~ }

⇒ derivational morphology plus noun ‘smaller’ hierarchically than adjective plus noun by both versions: alternatives with derivational morphology ‘win’ against alternatives with adjectival modifiers in terms of symmetry breaking

4.3 Consequences

4.3.1 Derivational morphology, markedness and phrasal complexity

- derivational morphology typically involves closed classes with markedness asymmetries, so more complex alternatives (N with derivational morphology) available: no competing alternatives of same hierarchical size will yield symmetry, larger alternatives that could yield symmetry ruled out by hierarchy-based structural constraints

(56) a. { *lion*, *lioness*, ~~*female-lion*~~, ~~*male-lion*~~ } blocking by hierarchical asymmetry
b. *lioness* available for strengthening

- e.g., German has both masculine and feminine suffixes, but these do not attach to same range of nouns
- feminine but no masculine affix for *Löwe* ('lion'), inverse for 'cat': grammatically feminine form *Katze*
- if gender not relevant, conveys **cat-species**, (57)

(57) a. Bea: *Ada is so happy... what happened?* Carl:
b. Sie hat eine Katze gesehen
she has a-FEM cat seen
'She saw a cat' **she saw a member of the cat species**

- but can be strengthened to **cat-female**, as expected, given the lack of feminine affixed form **Kät-in*, but existence of a masculine affixed form *Kat-er*.

(58) Hat Ada ein-e Katze oder ein-en Kat-er?
has Ada a-FEM cat or a-MASC cat-MASC
'Does Ada have a cat or a tom-cat?'

- prediction: if, in a given language, some noun has both a bare, sex-neutral form (**x-species**) and separate affixed forms for both sexes, no blocking by hierarchical symmetry and strengthening should be impossible
- three-way contrasts like *deer-buck-doe*; For speakers with all three terms, we expect that (59) not acceptable

(59) #Ada saw a deer or a doe. judgment?

- phrasal complexity tends to involve open-classes, which will include symmetric alternatives at same hierarchical size, so even when no derivational morphology available, alternatives with adjectival modifiers, hierarchy cannot break symmetry between alternatives (but see right below for some qualifications)

(60) a. { *crocodile*, *male crocodile*, *female crocodile* } no blocking by hierarchical asymmetry
b. *male crocodile*, *female crocodile* symmetric, cannot be used for strengthening

4.3.2 'Conventionalization'

- our point⁶ relies on asymmetries between available and unavailable forms (e.g., *lion-ess* versus **lion-MASC*, but also *lioness* versus **crocodiless*)

⇒ system cannot appeal to inventory of potential forms across language as a whole, only actual alternative forms for a given word (v. Buccola et al. 2022 cf. Jeretič et al. 2023 for more involved discussion)

- e.g., as we just saw, German has both masculine and feminine suffixes, but these do not attach to same range of nouns (FEM but no MASC affix for *Löwe* ('lion'), inverse for *Katze* 'cat')
- animal names typically don't allow for both suffixes: while German has both FEM and MASC suffixes for animals, no symmetry problem if system considers only existing and not potential forms
- arguably extends to compounds: compounding productive, but not all theoretically possible forms conventionalized

⁶This arguably extends to other potential proposals that try to make sense of the pattern.

- If which alternatives considered is determined by potential resources of the language, compounds should behave like adjectives (with the effect of lack strengthening if potential forms yield symmetric set) but if it is actual forms in a speaker's mental lexicon that are relevant, we might end up with gaps (and strengthening might become possible)
- *Katze* in the first disjunct in (61) is understood as (something like) **full-grown-cat**. so relevant set of alternatives as in cannot include other compound with the same structure as *Baby-Katze* that would yield symmetry

(61) %Ada hat eine Katze oder eine Baby-Katze bekommen
 Ada has a cat or a baby-cat gotten
 'Ada got a cat or a baby-cat'

- should extend to modifiers with no conventionalized symmetric partner

(62) a. Ada hat ein Kind oder ein Kleinkind besucht
 Ada has a child or a little-child visited
 'Ada visited a child or a toddler' judgment?
 b. Does she want her coffee with milk or with MILK-milk? judgment?

- interestingly, some form of conventionalization also seems plays a role in case of phrasal collocation: (63-a,b) (and its German counterpart) feel better to us than (63-c)

(63) a. *Are you my friend or my best friend?* (after *Stranger Things*)
 b. A : Is he an old friend? B : No, a friend.
 c. A : Is he an new friend? B : No, a friend.

- if so, what is the relevant notion of conventionalization?

It must be set apart from existence...

How does it relate to salience?

Open brainstorm welcome

5 Questions

- obviously leaves open a number of questions about exact implementation and potential extensions in coverage (in particular, expansion to other Φ -features like number or person (cf. e.g., Bobaljik & Sauerland 2023 on clusivity))
- However, it also raises a number of more general questions

1. The examples we considered involve affixes, rather than stem suppletion.
 if underlying structure relevant, behavior should extend to suppletion cases

(64) a. *B: Why is Ada so happy?* Carl:
 b. Sie hat eine Kuh gesehen
 she has a.FEM COW seen
 'She saw a cow' (?) **she saw a memmber if the cow-species**

(65) a. Ada hat eine Kuh oder einen Bulle gesehen.
 Ada has a.FEM COW or a.MASC bull seen
 b. *Ada saw a cow or a bull*
 c. *Is THAT cow over there a cow or a bull?*
 d. vs. #Ada saw a dog or a beagle.

For English (also German) there might be interference from prescriptive (*cow* = **cow-female**) vs. vernacular (*cow* = **cow-species**). See below on three-way suppletion: *deer-doe-buck*.

2. opposite direction? starting from perspective that **lion-male** is basic meaning, consistent with fact that in German, Russian etc, ostensibly 'unmarked' forms have masculine grammatical gender.

3. Masculine-feminine asymmetries in ellipsis across variety of languages relevant to questions addressed here (Bobaljik & Zocca 2011, Merchant 2014, Sudo & Spathas 2020 a.o.). For some classes of nouns across a number of languages, an unaffixed, grammatically masculine antecedent licenses ellipsis of an apparently feminine form, but not vice versa – seems to offer additional support for idea that unaffixed form lexically neutral. But data raise additional complexities in trying to spell out the particulars.

- (66) Brad ist ein guter Schauspieler, und Angelina auch.
Brad is a.M good.M actor.M, and Angelina too.
- (67) #Angelina ist eine gute Schauspieler-in, und Brad auch.
Angelina is a.F good.F actr-ess.F, and Brad too.
- (68) #Angelina ist ein guter Schauspieler.
Angelina is a.M good.M actor.M

4. In our main case, there is a correlation:
syntax $\Leftrightarrow$ symmetry = morphology $\Leftrightarrow$ asymmetry
Can we find (more) cases where that breaks down (for the same property)?
5. Languages with non-affixal plural marking (e.g., Nepali)?

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