LIONS AND LIONESSES: STRENGTHENED MEANINGS AND STRUCTURAL COMPLEXITY *

JONATHAN DAVID BOBALJIK & VIOLA SCHMITT
Harvard University & Massachusetts Institute of Technology

1 Introduction

As part of his theory of distinctive features in morphology, Jakobson (1932:74-5) characterized gender pairs such as *lion, lioness* in terms we would now recognize as invoking pragmatic or semantic strengthening: On the one hand, the non-feminine member of such pairs, grammatically masculine in languages like German, seems to denote merely a member of the species (**lion-species**),[1] with no implication as to sex: (1) and German (2) are felicitous even when the animals in question are females. On the other hand, in (3) and (4), use of the bare, un-affixed form seems to lead to a statement about the male of the species (**lion-male**):

(1) a. Ada saw a lion or a tiger.
b. A: Is that a tiger? B: No, a lion.

(2) a. Ada sieht einen Löwen oder einen Tiger.
Ada sees a.MASC lion or a.MASC tiger.
b. A: Ist das ein Tiger? B: Nein, ein Löwe.
A: Is that a tiger? B: No, a.MASC lion.

(3) a. Ada saw a lion or a lioness.
b. A: Is that a lioness? B: No, a lion.

(4) a. Ada sieht einen Löwen oder eine Löw-in.
Ada sees a.MASC lion or a.FEM lion-FEM.
b. A: Ist das eine Löw-in? B: Nein, ein Löwe.
A: Is that a.FEM lion-FEM? B: No, a.MASC lion.

If use of the affixless form would always simply contribute **lion-species** neither (3) nor (4) should be acceptable. Disjunctions are unacceptable if one of the disjuncts contextually entails

*For useful discussion, we thank Nina Haslinger, Filipe Hisao Kobayashi, Susi Wurmbrand and participants at the Phi Workshop at Leibniz-ZAS Berlin.

[1] Unless otherwise noted, we use boldface **X** to stand for the meaning of expression *X*.

the other as in (5) ('Hurford's Constraint', Hurford 1974 a.o.). Intuitively, such disjunctions are logically equivalent to the weaker disjunct, so use of a more complex structure is unmotivated (cf. Singh 2008, Meyer 2013, Katzir and Singh 2014, Haslinger 2024, Hénot-Mortier 2025b a.o. for more involved views). If the use of the affixless form yielded the proposition **Ada saw a member of the lion-species**, the meaning of the first disjunct in (3) would be weaker than that of the second one (i.e., **Ada saw a female lion**) and (3) should be as bad as (5).

(5) # Ada is from France or Paris.

Question-answer pairs are similarly unacceptable if the answer is not relevant to the question. While there are various notions of relevance (Lewis 1988 a.o.), it must at least be the case that – conceiving of a question in discourse as a partition of the context (Groenendijk and Stokhof 1984 a.o.) – the proposition expressed by the answer sentence excludes as least one of the partition cells and entails least one of the partition cells. What goes wrong in (6) under this description is that the proposition **Ada is from France** does not 'sit right' with the partition {**Ada is from Paris, Ada is not from Paris**}, as it neither entails nor excludes either of the cells. If use of *lion* in (4) merely contributed **lion-species**, (4b) should be similarly infelicitous, **lion-species** neither entails nor excludes either of the partition cells associated with the question {**lion-female**, **not lion-female**}.

(6) A: Is Ada from Paris ? B: # No, from France.

In sum, the affixless form seems to contribute something stronger than **lion-species** in (3) and (4) – namely, **lion-male** – but not in (1) and (2). Appealing to 'strengthening' would then mean pursuing the kind of explanation that has been given in relation to examples with scalar expressions like (7): The fact that both discourses are fine despite the *all*-clause asymmetrically entailing the *some* clause has been argued to result from strengthening of the semantically weaker clause, an effect seen outside of disjunction or question-answer pairs (e.g., (8a) usually implies (8b)). The idea is that *all P are Q* is a relevant, stronger alternative to *some P are Q* and so by exclusion of this stronger alternatives, *some P are Q* will mean **some, but not all P are Q**. Strengthening thus breaks the entailment relation that would lead to unacceptability.[2]

(7) a. Ada owns some or all of the stuffed animals.
b. A: Does Ada own all of the stuffed animals? B: No, (only) some of them.

(8) a. Ada owns some of the stuffed animals.
b. Ada owns some but not all of the stuffed animals.

For concreteness, assume that strengthening happens via an operator EXH. This operator, when applied to a sentential expression ϕ in a context c has access to the set $\mathscr{A}_c(\phi)$ of alternatives to ϕ, a subset of the set of ϕ's focus alternatives $F(\phi)$. The operator will conjoin $[\![\phi]\!]^c$ with the negations of as many alternatives from $\mathscr{A}_c(\phi)$ as possible without creating a contradiction (Fox, 2007, Chierchia et al., 2012), as in (9).

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

It seems appealing to extend such an account to (3) and (4): the examples are acceptable because the meaning of the clause with with *lion* is strengthened, excluding the stronger meaning of

[2]This raises the question why we cannot use the same strategy for (6), see e.g., Meyer 2013, Hénot-Mortier 2025a.

the alternative with *lion-ess*. This seems broadly equivalent to Jakobson's proposal: *lion-ess* is an available alternative, so *lion*, although lexically not contributing any information as to sex, comes to mean **lion-male** by excluding the meaning of the stronger alternative *lioness*. However trying to square current accounts of strengthening with Jakobson's intuitions suggests a reassessment of the particulars of such accounts.

2 The problem

The problem is connected to the observation that what can serve as an alternative for a given expression must be constrained – and the way we usually conceive of these constraints.

Some alternatives cannot be simultaneously negated, and the prejacent asserted, without resulting in contradiction. Take our prejacent *some P are Q*: both *all P are Q* and *some but not all P are Q* (have meanings that) are stronger, but negating them at the same time is impossible (this is a simplified rendering of the so-called 'symmetry problem'). If contradiction is to be avoided, neither should be available for strengthening, but this is not what we observe: While strengthening via the *some but not all*-alternative is impossible, strengthening via the *all*-alternative is of course possible. Hence, we need to explain why symmetry can be broken and why it is broken in this particular way. Arguing that while relevance to the underlying issue constrains the elements of an alternative set, but cannot be used to break symmetry (an assumption we will also maintain throughout), Katzir 2007, Fox and Katzir 2011 propose that alternatives are restricted in terms of how their *structure* compares to that of the antecedent (here: the 'structural' constraint on alternatives, Katzir 2007, Fox and Katzir 2011). Simplifying greatly, the basic idea is that the alternative expressions that the strengthening process can operate on – the ones that may be negated – must be no more structurally complex than the prejacent: for a given prejacent ϕ, the alternative set $\mathscr{A}(\phi)$ will only contain those alternatives ψ that are such that $\psi \precsim \phi$ according to (10).[3] This correctly explains the asymmetry between the *some but not all*- and the *all*-alternative: Being structurally more complex than the *some*-prejacent (11a), the former is not an element of the alternative set in the first place.[4]

(10) 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) or a syntactic terminal of the same category as α

b. $\psi \precsim \phi$ iff ψ is derivable from ϕ in zero or more $\Rightarrow$-steps.

[3]This alternative set will be a subset of the set of focus alternatives. We leave out the relation to focus; moreover, we omit the part of their complexity condition that appeals to contextual salience, i.e., that the internal complexity of expressions mentioned in the immediate discourse context is 'invisible' for the purpose of structural comparison. Importantly, whether or not the more complex alternative (*lioness*) is mentioned does not affect the possibility of strengthening the unaffixed form to **lion-male**.

(i) 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**

[4]We often simplify, representing alternatives with propositional denotations by only listing the varying expressions.

(11) a. $\mathscr{A}_{\mathrm{c}}(\textit{some P are Q}) = \{\textit{some P are Q}, \textit{all P are Q}, \sout{\textit{some but not all P are Q}}\}$
b. $\mathscr{A}_{\mathrm{c}}(\textit{lion}) = \{\textit{lion, lion-ess}\}$

However, under this perspective – and assuming that morphological complexity is structural in the same sense as syntactic complexity – we run into a problem for our *lion* case: if the structural constraint is operative on the alternative set as a whole, we would falsely predict that the alternative we appealed to for our informal account of strengthening above – *lion-ess* – should not be available, given that it is structurally more complex than the prejacent.

Seemingly similar problems (see Breheny et al. 2018) have been used to cast doubt on the tenability of the structural constraint (e.g., Buccola et al. 2022). The point here, partially following Haslinger and Schmitt 2025, will be that our puzzle might in fact support an even more structure-sensitive constraint on alternatives.[5]

3 The impact of syntactic structure on available alternatives

In our starting examples the unmarked term *lion* seems to be strengthened to the meaning **lion-male**, whence the lack of a Hurford effect in disjunction or a corresponding infelicity in the Q-A pair. A clue to understanding why such strengthening is possible here, despite the obvious alternative *lion-ess* being structurally more complex might be drawn from similar pairs where such strengthening is absent, notably in nouns that lack a partner with a feminine suffix:

(12) a. # Ada owns a crocodile or a female crocodile
b. A: Does Ada own a female crocodile? B: # No, a crocodile

Comparing (1)-(2) with (12) might suggest that the difference lies in additional morphological structure versus additional syntactic structure: *lion-ess* is a negated stronger alternative, leading to strengthening of *lion*, but *female crocodile* is not available as an alternative to strengthen *crocodile* to **crocodile-male**. But note also that along with the morphological versus syntactic distinction comes an obvious distinction in terms of symmetry. Syntactic modifiers are symmetric, in the sense that negating both modified alternatives while asserting the prejacent yields a contradiction (assuming that all crocodiles are either male or female).

(13) $\mathscr{A}_{\mathrm{c}}(\textit{crocodile}) = \{\ \textit{crocodile, female crocodile, male crocodile}\ \}$

The available morphological modifiers, on the other hand, are not, as there is no **male**-denoting suffix that can be attached to *lion*:

(14) $\mathscr{A}_{\mathrm{c}}(\textit{lion}) = \{\ \textit{lion, lion}\text{-FEM}\ \}$

So, intuitively, the contrast seems to be that while in (13) the 'syntactic level' under consideration (NPs modified by AP) involves symmetric alternatives, the 'syntactic level' under consideration in (14) – N modified by an affix – exhibits a gap, providing us with only one alternative (and thus no other alternative it could be symmetric with). This suggests syntactic

[5] We put aside the possibility that we are dealing with homophony, i.e., two *lion*s, $\textit{lion}_1$ with the meaning **lion-species** and $\textit{lion}_2$ with the meaning **lion-male**. This could be simple listed homophony, or derived via a null masculine affix. Either way, it would leave as a suspicious accident in German the observation that the two *lion*s (and all other noun pairs that behave this way) are not only homophonous, but share gender, declension class etc.

structure indeed has an impact on which alternatives are available for strengthening – but also that the algorithm for determining such alternatives must differ from the original version of the structural account. In particular, we would have to make two changes: (i) The system must permit alternatives that are more complex than the prejacent and (ii) it must constrain these more complex alternatives in a way that is not only sensitive to overall complexity, but also to some notion of syntactic locality. We now sketch these two points and the questions they raise for other assumptions about the strengthening mechanism. In order to simplify our discussion, we will follow Haslinger and Schmitt 2025 in assuming that filtering of alternatives (i.e., structural comparison) will only happen when it matters, i.e., in cases where we would end up with symmetric alternatives.[6] (We will also presuppose that alternatives must be relevant to the underlying issue.)

3.1 Admitting more complex alternatives

Based on a different set of data, Haslinger and Schmitt (2025) propose a revision of the structural constraint: a decisive factor that determines whether an alternative can be used for strengthening is not whether it is at most as complex as the prejacent, but how it compares to other potential alternatives in terms of structural similarity to the prejacent, (15). This means that alternatives can in principle be more complex than the prejacent.

(15) Given a set S of alternatives, the set $\mathscr{M}_c(\phi, S)$ of maximally close alternatives to ϕ in S contains all and only those $\psi \in S$ s.t. (a) $\psi \gtrsim_c \phi$ and there is no $\psi' \in S$ s. t. $\psi \succ \psi' \gtrsim_c \phi$ or (b) $\psi \lesssim_c \phi$ and there is no $\psi' \in S$ s. t. $\psi \prec_c \psi' \lesssim_c \phi$ (where $\phi \prec \psi$ iff $\phi \lesssim \psi$, but $\psi \not\lesssim \phi$).

This will permit us to consider the more complex alternatives for both our *lion* and our *crocodile* case above as potential candidates on which strengthening can be based. Let us first take a look at the latter: Both *female crocodile* and *male crocodile* are maximally close according to (15), so structural comparison cannot break symmetry and both alternatives will correctly be expected to be unavailable for strengthening.

(16) a. Ada saw a crocodile. (= ϕ)
b. $S(\phi) = \{$ *A saw a crocodile*, *A saw a male crocodile, A saw a female crocodile* $\}$
c. $\mathscr{M}_c(\phi, S) = \{$ *A saw a crocodile*, *A saw a male crocodile, A saw a female crocodile* $\}$

Unfortunately, the same prediction is made for the *lion* case: Given that the definition of maximally close alternatives is based only on substitution and deletion, *lion*-FEM counts as maximally close (as desired), but will not count as 'closer' than *male lion, female lion*, (17): if the substitution mechanism is sensitive to syntactic category, *lion*-FEM will simply will not be comparable to *male/female lion*; if it is not, they will count as equally complex. Hence, structural factors will not help break symmetry (the set of maximally close alternatives will be the one in (17c)), which makes the wrong prediction that *lion*-FEM should not be available for strengthening.

[6] Whatever ends up being the correct version of the structural constraint will thus not constrain the alternative set as a whole, but will only act as an arbiter on minimal symmetric subsets of potential alternatives. Haslinger and Schmitt (2025) motivate this assumption by data that we do not discuss here. Depending on the exact formulation of the constraint, this assumption might or might not be independent of the other features of the algorithm via which we derive alternative sets.

(17) a. Ada saw a lion. (= ψ)
b. $S(\psi) = \{$ *A saw a lion*, *A saw a lion-ess, A saw a female lion, A saw a male lion* $\}$
c. $\mathscr{M}_{\mathrm{c}}(\psi, S) = \{$ *A saw a lion*, *A saw a lion-ess, A saw a female lion, A saw a male lion* $\}$

The problem is of course that the distinction between the affixed form and the forms modified by adjectives in terms of syntactic locality relative to the noun used in the prejacent is not reflected by a mechanism that relies purely on substitution and deletion.

3.2 The effect of hierarchical structure

We would thus want a mechanism that takes syntactic locality into account. Intuitively, one could think of it as a process that considers incrementally larger sets of alternatives (e.g., if they bring in contextually relevant properties, such as gender), but only to the extent that those sets are asymmetric, and do not involve symmetric alternatives like (13).

For example, starting with the noun *lion*, we would first consider only structurally identical potential alternatives to *lion*, i.e., simple lexical substitutions: *tiger, giraffe,...*. If only gender is at issue (and not animal species), none of these will be relevant and a larger structure including the gender suffix is considered: *lion, lion-ess*. Note that *lioness* is more complex than *lion*, but since there is no *lion-masc*, no symmetry problem arises and *lion-fem* can be used for strengthening.[7]

For *crocodile* the situation is different. There is no word **crocodile-ess*, so if gender is relevant, we turn to syntactic expansions: *crocodile, male crocodile, female crocodile, ...*. This set is, however, symmetrical: if *female crocodile* should be negated, then so too should *male crocodile*, so this expansion fails (neither alternative can be used for strengthening) This correctly derives the observation that strengthening applies in *lion-lioness* but not in *crocodile-female crocodile*. Note that it also correctly excludes *male lion* from the set of alternatives that also includes *lioness*. *Lioness* can be reached by expanding the structure minimally. If adjectival modifiers are considered, then a stalemate, via symmetry, arises again. (So this is like Haslinger and Schmitt, 2025, except that rather than saying structural similarity matters for comparing symmetric alternatives, it follows their intuition that comparison sets are constrained by structural similarity, and expanded structures can only be considered to the extent that they do not introduce symmetry.

This idea would seem to imply that syntactic locality (affix versus phrasal modifier) need not be stipulated, nor would we need to stipulate that larger structures are generally not available alternatives. Instead, dividing alternatives into subsets which have the same structure might, for the cases at hand, ensure both effects. Since derivational morphology typically involves closed classes, displaying markedness asymmetries (if there is a feminine suffix, there is no corresponding masculine one), morphologically more complex alternatives can be admitted without running afoul of symmetry. But phrasal complexity tends to involve open-classes, which cover all of the possible subsets, and will typically yield the symmetry problem, so can't be used.[8]

[7] But see Doron 2025 for the claim parallel asymmetries for number must include both options.

[8] Assuming that there is some way to flesh out the idea, it would be compatible with saying that *some, all* have different structure, and that in particular *all* universally has more (abstract) structure than *some* (see e.g. Haslinger 2024 for discussion of this possibility). This would be a problem for the standard structural account, but under the view sketched here, just like *lion-lioness*, the added structure to get from *some* to *all* would not yield symmetry, so the stronger alternative *all* can be negated, while preserving the original insight that the added structure to get *some but not all* into the comparison set yields symmetry, and thus is unusable for calculating excluded alternatives.

In order to implement this intuitive intuition in a way that permits generalization to other cases and is compatible with standard assumptions about EXH (or any other exhaustification process that considers alternatives denoting propositions), two options could be probed that could permit us to formulate a 'locality measure': (i) The full functional structure of sentences is always represented, irrespective of whether the projected positions are identified by expressions. The alternatives under consideration could then be compared in terms of c-command between the positions filled in each of them, or (ii) Functional structure does not have to be represented; rather, we identify (e.g., by determining the minimal dominating node) those substructures of the alternatives under consideration that are not shared between the two and check which (if any) of these substructures is 'insertable' in the other with a grammatical result. This would permit us to retrieve locality asymmetries indirectly. Quite obviously, both options (i) and (ii) will have to be spelled out in order to understand both their theoretical commitments and empirical scope.

3.3 Consequences

The idea sketched above relies on certain asymmetries between available and unavailable forms (e.g., *lion-ess* versus **lion*-MASC, but also *lioness* versus **crocodiless*). This means that the system cannot appeal to the inventory of potential forms across the language as a whole, but about the actual alternative forms for a given word (see Buccola et al. 2022 for claims to the contrary and Jeretič et al. 2023 for a more involved discussion). German has both masculine and feminine suffixes, but these do not attach to the same range of nouns. While we find a feminine but no masculine affix for *Löwe* ('lion'), we find the inverse for 'cat': the grammatically feminine form *Katze*, which otherwise has the meaning **cat-species** (e.g., in (a)), can be strengthened to **cat-female**, as expected on the idea sketched above given the lack of a feminine affixed form **Kät-in*, but the existence of a masculine affixed form *Kat-er*.

(18) a. Hat Ada ein-e Katze oder ein-en Hund?
has Ada a-FEM cat or a-MASC dog
'Does Ada have a cat or a dog?'

b. 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?'

Animal names typically don't allow for both suffixes. So, although German has both FEM and MASC suffixes for animals, no symmetry problem will arise if the system considers only the existing and not the potential forms. We predict then, that if, in a given language, some noun has both a bare, sex-neutral form (**x-species**) and separate affixed forms for both sexes, a symmetry problem should prevent strengthening in our paradigm contexts.[9]

This observation arguably extends to compounds: like adjectival modification, compounding is productive, but not all theoretically possible forms are conventionalized. If sets of alternatives are determined by the potential resources of the language, we might expect compounds to behave like adjectives (no strengthening due to symmetry) but if it is the actual forms in a speaker's mental lexicon that are relevant, we might expect strengthening. A relevant example is (19):

[9]Three-way contrasts like *deer-buck-doe* may be relevant here, although the sex-limited terms may be somewhat of a specialized vocabulary. For speakers with all three terms, we expect that *Is that a deer or a doe?* should pattern with *France ... Paris* rather than with *lion ... lioness*. The first author's intuitions support this.

(19) Hat Ada eine Katze oder eine Baby-Katze bekommen?
has Ada a cat or a baby-cat gotten
'Did Ada get a cat or a baby-cat?'

The native German-speaking author's intuition is that strengthening applies – *Katze* in the first disjunct in (19) is understood as (something like) **full-grown-cat**. This suggests that the relevant set of alternatives is as in (20), and that there is no other compound with the same structure as *Baby-Katze* that would serve to create symmetry.

(20) $\mathscr{A}_{\mathrm{c}}(cat) = \{$ *cat, baby-cat* $\}$

This seems to be true in the sense that no alternative such as *adult-cat* is conventionalized, in the way that *baby-X* is for animal names, but of course such a compound could in principle be created (e.g. *Groß-Katze* 'big-cat'/'grown-cat'), since compounding in German is productive. We tentatively conclude that only actual, conventionalized (or listed) alternatives enter the competition.

4 Conclusions

In the brief remarks here, we have returned to a classic example that has been seen in terms of semantic strengthening under competition since Jakobson (1932). This example seems initially challenging for the proposal in Katzir (2007), Fox and Katzir (2011) that places a structural condition on competitors via which strengthening is achieved. We have somewhat tentatively, following ideas in Haslinger and Schmitt (2025), explored a potential direction that might derive that structural restriction, such that it only applies when the added structure leads to the symmetry problem (as it typically does with syntactic competitors) but not where there is an asymmetry in the inventory of affixes, as is typical with (derivational) gender. These thoughts are of course not limited to the particular problem addressed here but should be seen as part of the larger question of whether parallels in morphological and semantic uses of the notion of competition can point us towards a general theory of competition in language.

While we see this as a promising overall project, we have in many ways only scratched the surface. In addition to the question of implementation mentioned above, we have not evaluated strengthening against conceivable alternatives, for example, starting from the perspective that **lion-male** is the basic meaning of the affixless form (consistent with its grammatical gender German and Russian) and pursuing a theory of weakening, whereby otherwise interpretable features (here, gender) are left uninterpreted in particular contexts (see, for example Sauerland 2013). As is often the case, it is not clear to us whether the two approaches could be distinguished empirically with respect to the data at hand, or are freely inter-translatable.

We have also left aside various ways in which the morphological manifestation of gender differs both within and across languages. For example, we have assumed throughout (see n.5) that there is a structural asymmetry between affixless and affixed forms. It might be tempting, in light of, say, Italian pairs like *ragazz-o/ragazz-a* 'boy/girl' or *vicin-o/vicin-a* 'neighbour-MASC/FEM' to posit instead a bi- or poly-valent gender head. But here we see an apparent distributional difference between inflectional gender (as in Italian) and derivational gender (as in the English and German pairs we have been considering). English *-ess* and German *-in* (essentially) always contribute the semantic meaning 'female' and are (with very few exceptions) never redundant (for example, they never attach to stems that already denote females, e.g. **Schwester-in* 'sister-FEM). Inflectional

gender differs strikingly: it is frequently not interpreted (occurring on nouns denoting inanimates, or clashing with the referent's notional gender) and/or redundant (occurring obligatorily even on nouns that already denote females, such as Italian: *sorell-a* 'sister-FEM', Russian *sestr-a* 'sister-FEM'). Moreover, even in languages with inflectional gender, the kinds of pairs we discuss here may involve both a derivational and an inflectional marker, as in Italian: *il leon-e* 'the.MASC lion-masc', *la lion-ess-a* 'the.FEM lion-FEM-FEM', Russian: *lëv* 'lion.MASC', *l'v-its-a* 'lion-FEM-FEM. In these pairs, the inflectional feminine morphology may be seen as part of a binary or ternary opposition, but the derivational feminine marker patterns with the pairs we have considered here, contrasting an affixed form with one lacking a derivational affix, which may then undergo strengthening.

Masculine-feminine asymmetries in ellipsis across a variety of languages have also been taken to be relevant to the questions addressed here (see Bobaljik and Zocca, 2011, Merchant, 2014, Sudo and 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 the other way around. These paradigms seem to offer additional support for the idea that the unaffixed form is lexically neutral but can be strengthened in context by competition with the feminine alternative. However, this body of data raises additional complexities in trying to spell out the particulars.[10]

These and many other questions will have to remain open, but we hope to have at least called attention to some complexities that arise in trying to unify various examples that an intuitive level seem to suggest the same underlying generalizations. In the case of semantic strengthening, trying to make some of the assumptions more explicit which would allow the *lion-lioness* competition to be brought under the umbrella of strengthening, we might see our way to a better understanding of the way in which syntactic structure does and does not constrain the availability of alternatives.

References

Bobaljik, Jonathan David, and Cynthia Levart Zocca. 2011. Gender markedness: the anatomy of a counter-example. *Morphology* 21:141–166.

Breheny, Richard, Nathan Klinedinst, Jacopo Romoli, and Yasutada Sudo. 2018. The symmetry problem: current theories and prospects. *Natural Language Semantics* 26:85–110.

Buccola, Brian, Manuel Križ, and Emmanuel Chemla. 2022. Conceptual alternatives. *Linguistics and Philosophy* 45:265–291.

Chierchia, Gennaro, Danny Fox, and Benjamin Spector. 2012. Scalar implicatures as a grammatical phenomenon. In *Semantics. an international handbook of natural language meaning*, ed. Claudia Maienborn, Klaus von Heusinger, and Paul Portner, Vol. 3, 2297–2331. Berlin/Boston: de Gruyter.

Doron, Omri. 2025. Local competition, number and definiteness. Doctoral Dissertation, MIT.

Fox, Danny. 2007. Free choice and the theory of scalar implicatures. In *Presupposition and implicature in compositional semantics*, ed. Uli Sauerland and Penka Stateva, 71–120. London:

[10]Even within German and English, not all unmarked nouns that are paired with an *-ess/-in* feminine counterpart have a basic gender-neutral reading, for example, the unmarked member of the pairs *prince/princess* and *König/Königin* 'king/queen' have only the **X-male** reading in all contexts, including in the ellipsis paradigm (see Bobaljik and Zocca, 2011 who argue such differences in patterning falls into semantically-delineable groups, though that does not appear to hold of Greek, according to Sudo and Spathas, 2020).

Palgrave Macmillan UK. URL https://doi.org/10.1057/9780230210752$_4$.
Fox, Danny, and Roni Katzir. 2011. On the characterization of alternatives. *Natural Language Semantics* 19:87–107.
Groenendijk, Jeroen, and Martin Stokhof. 1984. On the semantics of questions and the pragmatics of answers. In *Varieties of formal semantics: Proceedings of the fourth amsterdam colloquium*, ed. Fred Landman and Frank Veltman, 143–170. Foris.
Haslinger, Nina. 2024. Pragmatic constraints in imprecision and homogeneity. Doctoral Dissertation, University of Goettingen.
Haslinger, Nina, and Viola Schmitt. 2025. Revisiting the role of structural complexity in symmetry breaking. In *Proceedings of Sinn und Bedeutung 29*.
Hénot-Mortier, Adèle. 2025a. Oddness under discussion. Doctoral Dissertation, MIT.
Hénot-Mortier, Adèle. 2025b. 'One tool to rule them all'? An integrated model of the QuD in Hurford sentences. In *Proceedings of Sinn und Bedeutung 29*.
Hurford, James. 1974. Exclusive or inclusive disjunction. *Foundations of Language* 11:409–411.
Jakobson, Roman. 1932. Zur Struktur des russichen Verbums. In *Charisteria gvilelmo mathesio qvinqvagenario a discipulis et circuli lingvistici pragensis soladibus oblata*. Prague.
Jeretič, Paloma, Itai Bassi, Aurore Gonzales, Marie-Christine Meyer, Kazuko Yatsushio, and Uli Sauerland. 2023. Core concepts and indirect alternatives: On the anti-duality of quantifiers. Ms.ZAS.
Katzir, Roni. 2007. Structurally-defined alternatives. *Linguistics and Philosophy* 30:669–690.
Katzir, Roni, and Raj Singh. 2014. Hurford disjunctions, embedded exhaustification and structural economy. In *Proceedings of Sinn und Bedeutung 18*, 201–216.
Lewis, David. 1988. Relevant implication. *Theoria* 54:161–174.
Merchant, Jason. 2014. Gender mismatches under nominal ellipsis. *Lingua* 151:9–32.
Meyer, Marie-Christine. 2013. Ignorance and grammar. Doctoral Dissertation, MIT.
Sauerland, Uli. 2013. Presuppositions and the alternative tier. In *Proceedings of semantics and linguistic theory 23*, ed. Todd Snider, 156–173. LSA.
Singh, Raj. 2008. On the interpretation of disjunction: asymmetric, incremental, and eager for inconsistency. *Linguistics and Philosophy* 31:245–260.
Sudo, Yatsutada, and Giorgos Spathas. 2020. Gender and interpretation in Greek: Comments on Merchant (2014). *Glossa* 5:129.