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Gender allosemy in Greek

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A recent hypothesis explored within the Distributed Morphology literature is that meaning-based alternations can be grammatically conditioned, being subject to principles familiar from contextual allomorphy. On the basis of a case study of the Greek gender system, we argue that this CONTEXTUAL ALLOSEMY is like allomorphy in being locally constrained and applying elsewhere ordering, and most novelly, we argue that it interacts with semanticopragmatic competition, as expected under the view that allosemic alternations are mediated at LF. We propose that in Greek, the interpretation of the masculine feature alternates between a contextually-dependent MALE interpretation and a default ANIMATE interpretation, with the latter giving rise to markedness patterns with the feminine that have been observed previously. We hypothesize that the allosemic alternation of the masculine in Greek interacts with semanticopragmatic competition, yielding different interpretations for neuter gender which are, descriptively speaking, "gender-neutral" vs "inanimate", respectively. We demonstrate how a locally constrained allosemy analysis captures a number of patterns observed for neuter human-denoting nouns, whose neuter value has previously been attributed to arbitrary selectional properties rather than being interpreted. The present analysis correctly captures number asymmetries observed with neuter kinship nouns, and correctly predicts coordination resolution and pronominal patterns. We further show how this account can be parameterized to capture differences between Greek and Icelandic in their uses of masculine vs. neuter gender for gender-neutral contexts, and more speculatively, how the system may be extended to account for the use of neuter gender in Greek for children-denoting nouns, diminutives, as well as for other neuter nouns in the language. The findings are in line with the view that unmarked ϕ-features are interpreted via competition with more marked features, as has been discussed extensively in the literature on person as well as number, and they support a restrictive view of how meaning-based alternations can manifest themselves among grammatical features.

1 Introduction

CONTEXTUAL ALLOSEMY has been characterized as the meaning-based counterpart to contextual allomorphy, an idea that has spawned a literature extending the insights of Distributed Morphology to the study of syntacticosemantic alternations (see Marantz 2013; Anagnostopoulou & Samioti 2013; 2014; Harley 2014; Embick 2016; Myler 2016; Kastner 2017; Wood & Marantz 2017; Dali 2020; Saab & Lo Guercio 2020; Harðarson 2021; Oikonomou & Alexiadou 2022; Wood 2023; Marantz & Myler to appear; relatedly Arad 2003; 2005). If allomorphy and allosemy are represented with parallel types of mapping relations, the expectation is that theoretical constructs applicable to the former may fruitfully be extended to the latter, such that the predictions of a theory of allomorphy should have analogues in the domain of allosemy. In assessing such a theory of allosemy, however, we would like to highlight that if meaning-based alternations are represented as part of the compositional semantic system, then we expect that they should interact with other interpretation-based principles, such as those implicating semanticopragmatic competition (e.g. *Maximize Presupposition*), an expectation that has heretofore been underappreciated in our view.

The current work supports a constrained allosemy approach through a case study of gender features in Greek. Previous work on the language has indicated that some masculine human-denoting nouns carry MALE inferences while others do not (Merchant 2014; Alexiadou 2017; Spathas & Sudo 2020; Sudo & Spathas 2020). This contrast can be observed for the plural nouns in (1): while the masculine nouns meaning ‘gentlepeople’ and ‘teachers’ both have feminine counterparts, only the former requires every member of the group to be male; the latter instead allows a gender-mixed group.[1]

(1) I kirii ine nei.
the.M.PL √KIRI.M.PL are young.M.PL
‘The gentlemen(/*gentlepeople) are young.’

(2) I dhaskali ine nei.
the.M.PL teacher.M.PL are young.M.PL
‘The teachers are young.’ (all men or gender-mixed group)

(Adamson & Anagnostopoulou 2025: 20)

While the lack of a MALE-specific inference for some masculine human nouns (as in (2)) is sometimes characterized as the absence of gender inferences altogether (e.g. Sudo & Spathas 2020), there is nevertheless an interpretive correlation between animacy (or perhaps specifically

[1] Throughout, we are not using the terms FEMALE or MALE in any biological sense. Rather, these terms are meant to be construed socioculturally.

The distributive property of gender within groups is discussed further in 2.3.

humanness or "rationality") and masculine gender in the language: non-FEMALE human nouns are overwhelmingly masculine in the language, rather than being distributed, for example, across masculine and neuter genders evenly, and this property is not shared with inanimate nouns (which are more evenly distributed across the three genders). Adamson & Anagnostopoulou (2025) in fact associate masculine gender with the property of ANIMACY in Greek, though they do not contend with the MALE-specific contribution of masculine gender with nouns like that of (1).

We propose that the variation in the interpretive contribution of masculine gender in Greek should be modelled with two contextual allosemes labelled MALE vs. ANIMATE, and further, that these interact with semanticopragmatic competition principles, in a way that shapes how the (unmarked) neuter gender in the language comes to be interpreted: informally speaking, as either "inanimate" or "gender-neutral". While it has previously been suggested that neuter gender is interpretable in Greek – generally coming to be associated with inanimacy rather than being merely default (Anagnostopoulou 2017; Adamson & Anagnostopoulou 2025) – the present proposal reinforces this view in drawing attention to the covariation between the interpretation of the masculine and that of the neuter, with the restricted interpretation of masculine as MALE in some environments giving rise to a gender-neutral use of neuter kinship terms in the language.

A central focus is data like (3), which show a kinship *triplet* for which a human-denoting noun – in this case, the one meaning 'cousin' – has feminine, masculine, and neuter incarnations, each with a different gender interpretation. Such triplets have been overlooked in the literature (though see Alexiadou 2017: 20; Adamson & Anagnostopoulou 2025; Adamson et al. 2025 for some discussion). The plurality in the examples highlights the differences between the inferences: the feminine and masculine require that every member of the group be female and male, respectively, while the neuter allows heterogeneous groups. We demonstrate that our analysis not only predicts the existence of such nouns, but captures an asymmetry with these nouns between plural and singular number, as we detail below.[2]

(3) a. i ksadherfes mu
the.F.PL cousin.F.PL my
'my cousins' (all female)

b. i ksadherfi mu
the.M.PL cousin.M.PL my
'my cousins' (all male)

c. ta ksadherfja mu
the.N.PL cousin.N.PL my
'my cousins' (gender-neutral)

[2] The current treatment of the neuter value on some human-denoting nouns as having interpreted gender is a departure from previous work, which has assumed that these values are arbitrary and non-interpreted (see e.g. Kazana 2011; Sudo & Spathas 2020; Adamson & Anagnostopoulou 2025).

As in the case of theories of contextual allomorphy, our allosemy account gives rise to further predictions especially in reference to *defaultness* and *locality*, with the specific MALE alloseme and correspondingly the "gender-neutral" use of the neuter having a limited distribution in Greek. We demonstrate that the combination of gender allosemy and a form of semanticopragmatic competition can capture the distribution of masculine vs. neuter gender used in reference to human nominals across a wide set of environments.

In addition to supporting a constrained view of allosemy, the current work supports the view that unmarked ϕ-feature values are interpreted through contrastive inference with marked values (McGinnis 2005; Sauerland 2008; Toosarvandani 2023; among many others). The current contribution is unique in that it offers a marked value whose interpretation is variable, revealing within a language how this competition can result in different inferences for unmarked values.

The rest of the article is organized as follows. In Section 2, we introduce contextual allosemy and our concrete semanticopragmatic principle *Lexical Complementarity* (following Harbour 2016; Toosarvandani 2023; Adamson & Anagnostopoulou 2025; among others), and we motivate our representations of feminine, masculine, and neuter genders, showing how they operate in more general cases. In Section 3, we examine neuter kinship nouns and demonstrate how the predictions of the account are borne out, with special reference to the aforementioned number asymmetry. In Section 4, we show how patterns of pronominal gender and of coordination resolution are derived under the present account, including a predicted locality interaction, and we further show how the account can be extended to Icelandic, with a single point of parameterization that can capture differences between the two languages. In Section 5, we offer more speculative extensions to other neuter human-denoting nouns in Greek, including children-denoting nouns and diminutives. Section 6 concludes.

2 Allosemy and gender

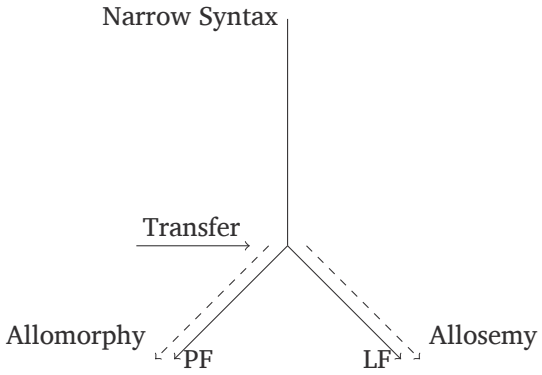
Our proposal has two components that are expected to interact: i) the constrained meaning alternation of masculine gender, and ii) semanticopragmatic competition from which the interpretation of the neuter gender comes to be derived. We first address each issue more generally in 2.1 and 2.2 respectively, before turning to the analysis as it applies to the Greek data in 2.3.

2.1 Allomorphy and allosemy

The framework of Distributed Morphology (DM) holds a realizational view of exponence and interpretation in which structures generated in narrow syntax map to interfaces that realize these structures (see Embick & Noyer 2007 and references therein). This is often represented with the standard Y-Model, as depicted in (4). In this model of the grammar, contextual allomorphy is modelled via a mapping relationship at PF between (some set of) abstract syntactic terminals to exponents called Vocabulary Items (see e.g. Halle & Marantz 1993; Halle 1997; Embick &

Noyer 2007; Embick 2015; among many others). In a parallel view of allosemy, abstract syntactic terminals map onto LF entries comparable to Vocabulary Items; these are sometimes referred to in the literature as entries from the *Encyclopedia* (e.g. Marantz 1997; Harley & Noyer 1999; Harley 2014).

(4)



In the standard formulation, each Vocabulary Item at PF is specified to be inserted when the input contains a certain set of features and a particular local context. When multiple Vocabulary Items are compatible with the input, the one that is selected is specified for the largest subset of features (the Subset Principle) and/or has the most specific contextual restriction; this formulation follows the logic of the well-known Elsewhere Principle.

The Vocabulary Items in (5) illustrate how allomorphy is conditioned in this type of system using the example of the English past tense, whose suffixal form corresponds to several distinct realizations.

(5) T[PAST] ⟷-t / _{$\sqrt{\text{LEAVE}}$, $\sqrt{\text{BEND}}$…}
T[PAST] ⟷-∅ / _{$\sqrt{\text{HIT}}$, $\sqrt{\text{SING}}$…}
T[PAST] ⟷-d (Embick 2010: 32)

In (5), the total number of features does not vary across Vocabulary Items that realize the past tense node, but the contextual restriction does vary, specifying the list of roots with which each exponent can appear. The "default" plural exponent *-d* (often written *-ed*) lacks a contextual restriction: it is selected when the root in the input does not appear in the lists of the other Vocabulary Items' contextual restrictions (including for e.g. nonce verbs and novel coinages) or when the root in the input is not local, as in the case of denominal verbs which are argued to cyclically separate the root from T (e.g. *stringed/*strung the snap peas*; see Adamson 2018 and references therein).

The literature on allosemy has suggested that contextual restrictions for meaning alternations can be modelled in a parallel fashion. Most of the existing literature concerns contextual allosemy of roots and a set of functional heads (e.g. Voice), but not with nominal features *per*

se. An important exception is Dali (2020), who pursues an analysis of the representation of feminine gender in Tunisian Arabic in terms of contextual allosemy: according to her analysis, the interpretive contribution of feminine gender in Tunisian Arabic varies depending on its morphosyntactic environment, giving rise sometimes to a feminine inference but at other times a singulative inference.

For an allosemy-based approach to meaning alternations, we submit that there are two core principles of the theory of allomorphy that should meaningfully extend to allosemic alternations: *elsewhere ordering* and *locality*, which in conjunction with each other produce a domain effect (on which, see Embick & Marantz 2008; Embick et al. 2023; among others). We address these principles and their interaction in turn.

In DM, elsewhere exponents are Vocabulary Items that have a "default" distribution, appearing when the input does not match the feature content or the contextual restriction for any more specific Vocabulary Item, as in the case of the aforementioned English *-d* in (5). Extending this concept to gender allosemy, suppose we have a syntactic terminal with a gender feature [M] (masculine) that corresponds to two allosemic entries, one of which is selected in specific environments, while the other is selected elsewhere. This is roughly schematized as in (6), with a MALE alloseme specified for some set of roots and an ANIMATE alloseme appearing elsewhere. We will make the interpretations somewhat more precise below;[3] (6) is intended currently only for illustration of the concept.

(6) [M] ⟷ MALE / $\{\sqrt{\text{ROOT1}}, \sqrt{\text{ROOT2}} \ldots\}$
[M] ⟷ ANIMATE (preliminary, for illustration)

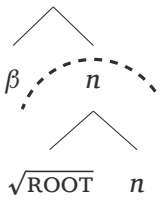
According to (6), a node with an interpreted masculine feature is interpreted as MALE in the context of specific roots, but is interpreted as ANIMATE elsewhere. The elsewhere item will thus be selected if i) a root that it appears with is not specified for the MALE entry, or ii) there is no root in the local context of [M] at all. While this is currently intended as a hypothetical, we will show how entries along the lines of (6), in conjunction with explicit assumptions about semanticopragmatic competition, give rise to correct predictions for the behavior of the masculine gender in Greek below.

Regarding the issue of locality, the DM literature has advanced the idea that contextual allomorphy can only be sensitive to certain elements within a domain, though researchers have offered various perspectives on exactly how much context is available at a given node (e.g. Bobaljik 2000; Embick 2010; Moskal 2015b; among many others). While details differ, the shared hypothesis is that the choice of exponent cannot be conditioned by elements that are too far away.

[3] See Harley (2014: 246–247) on the challenging issue of whether roots can be thought of as having true elsewhere interpretations in this model.

Research on allosemy has similarly advanced the idea that contextual allosemy is limited to a local domain. For example, Marantz (2013) suggests that contextual allosemy is constrained both cyclically and by "semantic adjacency", and we adopt this view presently. For concreteness, we assume a strict view in which lexical heads are cyclic (e.g. Embick 2010), and the interpretation of such heads cannot be conditioned by context outside of the cycle they delineate, though we would like to stress that many less restrictive theories of allosemy would also be compatible with the findings we explore below. The cyclic constraint is illustrated for a cyclic nominalizing head *n* in (7), which can "see" the root with which it combines for purposes of allosemy, but cannot see β or anything higher.[4]

(7)



In combination with each other, elsewhere ordering and locality restrictions produce a domain effect. In essence, it is possible for some elements to appear either inside a domain or outside of it; for a node (or set of nodes) that is within the domain and whose allomorphy is sensitive to this element, the element is visible for the purposes of allomorphy for the former, but not for the latter. Consequently (in the absence of other conditioning factors), the element within the domain may condition a specific allomorph whereas the latter will result in the selection of an elsewhere item.[5]

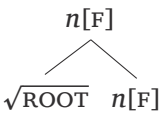
In order for entries like (6) to be able to derive gender meaning differences across different root contexts, gender features must be local to roots. We follow much of the recent literature within DM according to which gender features reside on a nominalizing head *n*, and combine with a category-less root (among others, Lowenstamm 2008; Kramer 2015; 2016a; Adamson &

[4] We assume, following Marantz (2013); Marantz & Myler (to appear), a distinction between allosemy and idiomaticity. We assume that idioms correspond to larger, semantically internally non-compositional expressions (see, for example, the description in Marantz & Myler to appear of the English idiom *kick the bucket*, meaning 'die'). In contrast, contextual allosemy does not involve non-compositional expressions, but rather, involves meaning alternations of individual units of structure, whose semantic value is determined contextually, and which combines with other meaningful units compositionally. Correspondingly, idioms are assumed to have a larger domain in which special meanings can be conditioned. See Marantz & Myler (to appear) for discussion.

[5] Embick (2010) discusses how restricting allomorphy to a domain like that of (7) appears to be too strict, offering an alternative cyclic formulation. An example of how cyclic domains constrain allomorphy comes from the realization of the English past tense. In the aforementioned case of past-tense *stringed* rather than irregular *strung*, the idea is that the root $\sqrt{\text{STRING}}$ appears in a denominal environment in which nominal structure (in addition to verbal structure) intervenes, forcing the root and T into separate domains where they are consequently realized with elsewhere items.

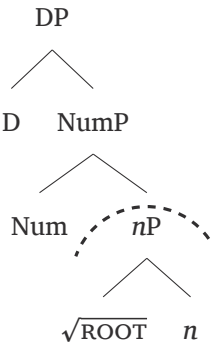
Šereikaitė 2019; Adamson 2024a; and references therein).[6] The *n*-based view of gender features reflects the notion that gender is a property of nouns, and has been employed to account for, among other things, patterns of gender agreement with nominalizations. The basic decomposition is as in (8), where *n* bears a feminine feature [F].

(8)



While local to roots, gender features are not structurally local to everything. Consequently, some elements are expected not to be able to condition gender allosemy. For example, gender features on *n* will not be local to features from DP-external structures, and this is reflected in the generalization that nominal gender interpretation is not sensitive to the aspect or the tense of the clause in which the nominal appears; no such sensitivity seems to appear in Greek, and this is moreover a cross-linguistically valid generalization, as far as we are aware. Interestingly, gender features under the current view are not even structurally local to other elements within the nominal they belong to, under the received view that nominal structure is complex. In particular, we assume a DP structure (following Abney 1987; Ritter 1991; and much subsequent work), whereby D and Num are separate projections within the nominal spine (9); within this nominal structure, a gender feature (like [F] in (9)) is local to a root, but is not local to D: the former is semantically adjacent and within the cycle delineated by *n* while the latter is not.

(9)



Consider both the elsewhere item and the locality property together for the entries in (6). There is a contextual restriction for the MALE interpretation, dictating that this entry be selected only when the nominalizing head occurs with particular roots. The expectation is then that the elsewhere item ANIMATE will be selected for [M] if i) it appears in the context of roots that do not select

[6] We note, however, that here is some disagreement about the syntactic loci of gender in the literature (see, for example, Steriopolo & Wiltschko 2010; Puškar 2017; 2018; Steriopolo 2018; Panagiotidis 2019).

MALE; ii) the head appears with no root; or iii) if a root is present but not local. We will demonstrate below that this type of prediction for the interpretation of masculine gender in Greek is borne out. However, in order to do so first requires an elucidation of the relationship between gender interpretation and semanticopragmatic competition, a task which we undertake in the next subsection.

To summarize so far, a contextual allosemy account of meaning alternations can generate predictions when it is constrained in a comparable way to contextual allomorphy. In particular, a default (elsewhere) alloseme is expected to surface when the conditions for a more specific alloseme are not met. This can happen either when there is no conditioning element or when a conditioning element is present but nonlocal. Within the domain of gender allosemy, gender features on *n* are expected to be able to take the specific interpretation (MALE in this case) in the context of particular roots, but otherwise require the default alloseme (ANIMATE), when roots are either absent or nonlocal. We will demonstrate below how this is instantiated for gender allosemy in Greek.

2.2 Semanticopragmatic competition

A substantial literature has identified a form of semanticopragmatic competition whereby more semantically narrow interpretations preclude the use of more semantically general forms. Implementations differ, but this idea underpins various principles proposed in the literature, including *Maximize Presupposition* (Heim 1991; Sauerland 2002; 2008; Singh 2011; among many others), Lexical Complementarity (Harbour 2016; Toosarvandani 2023; Adamson & Anagnostopoulou 2025), principles of contrast in feature geometries (Harley & Ritter 2002; McGinnis 2005; among many others), and specifically for gender, the Principle of Gender Competition (Sudo & Spathas 2020; Spathas & Sudo 2020).

Such competition-based principles have been invoked in the domain of nominal features to account for the relation between markedness patterns and interpretation. For example, the idea that third person is interpretively unmarked relative to first and second persons has been captured by analyzing third person as having an underspecified interpretation,[7] which can nevertheless not be applied when referring to discourse participants (i.e. the speaker and/or the addressee) because participant pronouns are semantically "stronger" in their interpretation, thereby blocking use of the "weak" third person forms (see relevant discussion in Toosarvandani 2023). For concreteness, we adopt the formulation of this type of competition from Harbour (2016), called LEXICAL COMPLEMENTARITY (LC), which has been invoked in accounting for how person features come to be contrastively interpreted (see especially Toosarvandani 2023 for an analysis of person with

[7] See, for example, Sichel & Wiltschko (2021), who argue that the feature π on personal pronouns picks out potential discourse subjects or objects.

privative features rather than with Harbour's binary features).[8] While we adopt LC, other models of semanticopragmatic competition could also be employed to derive similar results, and we make no claims regarding which type of theory of contrastive inference is to be preferred (see e.g. Bobaljik & Sauerland 2023 for critique of LC in the domain of clusivity).

(10) LEXICAL COMPLEMENTARITY
For interpretable feature specifications F and G where ⟦F⟧ ⊂ ⟦G⟧, the use of G is restricted to ⟦G⟧ - ⟦F⟧.

The effect of Lexical Complementarity can be seen for how person features are interpreted on pronouns in (11)–(12). The denotations in (11) characterize the interpretations of each person feature: [SPEAKER] is restricted to first person reference, whereas [PARTICIPANT] refers to discourse participants, conceivably either to the speaker or the addressee(s); the extension of [PARTICIPANT] is thus a subset of the extension of [SPEAKER]. For singular reference to the speaker, Lexical Complementarity dictates that [SPEAKER] be used; it preempts the use of [PARTICIPANT] (by itself, without [SPEAKER]) even though the speaker belongs to the extension of [PARTICIPANT]. The same pattern holds for [π], which denotes a general set of individuals, but cannot be used in reference to discourse participants due to Lexical Complementarity. This is represented schematically for singular reference in (12), where the letter *i* stands for the speaker, the letter *u* stands for an addressee, and letter *o* stands for other individuals (following Harbour's 2016 convention), with struck-through text indicating that reference to these individuals is blocked by Lexical Complementarity.

(11) Person features (Toosarvandani 2023: 782)
[SPEAKER] = $\lambda x.\ x$ is the speaker in c.
[PARTICIPANT] = $\lambda x.\ x$ is only the speaker or the addressee in c.
[π] = $\lambda x.\ x$ is/are a potential discourse subject(s) or object(s).

(12) 1st (includes [SPEAKER]): {*i*}
2nd (includes [PARTICIPANT]): {*i*,*u*}
3rd (includes [π]): {*i*,~~*u*~~,~~o~~}

Semanticopragmatic competition along these lines has been suggested for the use of feminine vs. masculine genders, when the former has a sociocultural gender inference (FEMALE) that the latter lacks, in cases where masculine does not have a MALE-specific interpretation (Sauerland

[8] As noted by Adamson & Anagnostopoulou (2025), Lexical Complementarity on the interpretive side is analogous to the Subset Principle on the formal side: even though they apply for different modules, they share the property that specific options block general-purpose ones. Within the current model, this is also true for allosemy – specific allosemes block elsewhere allosemes – collectively then, these principles may reflect a deeper property of grammar that cross-cuts modules.

2008; Sudo & Spathas 2020; Spathas & Sudo 2020; and relatedly Percus 2006). Denotations are sketched as in (13) (in terms of assertion for simplicity). This competition is represented in LC-terms schematically in (14) for singular individuals: the extension of the feminine feature includes only female individuals, while the extension of the masculine feature includes animate individuals more broadly, including both male and female individuals. However, LC effectively removes female individuals from consideration for the use of masculine, such that reference to an individual who is a woman cannot employ a masculine form, as in (15).[9]

(13) [F] ↔ $\lambda x.$ x is/are female.
[M] ↔ $\lambda x.$ x is/are animate.

(14) Feminine [F]: {Maria, Sofia}
Masculine (ANIMATE) [M]: {Petros, Christos, ~~Maria~~, ~~Sofia~~}

(15) I Maria ine {*kalos dhaskalos /✓kali dhaskala}.
the.F.SG Maria is good.M.SG teacher.M.SG /good.F.SG teacher.F.SG
'Maria is a good teacher.' (Sudo & Spathas 2020: 25)

Consider now how allosemy is expected to interact with Lexical Complementarity. Suppose there is a gender value with a more general extension than the masculine: [M] is under its default interpretation ANIMATE but sometimes MALE, while the other feature value – which we can provisionally call [γ] – corresponds to entities (broadly construed), which encompass both animates and inanimates – this meaning is thus effectively vacuous.

(16) [M] ↔ MALE / {$\sqrt{\text{ROOT1}}$, $\sqrt{\text{ROOT2}}$...}
[M] ↔ ANIMATE
[γ] ↔ ENTITY (preliminary)

In (16), there is an allosemic alternation of the masculine, but not for [γ]. However, the effect of Lexical Complementarity for [γ] will be different depending on which [M] alloseme is selected: the result will be that [γ] is used either for non-MALE reference or for non-ANIMATE reference,

[9] We assume that gender features on human-referring nouns that come to be expressed in agreement (e.g. with adjectives) are interpretable, with a small amount of exceptions coming from when gender does not vary in accordance with sociocultural gender of the referent(s), e.g. the feminine noun *megalofiia* 'genius', which can be applied to male individuals. For present purposes, it suffices to say that the gender expressed with such nouns is uninterpretable, as in the case of feminine and masculine gender seen with inanimate nouns such as feminine *karekla* 'chair', though see discussion of neuter human-denoting nouns in Section 5. On the issue of modeling gender (un)interpretability, see detailed discussion in Percus (2011); Kramer (2015); Hammerly (2019), and specifically for Greek, Spathas & Sudo (2020) and Adamson & Anagnostopoulou (2025). We note that, in principle, the "comprehensive" interpretive mechanism from Hammerly 2019 could be used to derive the exceptional cases, as well as with inanimate genders, existing alongside the ANIMATE/MALE contextual allosemy that we describe in the present work. However, see Section 6 for further discussion of Hammerly's (2019) analysis.

respectively.[10] We will suggest that this is the correct characterization of the neuter gender in Greek, though we will first motivate our approach to gender in Greek more explicitly.

We now have both components in place: i) allosemy is like allomorphy in that its alternations are subject to locality and elsewhere ordering, and ii) semanticopragmatic competition dictates that stronger meanings preempt the use of weaker ones. We now proceed to apply this type of account within the context of the Greek gender system – with special reference to neuter gender – before turning to some of its more interesting predictions in Sections 3 and 4.

2.3 The Greek gender system

Greek is a language characterized as having three grammatical gender categories – feminine (FEM), masculine (MASC), and neuter (NEUT) – which are reflected in agreement with adjectives, determiners, and other categories (on definitions of grammatical gender, see Hockett 1958; Corbett 1991; Kramer 2015). This three-way distinction in gender categorization can be observed with determiner agreement as in (17), as Greek determiners agree in both gender and number (as well as case) with the corresponding noun. (On the relation between gender and declension in Greek, see Alexiadou 2004.)

(17) i ghineka / o andras / to vivlio
the.F.SG woman / the.M.SG man / the.N.SG book
'the woman / the man / the book'

For the vast majority of human-denoting nouns, FEM and MASC genders are correlated with inferences about conceptual gender: feminine human-denoting nouns typically carry a feminine inference (see Merchant 2014; Alexiadou 2017; Sudo & Spathas 2020; Spathas & Sudo 2020; Adamson & Anagnostopoulou 2025), which we label as FEMALE. Though there are exceptions, other human-denoting nouns are overwhelmingly MASC, and some of these nouns carry MALE-specific inferences while others carry no MALE (or FEMALE) inference.

Whether a human-denoting noun carries gender inferences like FEMALE or MALE can be diagnosed in various settings, such as focus-sensitive environments like *only*-constructions and superlatives (Sudo & Spathas 2020), by ellipsis (Bobaljik & Zocca 2011; Merchant 2014; Alexiadou 2017; Sudo & Spathas 2020; Sprouse et al. 2022; among others), by unknown-gender environments (e.g. Jakobson 1984; Bobaljik & Zocca 2011; Adamson & Šereikaitė 2019; Sudo & Spathas 2020; Adamson & Anagnostopoulou 2025), and by pluralization (Jakobson 1984; Wechsler 2008; Bobaljik & Zocca 2011; Sudo & Spathas 2020; Adamson & Anagnostopoulou 2025).

[10] To be somewhat clearer, this assumes for the application of Lexical Complementarity (10) that a feature specification F or G can have context-dependent interpretations, and that the subset relation is evaluated for the use of F or G holding the context constant.

As an illustration, consider the plural nouns in (18)–(19), whose MASC plurals behave differently from each other, as mentioned above for (1). In (18), the noun meaning 'teacher' has both FEM and MASC variants: the FEM variant gives rise to the inference that every member of the group is a woman, whereas the MASC is compatible not only with an exclusively MALE group, but also with a gender-heterogeneous group, e.g. one consisting of men and women. This is a FEM/MASC markedness asymmetry: the FEM gender brings in a (sociocultural) gender inference, whereas the MASC gender does not.[11]

(18) a. I dhaskales ine nees.
the.F.PL teacher.F.PL are young.F.PL
'The teachers are young.' (all women)
b. I dhaskali ine nei.
the.M.PL teacher.M.PL are young.M.PL
'The teachers are young.' (all men or gender-mixed group)
(Adamson & Anagnostopoulou 2025: 22,20)

Merchant (2014) and Sudo & Spathas (2020) identify the nouns in **Table 1** as examples of (what we are calling) asymmetric nouns, on the basis of their behavior in ellipsis and other focus-sensitive expressions, respectively (see also Alexiadou 2017).[12] (We have excluded the examples where the masculine and feminine do not share a common phonological profile.)

In contrast, the noun meaning 'lady' or 'gentleman' in (19) exhibits a symmetric relation between feminine and masculine plurals: the feminine gives rise to the inference that every member of the group is a woman while the masculine gives rise to the inference that every member of the group is a man. Thus neither alternant can be used to refer to a gender-heterogeneous group consisting of both women and men.

(19) a. I kiries ine nees.
the.F.PL $\sqrt{\text{KIRI}}$.F.PL are young.F.PL
'The ladies(/*gentlepeople) are young.'

[11] The M.PL and F.PL definite determiners are in fact syncretic, though the gender of these nouns can still be distinguished by the inflection of the noun in our relevant cases. The gender of these nouns could further be distinguished by adding other gender-agreeing modifiers, such as adjectives. Presently we gloss the articles with M.PL and F.PL labels, keeping in mind their syncretism.

[12] Merchant (2014) observes that with asymmetric nouns, gender mismatch with predicate nouns is licensed with the masculine noun in the antecedent with what would be an elided feminine noun, but not the reverse, in contrast with symmetric nouns, where ellipsis is disallowed with gender mismatch in both directions. (This asymmetry carries over to argument ellipsis; see Alexiadou 2017 and Sudo & Spathas 2020, contra Merchant 2014.) Sudo & Spathas (2020) observe that elliptical behavior with asymmetric nouns is somewhat unstable across speakers, but observe that other focus-sensitive contexts can nevertheless diagnose asymmetries in gender inferences for masculine vs. feminine incarnations of such nouns; this includes environments with *only* as well as superlatives.

MASC	FEM	
mathtis	mathitria	‘pupil’
pianistas	pianistria	‘pianist’
tragudhistis	tragudhistria	‘singer’
theos	thea	‘god’
nosokomos	nosokoma	‘nurse’
katharistis	katharistria	‘cleaner’
kathijitis	kathijitria	‘professor’
fititis	fititria	‘student’
thios	thia	‘uncle/aunt’
nonos	nona	‘godfather/godmother’

Table 1: Asymmetric Nouns (Merchant 2014: 8; see also Sudo & Spathas 2020: 5).

b. I kirii ine nei.
the.M.PL √KIRI.M.PL are young.M.PL
‘The gentlemen(/*gentlepeople) are young.’

There is thus a different interpretive association for the use of the masculine gender with (18) versus (19). The list in **Table 2** contains what Merchant (2014) and Sudo & Spathas (2020) identify as symmetric nouns, again on the basis of their behavior in ellipsis and other focus-sensitive expressions, respectively. (According to Sudo & Spathas 2020, for both asymmetric and symmetric nouns, membership in these classes for some items can be variable among speakers, e.g. *thios/thia* ‘uncle/aunt’.)

MASC		FEM	
kirios	‘gentleman’	kiria	‘lady’
ksadherfos	‘male cousin’	ksadherfi	‘female cousin’
egonos	‘nephew’	egoni	‘niece’
vaftisikos	‘godson’	vaftistikia	‘goddaughter’
prinkipas	‘prince’	prinkipissa	‘princess’
vasilias	‘king’	vasilissa	‘queen’
aftokratoras	‘emperor’	aftokratira	‘empress’

Table 2: Symmetric Nouns (Merchant 2014: 6; see also Sudo & Spathas 2020: 5).

In the current system, interpretable gender features are interpreted on *n*, which combines with a root (Kramer 2009; 2015). We assume that a root combining with an *n* with interpretable gender denotes a predicate of individuals of type $<e,t>$.[13] Under this view, roots have a consistent interpretation regardless of which gender they occur with (see Sudo & Spathas 2020 for a different perspective, and Harris 1991 for a related view in a different framework); we set to the side the possible issue of root allosemy. (20) offers examples for the roots in the nouns meaning 'teacher' and 'gentleperson'.

(20) $\sqrt{\text{DHASKAL}} \leftrightarrow \lambda x.\ x$ is a teacher.
$\sqrt{\text{KIRI}} \leftrightarrow \lambda x.\ x$ is a gentleperson.

According to the current view, roots themselves do not carry gender inferences, and the differences in how masculine gender comes to be interpreted for asymmetric vs. symmetric nouns is a result of contextual allosemy of gender on *n*. (On the requirement for a root to combine with *n*, see e.g. Embick & Marantz 2008 on the Categorization Assumption.) (21) sketches interpretations for nominalizing heads with either feminine or masculine features, assuming they are also semantically of type $<e,t>$ and combine with $<e,t>$ roots via Predicate Modification.[14] The contribution of the FEMALE inference is consistent across feminine nouns, but the meaning of masculine depends on which root it occurs with; it is MALE in the context of the root meaning 'gentleperson', though in other contexts it lacks this inference. One way to model this would be to say that masculine in such cases lacks gender inferences altogether (see Sudo & Spathas 2020); we instead propose following Adamson & Anagnostopoulou (2025) that masculine bears the interpretation ANIMATE. (On the choice of the latter as an elsewhere alloseme rather than the reverse ordering, see Section 4.)

(21) [F] $\leftrightarrow \lambda x.\ x$ is/are female.
[M] $\leftrightarrow \lambda x.\ x$ is/are male. / $\{\sqrt{\text{KIRI}}\ldots\}$ (e.g. with Symmetric nouns)
[M] $\leftrightarrow \lambda x.\ x$ is/are animate. (e.g. with Asymmetric nouns)

The ANIMATE interpretation of the masculine reflects the generalization in the language that human-denoting nouns are overwhelmingly either masculine or, if denoting female individuals,

[13] We do not assume all roots are predicates of individuals; for example, we assume event nouns like 'recital' would combine with a different *n* that does not bear gender inferences, but set such nouns to the side. On the ontology of root denotations more generally, see Levinson (2014) and references therein.

For simplicity, we will assume that the roots of kinship nouns are also of type $< e,t >$, despite being relational. See Alexiadou (2003) on inalienability in Greek; see e.g. Myler (2016); Adamson (2024a) for one view of roots and inalienable relations; and see Percus (2011: 170, 194–196) on potential complications with kinship nouns and scope in Italian, which possibly owe to their relational status.

[14] We abstract over whether gender inferences are asserted, presupposed, or both; see Sudo & Spathas (2020) for extensive discussion, including in the variability of feminine inferences across nouns. We assume only for simplicity that gender inferences are assertive.

feminine. The status of masculine as ANIMATE will also have consequences for the interpretation of the neuter gender, as we will see below.

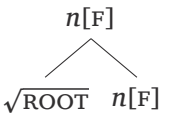
Adamson & Anagnostopoulou (2025) (henceforth A&A) propose that the neuter gender in Greek is unmarked relative to the other genders, and comes to be interpreted as inanimate via LC. A&A suggest that neuter's unmarked status is reflected, for example, in neuter predicative agreement appearing with agreement with clausal subjects, a default diagnostic (e.g. Kramer 2015; Adamson & Šereikaitė 2019; among others).

(22) To oti lipase ine katanoito.
the.N.SG that be.sorry.2SG is understandable.N.SG
'That you are sorry is understandable.' (Adamson & Anagnostopoulou 2025: 4)

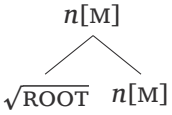
While other authors have suggested that neuter is a morphosyntactic default or "residue" gender in three-gender languages like Greek (Kramer 2015; Corbett 1991; see Tsimpli & Hulk 2013; Alexiadou et al. 2020; among others on Greek), A&A argue that neuter gender in Greek can also bear an inanimate interpretation, accounting for data from coordination resolution facts; they also suggest that it is consistent with other facts about neuter gender in the language. For example, the majority of (non-derived) neuter nouns denote inanimates and there appears to have been a diachronic pressure for inanimate nouns in the masculine and feminine categories to become neuter.

In the current system, where gender features occur on nominalizing heads, we can model noun gender as in (23), where feminine nouns are formed as in (23a), masculine nouns as in (23b), and the less marked neuter nouns as in (23c).[15]

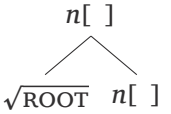
(23) a.



b.



c.



[15] A&A in fact offer a feature-geometric analysis (in the sense of Harley & Ritter 2002) of gender features in Greek, whereby neuter nouns have a feature CLASS, masculine nouns have MASC and CLASS, and feminine nouns have FEM, MASC, and CLASS. Since we are most concerned with the relation between masculine and neuter in the present article, the feature representations in (23) suffice for our purposes. A feature-geometric account could also be made compatible with our approach, but raises questions for the representation of feminine nouns whose roots select the MALE alloseme, which we set to the side.

A&A suggest an inanimate interpretation is derived for neuter gender if neuter is very general in its meaning, much like third person, but reference to animate individuals with the neuter is precluded due to LC. The denotations they offer are in (24), with the effect of LC schematized for singular individuals in (25). As shown in (25), the neuter association with inanimacy comes out via LC with the ANIMATE meaning of masculine; the ANIMATE meaning also interacts with the feminine to derive i) reference to men using MASC and ii) the use of MASC in gender-unknown contexts with humans.[16] (We assume that the femaleness inference of the feminine feature also entails an animacy inference.)

(24) Gender feature interpretations (adapted, A&A: 15)
FEM: $\lambda x.\ x$ is/are female.
MASC: $\lambda x.\ x$ is/are animate.
NEUT: $\lambda x.\ x$ is/are an entity/entities (broadly construed).

(25) FEM: {Maria, Sofia}
MASC: {Petros, Christos, ~~Maria~~, ~~Sofia~~, a mystery person}
NEUT: {this cup, this monument, ~~Petros~~, ~~Christos~~, ~~Maria~~, ~~Sofia~~, ~~a mystery person~~}

While (24) derives the association of neuter gender with inanimacy, it fails to reflect the MALE inference seen with some masculine nouns, as discussed above. Adding our allosemy of the masculine including the interpretation MALE, we arrive at the denotations in (26). Notably, a choice between more than one alloseme is restricted to the masculine.

(26) [F]: $\lambda x.\ x$ is/are (a) female.
[M]: $\lambda x.\ x$ is/are male. / $\{\sqrt{\text{KIRI}}\ldots\}$
[M]: $\lambda x.\ x$ is/are animate.
[ ]: $\lambda x.\ x$ is/are an entity/entities (broadly construed).

We will see shortly how the MALE alloseme nevertheless impacts the interpretation of the neuter, though it will be helpful in this process to consider how LC applies in the case of plural individuals.

We have heretofore only considered how the meanings of our gender features, in conjunction with Lexical Complementarity, characterize singular individuals. For plural individuals, consider how gender interpretation is relevant to groups. Several authors have suggested that (sociocultural) gender is a distributive property for a group (Corbett 1991; Wechsler & Zlatić 2003; Wechsler 2008; Sudo & Spathas 2020; Toosarvandani 2023; Adamson & Anagnostopoulou 2025),

[16] We acknowledge that there is a complex issue of intensionality for gender interpretation that we are abstracting away from, particularly with respect to states of knowledge about individuals being (for example) male or female; see e.g. Yanovich (2010) on English gender. The main point presently is that a human individual of unknown gender is indeed animate but need not be male, and this is consistent with the gender interpretations provided in (24).

such that any gender inference must hold for every member of that group.[17] This is consistent with the plural test described above. Starting first with asymmetric nouns, in the example in (18), repeated in (27), the feminine is associated with a FEMALE inference, and therefore requires that every member of the group be a woman. In contrast, the masculine with the asymmetric noun in (27b) is associated with an ANIMATE interpretation, so this plural noun is applicable for either a homogeneous group consisting exclusively of men, or a heterogeneous group consisting of (for example) men and women.[18]

(27) a. I dhaskales ine nees.
the.F.PL teacher.F.PL are young.F.PL
'The teachers are young' (all women)
b. I dhaskali ine nei.
the.M.PL teacher.M.PL are young.M.PL
'The teachers are young.' (all men or gender-mixed group)

This plural behavior is in line with the combination of i) the FEMALE and ANIMATE gender inferences for feminine and masculine nouns, respectively; ii) the distributivity of gender inferences; and iii) the effect of LC. We can again schematize extensions and the effect of LC as in (25) and consider possible two-individual plural groups formed from singular individuals (28) Maria, Sofia, Petros, and Christos (two women and two men, respectively) and two inanimate objects (setting aside the combinations of inanimates with animates).

(28) Masculine as ANIMATE, considering plural (two-membered) groups
FEM: {{{Maria, Sofia}}
MASC: {{Petros,Christos},{Petros,Maria},{Petros,Sofia},{Christos,Maria},
{Christos,Sofia},~~{Maria, Sofia}~~}

[17] Following Toosarvandani (2023: 766), a feature specification is distributive iff, for any x in the denotation of F, every y that is a part of x is also in F: $\forall x$:(x $\in$ ⟦F⟧ $\rightarrow$ $\forall y$($y \leq x \rightarrow y \in$ ⟦F⟧)). Sudo & Spathas (2020: 27) suggest that the distributivity of gender can be derived from the semantics of the plural; in their words, "the plural morpheme is standardly analyzed as a distributive operator, which is a kind of universal quantifier (cf. Link 1983; Winter 2000). Specifically, it takes the denotation d of a singular noun, and turns it to something that applies to any group of individuals each of whom makes d true. Then it follows that if a singular noun has a gender inference, its plural form will require every member of the group it describes to have that gender." Alternatively, we could take roots to be number-neutral, comprising both singular individuals and plural individuals, and bake distributivity directly into the interpretation of gender features – this may in fact be necessary for deriving the correct result for Lexical Complementarity. Thanks to Patrick Elliot, p.c., for discussion of this last possibility.

[18] Note, however, that Toosarvandani (2023) argues that *animacy* combines with person features, in such a way that produces a sort of non-distributive group representation. (Toosarvandani supports this view with evidence from the formation of Zapotec plural pronouns.) We tentatively suggest that animacy as it is encoded by a language's grammatical gender system behaves distributively as we have indicated (see also Toosarvandani 2023 for discussion), perhaps with the manner of interpretive composition falling out from how gender vs. person compose with number (arguably correlating with the low vs. high position of these features within the nominal domain).

NEUT: {{~~Petros,Christos~~},{~~Petros,Maria~~},{~~Petros,Sofia~~},{~~Christos,Maria~~},
{~~Christos,Sofia~~},{~~Maria, Sofia~~},{this cup, this monument}}

Because feminine bears a FEMALE inference and gender is distributive, only the group consisting exclusively of women (Maria and Sofia) belongs in the feminine grouping. Because masculine bears an ANIMATE inference, every group belongs in the masculine grouping, including the group consisting of Maria and Sofia, though this group will be impacted by LC. That this is so is supported by (29), which indicates that the masculine plural noun is infelicitous with a group consisting exclusively of women. (See relatedly Sudo and Spathas's discussion of their Principle of Gender Competition.)

(29) #I Elena ke i Maria ine dhaskali stin Katerini.
the.F Elena and the.F Maria are teacher.M.PL in.the Katerini
'Elena and Maria are teachers in Katerini.' (Sudo & Spathas 2020: 28)

With respect to the use of the neuter in (28), Lexical Complementarity rules out the use of the neuter in reference to human groups. Inanimate reference would be permissible, though (by hypothesis) inanimates are not in the extension of the predicate *teacher*;[19] thus the noun meaning *teacher* can never appear in the neuter (unless there is some further derivational option such as diminutivization, on which, see Section 5.2).

The preceding discussion concerns plurals of asymmetric nouns, where the ANIMATE interpretation of the masculine is compatible with heterogeneous groups whereas the FEMALE interpretation of the feminine is compatible only with exclusively female groups. For symmetric nouns where the interpretation of masculine is MALE, the masculine extension will only include exclusively male groups; consequently, the effects of Lexical Complementarity will diverge from the masculine-as-ANIMATE environments. To see this, recall from (19), repeated in (30), that symmetric nouns do not allow the masculine with heterogeneous groups; these are presently analyzed with the MALE alloseme of masculine.

(30) a. I kiries ine nees.
the.F.PL √KIRI.F.PL are young.F.PL
'The ladies(/*gentlepeople) are young.'
b. I kirii ine nei.
the.M.PL √KIRI.M.PL are young.M.PL
'The gentlemen(/*gentlepeople) are young.'

[19] Given that the Greek noun meaning 'teacher' necessarily gives rise to an animacy inference under this view, a reviewer wonders how the account would countenance cases like *experience is a good teacher*, whose Greek translational equivalent is also acceptable. We conjecture that such cases involve personification, which confers animacy on what is otherwise treated as non-animate. This seems to correspond to native speaker intuitions about such expressions.

For such nouns, the gender inferences of feminine and neuter are the same, but for masculine, instead of ANIMATE, the meaning is instead MALE:

(31) FEM: $\lambda x.\ x$ is/are female.
MASC: $\lambda x.\ x$ is/are male.
NEUT: $\lambda x.\ x$ is/are an entity/entities.

The behavior of the MALE inference in plurals is consistent with the distributivity requirement: every member of the group must be male in order for it to be a masculine group. Strikingly, however, Lexical Complementarity interacts with the male inference for plural groups in such a way that the result for neuter nouns is different from masculine-as-ANIMATE, as observed by A&A. In particular, gender-heterogeneous groups are not removed by LC in the neuter class.

(32) Masculine as MALE for plural groups
FEM: {{Maria, Sofia}}
MASC: {{Petros,Christos}}
NEUT: {~~{Maria, Sofia}~~},~~{Petros,Christos}~~,{Petros,Maria},{Petros,Sofia},
{Christos,Maria},{Christos,Sofia},{this cup, this monument}}

The expectation is that, if a neuter plural form existed for the noun meaning 'gentleman/lady', it could be employed for reference to heterogeneous groups. However, like the English nouns for 'lady' and 'gentleman', there is no related corresponding gender-neutral term (except the awkward term 'gentleperson' we have been employing here). We assume that the absence of a neuter form of the noun with the root $\sqrt{\text{KIRI}}$ can be attributed to PF gender-licensing conditions à la Kramer 2015: in essence, there are formal demands on the noun that rule out the use of the neuter gender, independently of what its interpretation would be.

That being said, an account with both a MALE interpretation of the masculine, alongside a principle of Lexical Complementarity or a comparable competition-based principle, makes predictions for human-denoting nouns for which there is a neuter form, both in terms of their interpretation, and as we show, in an asymmetry between plurals and singulars. It is shown in the next section that this is borne out for a small set of kinship nouns in the language.

3 Neuter, kinship nouns, and a predicted number asymmetry

Many human-denoting nouns in Greek have the symmetric pattern described above, whereby the feminine gives rise to a FEMALE inference and the masculine gives rise to a MALE inference. As evident from some of the examples above in **Table 2**, some members of this class are kinship nouns. We will not concern ourselves with whether there are systematic choices for which terms belong to the symmetric class; see discussion in Bobaljik & Zocca (2011); Sprouse et al. (2022) on

other languages, and Sudo & Spathas (2020) on Greek. For these nouns, we take their masculine incarnation to reflect that their roots are listed to select the MALE alloseme.[20]

Critically for current purposes, for a small set of these kinship nouns, there are i) both F and M options, where the masculine interpretation is MALE; ii) an additional neuter option; see also Alexiadou (2017); Adamson & Anagnostopoulou (2025). Presently, we focus on the group of them that exhibits a striking number asymmetry; we return to a group that exhibits no such asymmetry in Section 5, arguing that the distinction between the two groups is principled.

We demonstrate the pattern of interest with the noun meaning 'cousin'; the same pattern can be observed with the nouns meaning 'sibling/brother/sister' and 'nibling/nephew/niece'. In the plural, there are three options: feminine, masculine, and neuter. As per the discussion for (32), the neuter can be used for heterogeneous groups (33), and in fact is the only fully felicitous option for this type of group (34).

(33) i ksadherfi mu / i ksadherfes mu / ta ksadherfia mu
the.M.PL cousin my / the.F.PL cousin my / the.N.PL cousin my
'my cousins' MASC = all male; FEM = all female; NEUT = gender-neutral

(34) O Petros ke i Maria ine {ksadherfia / (?)#ksadherfi / #ksadherfes}
the.M.SG Petros and the.F.SG Maria are cousin.N.PL / cousin.M.PL / cousin.F.PL
mu.
my
'Petros and Maria are cousins of mine.'

The combination of the MALE alloseme of the masculine, which gives rise to the MALE inference in the masculine, and Lexical Complementarity, which does *not* remove heterogeneous groups for the neuter, correctly predicts this pattern to exist for plural nouns in the language (when neuter forms of such nouns exist); we saw this effect of LC at the end of Section 2.3.

While a neuter plural form with a gender-mixed interpretation indeed exists, what are our expectations for singular nouns? The expectations depend on whether humans must be categorized as MALE or FEMALE in Greek. If individuals can be categorized as neither, then they should appear in the extension of the neuter and LC will not affect them. If they must be categorized as one or the other, then LC should remove the option of referring to them with the singular altogether. (This is a linguistic issue, which we note is independent of whether Greek

[20] Elena Anagnostopoulou (p.c.) points out that the proposal from Adamson (2024a), according to which inalienability and gender are both mediated via *n* and therefore may interact with each other, may also be relevant for the special status of neuter with kinship nouns in Greek, given that kinship nouns are cross-linguistically known to participate in inalienability relations with their head noun.

As we said in Footnote 13, we assume for simplicity that the roots of kinship nouns are also of type $< e, t >$, and set to the side their relational status on the semantic-compositional side.

speakers recognize non-binary identity.) The data below with 'cousin'-type nouns suggests that the latter is correct. Adopting this view, we can state the assumption explicitly as follows:

(35) **Language Binarity Assumption for Greek**: Nouns that entail animacy exhaustively categorize individuals in their extension as either MALE or FEMALE.[21]

To be clear, the binarity assumption has no impact on the felicity of the neuter with heterogeneous groups. As discussed above, gender inferences are distributive. While (35) forces singular individuals to be either MALE or FEMALE, it is true of heterogeneous groups that they are neither exclusively MALE nor FEMALE; hence LC will not remove them from the neuter set. (35) thus yields a number asymmetry for the MALE alloseme: plurals can be gender-neutral while singulars cannot be. We suggest this is borne out for 'cousin' nouns: though a neuter singular form exists, it is *not* expressively neutral, suggesting it is has an alternative derivation. (We suggest that it is in fact diminutive, and return to the issue of diminutivization in Section 5.2.)

(36) o ksáderfos mu / i ksadérfi mu / #to ksadérfi mu
the.MSG cousin my / the.FSG cousin my / the.N.SG cousin my
'my cousin' MASC = male cousin; FEM = female cousin; NEUT = cousin (can only be used expressively/endearingly)

Further evidence for the number asymmetry with neuter kinship nouns comes from gender-unknown contexts. When the masculine alloseme is ANIMATE, the binarity assumption has no effect: individuals can be defined as animate without being characterized as MALE. Thus for asymmetric nouns where masculine = ANIMATE (as in (37)), it is possible in gender-unknown contexts to use the masculine without contributing the inference that the referent is male (on Greek, see Adamson & Anagnostopoulou 2025 for discussion; on other languages, see Kramer 2015; Adamson & Šereikaitė 2019; among many others).

(37) Dhen ksero pjos ine o jatros edho.
not know.1.SG who.M.SG is the.M.SG doctor here
'I don't know who the doctor is here.'

[21] A reviewer wonders whether (35) extends to other languages, possibly subject to parametric variation. We conjecture that such a constraint is active in comparable three-gender languages, where neuter singular is also not used with lexical nouns for (expressively neutral) reference to human individuals, as in German. However, we do not think there is anything inevitable about this constraint being active within a language. Even for some Greek speakers, non-binary identity can be conveyed with proper names through the use of neuter singular articles occuring with them, as evident from discussion on Wikipedia and elsewhere about the Swiss 2024 Eurovision winner Nemo, who identifies as non-binary (https://el.wikipedia.org/wiki/Nemo_(ράπερ), accessed 2025). More generally, a language in which (35) does not apply at all could be expected to allow neuter singular not only for non-binary identity, but also for cases of unknown gender, gender-neutral use of superlatives, and in related contexts, so long as the corresponding masculine incarnation of the noun gives rise to a male inference and a corresponding neuter form exists.

With ‘cousin’-type nouns, our prediction is that the neuter singular should not be available for (expressively neutral) reference: these nouns select the MALE alloseme for the masculine, and the binarity assumption dictates that individuals must be categorized as one or the other. The infelicity of the neuter singular[22] indeed extends to gender-unknown contexts, as shown by the superlative examples in (38).[23]

(38) a. Den ksero pjos ine o pjo psilos mu ksadherfos.
not know.1SG who.M.SG be the.M.SG more tall.M.SG 1SG cousin.M.SG
‘I don’t know who my tallest male cousin is.’

b. Den ksero pja ine i pjo psili mu ksadherfi.
not know.1SG who.F.SG be the.F.SG more tall.F.SG 1SG cousin.F.SG
‘I don’t know who my tallest female cousin is.’

c. #Den ksero pjo ine to pjo psilo mu ksadherfi.
not know.1SG who.N.SG be the.N.SG more tall.N.SG 1SG cousin.N.SG
‘I don’t know who my tallest cousin is.’ (endearing/expressively marked)

The noun meaning ‘cousin’ is not the only noun with the number asymmetry;[24] the same behavior is seen with the noun meaning ‘brother/sister’ *adherfos/adherfi*. This may be unsurprising if these nouns are taken to share a common root √ADHERF (with prefixation yielding *ksadherf-* for the meaning ‘cousin’). The noun *anipsi* meaning ‘nephew/niece/nibling’ also exhibits the number

[22] Observe that a quantity partitive with ‘one’ (i) is possible without an endearing or expressive meaning. Relatedly, the superlative expression with the N.SG in (ii) lacks the expressive meaning, as well.

(i) ena apo ta ksadherfja mu
one.N.SG from the.N.PL cousin my
‘one of my cousins’

(ii) Den ksero pjo ine to pjo psilo apo ta ksadherfja mu.
not know who.N.SG be the.N.SG more tall.N.SG from the.N.PL cousin.N.PL my
‘I don’t know who the tallest of my cousins is.’

(i) could be made sense of if ‘one’ is not specified for interpreted gender at all, only agreeing in gender with the overt plural noun. See Sleeman & Ihsane (2016) for relevant structural discussion of these types of expressions. A similar explanation could be appropriate for (ii).

[23] Note that for (38), the genitive clitic *mu* can appear either prenominally or postnominally, though some of our consultants prefer the prenominal word order for these examples. See Alexiadou & Stavrou (2000) on factors for genitive clitic placement in Greek.

[24] Competition with neuter kinship nouns seems not to apply precisely in the same way as it does with asymmetric M/F pairs. In particular, speakers report that it is possible for a homogeneous group to appear with the neuter noun:

(i) I Maria ke i Christina ine {ksadherfja / ksadherfes}.
the.F.SG Maria and the.F.SG Christina be cousin.N.PL / cousin.F.PL
‘Maria and Christina are cousins.’

This is reminiscent of other cases in which competition does not rule out less specific alternatives, as in the English case of *Mary is a female teacher*, which does not block *Mary is a teacher*. We leave the resolution of this issue to future research.

asymmetry for at least a subset of speakers we consulted. The same pattern can be observed with the base meaning ‘in-law’ (39)–(40) (though one consultant accepts (40c)).

(39) a. i petheres
the.F.PL mother.in.law
‘the mothers-in-law’
b. i petheri
the.M.PL father.in.law
‘the fathers-in-law’
c. ta petherika
the.N.PL in.law
‘the parents-in-law’

(40) a. i pethera
the.F.SG mother.in.law
b. o petheros
the.M.SG father.in.law
c. *to petheriko
the.N.SG parent.in.law

There is also evidence that this pattern has to do with gender inferences for groups and not, for example, grammatical plurality. There is a noun referring to an opposite-sex married couple (41) which appears to compound the nouns meaning ‘man’ and ‘woman’. It is grammatically singular (like ‘couple’) and its gender is neuter, consistent with the inherently heterogeneous gender interpretation for the group:[25]

(41) to andro.ghino
the.N.SG man.woman
‘the married (opposite-sex) couple’

To summarize, a set of nouns in Greek is symmetric, as had been identified in previous literature, and in our account, the roots of these nouns select the MALE alloseme of the masculine. For the subset of these nouns that have neuter forms, there is a number asymmetry, such that gender-neutrality is available with plurals but not singulars, which is predicted by our LC analysis (with the auxiliary binarity assumption). In Section 5, we return to a distinct subset of nouns (including *egonos* ‘grandchild’) that lacks this asymmetry, an effect that we argue can be captured by our account.

[25] A similar example comes from *to zevgari* ‘the.N couple’, though this does not just apply to human couples; it can also be used for inanimates. See Section 5.3 on nouns that can refer either to animates or inanimates.

It is worth highlighting that an alternative account that treats neuter as an arbitrary and non-interpreted property with human-denoting nouns does not make predictions about the number asymmetry, which must simply be stipulated instead. In the next section, we explore other predictions of the allosemy account that are not shared with a different type of alternative account, namely one that still allows neuter gender to be interpreted and to interact with semanticopragmatic competition, but allows this more globally without locality restrictions.

4 Locality and parameterization

We suggested in Section 2 that contextual allosemy should have properties in common with contextual allomorphy. Under our account, the contextually specific alloseme is MALE, which occurs with particular roots, while the "default" alloseme is ANIMATE.

Because of its interaction with Lexical Complementarity, the choice of alloseme is predicted to yield distinct outcomes for gender-heterogeneous human groups: for the MALE alloseme, heterogeneous groups are neuter, whereas for the default ANIMATE alloseme, heterogeneous groups are masculine. The extensional sketches in (42) and (43) show how this difference is derived, with the crucial heterogeneous pairing marked in bold text.

(42) [M] as ANIMATE, pluralities
NEUT: {{the cup, this monument}, ~~{Petros,Christos}~~,~~{Petros,Sofia}~~,~~{Maria,Sofia}~~…}
MASC: {{Petros,Christos},**{Petros,Sofia}**…}
FEM: {{Maria, Sofia}…}

(43) [M] as MALE, pluralities
NEUT: {{the cup, this monument}, ~~{Petros,Christos}~~, ~~{Maria,Sofia}~~, **{Petros,Sofia}**…}
MASC: {{Petros,Christos}…}
FEM: {{Maria, Sofia}…}

If there are no roots in the structure, or if there are roots that are nonlocal, the prediction is that the default ANIMATE alloseme is always selected. We suggest that the former is instantiated for pronominal elements and that the latter is instantiated with coordination resolution. We discuss each in 4.1 and 4.2, respectively. We then proceed in 4.3 to show how the account can be extended to Icelandic, which exhibits a distinct pattern from Greek in pronominal gender and coordination resolution, which we propose stems from a small, specific parametric change in the ordering of allosemic entries of the masculine.

4.1 Pronominals

We assume nominals introduce gender consistently at the same locus *n* for both lexicals DPs and pronominals (e.g. Adamson & Šereikaitė 2019), as is consistent with the view that

pronominals build nominal structure in parallel ways to lexical nominals, albeit with potentially less structure under some perspectives (see Cardinaletti & Starke 1999; Déchaine & Wiltschko 2002; Panagiotidis 2002; and much subsequent work). We assume further that, unlike lexical DPs, pronominals can lack roots altogether (e.g. Moskal 2015a; b).

In this case, within pronominals, there is no conditioning element for the specific MALE alloseme: there is no root and everything else is cyclically nonlocal. The expectation is therefore that only the default ANIMATE alloseme is available. As a consequence, reference to an adult human group is predicted to have to be either feminine (if the group consists exclusively of women) or masculine (for all men or a heterogeneous group). This is borne out, as evidenced by the pronominal clitic example in (44). If the MALE alloseme were also available, we would expect that neuter could also be used for mixed groups; however, this is not the case.

(44) {Tis / tus / #ta} idha.
3M.PL.ACC / 3F.PL.ACC / 3N.PL.ACC see.1SG.PST
'I saw them.' FEM = a group of women; MASC = a group of men or a mixed group

One crucial caveat here concerns pronominals with (potentially non-overt) linguistic antecedents. If there is a DP with a root that *does* select the MALE alloseme and has a neuter plural form, then a pronominal can refer to the same group with the neuter form, as in (45) with the pronominal clitic.

(45) Aghapo [ta ksadherfja mu]$_i$ alla dhen ta$_i$ vlepo sihna.
love.1SG the.N.PL cousin.PL my but not 3N.PL.ACC see.1SG often
'I love my cousins$_i$, but I don't see them$_i$ often.'

In such cases, we suggest that the root (and perhaps additional structure) is present but elided (and therefore unpronounced) for the pronominal.[26] This distinction between structural absence vs. elided material is reminiscent of the so-called *deep* vs. *surface* anaphora dichotomy (following Hankamer & Sag 1976; see Wurmbrand 2016 for a recent take on this distinction in the context of grammatical gender). For present purposes, it is important to emphasize that even with this optionality, the MALE alloseme is not readily available across pronominals; rather, it only appears when such a linguistic antecedent licenses ellipsis of a root.

Two further pieces of evidence support this contention. First, if the linguistic antecedent is not neuter plural, then the pronominal cannot be neuter plural, either (46). That is, if a plural noun employs the ANIMATE alloseme and refers to a mixed group with the masculine, pronominal reference to the same group in a subsequent clause cannot be with the neuter plural. This is expected under the elliptical view; there is no structure in the antecedent for (46) which permits the MALE alloseme, so the neuter plural is not available for pronominal reference.

[26] On the idea that the complement of pronominal D is generally elided or deleted, see Elbourne (2005; 2013).

(46) Aghapo [tus dhaskalus]$_i$ mu alla dhen {tus$_i$ / *ta$_i$} vlepo sihna.
love.1SG the.M.PL teacher.PL my but not 3PL.M.ACC / 3PL.N.ACC see.1SG often
'I love my teachers, but I don't see them often.'

Second, if the antecedent uses the neuter plural but pronominal reference makes use of a non-elided pronoun instead, then the masculine plural should also be available for a gender-heterogeneous group, given that the latter structure only has reference to the default ANIMATE interpretation of [M]. This is borne out for some speakers; (47) is a variant of (45), with the only difference being that the masculine plural pronominal appears in the second clause rather than the neuter plural.[27]

(47) %Aghapo [ta ksadherfja mu]$_i$ alla dhen tus$_i$ vlepo sihna.
love.1SG the.N.PL cousin.PL my but not 3M.PL.ACC see.1SG often
'I love my cousins$_i$, but I don't see them$_i$ often.'

In sum, pronominals without linguistic antecedents lack roots; they are therefore expected to select only the default ANIMATE alloseme of the masculine. This is consistent with the choice of a masculine pronoun – and not a neuter pronoun – to refer to a gender-mixed human group in an example like (44). In contrast, pronominals with linguistic antecedents may have elided roots, particularly the roots that appear in their antecedents, but they do not have to (a related idea is pursued by Sigurðsson 2019: 738). In the former case, the root can locally condition the allosemy of masculine gender, and as a consequence, masculine plural is used when the root combines with the ANIMATE alloseme (46), but neuter plural when it includes the MALE alloseme (45); alternatively, a root need not be elided, in which case the default ANIMATE is used, as in (47). This account thus captures the licensing of neuter gender for pronominals referring to mixed groups whose antecedents are exceptionally neuter plural, while also capturing the generalization that masculine plural pronouns are otherwise employed for gender-mixed groups.

4.2 Coordination resolution

We now turn to coordination resolution, which we argue provides evidence that contextual allosemy is locally restricted. In Greek, resolved agreement with mismatched nominals depends on the animacy of the conjuncts (Kazana 2011; Anagnostopoulou 2017; Adamson & Anagnostopoulou 2024; 2025) – the basic generalization is that for mismatched human nominals, resolved agreement on predicative adjectives is masculine (48) and for mismatched inanimates, resolution is neuter (49).

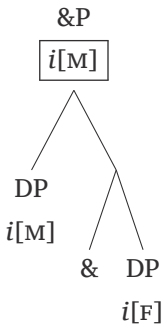
[27] We tentatively suggest that for speakers who do not accept (47), that the preference for eliding the root corresponding to the linguistic antecedent suppresses the availbility of the non-elided counterpart.

(48) O andras ke i ghineka ine {eksipni /*eksipna}.
the.M.SG man and the.F.SG woman are intelligent.M.PL/ intelligent.N.PL
'The man and the woman are intelligent.' (Adamson & Anagnostopoulou 2025: 19)

(49) O pinakas ke i karekla ine {vromika /*vromiki}.
the.M.SG blackboard and the.F.SG chair are dirty.N.PL /dirty.M.PL
'The blackboard and the chair are dirty.' (Adamson & Anagnostopoulou 2025: 20)

Various authors have suggested that the resolved values for person, gender and/or number are interpreted with respect to the entire coordinated phrase (at least for a subset of environments); see Corbett 1991; Sauerland 2003; Wechsler & Zlatić 2003; Wechsler 2008; Harbour 2020; Adamson & Anagnostopoulou 2025. For example, plural can be a property of the entire group denoted by the coordinated phrase but not necessarily of any of the individual conjuncts if both are singular. In structural terms, this can be implemented in terms of having interpretable features at or around the level of the conjunction phrase (&P). This is schematized by the tree in (50) for the example in (48): each conjunct has its own gender feature, and at the level of the &P, there is an interpreted gender feature, which is applicable to the entire group denoted by the coordinate phrase; see Adamson & Anagnostopoulou (2025) for one detailed analysis.

(50)



As Adamson & Anagnostopoulou (2025) argue (cf. Corbett 1991; Wechsler & Zlatić 2003; Wechsler 2008), the gender of &P is interpretively distributive, as it is for plurals. Thus a coordinated phrase in which each nominal denotes a woman will be feminine, a homogeneously male group will be masculine, and a heterogeneous group will also be masculine, as the ANIMATE ascription to each member of the group is appropriate. As Adamson & Anagnostopoulou (2025) show for Greek, this characterization also holds even when, for example, the conjunct is grammatically neuter but refers to a woman (see relatedly Wechsler & Zlatić 2003; Kazana 2011).

More controversially, Adamson & Anagnostopoulou (2025) argue that inanimate mismatch as in (49) yields neuter resolved agreement because neuter is interpreted essentially as inanimate; this stands in contrast to alternative theories that might attribute neuter agreement to a

type of default insertion (e.g. Willer-Gold et al. 2016). As discussed by A&A, having a very general meaning of the neuter gender, in combination with Lexical Complementarity, correctly predicts that inanimate groups yield neuter resolved agreement. (On resolution with same-gender inanimates and various other patterns, see Adamson & Anagnostopoulou 2025 and references therein.)

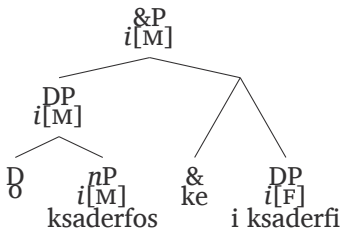
How does our contextual allosemy account bear on the issue of coordination? The gender features at &P are not local to the roots in each conjunct. Therefore, only the elsewhere ANIMATE alloseme of the masculine should be available for interpretation on &P.

This is consistent with i) the choice of masculine instead of neuter for mixed-human groups as in (48) (all members are ANIMATE); and ii) the choice of neuter for inanimate groups as in (49). The prediction is that it should never be possible for coordination resolution to yield neuter plural for a heterogeneous human group.

A striking example indicating that this prediction is borne out comes from coordinating 'cousin'-type nouns. As discussed by A&A, coordinating nominals with 'cousin' nouns in Greek yields masculine resolved agreement (51). This is expected under the current account: the MALE alloseme is available for the nominalizing heads occurring with each root – but with each root being deeply embedded within each conjunct – the roots are not visible for gender allosemy at &P, being too far away. Therefore, despite the existence of the neuter plural forms of 'cousin', coordination resolution with neuter agreement is unavailable in this context; instead, the masculine alloseme ANIMATE is selected at &P and correctly applies to the heterogeneous human group.[28] This contrast in locality between the features at *n* and the features at &P is depicted in (52).

(51) O ksaderfos ke i ksaderfi (mu) ine {eksipni /*eksipna}.
the.M.SG cousin and the.F.SG cousin my are intelligent.M.PL /intelligent.N.PL
'The (/my) male cousin and the (/my) female cousin are intelligent.'

(52)



→default [M] = ANIMATE/*MALE

→select [M] = MALE in the $\sqrt{\text{ROOT}}$ context

[28] To be clear, the allosemy account generates the correct prediction across different theories of coordination resolution (e.g. Sauerland 2003), though several accounts of resolution (including Adamson & Anagnostopoulou 2025) independently make correct predictions, including for 'cousin' nouns, via the percolation relationship between the interpreted features of the conjuncts and the resolved features.

To summarize, the MALE alloseme is only selected when it is local to particular roots. As we saw in 4.1, pronominals lacking roots do not have access to this alloseme, and resolved gender features at the level of the coordinate phrase can never be close enough to such roots for the MALE alloseme to be selected. For both pronominal elements and coordination resolution, only the default ANIMATE interpretation of the masculine is available, and the account correctly captures that it is used for heterogeneous groups.

4.3 Allosemy and cross-linguistic variation: the case of icelandic

A further benefit of the allosemy account is that it offers a way to account for points of cross-linguistic variation. Whereas for Greek, our analysis says that MALE is the more specific allosemic entry of masculine while ANIMATE is the default, we could imagine that another language could still have both allosemes but flips the relation between the two, such that ANIMATE is the specific alloseme while MALE is the default. Our account permits both types of languages, and we in fact suggest that Icelandic instantiates the second type. We emphasize, however, that our discussion of Icelandic is more tentative; we leave a more complete analysis of the Icelandic gender system to future research.

Icelandic is another Indo-European three-gendered language with a distinction between genders also labelled FEM vs. MASC vs. NEUT. Unlike in comparable expressions in Greek, it has been observed for Icelandic that NEUT is used for mixed groups in a variety of contexts (Corbett 1991; Wechsler & Zlatić 2003; Adamson & Anagnostopoulou 2025). As discussed by Adamson & Anagnostopoulou (2025), this happens for plural pronouns (53) referring to mixed groups, in greetings (54), and for coordination resolution (55). (For extensive discussion of Icelandic coordination resolution, see Thorvaldsdóttir 2019.)

(53) a. Við erum svöng.
we are hungry.[N.PL]
'We are hungry.'

b. Þið eruð svöng.
you.PL are hungry.[N.PL]
'You are hungry.'

(Adamson & Anagnostopoulou 2025: 43)

(54) {sæl / sælir / sælar}!
greetings.N.PL greetings.M.PL greetings.F.PL
'Hello!' (neuter: mixed group, masculine: all men, feminine: all women)

(Adamson & Anagnostopoulou 2025: 43)

(55) Maðurinn og konan eru {þreytt /*þreyttir /*þreyttar}
man.DEF.[M.SG] and woman.DEF.[F.SG] are tired.[N.PL] /tired.M.PL /tired.F.PL
'The man and the woman are tired.' (Adamson & Anagnostopoulou 2025: 40)

Under the present system, this would fall out naturally if [M] is interpreted as MALE in these environments (cf. Wechsler 2008): mixed groups appear as members of the NEUT set and are not excluded by presence in the masculine or feminine sets, being neither exclusively MALE nor FEMALE, respectively.[29]

However, there is also evidence that Icelandic has a FEM/MASC asymmetry like Greek with particular nouns (e.g. Grönberg 2002; examples from Adamson & Anagnostopoulou 2025). This can be seen with professional nouns like 'actor'; in a gender-irrelevant context like the question in (56a), the masculine can be used neutrally in a question such that a felicitous response could include either a female or male individual. In contrast, the use of the feminine in the question cannot be felicitously responded to with reference to a male individual (57a) (see Jakobson 1984; Bobaljik & Zocca 2011; among others, on this diagnostic).

(56) a. Þekkir þú einhvern leik.ara?
know.2.SG you some.M.SG actor.NMLZ.M.SG?
'Do you know an actor?'
b. Já, ég þekki {Ólaf /Maríu}.
yes I know.1.SG Olaf /Maria
'Yes, I know Olaf/Maria.' (adapted, Adamson & Anagnostopoulou 2025: 4)

(57) a. Þekkir þú einhverja leik.konu?
know.2.SG you some.F.SG actor.woman.F.SG?
'Do you know an actor?'
b. Já, ég þekki {#Ólaf /Maríu}.
yes I know.1.SG Olaf /Maria
'Yes, I know Olaf/Maria.' (adapted, Adamson & Anagnostopoulou 2025: 4)

We suggest that the Icelandic pattern is best understood as the *reverse* relation between allosemes in Greek: whereas in Greek the MALE interpretation of the masculine only appears with particular roots (58), in Icelandic the ANIMATE interpretation only appears with particular roots (59).

(58) Greek [M] allosemy
[M] ⟷ MALE / {√ROOT123…}
[M] ⟷ ANIMATE

(59) Icelandic [M] allosemy
[M] ⟷ ANIMATE / {√ROOT123…}
[M] ⟷ MALE

[29] As expected under this view, coordination resolution yields masculine agreement when both conjuncts refer to male individuals, even when one nominal is grammatically non-masculine, e.g. *skaldið* 'the poet.N'. See also Wechsler 2008; Thorvaldsdóttir 2019; and Adamson & Anagnostopoulou 2025: 34–35 for discussion.

This allosemy account captures the neuter plural facts for heterogeneous groups with pronouns and plurals. FEM/MASC asymmetries then arise in a "small corner" of the language with specific nouns that require the ANIMATE alloseme of [M]; this is parallel to the "small corner" of Greek for which neuter is used for mixed groups.

While our account correctly captures the set of differences described here, it is necessarily more tentative for the Icelandic system. As discussed by Grönberg (2002), there are in fact gender-neutral uses of the masculine with some quantificational elements, a property which is not readily captured under the current account (assuming such elements are rootless like pronominals). Sigurðsson (2019: fn. 24) in fact notes an instructive difference between masculine *allir* 'all' and neuter *öll* 'all': the first one can be used to refer to people in general (irrespective of gender), whereas the second one is used for a group of mixed gender. The interaction with quantification and/or genericity suggests that a more complex set of factors are at play; we leave the resolution of this issue to future work.[30]

5 Other neuter human-denoting nouns in Greek

Previous literature has typically assumed either explicitly or tacitly that the neuter gender value on particular human-denoting nouns in Greek (or in other languages) is an arbitrary association, parallel to how some inanimate roots require feminine or masculine values, with the gender bearing no apparent interpretive contribution whatsoever. The current framework does not rule this possibility out for all nouns in Greek, though we can assess whether a stronger, more restrictive hypothesis can offer further insight, namely the one stated in (60).

(60) **Neuter Human Hypothesis for Greek:** Neuter gender on human-denoting nouns is always interpreted.

To assess this hypothesis, we consider how the allosemy view, combined with Lexical Complementarity, can be extended to cases of other neuter human-denoting nouns in Greek we have not yet discussed. We will tentatively suggest that our proposal can indeed be extended this way. First, we consider nouns that refer to children (5.1), then address diminutives (5.2) and other nouns (5.3).

5.1 Children-denoting nouns

Consider the children-denoting nouns in Greek in (61), which are all neuter, as evident from e.g. their determiner agreement.

[30] Relatedly, Uli Sauerland (p.c.) suggests more generally that the interaction between Lexical Complementarity and quantification may generate incorrect predictions about gender inferences of the masculine even in languages like Greek, a property not necessarily shared with other forms of semanticopragmatic competition.

(61) *to agori* ‘the boy’
to koritsi ‘the girl’
to pedhi ‘the child’
to moro ‘the baby/infant’

Such nouns are often described as having a hybrid status. For example, while neuter agreement is obligatory with determiners, adjectives, and other categories, there is some optionality with other gender-matching elements such as bound pronouns (62), as observed by Spathas (2010).

(62) Kathe koritsi diakosmise to dhomatio {tis / tu}.
every girl.N decorated the room hers / its
‘Every girl decorated her room.’ (Spathas 2010: 222)

In a dual-feature system (like that of Smith 2015; 2017; 2021; Wurmbrand 2016; Adamson & Anagnostopoulou 2025; among others), children-denoting nouns could have uninterpreted neuter gender feature at the same time as having an interpreted feminine or masculine feature. We speculate instead that the NEUT gender of children-denoting nouns is not accidental, but rather, is also interpreted. In particular, we suggest that the neuter gender seen with children-denoting nouns reflects the intuition that children lack the animacy status of adults, being non-fully fledged humans in some relevant sense.[31]

There is cross-linguistic empirical basis for this idea. In particular, we observe that other comparable languages use neuter gender for nouns denoting children as well, suggesting that the association is not arbitrary. To name just a couple examples, the nouns meaning ‘child’ and ‘infant’ are neuter in Tamil (Dravidian), a language with feminine and masculine categories used for adult-denoting nouns (Corbett 2000: 60–61); and the nouns meaning ‘child’ and ‘girl’ are neuter in German (*Kind* and *Mädchen*, respectively), which also has a three-way gender distinction. The animacy distinction manifests itself in languages with two genders that generally distinguish humans vs. inanimates; for example, in Swedish, a language with two genders for nouns (*common* vs. neuter), the noun ‘child’ is neuter whereas the vast majority of human (adult) terms are common (see e.g. Holmes & Hinchliffe 2013).

There is also evidence from within a language suggesting that a referent’s (young) age can modulate preference for an animate vs. non-animate gender choice in pronominal reference. Braun & Haig (2010) report that with the German neuter noun *Mädchen*, survey results (302 participants) show that *age* modulates the preference of pronominal reference with the neuter or the feminine pronoun as in (63). This evidence could be taken to suggest that children at a younger age are easier to treat (linguistically) as non-animate in the relevant sense.

[31] We emphasize that this is not intended as a dehumanizing comment about children; here the term “animate” is especially unfortunate.

(63) a. Das Mädchen …{es / sie}…
the.N.SG girl …N.SG / F.SG…
'the girl (under 18)…she…' ≈%60N ≈40%F

b. Das Mädchen …{es / sie}…
the.N.SG girl …N.SG / F.SG…
'the girl (18)…she…' ≈40%N ≈%60F (Braun & Haig 2010: 78–81)

According to our allosemy account for Greek, neuter comes to be interpreted essentially either as non-animate or as neither male nor female, depending on which masculine alloseme is selected. Since the cross-linguistic pattern suggests even in languages lacking FEM/MASC gender categories for nouns that children are treated as non-animate, we will opt for the former characterization in Greek. This is stated more formally in (64).[32]

(64) **Child Gender Constraint in Greek**: Nouns formed from roots with a childhood inference categorize individuals as (linguistically) non-ANIMATE.

Consider how (64) applies in the case of a noun like *koritsi* 'girl', which is neuter. This root bears a childhood inference (in a sense not spelled out here), so it categorizes individuals as non-animate. Assume that all the nouns in (61) are not listed for the MALE alloseme of the masculine; instead, the default ANIMATE alloseme is selected.[33] The neuter gender with nouns like *koritsi* then correctly reflects that the referents are treated as if they do not belong to the class of animates.

It may seem counterintuitive that a noun like *koritsi* 'girl' has neuter gender as a reflection of being linguistically non-animate while simultaneously having lexical semantics that reflect female status. But while being female entails being animate in the real-world sense of being alive (or perhaps having been alive), it does not entail being animate for the purposes of the linguistic opposition of ANIMATE vs. non-ANIMATE (with perhaps a better term being "rational"). For example, animals can be female but non-ANIMATE, and this comports with the fact that their grammatical gender is not (obligatorily) interpreted in Greek: hence *kuneli* 'rabbit' is neuter but can refer to a rabbit that happens to be female. (See Spathas & Sudo 2020 for extensive discussion on such nouns in Greek.) The female lexical semantics of *koritsi* thus need not clash with linguistic non-animacy. This is unlike the female inference that comes from a feminine feature; as stated above, we assume that the interpreted property of FEMALE from [F] implies ANIMATE. Thus the

[32] Not all neuter children-denoting nouns are used *exclusively* to refer to children. They can in fact be used to refer to adult individuals, though the noun nevertheless remains neuter, as when *koritsi* 'girl' is used to mean 'girlfriend'. We simply stipulate that in such cases, a childhood inference still holds for the purposes of (64), though we leave open for future research the resolution of how this actually works.

[33] There is no actual masculine version of these nouns (**o koritsi, *o agori*). We are assuming that this is merely a matter of pronunciation at PF, and that the interpretations of gender features for masculine and feminine are still considered at LF for purposes of Lexical Complementarity.

constraint in (64) derives the incompatibility of *koritsi* with feminine agreement (**i koritsi* 'the.F.SG girl'): the ANIMATE interpretation of the feminine feature is incompatible with the non-ANIMATE requirement of the constraint.

One might also expect that our Binary Assumption stated in (35) requires a noun like *koritsi* to be feminine. However, this assumption is simply not applicable because the constraint in (64) means that child-denoting nouns are not ANIMATE, and are therefore not subject to this requirement.

Because (64) is restricted to the formation of nouns with childhood roots, it has no bearing on gendered reference to children with pronominals (lacking a child-root) or other nominals, which can indeed refer to individuals who happen to be children, treating them as animate individuals.[34] Hence the bound pronoun in (62) may be feminine or neuter, being a distinct nominal from the quantified nominal *kathe koritsi* 'every girl'.[35]

What if a root can have a childhood reference but does not have to? The nouns in (61) all seem intrinsically children-oriented, but some kinship nouns like *egonos* 'grandchild' have a childhood component to them but can readily refer to an adult that bears the relevant kinship relation. We speculate that this situation characterizes some set of kinship nouns that select for the MALE alloseme of the masculine gender. For such nouns, the childhood component of the root is optional: when it is present, the only choice is for neuter gender, but when it is absent, the Binary Assumption applies and individuals are categorized as male or female, and hence the noun can be masculine or feminine, respectively.

Recall from Section 3 that many kinship nouns select the MALE alloseme. As alluded to above, some of these nouns are acceptable with the neuter singular. Our contention is that it is precisely the case when these nouns can have childhood inferences, as for 'grandchild' (65) and for some speakers, 'niece/nephew/nibling' (66).

(65) a. o egonos / i egoni / to egoni
the.N.SG grandchild / the.M.SG grandchild / the.F.SG grandchild
'the grandchild' MASC = male; FEM = female NEUT = gender-neutral

b. i egoni mas /i egones mas /ta egonia mas
the.M.PL grandchild our /the.F.PL granchild our /the.N.PL grandchild our
'our grandchildren' MASC = all male; FEM = all female; NEUT = gender-neutral

[34] Here again, we abstract over how precisely to characterize gender intensionality; in this system, it must be that the same individual can have the properties FEMALE and ANIMATE on the one hand but non-ANIMATE on the other, depending on whether a childhood inference is present.

[35] This is similar to gendered reference with animal nouns in other languages (see Spathas & Sudo 2020 for extensive discussion on Greek). In English, for example, a noun *mare* ('female horse') is used for a non-human referent; if it is in a nominal antecedent, it can be referred back to with *it* or with *she* felicitously.

(i) That mare is a local. It/she was born not far away from here.

(66) a. o anipsjos mu / i anipsja mu / (%#)to anipsi mu
the.M.SG nibling my / the.F.SG nibling my / the.N.SG nibling my
'my nibling' MASC = nephew; FEM = niece; NEUT = gender-neutral (for some speakers, only endearing or expressive)

b. i anipsji mu / i anipsjes mu / ta anipsja mu
the.M.PL nibling my / the.F.PL nibling my / the.N.PL nibling my
'my niblings' MASC = nephew; FEM = niece; NEUT = gender-neutral

In summary of this more speculative subsection, children-denoting nouns can conform to the Neuter Hypothesis from (60), given the additional constraint (64) placed on children-denoting nouns. In addition to capturing the neuter status of children denoting nouns like *koritsi* 'girl', the account can correctly capture which neuter kinship nouns can be singular, in contrast to the nouns discussed in Section 3, which resist (unmarked uses of) the singular.

5.2 Diminutives

We suggest that the allosemy account can further be extended to the interpretation of neuter diminutives. Adamson & Anagnostopoulou (2025) observe that human-denoting nouns occurring with a diminutive suffix can often either retain the gender of their base or can be neuter, with a systematic difference in interpretation. For example, with human nouns like *andras* 'man', the gender-matching diminutive has an endearing interpretation while the neuter diminutive is pejorative, as in (67).

(67) a. o andras / o andr-ulis / to andr-aki
the.M.SG man / the.M.SG man-DIM / the.N.SG man-DIM
'the man / the little man (endearing) / the little man (pejorative)'

b. Aghapo poli {ton andruli mu/ #to andraki mu}.
love.1.SG much the.M.SG.ACC man-DIM my/ the.N.SG.ACC man-DIM my
'I love my dear husband.'

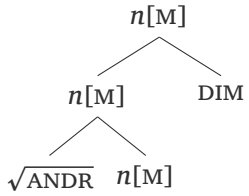
c. Poli {to andraki /#ton andruli} mas pezi!
much the.N.SG.ACC man-DIM the.M.SG.ACC man-DIM CL.DAT play.3.SG
'He pretends to us to be a big man!' (a sarcastic interpretation)

(Adamson & Anagnostopoulou 2025: 9)

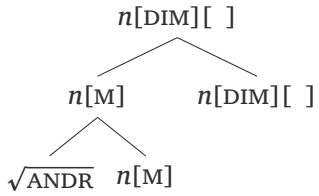
Adamson & Anagnostopoulou (2025) suggest that the pejorative interpretation arises as a result of a dehumanization effect that comes from neuter being interpreted as "inanimate" in combination with a human-denoting noun. Following Kramer (2015), we take diminutive suffixes that change the gender to be instances of nominalizing heads, which bear their own gender features (see relatedly Wiltschko 2006; Wiltschko & Steriopolo 2007; Steriopolo 2008; Gouskova & Bobaljik 2022; among many others). We assume that the diminutive *n* adjoins to the existing nominal

structure; hence neuter diminutivization is a form of denominal nominalization. Following Kramer and others, we assume that diminutivization of a noun corresponds to this type of denominal structure for gender-changing diminutivization but not for the gender-matching option; both are illustrated in (68). We follow Kramer (2015); Adamson & Šereikaitė (2019); among others in assuming that the gender features of the outermost nominalizing head are the ones applicable for agreement.

(68) a. Endearing



b. Pejorative



We assume that the gender features on the diminutive *n* head are also interpreted. Because they are separated from the root by the intervening *n* head that combines with the root, the diminutive heads are nonlocal for the purposes of root-based allosemy of gender. Therefore, the only interpretation is with the default alloseme ANIMATE. For the gender-matching case, there is only one interpreted gender feature since the diminutive head does not combine with its own set of gender features. For the neuter case, there will be a clash between the animacy inference from the inner *n* head and the inanimate type of meaning from the outer *n*. While this may appear to a present a contradiction, we suggest that the addition of the diminutive semantics allows for a type of coercive interpretation, whereby the animate referent is treated as if it is inanimate, giving rise to the pejorative dehumanization effect (though we do not spell this out more explicitly).

This account leads to predictions for other diminutivized nouns. Recall from (64) that children-denoting nouns are considered non-animate; because of this constraint, there should be no pejorative effect for neuter diminutivization when it applies to children-denoting nouns. Adamson & Anagnostopoulou (2025) in fact note that there is no pejorative effect for child-denoting nouns such as *ped-aki* 'child-DIM', which remain neuter when they appear as diminutives.

The other prediction concerns inanimate nouns, which should not bear a pejorative interpretation when the neuter diminutive *n* combines with it. Grammatically neuter examples

such as *kapel-aki* ‘little hat’ and *xer-aki* ‘little hand’ support this claim. This can also be extended to animal nouns treated as non-rationals (see Spathas & Sudo 2020 for extensive discussion of such nouns); as also noted by Adamson & Anagnostopoulou (2025), *gat-aki* ‘little cat’ and *skil-aki* ‘little dog’ (respectively formed from feminine and masculine nouns) are not pejorative.

5.3 Other neuter human-denoting nouns

There are also other nouns in Greek that are necessarily neuter, which can be – and are often – used to refer to humans. A list of well-known and fairly frequent nouns with this property can be found in (69).

(69) *atomo* ‘individual’ *thima* ‘victim’
melos ‘member’ *prosopo* ‘character/person’

We do not have a clear answer for how neuter comes to be interpreted on these nouns. One intuition to pursue is that what is most relevant about these roots for their neuter status is that they do not *require* reference to humans. *Atomo* is used for individual people, but it is also used for inanimates to mean ‘atom’; the same is true for *prosopo* ‘character/person’ and *melos* ‘member’.

Arguably the most problematic example for this intuition is *thima* ‘victim’; perhaps its neuter status may suggest something was previously a living human or animate being, but might not be anymore (for example, if they are a murder victim). In any case, we can state the intuition somewhat more formally as in (70).

(70) **Animacy Constraint in Greek**: Nouns formed from roots lacking a (real-world) animacy inference cannot categorize individuals as ANIMATE.

The effect of (70) is that such nouns are ineligible to be masculine or feminine because the gender semantics would entail being ANIMATE.

In relation this constraint, we would like to highlight that nouns with these meanings in other languages are also known for not having gender interpretations associated with animates, which seems not to be coincidental. For example, in Italian, *vittima* ‘victim’ is feminine (as is true of its relatives in other Romance languages).[36]

6 Conclusion

This work advances the idea that the existence of NEUT human nouns in Greek is not an arbitrary fact. Rather, it falls out from contextual allosemy of MASC, in combination with a semanticopragmatic principle like Lexical Complementarity. Our allosemy account makes

[36] To be clear, we do not mean to suggest that the feminine gender for *vittima* is interpreted; rather, our suggestion is that such root meanings more often appear to fall outside of the purview of the gender interpretation requirements (i.e. categorization as ANIMATE) imposed on human nouns within a language.

correct predictions for the distribution of masculine and neuter gender interpretation in various environments including for the number asymmetry observed with kinship nouns such as the one meaning 'cousin' and with coordination resolution and pronouns. With a small adaptation for Icelandic, the account also captures differences between Greek and Icelandic in these environments. More tentatively, the proposal can be extended to account for other neuter human-denoting nouns in Greek, including children-denoting nouns, diminutives, and miscellaneous other nouns.

We did not contend with assertive vs. presuppositional dimensions of gender interpretation, as we were principally focused on the covariation in meaning between masculine and neuter via competition. While our analysis of gender interpretation was stated in terms of assertion, it should be possible to alter details of this analysis and to switch accordingly to a different competition-based principle, without losing the core insight here. This is important to note given that Sudo and Spathas's (2020) work indicates that gender inferences in Greek can be presuppositional as well as assertive.

The current work is in line with the view according to which unmarked ϕ-feature values are interpreted through contrastive inferences with marked values (McGinnis 2005; Sauerland 2008; Toosarvandani 2023; among many others) – which was encoded here through Lexical Complementarity, but which has also been proposed with other implementations involving semanticopragmatic competition (e.g. *Maximize Presupposition*). We stress that while our implementation is in terms of Lexical Complementarity, we believe a number of alternative theories involving contrastive inference would also be compatible with the findings here, though we leave investigation of differences in this domain to future research. That being said, the uniqueness of the current work's contribution to this line of inquiry stems from the polysemy of gender, which we showed interacted with competition to yield distinct outcomes for how the unmarked value (neuter) comes to be interpreted. This stands in contrast to the category of person, which as far as we are aware, is not commonly thought to give rise to multiple meanings, for example, with participant or speaker features. It may be that the category of number displays similar types of interpretive differences (for e.g. collective or weakly individuated plurals (see Acquaviva 2008 and many others)) that interact with competition in ways that could be probed in future research along the lines explored here for gender.

A question not addressed in the present article concerns how nouns come to be licensed with some genders but not others. For instance, the proposal that we have advanced here correctly derives the meaning of neuter human-denoting nouns when there is a corresponding masculine noun that selects the MALE alloseme, but it says nothing about why there is often no neuter form for nouns that take the MALE alloseme. This question seems related to the *lexical gap* issue of why (in English) there is a gender-neutral term for *parent* but not for *uncle/aunt* (beyond the nascent and marginal term *pibling*), though the question for Greek merits its own attention within the

context of the mechanics of gender licensing with roots that are allowed to appear with some genders (feminine and masculine) but not others (neuter). There are in fact formal accounts of gender licensing at PF – see especially Kramer (2015) – under which one could formally capture the patterns presented here, though it is not clear that they explain why neuter forms for human-denoting nouns exist only in a narrow set of cases. (On an alternative view of gender licensing, see Hammerly 2019.)

Relatedly, we have set aside how uninterpreted gender, such as a feminine feature on an inanimate noun, is encoded in the grammar, and how this does, or does not, interact with the Lexical Complementarity calculus. There has been discussion of how "uninterpreted" gender is encoded (see Kramer 2015; Adamson & Anagnostopoulou 2025, or for an alternative view, Hammerly 2019), though there has been less discussion about its potential interactions with semanticopragmatic competition, though see Spathas & Sudo (2020) for discussion in the context of animal nouns.

We note that at least one view in the literature explicitly argues against the invocation of contextual gender allosemy, namely from Hammerly (2019). Hammerly's argument is based on gender with inanimates which we have assumed is uninterpreted (or arbitrary) (e.g. feminine gender with the noun meaning 'chair'). On the basis of data from French, Hammerly (2019) argues for an account with a "comprehensive" interpretive mechanism, which takes some combinations of roots plus nominalizing heads with particular gender features to be mapped to single denotations, with these roots by themselves not mapping to any meaning. Hammerly's analysis thus captures the conceptual/arbitrary gender dichotomy through this interpretive mechanism: the former treats the combination of the root plus *n* as compositional, combining the denotation of the root with that of *n*, while the latter treats the combination as non-compositional, mapping the two morphemes to a single interpretation (thus $\sqrt{\text{CHAIR}}$ will be semantically undefined by itself, but $\sqrt{\text{CHAIR}}$ plus [F] will map onto the meaning 'chair').

From the current viewpoint, we would like to highlight that Hammerly's account does not capture systematic meaning alterations that vary across nouns, including the central ANIMATE/MALE alternation discussed in the present work. This is because a comprehensive interpretation mechanism provides no means of contextual modulation for the meaning of a single morpheme,[37] whereas this is a vital component of the current account, as the meaning of interpretable gender on *n* varies depending on the context of the root.[38]

[37] Hammerly (2019: 114–115) notes that a comprehensive mechanism does not reflect relatedness in meanings across different uses of the same root, suggesting instead that such conceptual relatedness is not grammatically encoded in any way. Given that shared (morpho)phonology is taken to be reflected grammatically as sharing of common roots or bases (e.g. Aronoff 1976; Creemers et al. 2020; Adamson 2024b), it is not clear to us why shared (decomposable) meanings should not be reflected grammatically.

[38] Hammerly also suggests that contextual allosemy accounts of gender predict that it should be possible to have a compositional gender interpretation (e.g. feminine gender giving rise to a female inference) condition an idiosyncratic interpretation on a root, as schematized in (i).

Another alternative view that would dispense with gender allosemy could assign the meaning contrasts distinct morphosyntactic featural representations. For example, the MALE interpretation of masculine could correspond to [M][MALE] and the animate interpretation could correspond to [M] (or [M][ANIMATE]). We contend, however, that such an account would fail to capture the identity in form for these meanings within the language's system of gender exponence. Moreover, it is not readily clear how it would capture the interpretation of the neuter in its gender-neutral use only in the plural among the neuter kinship nouns in a non-stipulative way.

Our account makes predictions within Greek and Icelandic that have not been fully explored here, especially in the case of the latter. Relatedly, however, we have adopted a particular view of locality for this account, though other views of locality for meaning-based alternations should be considered, which may have possible implications for the range of predicted interactions. Another related issue concerns nominal structure, with some work suggesting that some types of number features for so-called *lexical plurals* can be hosted on *n* rather than on Num (e.g. Acquaviva 2008; Alexiadou et al. 2011; Kramer 2016b), which would put gender, number, and a root in positions local to each other for the purposes of allosemy. (See Adamson et al. 2025 on interactions with ellipsis with neuter kinship nouns, which in this account are treated as lexical plurals.) Other researchers have alternative perspectives on the position of gender features within nominal structure (e.g. Steriopolo & Wiltschko 2010; Steriopolo 2018). Issues regarding structure and the precise conditions on locality notwithstanding, the present account generates predictions for other languages in terms of where contextual allosemy for gender, and for other features, can and cannot manifest itself.

(i) [F] ↔ FEMALE
$\sqrt{\text{ROOT123}}$ ↔ special meaning / [F]
$\sqrt{\text{ROOT123}}$ ↔ elsewhere meaning

Hammerly claims that this prediction is false for French. However, we believe that there are examples in French, as well as in Greek, that speak in favor of this hypothesis: in French, for example, there is a masculine *maître* 'master/teacher' with a feminine counterpart *maîtresse*, which can have a sexualized meaning of 'mistress' not present with the corresponding masculine. In Greek, the feminine *iereia* 'priestess' is like the English translation in having distinct senses from the corresponding *iereas* 'priest'.

We would like to highlight the affinity between this debate and the issue of so-called *double-marking* on the morphophonological side (where a morpheme is both realized concatenatively and triggers a change on a neighboring element), which has been argued to problematize phrasal spell-out accounts of morphophonological realization; see especially Embick (2017).

Abbreviations

Standard abbreviations come from the Leipzig Glossing Rules.

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Competing interests

The author has no competing interests to declare.

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