

Licensing and Differential Object Marking: The View from Neo-Aramaic

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Abstract. I propose a novel analysis of differential object marking (DOM) that revolves around nominal licensing and, unlike most previous accounts, does not appeal to object visibility (e.g., Danon 2006, Lyutikova & Pereltsvaig 2015), object raising (e.g., Bhatt & Anagnostopoulou 1996, Baker & Vinokurova 2010), or object differentiation or identification (e.g., Aissen 2003, De Hoop & Malchukov 2008). I argue (i) that not all nominals need abstract licensing (following Massam 2001, Danon 2006, Ormazabal & Romero 2013), but also that all nominals have the *potential* to be licensed, that is, all nominals are visible to case and agreement processes; (ii) that the set of objects that are overtly marked (e.g., by case or agreement) can reveal the set of nominals that require licensing in a language, and (iii) that clauses typically have one obligatory nominal licenser, with secondary licensers merging only when needed for convergence (following Levin & Massam 1985; Bobaljik 1993; Laka 1993, 2000; Rezac 2011). Taken together, I show that variation in the types of nominals that need licensing and the location/identity of obligatory and secondary licensers can derive crosslinguistic differences in case, agreement, and DOM patterns. This unified account simplifies our understanding of nominal licensing within and across languages, as it does not require objects to have special properties as compared to subjects, nor does it fundamentally differentiate DOM languages from non-DOM languages. The motivating data come largely from the Neo-Aramaic language Senaya, which clearly illustrates that certain nominals can occupy a position where abstract licensing is unavailable.

1. Introduction

In this article, I offer a novel theoretical account of differential object marking (DOM), broadly defined as including both case and agreement, that revolves around *nominal licensing*. In the sense intended here, licensing refers to the fulfillment of an abstract requirement that holds over the grammatical expression of nominals. In the most general terms, I argue that the set of objects that are overtly marked in a language reveals the set of nominals that more generally require abstract licensing in that language; unmarked objects in DOM languages do not need abstract licensing, and are, in fact, unlicensed. It is seemingly problematic that, on this view, nominals that would go unmarked (unlicensed) in object position are in fact typically marked (licensed) in subject position. I propose that subjects behave uniformly not because subject nominals are fundamentally different from object nominals but rather because the operations behind subject marking apply

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obligatorily. Object nominals, on the other hand, can escape licensing due to their lower syntactic position.

DOM is a widespread and much-discussed phenomenon that splits objects into two classes: in one group are objects that get overtly morphologically marked, in the other group are objects that do not (Comrie 1979, 1981; Croft 1988, 1990; Bossong 1991; Enç 1991; De Hoop 1996; Torrego 1998; Woolford 1999; Aissen 2003; Danon 2006; De Swart 2007; Rodríguez-Mondoñedo 2007; Dalrymple & Nikolaeva 2011; López 2012, among others). DOM is found across language families (Austronesian, Indo-European, Semitic, Pama-Nyungan, and Afro-Asiatic, among others) and seems to be encoded via a range of argument-marking strategies. On an inclusive conception of DOM, which I adopt here, marking may take the form of case (e.g., Persian, Turkish), an adposition (e.g., Spanish, Hindi), agreement (e.g., Swahili, Ostyak), or clitic doubling (e.g., Macedonian, Catalan).¹

Objects that participate in DOM are differentiated along two main dimensions: animacy and definiteness (Silverstein 1976, Moravcsik 1978, Comrie 1979, Croft 1988, among others); see the scales in (1) and (2). DOM languages differ as to whether just one or both of these scales determine(s) the differentiation of objects, as well as where along the scale(s) the cutoff is made between marked and unmarked. But it is always objects on the left side of the scale (having “high prominence”) that are overtly marked.

(1) Animacy/person scale:

First or second person > third-person pronoun > name > human > animate > inanimate

(2) Specificity/definiteness scale:

Pronoun > name > definite > specific > nonspecific

Other properties of the object that may influence DOM in a language are affectedness (Næss 2004), topicality (Dalrymple & Nikolaeva 2011), and, in rare cases, focus and number (Woolford 1999).

A well-known instance of DOM is found in Hindi, where objects are differentiated mainly by specificity. Simplifying somewhat, objects are marked with *-ko* only when specific (Bhatt 2007:2):

(3) a. Mina tum*(-**ko**) dekh rahii thii.

Mina.F you-DAT see PROG.F be.PST.SG.F
‘Mina was looking at you.’

b. Mina Tina*(-**ko**) dekh rahii thii.

Mina.F Tina-DAT see PROG.F be.PST.SG.F
‘Mina was looking at Tina.’

¹ Some languages use syntactic position (e.g., Dutch, German) or distinct markers (e.g., Finnish PART and ACC) to differentiate classes of objects. I will not be discussing such languages here.

- c. Mina ek bacce(-ko) uṭhaa rahii hai.
 Mina.F a child-DAT lift PROG.F be.PRS.3SG
 ‘Mina is picking up a (particular) child.’
- d. Mina ek bacca uṭhaa rahii hai.
 Mina.F a child lift PROG.F be.PRS.3SG
 ‘Mina is picking up a (nonspecific) child.’

The DOM marker *-ko* is obligatory on all first- and second-person object pronouns and proper names in object position, as in (3a,b), because such nominals are always specific. For all other nominals (at least in nonperfective aspects), *-ko* surfaces when the object is specific, as in (3c), and does not when the object is nonspecific, as in (3d). Hindi also illustrates another crosslinguistically common property of DOM: DOM is often “parasitic” in the sense that the process through which (or the form in which) DOM surfaces is typically evidenced elsewhere in a language’s grammar, where it marks nominals nondifferentially; in other words, elsewhere the marker surfaces independently of specificity, animacy, and so on. Most frequently, DOM looks like indirect-object marking, for example, a dative case marker or adposition (Bossong 1991), as seen in Hindi: note the glossing of *-ko* as DAT above.

Most previous theoretical approaches to DOM hold that differential marking surfaces because of one or more factors: (i) differentiation of the subject from the object (e.g., Aissen 2003, De Hoop & Malchukov 2008, Richards 2010), (ii) identification of certain semantic/pragmatic features of the object (e.g., Næss 2004, De Hoop & Malchukov 2008, Dalrymple & Nikolaeva 2011), (iii) raising of the object (e.g., Bhatt & Anagnostopoulou 1996, Baker & Vinokurova 2010, López 2012), or (iv) the (in)visibility of certain objects to case and agreement processes (e.g., Massam 2001, Danon 2006, Lyutikova & Pereltsvaig 2015).

The theoretical account defended here takes differential marking to arise from the interaction of two factors that can vary crosslinguistically: the type(s) of nominals that need licensing and the location/identity of nominal licensers.

First, I argue that only nominals with certain structural/featural components need licensing—for example, only nominals with the structure/features associated with definiteness. Which features/pieces of structure induce the need for licensing varies by language. I implement this proposal in a Minimalist syntax, with uninterpretable Case introduced by certain pieces of nominal structure, similar to earlier proposals that took marked objects to be DPs and unmarked objects to be NPs (e.g., Massam 2001, Danon 2006, Rodríguez-Mondoñedo 2007, Richards 2008, López 2012, Ormazabal & Romero 2013, Lyutikova & Pereltsvaig 2015). Unlike earlier proposals of this type, I draw a distinction between unvalued, uninterpretable features and unvalued, interpretable features (Pesetsky & Torrego 2007); only the former type of Case feature will cause a crash of the derivation. Extending ideas from Pesetsky & Torrego 2007 and Danon 2011, I take unvalued, interpretable Case to be present on every piece of nominal structure and shared throughout the nominal. All nominals thus have the potential to be licensed (all bear at least unvalued, interpretable Case),

but only nominals with certain additional features/structure *need* licensing (have unvalued, uninterpretable Case).

Second, I combine this conception of Case and nominal structure with the proposal that clauses typically have just one obligatory licenser (always merged), with secondary licensers merging only when needed for convergence (Levin & Massam 1985; Bobaljik 1993; Laka 1993, 2000; Rezac 2011). An obligatory licenser is active (looks for a nominal to give Case to) in every derivation, while a licenser that optionally merges will only be active when its inactivity would cause some nominal that requires licensing (i.e., that bears uninterpretable Case) to go unlicensed. This is essentially an economy condition on licensers, not unlike other global last-resort mechanisms that have been proposed for other linguistic phenomena (see, e.g., Safir 1993; Chomsky 1995, 2000; Bošković 1997). Languages differ as to the identity and location of both obligatory and secondary licensers.

Putting together these two proposals about nominal structure and clausal structure can derive a number of different DOM patterns and case/agreement patterns: from non-DOM to DOM in a nominative-accusative language like Turkish to variations in ergative marking in Niuean.

The bulk of the empirical motivation for this proposal comes from the complex aspect-based agreement split with DOM that is found in the Neo-Aramaic language Senaya. I show that in Senaya, it is only specific nominals that need licensing, and further, that the object position in canonical perfective aspect is an unlicensed position—that is, there are no secondary licensers that could be activated to license a nominal in that position. As a result, nonspecific nominals may appear in the object position of a canonical perfective (since they do not need licensing), but specific nominals cannot (since they do need licensing). I further show—contra previous accounts of DOM—that unmarked objects need not be adjacent to the verb, nor do marked objects necessarily occupy a high position. It is also not plausible to claim that nonspecific nominals are simply deficient (unable to trigger agreement), since they do trigger agreement—and do so obligatorily—when they are subjects. Finally, I show that the DOM marker in Senaya has a second life as nondifferential subject agreement, so it cannot be that the marker itself encodes or is sensitive to specificity.

The proposal made here has a number of conceptual and empirical advantages over previous approaches to DOM. This novel approach (i) helps us understand why differential marking typically affects objects, not subjects; (ii) captures the effects of prominence scales without positing that they are primitives; (iii) can explain why DOM is typically a zero–nonzero marking alternation; (iv) provides a basis for understanding dative–accusative “syncretism” in DOM; (v) extends naturally from DOM based on definiteness to DOM based on animacy; and (vi) relies neither on marked objects occupying a high position in the clause nor on unmarked objects remaining adjacent to the verb (pseudoincorporation), which are not universal empirical characteristics of DOM.

The article is organized as follows. In section 2, I introduce the Neo-Aramaic data that will be central to my argument (sect. 2.1) and show briefly that previous accounts

of DOM are not well-suited to extend to such data (sect. 2.2). In section 3, I propose a new analysis of DOM, starting with an intuitive overview of the mechanics of the account and a toy example (sect. 3.1), then laying out the ingredients of the formal account (sects. 3.2 and 3.3). In section 4, I implement my account in Senaya, building off of work on the basic syntax of Senaya by Kalin & Van Urk (2015). Section 5 discusses how this account can help us understand and model DOM and case/agreement patterns crosslinguistically.

2. DOM in Neo-Aramaic: Data and Implications

Senaya is a Northeastern Neo-Aramaic language originally spoken in the city of Sanandaj, in Iran. Senaya, like all NENA languages, differentially marks objects (Coghill 2014). DOM in Senaya takes the form of agreement on the verb. In section 2.1, I introduce Senaya's basic morphosyntax and differential-agreement pattern. In section 2.2, I show that Senaya poses challenges for previous accounts of DOM. There has been some earlier work on Senaya (Panoussi 1990, Heinrichs 2002), but the data presented here represents original fieldwork I conducted with Laura McPherson and Kevin Ryan.

2.1. *The Morphosyntax of Senaya*

2.1.1. *Basic properties*

Senaya's basic word order is SOV, but word order is somewhat free, and the language has more head-initial than head-final properties (it has prepositions rather than postpositions, possessors follow N, adjectives follow N, complementizers precede the clause they introduce, etc.). Noun phrases may be determinerless and do not inflect for case, and pronouns may be null in both subject and object position.

Verbal morphology in Senaya is both nonconcatenative (root-and-template) and concatenative (affixal). Verb roots are typically trilateral, and they inflect via root-and-template morphology for aspect, tense, and mood. These are the "verb bases," illustrated in (4).

(4) Verb bases in Senaya

Root	Imperfective	Perfective	Imperative	Infinitive
r-k-w ('ride')	rakw	rkū	rkū	rkāwa
q-ṭ-l ('kill')	qaṭl	qṭel	qṭol	qṭāla
s-m-x ('wait')	samx	smex	smox	smāxa

Some affixes further encode grammatical distinctions, such as the past-tense suffix *-wā*.

Across Northeastern Neo-Aramaic, there are two paradigms of agreement morphemes, the so-called S-suffixes and L-suffixes. These suffixes mark the person, number, and gender of arguments (Coghill 1999).

(5) S-suffixes	Singular			L-suffixes ²	Singular		
	Masc.		Fem.		Masc.		Fem.
	First person	-en	-an		-ox	First person	-lī
Second person	-et	-at	-īton	Second person	-lox	-lax	-lōxon
Third person	-∅	-a	-ī	Third person	-lē	-lā	-lū/-lun

When the two types of agreement markers co-occur, S-suffixes always precede L-suffixes, and the past-tense morpheme appears in between, (6), exemplified in (7):³

(6) V–S-suffix–past tense–L-suffix

- (7) Molp -ā -wā -lan.
 teach.IMPf S.3SG.F PST L.1PL
 ‘She used to teach us

While this order (V–S–PST–L) is constant across verb bases, there are differences across Northeastern Neo-Aramaic languages as to which agreement marker (S or L) agrees with which argument, on which verb base. In particular, these differences manifest in aspect-based agreement splits.

2.1.2. *Differential agreement and an aspect split in Senaya*

There are at least five distinct aspect splits in Northeastern Neo-Aramaic.⁴ In Senaya, we see an aspect split that is rare among Neo-Aramaic languages, which Kalin & Van Urk (2015) call *partial agreement reversal*: the agreement markers partially reverse function across the perfective and imperfective bases.

We’ll start by looking at subjects across the two aspects. In imperfective aspect, subjects trigger agreement in the form of S-suffixes (subject agreement boldfaced).

(8) Imperfectives: subjects agree obligatorily; morphological form = S-suffix

- a. Xa ksūta lāpl-ā.
 a book.F fall.IMPf-**S.3SG.F**
 ‘A **book** is falling (e.g., but I don’t know which).’
 (Subject is nonagentive, nonspecific, indefinite, inanimate)

² There is evidence in some Neo-Aramaic languages that L-suffixes are in fact clitics, resulting from clitic doubling (Doron & Khan 2012, Kalin & Van Urk 2015). In Senaya this evidence is absent, so I continue to take both S-suffixes and L-suffixes to be properly characterized as agreement and not clitics in this language.

³ 1, 2, 3 = first, second, third person, DAT = dative, ERG = ergative, F = feminine, GEN = genitive, IMPF = imperfective, IND = indicative, L = L-suffix, M = masculine, NEG = negation, NOM = nominative, PST = past, PFV = perfective, PL = plural, PRS = present, PROG = progressive, S = S-suffix, SG = singular.

⁴ Four aspect splits are documented by Doron & Khan (2012): (i) complete agreement reversal with a Person Case Constraint effect in the perfective (Christian Barwar); (ii) complete agreement reversal without a Person Case Constraint effect in the perfective (Jewish Amadiya); (iii) agreement reversal with a split-S system in the perfective (Jewish Sanandaj); and (iv) agreement reversal with a dynamic-stative system in the perfective (Jewish Urmi). Senaya constitutes a fifth type of split, which I call partial agreement reversal following Kalin & Van Urk (2015).

- b. *Āyet kasw-et-wā.*
 you write.IMPF-**S.2SG.M**-PST
 ‘**You** used to write.’
 (Subject is agentive, specific, definite, animate)

As can be seen from (8), the subject always triggers agreement; its properties (agentive or not, specific or not, definite or not, animate or not) have no effect.

In perfective aspect, subjects trigger agreement in the form of L-suffixes (subject agreement boldfaced).

(9) Perfectives: subjects agree obligatorily; morphological form = L-suffix

- a. *Xa ksūta mpel-ā.*⁵
 a book.F fall.PFV-**L.3SG.F**
 ‘**A book** fell (e.g., but I don’t know which).’
 (Subject is nonagentive, nonspecific, indefinite, inanimate)
- b. *Āyet ksū-wā-lox.*
 you write.PFV-PST-**L.2SG.M**
 ‘**You** wrote (a long time ago).’
 (Subject is agentive, specific, definite, animate)

Again, the subject always triggers agreement, regardless of its properties. Subject marking in Senaya, then, is not differential. The obligatory agreement of subjects is constant across imperfective and perfective aspect and across both types of agreement markers (S and L).

Objects, on the other hand, only trigger marking on the verb when they are specific.⁶ There is no case marking on nominals, nor are there obligatory determiners, and so the specificity of a nominal in Senaya may be gleaned from DOM (agreement on the verb) alone. It is worth pausing for a moment to clarify what is meant by *specific*. I adopt the intuitive, informal definition of specificity that relates it to speaker knowledge and intention: if the speaker intends/presupposes a particular referent for a nominal, then that nominal is specific. The syntax, semantics, and pragmatics of specificity are highly controversial. As von Heusinger (2011) notes, “There is no agreed-upon set of semantic and pragmatic properties of specific indefinites. They have been characterized as, for instance, (i) (direct) referential terms, (ii) rigid designators, (iii) always showing wide scope, (iv) signaling the certainty of the speaker about the identity of the referent, (v) licensing discourse anaphora, (vi) being presuppositional, and (vii) signaling discourse prominence.” The data presented here are not intended to arbitrate in favor of one notion of specificity. Rather, as will be seen in the Senaya examples, I have chosen what I hope to be fairly uncontroversial, straightforward instances of (non)specificity. Where relevant, I have included in the translations (in parentheses) the context in which the sentence was

⁵ The *-* of the L-suffixes is deleted following a coronal consonant.

⁶ Across Neo-Aramaic, other factors such as animacy and topicality also play a role (Coghill 2014).

elicited, as in (8a) and (9a). A more precise investigation of the exact semantic and pragmatic content of specificity in Senaya is left for future work.

We now turn to object agreement in Senaya, again starting with imperfective aspect. When an object is specific in the imperfective, it is obligatorily marked on the verb with an L-suffix (object agreement boldfaced). Subjects, as usual, trigger agreement as an S-suffix (see (8)).

(10) Imperfectives: objects agree if specific; morphological form = L-suffix

- a. Āna (xa) ksūta xazy-an-**ā**.
 I a book.F see.IMPF-S.1SG.F-**L.3SG.F**
 ‘I see **a (specific) book** (e.g., on the table).’
 (Object is specific, indefinite, inanimate, unaffected)
- b. Āna ō ksūta kasw-an-**ā**.
 I that book write.IMPF-S.1PL-**L.3SG.F**
 ‘I (will) write **that book**.’
 (Object is specific, definite, inanimate, affected)
- c. Pōles kod yōma baxt-ē nāsheq-Ø-**lā**.
 Paul every day wife-3SG.M kiss.IMPF-S.3SG.M-**L.3SG.F**
 ‘Paul kisses **his wife** every day.’
 (Object is specific, definite, animate, affected)

This marking of the object with an L-suffix motivates the term *reversal* in *partial agreement reversal*: L-suffixes mark subjects on the perfective base, as in (9), but objects on the imperfective base, as in (10).

The examples in (11) show that nonspecific objects do not trigger agreement on the verb. Note also that nonagreeing objects cannot optionally be interpreted as specific, nor can agreeing objects be interpreted as nonspecific; in other words, object agreement is obligatory for specific objects and banned for nonspecific objects.

(11) Nonagreeing objects interpreted as nonspecific

- a. Āna (xa) ksūta kasw-an.
 I a book.F write.IMPF-S.1SG.F
 ‘I will write a book (e.g., someday, about something, I don’t know what).’
 (Object is nonspecific, indefinite, inanimate, affected)
- b. Āna kod yōma yāle xazy-an.
 I every day children see.IMPF-S.1SG.F
 ‘I see some children every day (e.g., but it is not the same children every day).’
 (Object is nonspecific, indefinite, animate, unaffected)

As can be seen in the range of examples in (10) and (11), neither affectedness nor animacy plays a role in object marking in Senaya. Rather, the crucial factor is specificity.

What happens with object agreement in the perfective? The perfective verb base fundamentally differs from the imperfective base: object agreement is impossible, and correspondingly, a specific object is banned, as shown in (12a). No matter where you try to put object agreement in the verbal complex, or in what form, a specific object with the perfective base is ungrammatical, as (12b) shows. Nonspecific objects, on the other hand, may appear with the perfective base, as in (12c).

(12) Perfectives: specific objects disallowed; object agreement impossible

- a. *Axnī ō ksūta ksū-lan.
we that book.F write.PFV-L.1PL
Intended: ‘We wrote that book.’
- b. *Axnī ō ksūta ksū(-lā/-a)-lan(-lā/-a).
we that book.F write.PFV(-L/S.3SG.F)-L.1PL(-L/S.3SG.F)
Intended: ‘We wrote that book.’
- c. Axnī xa ksūta ksū-lan.
we a book.F write.PFV-L.1PL
‘We wrote a book (e.g., we have written many; not referring to a specific one).’

Since specific objects (and object agreement) are banned with the perfective base, there is only ever one agreement marker in the perfective, namely, an L-suffix marking subject agreement. Note that while it might seem intuitively odd for canonical perfective aspect to disallow specific objects, the aspect we are dealing with here is high aspect (as argued for Northeastern Neo-Aramaic by Krotkoff 1982, Hoberman 1989, Coghill 1999) and therefore has to do with boundedness of the event/state, not telicity.⁷

2.1.3. *Interim summary and a note on licensing*

What we have seen in Senaya is that (i) all subjects trigger agreement, (ii) only specific objects trigger agreement, and (iii) the perfective base (the canonical perfective) is incompatible with a specific object. Further, there is a partial reversal of agreement across the perfective and imperfective verb bases: L-suffixes mark agreement with subjects on the perfective base but with objects on the imperfective

⁷ It is of course possible to express specificity of the object in perfective aspect, but this is done periphrastically rather than with the perfective base. The periphrastic strategy makes use of the imperfective verb base with a perfective prefix, and so the freer agreement pattern of the imperfective verb base is seen, as in (i). (See Kalin 2016.)

(i) Āna xa ksūta tem-xazy-an-ā.
I a book PFV-see.IMP-F-S.1SG.F-L.3SG.F
‘I saw **a (specific) book**.’

Since this strategy uses the imperfective verb base, a specific object can trigger agreement. Accordingly, subject agreement appears in the form of an S-suffix, and object agreement as an L-suffix, just like a canonical imperfective. This strategy is put aside for the remainder of this article.

base; S-suffixes surface uniquely to mark subject agreement on the imperfective base.

Taking stock of the Senaya data, it seems at first glance that we must refer to subjects and objects as fundamentally different entities in order to account for where agreement does and does not occur. Subjects always trigger agreement, but objects only do so when they are specific. Note that proposing that L-suffixes are sensitive to specificity while S-suffixes are not is a nonstarter: L-suffixes in perfective aspect agree with subjects that are nonspecific, as we saw in (9a).⁸

It is important to note that the behavior of nominals with the perfective verb base, shown in (12), constitutes an argument for (certain) nominals needing abstract licensing through agreement. If nominals in general do not need to be abstractly licensed—as suggested by, for example, Marantz (1991), Preminger (2011a, 2014)—then the data above are truly puzzling: the object in (12a,b) should not *need* to trigger agreement. One could imagine, for example, that specific objects trigger agreement *when they can*, but that when they cannot trigger agreement, they do not need to. (This is not unlike an argument made by Preminger [2011b] for person agreement.) This does not go through for Senaya: specific objects are simply not tolerated with the perfective verb base, even though they cannot trigger agreement there in the first place. However, if we maintain that (certain) nominals need some sort of abstract licensing, then the data make complete sense. The unavailability of agreement correlates with the unavailability of licensing; licensing is not available for perfective objects, and so specific nominals are banned in this position and concomitantly do not trigger agreement.⁹

⁸ Note also that arguing that DOM comes about when cliticization (taking L-suffixes to be clitics, cf. fn. 2) is paired with an object is also a nonstarter in Neo-Aramaic more broadly. In the Neo-Aramaic languages Amadiya (Hoberman 1989) and Jewish Zakho (Cohen 2012), for example, object marking is permitted with the perfective base and takes the form of an S-suffix. S-suffixes are clearly not clitics, and yet when S-suffixes mark object agreement, they do so differentially. Cliticization is thus not privileged with respect to DOM, at least not in Neo-Aramaic.

⁹ One might wonder whether the Person Licensing Condition (first-/second-person nominals must Agree with a person probe: Béjar & Rezac 2003) could be extended to specific nominals in Senaya, along the lines of Richards 2008. However, even within Senaya, first-/second-person nominals pattern differently from specific nominals: specific third-person nominals can be licensed by agreement with the auxiliary in ditransitives, as shown in (ia), while first-/second-person nominals cannot, as shown in (ib) (direct-object agreement boldfaced).

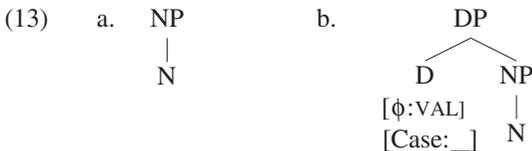
- (i) a. $\bar{A}na$ maxW-an-ox= \bar{i} -**lā**.
 I show.IMPF-S.1SG.F-L.2SG.M=AUX-3SG.F
 'I show **her** to you.'
- b. * $\bar{A}na$ maxW-an- \bar{a} =y-**et**.
 I show.IMPF-S.1SG.F-L.3SG.F=AUX-2SG.M
 Intended: 'I show **you** to her.'

The direct object agrees on the auxiliary, and while this agreement successfully licenses a third-person nominal, it does not license a first-/second-person nominal. The Person Licensing Condition must therefore remain intact and separate in Senaya, without coverage extended to specific nominals.

2.2. Challenges for Previous Approaches to DOM

There are numerous accounts of DOM, in a number of different frameworks, some attempting to characterize DOM in just one language, some attempting to account for DOM more widely; it is impossible to do justice to the full breadth of the DOM literature here. In this section I briefly discuss previous *syntactic* accounts of DOM, since they are most closely related to the account that I will propose, and I show that these accounts cannot straightforwardly capture DOM in Senaya.¹⁰

Syntactic accounts of DOM (within a broadly Minimalist framework) come in two basic types.¹¹ On the one hand, it is argued that DOM arises because certain nominals—those that get marked—have more internal structure/features than those that do not get marked (Massam 2001, Danon 2006, Rodríguez-Mondoñedo 2007, Richards 2008, López 2012, Ormazabal & Romero 2013, Lyutikova & Pereltsvaig 2015, among others). One way this is commonly formalized is as a split between NPs and DPs: NPs, lacking a D, have neither a Case feature nor ϕ -features, as shown in (13a), so they do not need abstract Case and are invisible to ϕ -probes; DPs, as shown in (13b), have ϕ -features and a Case feature and thus do need licensing and are visible for agreement.



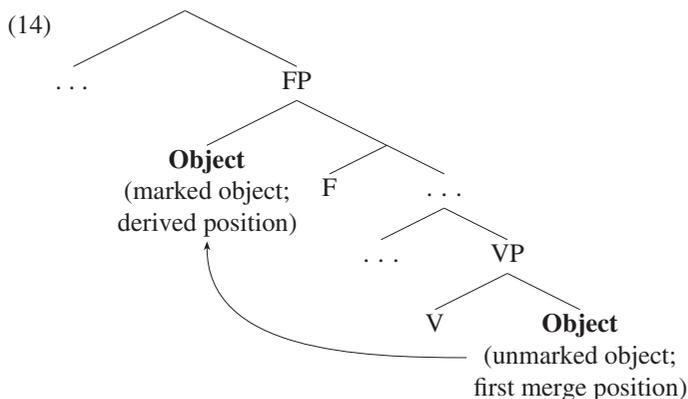
It falls out naturally that DPs, which are visible to agreement, are marked, while NPs, which are not visible to agreement, are not marked. These accounts also typically draw a direct connection between semantic features (e.g., definiteness) and the head that introduces Case and ϕ -features; all these features come as a package deal: for example, only definite nominals have D and therefore only they need licensing.

The second common type of syntactic account of DOM holds that it arises as a result of movement of certain objects out of VP, for example, to check Case (De Hoop 1996, Torrego 1998, Rodríguez-Mondoñedo 2007, López 2012) and/or to

¹⁰ For the purposes of this article, I put aside morphological accounts of DOM (e.g., Keine & Müller 2008, Glushan 2010), since I will be arguing that *licensing* is the crucial mechanism behind DOM, and thus DOM cannot be reduced to morphology. I also put aside OT accounts of DOM (e.g., Aissen 2003, De Hoop & Malchukov 2008), which have several drawbacks. One drawback is that OT accounts require reference to grammatical function (i.e., subject and object), when it is far from clear that these terms are definable in a universal way (e.g., Schachter 1976) or that we should want our syntax to be able to refer to them as primitives. Further, Woolford (2008) argues that the differential-subject-marking effects that we find in the syntax proper obey the same hierarchies as DOM, with the same directionality (more animate/definite \rightarrow more likely to be marked), which is not predicted by most functionalist OT accounts. See Næss 2004 for additional conceptual problems with such accounts.

¹¹ One non-Minimalist account that nevertheless involves licensing is Dalrymple & Nikolaeva 2011. The authors argue that DOM arises as a marker of secondary topichood—in other words, DOM marking licenses an object to have a particular discourse function, namely, that of secondary topic (secondary in relation to a primary topic, the subject). Secondary-topic status may then be grammaticalized beyond actual secondary topics to include objects that resemble canonical secondary topics, that is, objects that are high in definiteness and/or specificity. One of the challenges for the account proposed in this article is how to deal with DOM languages in which DOM is based on topichood. I return to this in section 5.

escape existential closure (Diesing 1992, Bhatt & Anagnostopoulou 1996, Bhatt 2007); the result of this movement may be locality with a higher Case licenser (Woolford 1999, Rodríguez-Mondoñedo 2007), dependent case induced by case competition with the subject (Baker & Vinokurova 2010, Baker 2014), or spellout of the object to remain distinct from the subject (Richards 2010). This type of account is schematized in (14).



Visibility-based accounts like (13) and raising accounts like (14) are, of course, closely related: one can argue, as López (2012) does, that DPs but not NPs need licensing and raise out of VP to get it. Note that accounts of both types typically hold that any object that is *not* marked must still be abstractly licensed, either by Case that happens to be spelled out as null (Bhatt 2007, Rodríguez-Mondoñedo 2007) or by pseudoincorporation, that is, under adjacency with V (Baker 1988, De Hoop 1996, Baker & Vinokurova 2010).

The major problem for visibility-based accounts is in picking out a consistent set of nominals that count as “visible” versus “invisible.” Across most languages with DOM, subjects are systematically immune from the effects of differential marking—in other words, the features of the subject do not determine whether the subject is marked (“visible”); rather, all subjects are marked (or not marked) uniformly. We can see this in the following Senaya example, repeated from (8a) above:

- (15) Xa ksūta lapl-ā.
 a book fall.IMP.F-S.3SG.F
 ‘A book is falling.’

A nonspecific subject like that in (15), even one plausibly merged as the internal argument of an unaccusative verb, still triggers agreement, and does so obligatorily. It cannot be, then, that all nonspecific nominals lack the features relevant for Case and agreement and are invisible to case and agreement processes. To salvage visibility-based accounts, one would have to say that all nominals that end up as subjects are DPs (independent of whether they are specific or not), while objects may be DPs or NPs (depending on whether they are specific or not). This patch, although it works,

means losing the correlation between the D head and the features that trigger DOM, since it would be possible to have a subject DP that is (for example) nonspecific. This, in turn, necessitates another stipulation: it must only be *subjects* that can be DPs while being nonspecific, not objects, which must only be DPs if they are specific; this stipulation is necessary to ensure that nonspecific objects are always NPs and so do not optionally get marked.

There are two more general problems with visibility-based accounts. First, there is a variety of evidence that ϕ -features are actually distributed throughout nominal structure, not all introduced as a bundle on a single head (Abney 1987, Bernstein 1991, Picallo 1991, Ritter 1991, Valois 1991, Szabolcsi 1994, among others). Second, there is evidence that NPs can bear case, for example, predicative NPs in Slavic languages (Matushansky 2000):

- (16) a. Saša byl muzykant-om. Russian
 Sasha was musician-INST
 ‘Sasha was a musician.’ (No lifetime effect)
- b. Saša byl muzykant.
 Sasha was musician.NOM
 ‘Sasha was a musician.’ (Lifetime effect)

This is a problem for visibility-based accounts because Case and (at least certain) ϕ -features can clearly be introduced low in nominal structure.

Turning now to raising accounts of DOM, two different sorts of problems arise. First, while object shift triggered by specificity is supported on semantic grounds (Diesing 1992) and is robustly attested (Holmberg 1986, among others), object shift triggered by most other DOM factors (e.g., animacy) is neither plausible on semantic grounds nor robustly attested.

Second, raising accounts predict a correlation between syntactic height and object marking, presumably visible through word order and/or evidence from variable binding.¹² While this prediction is correct for a number of languages with DOM, it is not true for all of them, for example, Hebrew (Shlonsky 1997) and Kannada (Lidz 2006). It also appears not to be true for Senaya: there is no correlation between specificity and word order. For example, when there is both an indirect object and a direct object, the direct object may appear either before or after the indirect object, whether the direct object is specific (and agrees), as in (17), or is nonspecific (and does not agree), as in (18) (direct object and object agreement boldfaced; indirect object bracketed).

¹² See also Kalin & Weisser, to appear, for an argument using the Coordinate-Structure Constraint that raising is not a crosslinguistically required ingredient of DOM: many languages allow DOM to appear on just one conjunct in a coordination.

- (17) Specific/agreeing object can appear before or after indirect object
- a. Āna **ō ksūta** [ta d-on yāle] maxw-an-ā.
I **that book** to GEN-those children show.IMPF-S.1SG.F-L.3SG.F
'I (will) show **that book** to the children.'
- b. Āna [ta d-on yāle] **ō ksūta** maxw-an-ā.
I to GEN-those children **that book** show.IMPF-S.1SG.F-L.3SG.F
'I (will) show **that book** to the children.'
- (18) Nonspecific/nonagreeing object can appear before or after indirect object
- a. Āna **xa ksūta** [ta d-on yāle] maxw-an.
I **a book** to GEN-those children show.IMPF-S.1SG.F
'I (will) show **a book** to the children.'
- b. Āna [ta d-on yāle] **xa ksūta** maxw-an.
I to GEN-those children **a book** show.IMPF-S.1SG.F
'I (will) show **a book** to the children.'

Nonspecific objects like that in (18) need not be adjacent to the verb, and so cannot plausibly be said to be licensed by pseudoincorporation. Conversely, specific objects like that in (17) need not occupy a certain high position in the clause in order to trigger agreement.

Another place where we see word-order uniformity across types of objects in Senaya is with low telic VP adverbials, which (if preverbal) must precede the object, no matter whether the object is specific (and agrees), as in (19), or is not (and does not agree), as in (20) (direct object and object agreement boldfaced; adverbial bracketed).

- (19) Specific/agreeing object cannot appear before VP adverbial
- a. Pōles [gaw ʔeshta saʔāte] **ō bēsa** bānē-Ø-lē.
Paul in six hours **that house** build.IMPF-S.3SG.M-L.3SG.M
'Paul will build **that house** in six hours.'
- b. *Pōles **ō bēsa** [gaw ʔeshta saʔāte] bānē-Ø-lē.
Paul **that house** in six hours build.IMPF-S.3SG.M-L.3SG.M
'Paul will build **that house** in six hours.'
- (20) Nonspecific/nonagreeing object cannot appear before VP adverbial
- a. Pōles [gaw ʔeshta saʔāte] **xa bēsa** bānē-Ø.
Paul in six hours **a house** build.IMPF-S.3SG.M
'Paul will build **a house** in six hours.'
- b. *Pōles **xa bēsa** [gaw ʔeshta saʔāte] bānē-Ø.
Paul **a house** in six hours build.IMPF-S.3SG.M
Intended: 'Paul will build **a house** in six hours.'

It therefore does not seem as though specificity/agreement correlates with (at least obvious) syntactic height in Senaya: both agreeing and nonagreeing objects can be inside or outside VP.

To be clear, I am not taking issue with object height or object visibility playing a role in DOM in certain languages. Rather, what I hope to have shown is that there are

theoretical and empirical obstacles for taking either to be a universal component of DOM.

3. Proposal

In this section I present a new account of DOM that builds on well-established previous proposals about the mechanics of case, agreement, and licensing. I begin with an intuitive overview of the account, section 3.1, which I illustrate with a simple toy example. I then turn to a formal implementation of this account; I lay out my assumptions in section 3.2 and extend these to cover DOM in section 3.3. I put it all together to account for DOM in Senaya in section 4 and turn to the crosslinguistic picture in section 5.

3.1. *Intuitive Overview*

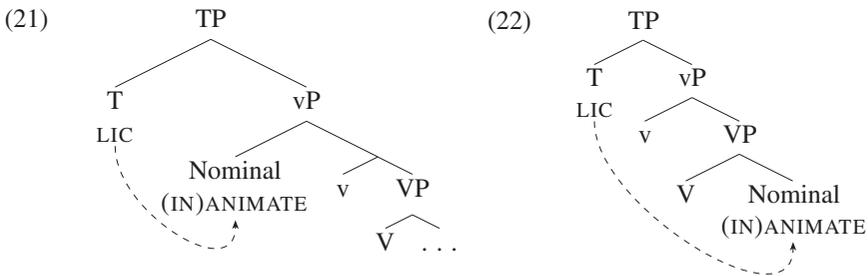
I propose that DOM arises from the interaction of two factors: (i) which nominals require licensing in a particular language, and (ii) which nominal licensers are obligatory (always merge) and which nominal licensers are optional (do not always merge) in a particular language. For the first factor, the idea is that whether a nominal needs licensing or not is determined by its featural/structural composition, with only some features/structure requiring licensing. Unlike previous accounts, I take all nominals to be *able* to be licensed, not just those that *require* licensing; in other words, there are no “invisible” nominals. In Senaya, for example, we can say that only the structure or feature introducing specificity in nominals requires licensing, such that when this feature/structure is absent, the nominal does not require licensing; all nominals, however, are still visible for licensing. Note that I say “nominal” here and not “object,” and as such my account will generalize across all nominals and not refer just to nominals with a certain grammatical function (cf. the difficulties with this discussed in sect. 2.2).

For the second factor, the idea is that nominal licensers can differ as to whether they obligatorily merge or not. A licenser that obligatorily merges is active (looks for a nominal to license) in every derivation, while a licenser that optionally merges will only merge and be active (look for a nominal to license) when its failure to do so would cause some nominal that requires licensing to go unlicensed. This is essentially a calculation of economy: the derivation with fewer licensers is preferred. Languages differ as to the location and identity of obligatory and secondary licensers.

Putting these two proposals together has the following result. When an obligatory nominal licenser merges in a structure, it will license the closest nominal, its sister or specifier (“inherent” licensing) or the highest nominal in its c-command domain (“structural” licensing); this licensing will take place regardless of the features of the closest nominal, that is, regardless of whether the nominal bears some feature/structure that requires licensing. All other nominals (i.e., nominals that are not the closest nominal to an obligatory nominal licenser) will enter into a licensing relation only when the nominal itself bears a feature that requires licensing; in this situation, a

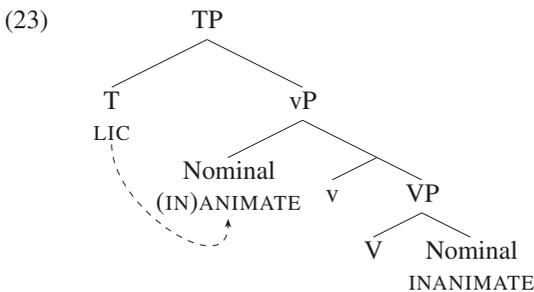
secondary licenser (if available) will merge to license the nominal. It is in this latter context that DOM arises.

I'll give a toy illustration of the account here, showing how DOM could arise in a "typical" nominative-accusative language with a dedicated (nonsyncretic) DOM marker, as is the case, for example, for Turkish. Let's say that in this hypothetical language, only animate nominals require licensing. Further, in this language, finite T is an obligatory licenser (merged in every derivation), while *v* is a secondary, optional licenser (merges with the capability to license a nominal only when needed). In this language, then, if there is only one argument of the verb, it will be licensed by T, as in both (21) and (22).



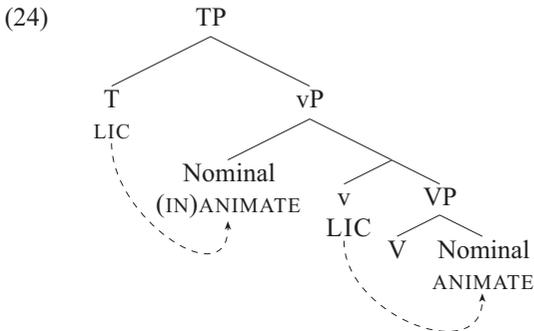
Since T is an obligatory licenser, it always merges as a licenser and will license the single nominal in the clause, regardless of the properties of that nominal, that is, whether the nominal is animate or inanimate—indicated by “(IN)ANIMATE” in the structure above.

If there are two arguments of the verb, and the lower is inanimate (does not require licensing), then the derivation will not require merging a secondary licenser.



Since the lower nominal does not need licensing in (23), this derivation will succeed without a secondary licenser. The properties of the subject again are irrelevant, since the higher nominal is the closest nominal to the obligatory licenser, T, and T is blind to the needs of nominals, simply licensing the first nominal it finds.

Finally, if there are two arguments of the verb, and the lower is animate (does require licensing), then the derivation will require the activation of the secondary licenser, *v*.



If *v* were not to merge as a licenser in (24), then this derivation would crash because the lower nominal (the object) requires licensing. T cannot skip even an inanimate subject to license the animate object because the subject is visible to licensing regardless of its animacy.

Given three simple ingredients—(i) T as an obligatory licenser, with *v* as a secondary licenser, (ii) the need for animate nominals to be licensed, and (iii) an economy condition on licensers—we have derived a simple pattern where animate objects will be licensed but inanimate objects will not be. Note, further, that we have also derived the fact that neither the animacy of the subject nor its first merge position affects whether or not the subject is licensed: since the subject is always the closest nominal to the obligatory licenser, it will always be licensed.

Finally, something needs to be said about surface morphology: why is it that licensed nominals are overtly marked in DOM systems, while unlicensed nominals are not marked? There are various proposals about how agreement and case morphology interface with the syntax. It could be that case and agreement are calculated in the narrow syntax as two sides of one coin (Chomsky 2000, 2001) or as independent processes (Preminger 2011a, 2014), or that case and agreement are both calculated in the postsyntax (Marantz 1991, Bobaljik 2008, among others), or perhaps different components of case and agreement are calculated in different domains (Bhatt & Walkow 2013, Marušič, Nevins & Badecker 2015). The data discussed here do not adjudicate among these proposals, apart from supporting a view of the grammar where there is still abstract nominal licensing in the syntax (whether one equates licensing with “abstract Case” or not). All that is crucial for my account is that licensing maps in some systematic way to surface morphology. For example, it may be that only nominals that are licensed are visible for case and agreement processes in the postsyntax. On the other hand, it may be that the process of licensing itself involves an exchange of agreement/case features. Either way, only licensed nominals will have the potential to be overtly morphologically marked. As a result, licensed objects may be overtly marked, while unlicensed objects cannot be. In the following formal account, for concreteness, I subscribe to a traditional Chomskyan view of Case assignment via ϕ -agreement. Although there are independent problems with this system, and numerous corresponding

attempts to fix these problems, I have chosen this framework as the one that most readers will already be familiar with and one that can model the intuitive account presented here fairly straightforwardly.

Returning to the toy example given in this section, with *v* as the secondary licenser, it is natural that there should be a dedicated accusative case marker, surfacing just for licensing performed by *v*. This is attested for some DOM languages, such as Turkish and Hebrew. In a language where *v* is not a secondary licenser, however, it may be that the Appl head (canonically licensing its specifier, an indirect object) serves as a secondary licenser, merging when a direct object needs licensing. In this latter situation, licensing of both direct and indirect objects would be accomplished by Appl, and so (nondifferential) indirect-object marking would be identical to differential direct-object marking; this is attested in many DOM languages, such as Hindi and Spanish. I return to this in section 5.

Within the proposed system more generally, there are two ways that a language might end up not displaying DOM. First, it might be that there are two obligatory licensers in a language, for example, *T* and *v*. If that were the case, then no object would escape licensing, and so marking would never be differential. Second, it might be that the need for licensing is introduced on the smallest piece of nominal structure, *N* itself. If *N* requires licensing, then no nominal—no matter what higher structure it contains or what other features it bears—will ever tolerate not being licensed. These two possible analyses may be right for different non-DOM languages.

Finally, there are three elements of my account that set it apart from previous accounts of DOM. First, I generalize over nominals as a whole rather than picking out objects specifically. Second, under my account, a nominal's licensing needs do not affect whether the nominal is eligible to enter into a licensing relation or not: all nominals can be licensed even though only certain nominals *require* licensing. Finally, it is the location and (non)obligatoriness of nominal licensers that determine which nominals will always be licensed and which nominals will be licensed only when they require it. Note that the idea that unmarked objects in DOM languages do not need any sort of licensing (not even pseudoincorporation) has previously been proposed, for example, for Hebrew (Danon 2006) and for Spanish (Ormazabal & Romero 2013).

In the next sections, I formalize this intuitive account, using a Minimalist architecture. This formalization is intended to show that a licensing-driven account can be carefully worked out and implemented, but the reader should keep in mind that the intuitive account could be implemented in different ways based on different assumptions and in different frameworks.

3.2. Theoretical Assumptions

In the technical terminology that I will be using, the core proposal is as follows. I will equate abstract licensing with “capital C” Case. Case is simply unvalued on *N*, not uninterpretable, but may be uninterpretable on certain other, functional heads in nominal structure that encode semantic properties such as specificity and animacy.

Only when there is functional structure that bears uninterpretable Case does a nominal *require* Case licensing. Nominals that do not require Case licensing may, nonetheless, enter into Case and agreement relations, since an unvalued Case feature is introduced on the smallest piece of nominal structure, N itself. However, if such a nominal (one that does not bear uninterpretable Case) fails to get Case, there is no resulting crash of the derivation. In instances of DOM, then, my claim is that objects that surface with DOM have gotten Case (in fact, require Case), while objects that surface without marking have not gotten Case.

In this section, I lay out the assumptions that my account rests on: (i) Case valuation as a reflex of ϕ -agreement (Chomsky 2000, 2001), (ii) Agree as feature sharing (Pesetsky & Torrego 2007), and (iii) the distribution of nominal features across nominal structure (Danon 2011, among others).

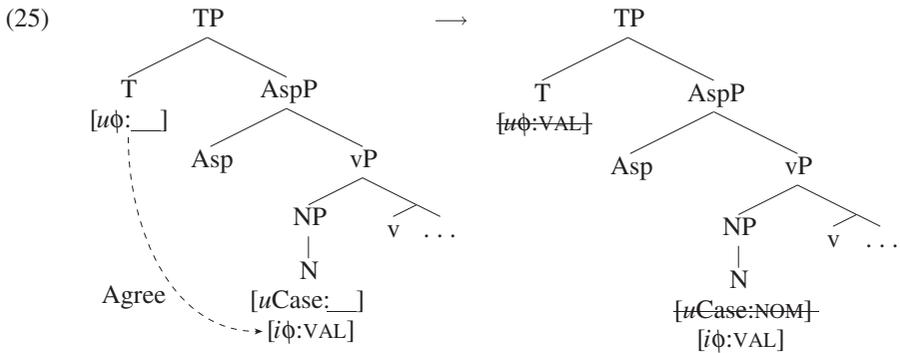
3.2.1. *Case and agreement*

The idea that nominals need licensing surfaces early in the generative tradition (Vergnaud in a 1977 letter to Chomsky and Lasnik, published as Vergnaud 2008; Chomsky 1980, 1981): all nominals need (abstract) Case, and this is regulated by the Case Filter, which rules out derivations in which any nominal lacks Case. In *The Minimalist Program* (Chomsky 1995) and subsequent work (Chomsky 2000, 2001), Case is seen as a semantically uninterpretable feature on nominals, thereby requiring “deletion” before the interface with semantics (LF). Deletion, in turn, is facilitated by a value being supplied for an uninterpretable feature. If all nominals have uninterpretable Case and uninterpretable features must be valued in order to be deleted, it follows that all nominals must have their Case feature valued in the course of a derivation. (We have of course already seen that nominals do not seem to all behave alike in this respect, a point which I return to later.)

An uninterpretable Case feature on a nominal is valued in the following technical way (Chomsky 2001). In addition to an uninterpretable (and unvalued) Case feature, every nominal bears semantically interpretable (and valued) ϕ -features. T and v, on the other hand, bear uninterpretable (and unvalued) ϕ -features, which must be valued and deleted before LF. Uninterpretable, unvalued features on functional heads constitute *probes*, which search their c-command domain (via the mechanism Agree, discussed in more detail in the next section) for a *goal* with matching and valued features. When a probe finds a goal, the valued features on the goal are assigned/copied to the probe, enabling the newly valued uninterpretable features to be deleted.

The final necessary assumption here is that Case valuation is a reflex of ϕ -agreement. When a functional head bearing uninterpretable, unvalued ϕ -features is merged, this ϕ -probe will search the structure for valued ϕ -features. The probe will then Agree with the closest *active* nominal, with *activity* being determined by whether or not the goal nominal has an unvalued Case feature. When an active goal is found, the nominal assigns its ϕ -feature values to the probe (thereby satisfying the needs of the probe), and a reflex of this is valuation of the nominal’s Case feature (thereby satisfying the needs of the nominal). The value of the Case feature depends on the

identity of the ϕ -probe, for example, ACC for ϕ -agreement with *v* and NOM for ϕ -agreement with T.



Case and agreement are thus two sides of one nominal-licensing process, with Case licensing following from ϕ -agreement. Overt evidence of this licensing may be spelled out on the probe as morphological agreement, or on the nominal as morphological case, or both, or neither.

3.2.2. Feature sharing

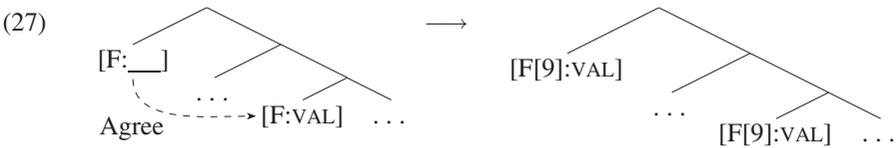
What does it mean for the same feature values to be present in multiple places in the syntax, as found for example with the ϕ -features on the subject and those on T in (25)? For Chomsky (2000, 2001), valuation of a ϕ -probe's ϕ -features is a one-time operation, essentially copying the features of the goal onto the probe; there is no remaining link between the probe and goal. A different way to model feature valuation is through feature sharing, as is proposed by Pesetsky & Torrego (2007; see also Frampton & Gutmann 2006).

Pesetsky & Torrego approach Agree as feature sharing rather than copying: when an uninterpretable or unvalued feature F finds another feature F somewhere else in the structure, the result is that feature F is shared across the two (or more) locations. The operation Agree is thus (re)formulated as (26) (Pesetsky & Torrego 2007:268, (5)), illustrated in (27).

(26) Agree (feature-sharing version)

- (i) An unvalued feature F (a *probe*) on a head H at a syntactic location α (F_α) scans its c-command domain for another instance of F (a *goal*) at location β (F_β) with which to agree.
- (ii) Replace F_α with F_β or F_β with F_α ,¹³ so that the same feature is present in both locations.

¹³ This is a slight revision of feature-sharing Agree as suggested by Pesetsky & Torrego (2007:269, fn. 9). It is assumed that "recoverability considerations might prevent replacement of the valued occurrence by the unvalued occurrence." In other words, if one instance of F is valued and another is unvalued, it is the valued instance that replaces the unvalued one.

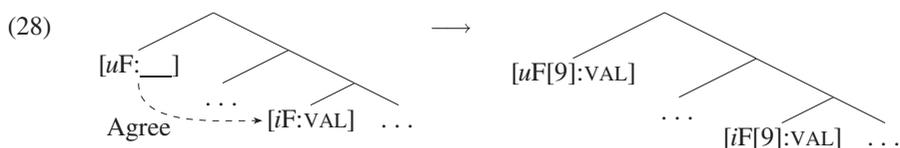


As a result of Agree in (27), the feature *F* is shared across the two positions, indicated by the features sharing an (arbitrary) index, 9. (This index is not a syntactic object, rather it is simply a notational device for indicating which features are in fact the same feature.) In Pesetsky & Torrego's terms, there is one *occurrence* of *F* in (27), but multiple *instances* of *F*. Feature sharing thus entails that when one instance of a feature is valued (or gets valued in the course of a derivation), all instances of *F* are also valued; the higher instance of *F* in (27) is valued as a result of being in a feature-sharing relation with the lower instance of *F*.

Copying differs from sharing in two crucial ways. First, in a feature-sharing system, a probing (unvalued) feature can Agree with a feature that is itself unvalued, with the result being unification of the two separate occurrences of the feature into one occurrence of the feature (albeit an unvalued occurrence). In a copying system, the result of such an Agree relation would simply be a vacuous copying operation where no value is copied from one feature to the other, or perhaps the probe would skip the unvalued feature entirely. Second, in a feature-sharing system, when two instances of a feature *F* in a feature chain are unvalued, valuation of one of these instances of the feature is shared across both instances, such that both become valued. In other words, a whole feature chain gains a value when just one instance on the chain is/gets valued. Copying, on the other hand, only affects the two features that are directly in an Agree relation, and no such sharing across multiple instances of a feature is possible.

Note that I have not yet discussed (un)interpretability in a feature-sharing system. Pesetsky & Torrego (2007) separate interpretability (whether or not an item makes a semantic contribution in a particular syntactic position) from valuation (whether or not a property of an item is provided from the lexicon). A feature in their system can be born as interpretable but unvalued (i.e., able to make a semantic contribution in its merge position but not specified with a value in the lexicon) and uninterpretable but valued (specified with a value from the lexicon but unable to make a semantic contribution in its merge position), in addition to the more obvious pairing of interpretable-valued and uninterpretable-unvalued.

Unlike a feature's value, which gets shared with every instance of a feature, as in (27), the (un)interpretability of each instance of a feature remains constant throughout the derivation. In other words, the "replacement" that occurs under feature-sharing Agree (stated in (26)) leaves (un)interpretability intact: Agree does not affect whether a particular instance of a feature is semantically interpretable in its syntactic position or not. Consider the feature sharing in (28), which augments (28) in indicating the interpretability of the features:



The higher instance of F remains uninterpretable even after Agree with the lower instance of *i*F.

Finally, Pesetsky & Torrego (2007) propose that every occurrence of a feature must be associated with both a value and an interpretation, though the value and interpretation can come from different instances of that feature. Uninterpretable features, then, rather than being deleted after being valued, remain intact. An uninterpretable feature will not cause the derivation to crash just in case it is in a feature chain that has both a value (a valued instance of F) and an interpretation (an interpretable instance of F). An unvalued but interpretable feature will not cause the derivation to crash just in case it is in a feature chain that has a value.

On this latter point—that unvalued features need a value—Preminger (2011a, 2014) argues convincingly in the domain of ϕ -agreement that when a ϕ -probe fails to find a goal, the result is not a crash of the derivation. He proposes, then, that ϕ -features are not in fact uninterpretable as probes, simply unvalued, and that the syntax tolerates unvalued features (they do not cause a crash).¹⁴ I adapt Pesetsky & Torrego (2007)’s account to accommodate unvalued features tolerating the lack of a value.

I will now lay out the assumptions I adopt from Pesetsky & Torrego and Preminger, as well as slight modifications. I will assume that Agree is feature sharing, as formulated by Pesetsky & Torrego in (26). However, my use of (*un*)*interpretable* will differ somewhat from their (and Chomsky’s) usage. I will adopt uninterpretability as a formal syntactic property that determines which features can potentially cause a crash of the derivation, not linked (at least not in any direct, obvious way—though I return to this as a possibility in sect. 6) to whether or not a certain instance of a feature contributes to the semantics. I maintain (with Pesetsky & Torrego [2007] and Chomsky [2000, 2001]) that uninterpretable features must be valued in the course of a derivation.

In line with using *uninterpretability* nonsemantically, I move to a model where there is no “interpretable” counterpart to uninterpretable features. Features are thus either uninterpretable (will cause a crash if not valued, notated with *u*) or not uninterpretable (will not cause a crash, indicated by a lack of *u*).

¹⁴ Preminger further proposes that we might be able to do away with uninterpretable features entirely, and shows other domains in which an “obligatory operations” model (rather than a “derivational time bomb” model) makes the right predictions. I contend here, however, that uninterpretable features (or some equivalent) are still needed in the domain of Case, to enforce abstract nominal licensing. The need for uninterpretability in this domain is especially clear in Senaya, where specific nominals are banned from appearing in a position where Case valuation (abstract licensing) is completely impossible, namely, object position of a canonical perfective.

(29) Possible types of features

- a. [F:___] = unvalued
- b. [F:VAL] = valued
- c. [*u*F:___] = uninterpretable, unvalued (→ will cause a crash)
- d. [*u*F:VAL] = uninterpretable, valued

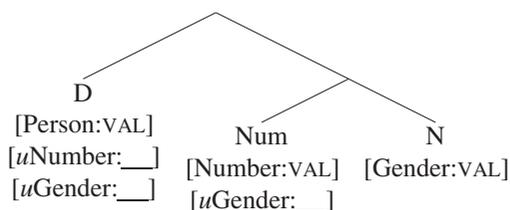
Note that the feature in (29d) can only be the result of valuation during the course of the derivation; if a feature were “born” as uninterpretable and valued, the feature would never cause a crash, and so there would be no reason to call it uninterpretable. In sum: uninterpretable features must be valued in the course of a derivation, as indicated in (29c), but simply unvalued features, as in (29a), need not receive a value.

3.2.3. *Nominal structure*

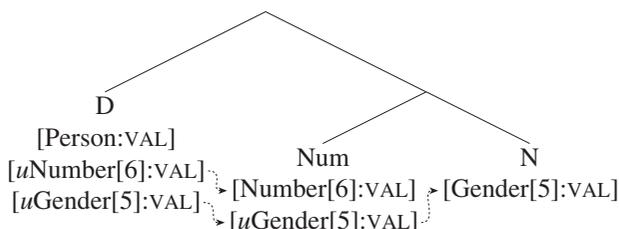
The final major component of my account will rest on the idea that nominal features like ϕ -features (and specificity and animacy, which I return to in sect. 3.3) are actually distributed throughout nominal structure, not introduced all in one bundle (Abney 1987, Bernstein 1991, Picallo 1991, Ritter 1991, Valois 1991, Szabolcsi 1994, among others). Danon (2011) surveys the literature on the distribution of ϕ -features in particular and proposes that this view of nominal structure (where person, number, and gender features are merged independently on heads throughout the nominal) can be reconciled with Chomskyan Case assignment (the result of ϕ -agreement with a complete bundle of ϕ -features on a nominal) by assuming a feature-sharing version of Agree like that laid out in the previous section.

Specifically, Danon (2011) proposes that feature sharing *within* the nominal ends up “collecting” values for all the ϕ -features on the highest head in the nominal, typically D. A simplified structure for a nominal can be seen in (30a). N introduces an interpretable, valued Gender feature, Num introduces an interpretable, valued Number feature as well as an unvalued, uninterpretable Gender feature, and D introduces an interpretable, valued Person feature as well as unvalued, uninterpretable Gender and Number features. The result of nominal-internal feature sharing is shown in (30b).

(30) a.



b.



In (30b), all features are valued in all instances; the highest head (D) has the full set of ϕ -features, and thus can be the sole goal of a ϕ -probe higher in the clause.

Danon notes that given the Chomsky 2000, 2001 assumption that only active (unvalued-feature-bearing) goals can be the target of Agree, we must posit that some feature that remains unvalued throughout nominal structure merges on each of these heads, such that each head is “active,” that is, visible for Agree. One likely candidate for this is Case, and it is precisely Case that I will propose is present and unvalued on each functional head in nominal structure, as well as on N.

3.2.4. Interim summary

I draw the basic theoretical components of my account from the previous work reviewed here. I take (certain) nominals to need abstract licensing, which I will notate with an uninterpretable Case feature on the nominal (Chomsky 2000, 2001). Nominal licensing (notated as valuation of a nominal’s Case feature) is a reflex of ϕ -agreement, with the Case value determined by the identity of the probing head. This Case-valuing ϕ -agreement relation may be spelled out as overt case (on the nominal) or overt agreement (on the probing head), or neither, or both. In order for a goal to be active (probe-able), it must have an unvalued feature.

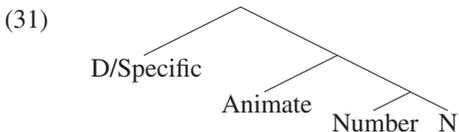
Additionally, I assume that an Agree relation between two instances of the same feature results in feature sharing across these multiple locations, such that valuation of one instance of a feature results in valuation of all (shared) instances of the feature (Pesetsky & Torrego 2007). Unvalued features are probes (they initiate Agree). Uninterpretable features must be valued in the course of a derivation, but unvalued (and not uninterpretable) features need not be. Recall, also, that I will be using *uninterpretable* as a purely syntactic device not directly related to the semantic contribution of an element. Finally, I assume that nominal features like ϕ -features are distributed across distinct heads inside the nominal, and that there is feature sharing within the nominal (Danon 2011).

3.3. *Formal Account*

My proposal has three main components. First, I propose that nominal features like specificity and animacy are distributed throughout nominal structure as functional heads, just like ϕ -features. Second, I propose that unvalued Case is merged on each functional head on the spine of the nominal as well as on N itself, and that languages differ as to which of these instances of Case are uninterpretable. Third, I follow others (see, in particular, Levin & Massam 1985, Bobaljik 1993, Rezac 2011) in proposing that finite clauses have one obligatory Case locus; other loci are merged secondarily.

3.3.1. *Part 1: Extending Danon 2011*

I first propose that Danon's (2011) account (of ϕ -features being distributed across the nominal but "collecting" on the highest nominal head; see sect. 3.2.3) should be extended to other nominal features such as specificity and animacy. Lidz (2006), in his account of DOM, proposes that Specific and Animate (in addition to Number, as above) are projected as functional heads.



In Lidz's account (and in mine, below), D/Specific is not projected for nonspecific nominals, and Animate is not projected for inanimate nominals. Note that if Specific and Animate are functional heads in nominal structure, they too may plausibly be taken to bear a Case feature and participate in nominal-internal feature sharing, just like ϕ -features do.

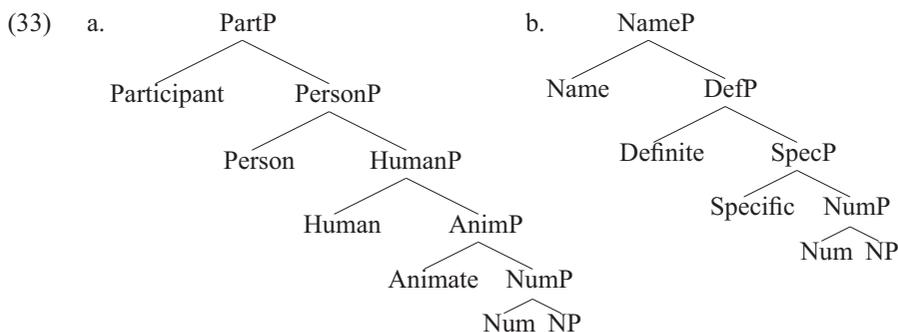
Beyond functional heads encoding specificity, animacy, and ϕ -features, I propose that there are functional heads corresponding to different points along the definiteness and animacy hierarchies (see (1) and (2)). Specifically, I propose the following functional heads (which are given in no particular order):

- (32)
- a. Participant (semantically encoding first/second person)
 - b. Person (semantically encoding person)
 - c. Human (semantically encoding humanness)
 - d. Animate (semantically encoding animacy)
 - e. Name (semantically encoding the property of being a proper name)
 - f. Definite (semantically encoding definiteness)
 - g. Specific (semantically encoding specificity)
 - h. Number (semantically encoding number)

I assume that Number is always projected and selects for N (which itself introduces a gender feature), and so the minimal NP consists of Num and N. All other heads are privative in that when that semantic feature is absent, so is the projection. For example, animate nominals project an AnimateP, while inanimate nominals lack an

AnimateP. In laying out my account, I will keep D/DP separate from all of the heads in (32), though there may be different Ds crosslinguistically that are associated with one or more of these categories, and it may be that a certain language realizes only a subset of these projections.

There are a number of logical entailments across the projections named in (32). For example, a first-person nominal will have a Participant projection, which entails a Person projection, which entails a Human projection, and so forth. Some examples of entailments across categories are shown in (33a) for the animacy scale and in (33b) for the definiteness scale.



The structure in (33a) represents a first- or second-person nominal on the animacy scale and (33b) represents a proper name on the definiteness scale. Of course the two scales can be implicated in a single nominal as well. For example, we could add SpecificP and DefiniteP to the nominal in (33a).

It is worth pausing for a moment to consider the plausibility of this proliferation of nominal features. There is ample evidence for the need for both a [SPECIFIC] feature and a [DEFINITE] feature. This evidence comes from the crosslinguistic behavior and distribution of determiners and classifiers (Haspelmath 1997, Lyons 1999, Cowper & Hall 2002, Ionin 2006, Simpson, Soh & Nomoto 2011, Cowper & Hall 2014); the features of indefinite pronouns (Fodor & Sag 1982, von Heusinger 2011); nonscopal specific interpretations of indefinites (Fodor & Sag 1982, von Heusinger 2011); and patterns of acquisition of determiners in second-language acquisition (Ionin, Ko & Wexler 2004, Ionin, Zubizarreta & Philippov 2009). There is also ample evidence for features like [HUMAN] and [ANIMATE], for example, from verbal marking in Algonquian languages (Piggott 1989, Wiltschko & Ritter 2014, among others); verbal prefixes in Abkhaz (Hewitt 1979, cited by Mithun 1986); nominal marking in Selayarese (Finer 1997); and impersonal pronouns crosslinguistically (Sigurðsson & Egerland 2009, Feng 2015).

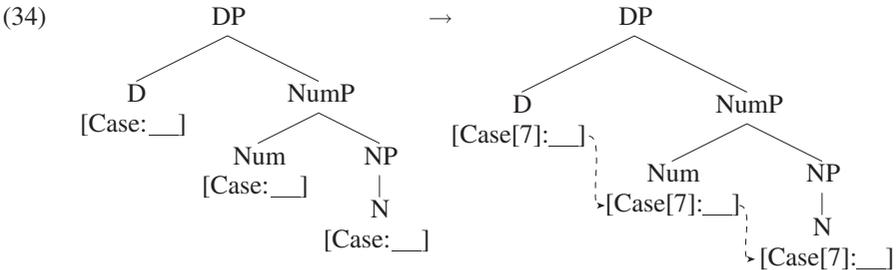
A separate question that arises is whether each nominal feature is introduced on a dedicated functional head. The choice I have made here, to separate features structurally, is a notational choice for the purposes of this article; it is easy to imagine a notational variant of this account whereby features might be introduced in bundles but each feature can still individually require (or not require) licensing. Here, I adopt

a highly articulated nominal structure to allow for expositionally clear manipulations of where in nominal structure the “need” for licensing emerges.

3.3.2. *Part 2: Distribution of Case inside the nominal*

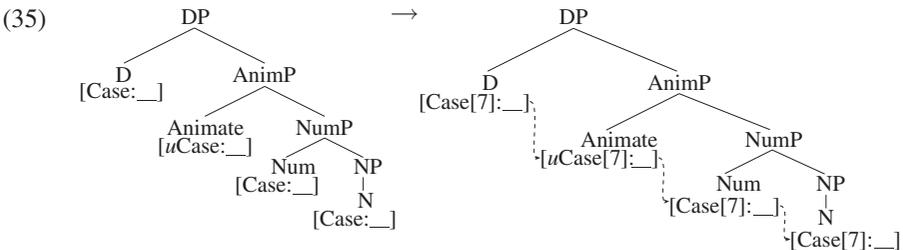
The crux of my account lies in the following claim: not all nominals need licensing. Such a claim has been made in various instantiations in the literature (Massam 2001; Danon 2006; Preminger 2011a, 2014; Lyutikova & Pereltsvaig 2013; Ormazabal & Romero 2013, among others). My implementation of this claim is that all functional heads inside a nominal bear unvalued Case, but only certain heads bear uninterpretable (as well as unvalued) Case. Ultimately the highest head in the nominal will carry all of the information contained in the nominal, including ϕ -features (Danon 2011).

Take, for example, a nominal consisting just of D, Num, and N (and putting aside all non-Case features). Case is shared across each node (à la Pesetsky & Torroge 2007):



The nominal in (34) contains only unvalued Case, and so lack of Case valuation for this nominal will not cause a crash of the derivation.

Uninterpretable Case may enter nominal structure on any functional head (consistent within a given language, but varying across languages), for example, on Animate:



The animate nominal in (35), by virtue of having an instance of uninterpretable Case, needs Case valuation, otherwise the nominal will cause the derivation to crash.

Where uninterpretable Case merges varies by language. For example, in a DOM language where only animate nominals get marked in object position (such as Dhargari: Austin 1981, cited in Aissen 2003), we can say that it is animacy that requires a nominal to be Case-licensed, and so uninterpretable Case must merge on Animate, as in (35). In a DOM language where both animate nominals and specific nominals in object position get marked (such as Kannada: Lidz 2006), uninterpretable Case must merge on both

Animate and Specific. I will propose for Senaya that it is just the Specific head the introduces uninterpretable Case. Nominals that contain uninterpretable Case need licensing, while nominals that do not contain uninterpretable Case do not.

The logical entailments across categories, such as in (33), capture (at least portions of) the definiteness and animacy hierarchies obeyed by DOM, (1) and (2). For example, if uninterpretable Case is introduced by Animate, then any category (e.g., Human, Participant) that entails animacy will also have the Animate projection, and correspondingly will have uninterpretable Case, since Animate bears [*u*Case]; note that this does *not* mean that Case must be uninterpretable on Human and Participant as well. Further, if we assume that all nominals have a Number projection, then if (in some language) uninterpretable Case merges on Num, the result will be that all nominals in that language have uninterpretable Case and therefore all nominals require Case licensing. It may even be that Case is uninterpretable on N itself in some languages.

Note that the proposal here—that only certain nominals *need* licensing (have uninterpretable Case)—does not preclude other nominals (those without uninterpretable Case) from entering into Case/Agree relations, because all nominals have unvalued (even if not uninterpretable) Case, as in (34); all nominals are “active.”

3.3.3. Part 3: Obligatory Case loci

Finally, I adopt the theoretical idea that there is one obligatorily active nominal-licensing locus in every finite clause, an idea expressed in Bobaljik 1993 as the Obligatory-Case Parameter, inspired by a related proposal by Levin & Massam (1985), and similar to proposals by Laka (1993, 2000) and Rezac (2011). For Bobaljik, the function of the Obligatory-Case Parameter is to distinguish ergative-absolutive languages from nominative-accusative languages in terms of which Case (tied to a specific structural location) is assigned when there is just one nominal and which Case is secondary, appearing only when there is a second nominal (taking all nominals to uniformly need Case); the obligatory Case must be assigned in every clause. In my account, the obligatoriness of a nominal-licensing locus translates to some functional head (e.g., finite T) always merging with a ϕ -probe. Correspondingly, in every derivation, this ϕ -probe will Agree with the closest nominal.

For both my account and the accounts I build on, deciding whether or not to activate a secondary licensing locus can be seen as an economy calculation (Chomsky 1995) or as a last-resort operation (Rezac 2011). For concreteness, I formulate the Licensing Economy Principle, (36), modeled after a number of economy conditions with similar global last-resort effects.

(36) Licensing Economy Principle

A secondary licenser is activated iff the derivation will otherwise not converge.

Similar mechanisms can be found in the work of Safir (1993), Chomsky (1995), Boækoviæc (1997), Reinhart (2006), and Rezac (2011). These mechanisms, like (36), are essentially global last-resort calculations, requiring the comparison of two (or more) minimally differing derivations. The main way that (36) will play out is as

follows: if a derivation will converge without the activation of a secondary Case locus, then the derivation lacking the secondary locus is the preferred one.¹⁵

The role that obligatory and optional nominal-licensing loci will play in my analysis is as follows. A nominal that is the closest nominal to an obligatory nominal-licensing locus will always get Case, regardless of that nominal's licensing needs (i.e., whether or not the nominal has uninterpretable Case). All other nominals will get Case only when both (a) they require it (they have uninterpretable Case) and (b) there is a secondary nominal-licensing locus available to value their Case. It is a lexical, language-specific choice as to which (and how many) functional heads are obligatory and secondary licensors.

3.3.4. *Interim summary*

The basic elements of my account are: (i) nominal features are projected as functional heads in nominal structure; (ii) all of these heads bear unvalued Case, and Case is shared throughout the nominal via feature sharing; (iii) languages differ as to where in nominal structure uninterpretable Case is introduced, and it is only nominals with uninterpretable Case that require Case valuation; and (iv) languages have both obligatory and secondary nominal-licensing loci: the former are always merged, while the latter are only merged when needed for licensing reasons.

4. Implementing the Account in Senaya

In this section, I use Senaya as a test case for the new account of DOM proposed in the previous section. I begin by accounting for the basic aspect split in Senaya in section 4.1, and I implement my DOM account in section 4.2.

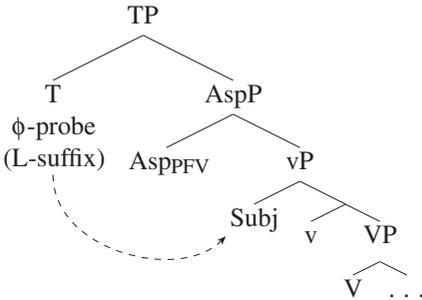
4.1. *A First Step: Accounting for the Aspect Split*

Kalin & Van Urk (2015) offer an analysis of Senaya's aspect split along the following lines. In Senaya, T and Asp are potential agreement/licensing loci; v is completely inactive with respect to agreement/licensing, and as a result v is not a phase head. Agreement with T results in a morphological L-suffix, while agreement with Asp results in a morphological S-suffix (cf. (5)). Crucially, however, while imperfective Asp is a licensor/agreement locus, perfective Asp is not. The result of this basic difference between imperfective and perfective Asp is an aspect-based agreement split.

To see how this works, let's begin with the perfective. In a canonical perfective, Asp is not a licensor/agreement locus, and so the only licensing/agreement comes from T (represented in the tree as ϕ on T). T looks into its c-command domain and agrees with the highest nominal, which will always be the subject. I remind you of the relevant agreement configurations at the top of each example.

¹⁵ Assuming No Tampering, a local (rather than global) last-resort mechanism is not well-equipped to deal with secondary licensors, since the "decision point" for activating or inserting a secondary licensing locus would have to (typically, at least, as in the toy example) be structurally lower than the obligatory licensor. See Graf 2013 for potential ways to encode even global constraints locally.

- (37) Senaya perfective: L-suffix for subject; no object agreement possible



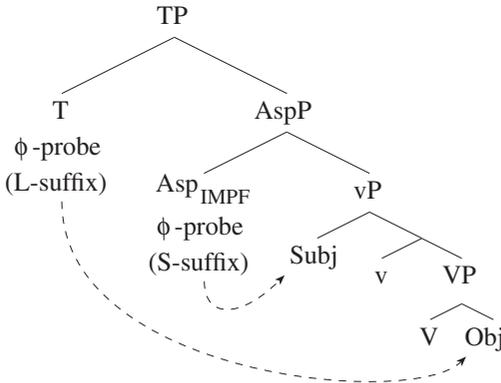
Having exactly one licenser and agreement locus in the (canonical) perfective is precisely what is needed, since only one nominal can be licensed/trigger agreement in perfective aspect, as we saw in (12).

In imperfective aspect, there is an additional licenser and agreement locus, seen by the fact that an additional argument can agree (the object is allowed to be specific):

- (38) Axnī ō ksūta kasw-ox-lā.
 we that book.F write.IMPV-S.1PL-L.3sg.F
 ‘We (will) write **that book.**’

In imperfective aspect, Asp (which merges before T) licenses/agrees with the subject, which results in an S-suffix marking subject agreement. Note that the subject is “inactive” after having agreed/been licensed (or alternatively, the subject is “punted” [Anand & Nevins 2006] to Spec,TP), and so the subject is not a possible goal for T. T is thus able to look past the subject and license/agree with the object (recall that v is not a phase head), resulting in an L-suffix:

- (39) Senaya imperfective: S-suffix for subject; L-suffix for object



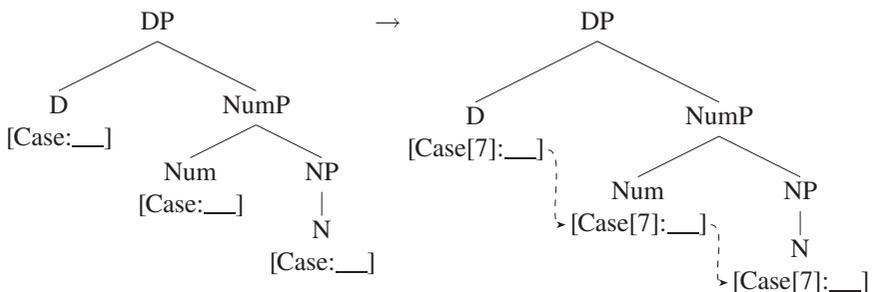
Senaya's aspect split is driven by whether or not Asp is a licenser, which it is in the imperfective but not in the perfective. When a licenser, Asp licenses the subject, allowing T to license an object.

Kalin & Van Urk (2015) adopt a Massam 2001-type account of object marking in Senaya, with unmarked objects invisible for licensing. See section 2.2 for problems with this sort of approach. For more details about this account more generally—for example, justifying why it should be that imperfective Asp, and not perfective Asp, is a licenser—see Kalin & Van Urk 2015.

4.2. Implementing the DOM Proposal

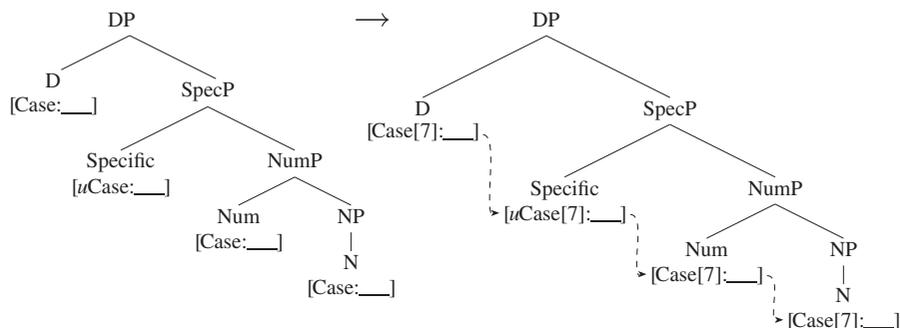
In this section, I put my account together with that of Kalin & Van Urk (2015) to show how it works to derive DOM in Senaya. First, DOM in Senaya follows a clear specific–nonspecific divide, and so we can say that uninterpretable Case is introduced by the Specific head in Senaya. Recall that each head in the nominal bears unvalued Case, and that these instances of Case are related nominal-internally by feature-sharing Agree (indicated by their sharing an index). A basic nonspecific nominal in Senaya is shown in (40), and a specific nominal is shown in (41), omitting from the diagrams, as before, other nominal-internal features/feature sharing for the sake of simplicity.¹⁶

(40) Nonspecific nominals in Senaya



¹⁶ I have uniformly included a DP layer in these nominals, but nothing crucial hinges on this. If it turns out that nonspecific nominals (for example) lack the D layer, my account will still make the right predictions, since uninterpretable Case does not live on D. Another possibility is that determiners are actually associated with one (or more) of the functional projections in the nominal, but again, nothing crucial hinges on this and so I keep D as a separate head.

(41) Specific nominals in Senaya



Nonspecific nominals lack the Specific projection and therefore also lack uninterpretable Case. Only specific nominals require licensing.

Though I have not included ϕ -features in (40) and (41), I assume (following Danon 2011) that these also are shared nominal-internally and are represented in a complete set on the highest element in the nominal (see sect. 3.2.3). As such, I will abbreviate (40) as (42a) and (41) as (42b), for space and clarity:

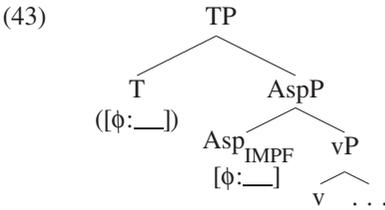
(42) a. Nonspecific nominals in Senaya b. Specific nominals in Senaya



The two types of nominals in (42) differ only as to whether they bear uninterpretable Case.

From here we simply need to determine which heads are nominal licensers in Senaya, and which of these merge obligatorily versus secondarily. I begin with imperfective aspect, where the subject (regardless of its features) agrees with Asp and the object (only if specific) agrees with T. For imperfective aspect I will therefore take Asp to be the obligatory nominal-licensing locus and T to be an optional nominal-licensing locus. As discussed above, I assume that Case valuation on a nominal results from ϕ -agreement. I can then formalize my account as follows: imperfective Asp always merges with ϕ -features, while T optionally merges with ϕ -features. In (43), T's ϕ -features are given in parentheses to indicate a secondary licenser.¹⁷

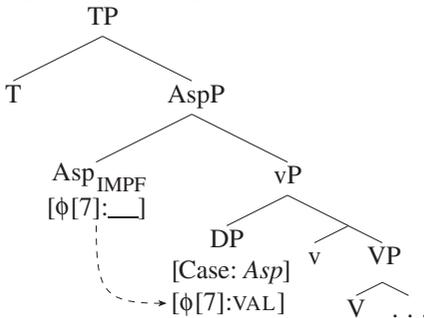
¹⁷ Note that ϕ on T and Asp is simply unvalued, not uninterpretable, in line with the findings of Preminger (2011a, 2014). An obligatorily merged ϕ -probe must attempt to establish an Agree relation, but if there is no appropriate goal (i.e., Agree is not possible), the result is some form of default agreement, not ungrammaticality.



As proposed by Kalin & Van Urk (2015; see sect. 4.1), agreement with T results in an L-suffix; agreement with Asp results in an S-suffix.

Let's consider an intransitive imperfective clause with a nonspecific subject. The subject, merged in Spec,vP, lacks uninterpretable Case. However, since Asp always merges with a ϕ -probe, this ϕ -probe will nonetheless enter into an Agree relation with the subject; ϕ -features are shared across the two locations (index 7) and Case is valued on the nominal. (In this section, I label Case values with the identity of the probing head, e.g., *Asp* in (44).)

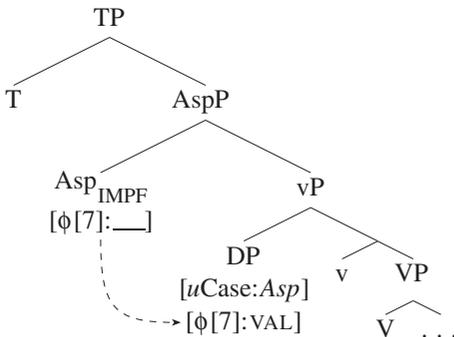
(44) Imperfective, nonspecific subject \rightarrow subject gets Case/triggers agreement



Nonspecific subjects always trigger agreement because the ϕ -features on *Asp_{IMPF}* always merge.

This derivation is minimally different from one in which the subject is specific:

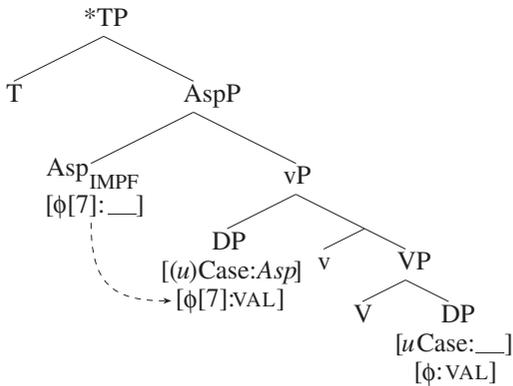
(45) Imperfective, specific subject \rightarrow subject gets Case/triggers agreement



The licensing needs of the subject are met by Agree with Asp. Comparing (44) and (45), we can see that the features of the subject (whether it is specific or not, i.e., whether it bears uninterpretable Case or not) do not affect whether it enters into an Agree relation with Asp. This account correctly predicts the attested subject-marking pattern in Senaya (and most DOM languages): all subjects trigger agreement; the specificity of the subject is irrelevant.

Thus far, we have not seen T needing to be a nominal licenser. Let's consider now a derivation in which there is a specific or nonspecific subject (the specificity of the subject will, again, not matter) and a specific object. In (46), we see how the derivation proceeds if ϕ -features do not merge on T.

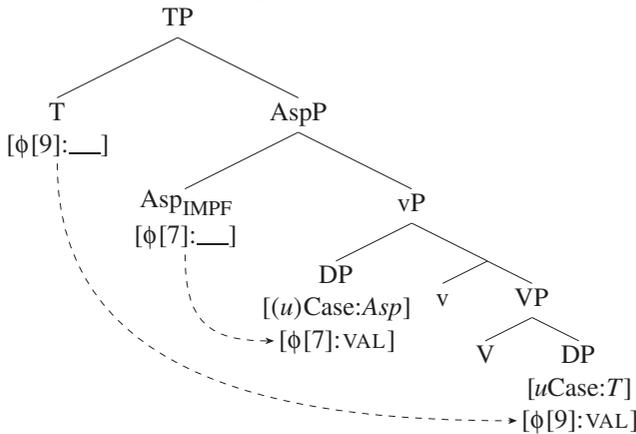
- (46) Imperfective, (non)specific subject, specific object
 → ungrammatical without T's ϕ



The subject in (46) agrees with Asp as before (index 7). The derivation in (46) results in ungrammaticality, since there is an uninterpretable feature (Case on the object) that does not have a value.

When T merges with ϕ -features, the derivation succeeds, as seen in (47). Recall that a goal is only active (probe-able) if it bears an unvalued feature; as a result, neither Asp nor the subject is a possible goal for the ϕ -probe on T in the imperfective.

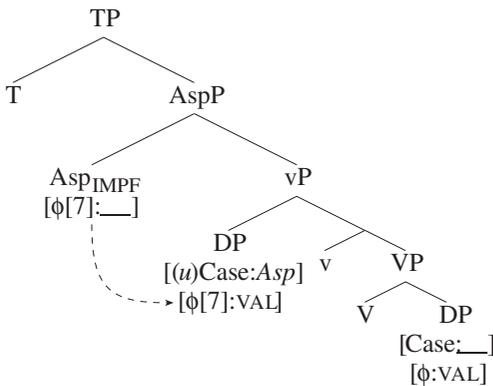
- (47) Imperfective, (non)specific subject, specific object
 → object gets Case/triggers agreement



The ϕ -features on T probe the object, resulting in ϕ -feature sharing (index 9) and Case valuation. The only grammatical derivation with a specific object is therefore one in which T bears a ϕ -probe.

The last imperfective scenario to consider is one where the object is nonspecific. This is schematized in (48), with a derivation in which T merges without ϕ -features.

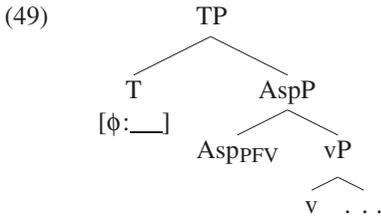
- (48) Imperfective, (non)specific subject, nonspecific object → object goes unlicensed



The only Agree relation here is between Asp and the subject. The object does not receive Case nor enter into any Agree relation, but since there is no uninterpretable Case on the nominal, the lack of a Case value does not result in ungrammaticality. Further, a version of (48) where T merges with ϕ -features is ruled out by the Licensing Economy Principle (see sect. 3.3.3), and so a nonspecific object will never agree.

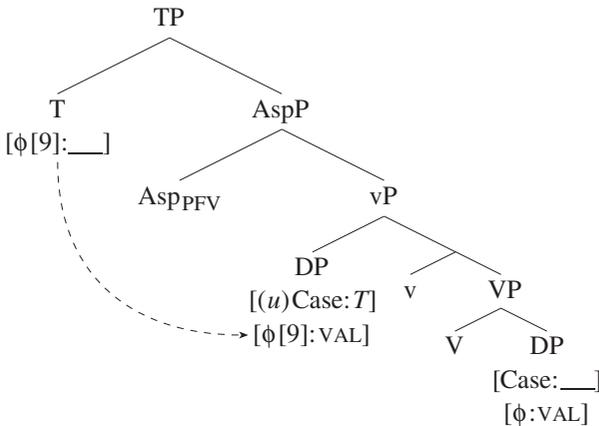
Finally, I turn to canonical perfective aspect in Senaya, in which Asp does not (and cannot) bear a ϕ -probe (Kalin & Van Urk 2015). The obligatory nominal-licensing locus thus shifts to the one and only licensor available on the spine, T.

This can be implemented formally in the following way: the T that selects for imperfective Asp is an optional Case-licensing locus, while the T that selects for perfective Asp is an obligatory Case-licensing locus. This is schematized in (49).



With just T acting as a licensor, an object can never get Case, because T will always Agree with the higher argument, the subject. However, a nonspecific object is grammatical in perfective aspect, because it does not need Case:

- (50) Perfective, (non)specific subject, nonspecific object
 → subject gets Case/triggers agreement



The ϕ -features on T (which now merge obligatorily) Agree with the ϕ -features of the subject (index 9), and Case on the subject is valued as a result. If the object in (50) were specific, it would be unable to have its Case feature valued (since there is no secondary Case locus), and the derivation would crash. Specific objects are therefore not allowed in canonical perfective aspect.

The empirical pattern that has been derived is as follows. In imperfective aspect, all subjects will agree with Asp, and only objects that are specific will agree with T. This falls out without stipulating that there is anything fundamentally different between subjects and objects, either in their featural makeup or in their licensing requirements. In canonical perfective aspect, all subjects will agree with T, and an object will never be able to agree; therefore an object that requires licensing is banned.

4.3. *Interim Summary*

In this section I applied my account of DOM to Senaya. The fact that (some) nominals behave like they need licensing is the result of uninterpretable Case being able to enter the nominal on a variety of functional heads inside the nominal. Which heads/nominal features introduce uninterpretable Case varies by language. The location of this feature, in conjunction with the profile of obligatory/optional ϕ -probes, drives the DOM pattern of the language.

5. The Crosslinguistic Picture

There are a number of moving pieces in my proposal, providing enough flexibility to account for different sorts of DOM patterns and case/agreement alignments, as well as straightforwardly extending to languages that lack DOM, while also ruling out “reverse” DOM. In this section, we will look more specifically at some of the predictions of the proposal.

The first point of crosslinguistic variation stems from obligatory and secondary licensors. The choice of licensor(s) seems to be limited crosslinguistically to T, Asp, *v*, Appl, and P. The table in (51) lays out the surface patterns predicted by logically possible combinations of obligatory (Ob) and secondary (Sec) licensors. Note that the table is constrained by the following parameters: (i) every possible configuration (every row) has at most two licensors, at least one of which is an obligatory licensor; (ii) Appl and P are grouped together, as they are both projected below *v* and so will have the same effect on alignment and differential marking; (iii) neither Appl nor P is entertained as a possible obligatory licensor, since these heads are (arguably) not projected in every clause; (iv) *v* comes in a “structural” (Str) variety and an “inherent” (Inh) variety, with the former licensing under *c*-command and the latter licensing only its specifier; (v) *v* as sole obligatory licensor is not entertained, as this seems to be unattested (see discussion later in the section); and (vi) in the description column, ERG-ABS is used to label any pattern that groups transitive objects with intransitive subjects to the exclusion of transitive subjects, NOM-ACC is used to label any pattern that groups transitive and intransitive subjects together to the exclusion of transitive objects, and split-S is used to label any pattern that has agents (subjects of transitives and unergatives) patterning distinctly from themes (objects of transitives and subjects of unaccusatives). Below the table, I discuss the patterns represented and languages that potentially instantiate them.

(51)	T	Asp	v	Appl/P	Description of surface pattern
A	Ob	Sec			ERG-ABS with ERG conditioned by Obj features
B	Ob		Sec, Str		NOM-ACC with DOM via unique ACC marker
C	Ob		Sec, Inh		ERG-ABS with ERG conditioned by Obj features
D	Ob			Sec	NOM-ACC with DOM via dative marker or P
E	Sec	Ob			NOM-ACC with DOM via unique ACC marker
F	Ob	Sec, Str			NOM-ACC with DOM via unique ACC marker
G	Ob	Sec, Inh			ERG-ABS with ERG conditioned by Obj features
H	Ob			Sec	NOM-ACC with DOM via dative marker or P
I	Ob	Ob			NOM-ACC no DOM
J	Ob		Ob, Str		NOM-ACC no DOM, or split-S no DOM
K	Ob		Ob, Inh		ERG-ABS no DOM, or split-S no DOM
L		Ob	Ob, Str		NOM-ACC no DOM, or split-S no DOM
M		Ob	Ob, Inh		ERG-ABS no DOM, or split-S no DOM

Observationally, T seems to be far and away the most common obligatory licenser crosslinguistically. Taking obligatory T as a starting point, then, a DOM language like Turkish—NOM-ACC alignment, with a dedicated accusative case marker—can be straightforwardly modeled with *v* as a secondary licenser, as shown in the toy example in section 3.1. This pattern is represented by row B. If *v* is not a nominal licenser in such a language, then secondary licensing must come from somewhere else. One possibility is for Appl or P to be a secondary licenser in lieu of *v*, row D. In this case, DOM should look like (for example) goal marking or adpositional marking, which in fact is found in many DOM languages (Bossong 1991). If Appl is the secondary licenser, this could be modeled as follows: Instead of Appl performing its normal function of introducing and licensing its own argument,¹⁸ Appl may enter the derivation as a last resort to license the closest nominal in its c-command domain, the direct object. Under the assumption that Case valued by Appl is always spelled out the same, this captures the dative-accusative syncretism that is so common in DOM languages. Nonperfective aspects in Hindi furnish an example of a NOM-ACC system with dative marking used for DOM (Mahajan 1990, among others). Secondary-licensing P would act very similarly, but potentially merge even closer to the direct object; Romanian seems to be such a language, as a (historically, at least) locative preposition differentially marks objects (Bossong 1991:157).

Row C considers what pattern is predicted if T should be obligatory (as above) but secondary *v* should license its specifier, taking this (not uncontroversially) to be how ergative case is assigned in at least some languages (see Laka 2006, Anand & Nevins 2006, Aldridge 2008, Legate 2008, Mahajan 2012, among

¹⁸ The typical profile of Appl when it introduces an applied argument (e.g., a goal) seems to be that the licensing (from Appl to the applied argument) is not sensitive to the features of the argument, even in a language that independently has DOM; in other words, dative case on applied arguments is uniform, not differential. It therefore must be the case that when Appl merges and introduces its own argument, Appl is an obligatory licenser (of that argument).

others). The pattern that emerges is an *ERG-ABS* alignment with marking of the *transitive subject* conditioned by whether or not the *object* has features that need licensing. In brief, since T (absolutive) is obligatory, it will license the sole argument of an intransitive or the higher argument of a transitive. If the object of a transitive doesn't need licensing, then the derivation will converge with just T. But, if the object *does* need licensing, then *v* must be activated as a secondary licenser. Activating *v* will result in *v* licensing the transitive subject (ergative), which then frees up T to license the object (absolutive). There are, in fact, languages with precisely this profile:

(52) Niuean (Massam 2000, cited in Woolford 2015)

- a. Ne inu **kofe** a Sione. Indefinite object
PST drink coffee ABS Sione
 'Sione drank coffee.'
- b. Ne inu *e* Sione **e kofe**. Definite object
PST drink ERG Sione ABS coffee
 'Sione drank the coffee.'

(53) Eastern Ostyak (Gulya 1966, cited in Baker 2014)

- a. Mä t'əkəkəylännä **ula** mənɣäləm. Indefinite object
we.DU.NOM younger.sister.COM berry pick.PST.SBJ.1PL
 'I went to pick berries with my younger sister.'
- b. Mə-ŋən **ləɣə** əllə juɣ kanddda aməɣaləɣ. Definite object
we-ERG them large tree beside put.PST.OBJ.3PL/SBJ.1PL
 'We put them (pots of berries) beside a big tree.'

Note that Row A would also superficially lead to the same surface pattern, as a licenser closer to the subject than T would be activated in a transitive clause just in case the object needs licensing.

Moving on to Asp as the only obligatory licenser, rows E through H, the only row with a unique surface pattern is row E, where T is the secondary licenser. This is precisely the pattern proposed in this article to hold for Senaya imperfectives (see sect. 4.2). For the patterns derived by rows F, G, and H, deciding whether one of these patterns in a given language is truly due to obligatory Asp or to obligatory T (rows A through D) would have to be based on a careful investigation of the language, with aspectually split patterns potentially pointing towards the involvement of Asp.

Finally, rows I through M consider the results of having two obligatory licensers. What all these configurations have in common is that there is no differential marking; with both licensers present in every clause, direct objects never escape licensing, regardless of their features. An important caveat for understanding these configurations is that licensers must be able to probe and fail without causing a crash of the derivation; see the discussion of Preminger 2011a, 2014 in section 3.2.2. Row I, for example, predicts a surface *NOM-ACC* pattern with no *DOM*, as Asp will always license the sole nominal or the higher nominal if there is more than one;

T will successfully find a goal only (and always) when there is a second, lower nominal.

Rows J through M raise another potential point of variation: when *v* is an obligatory licenser, is this for all flavors of *v* or only for transitive *v*? If *v* is obligatorily a licenser across the board, then no matter whether the higher licenser is T (rows J and K) or Asp (rows L and M) and no matter whether *v* licenses its specifier (rows K and M) or the closest nominal it c-commands (rows J and L), the resulting pattern will be split-S with no DOM. Split-S varieties of Basque, for which ergativity has specifically been argued to be a structural Case from T (see, e.g., Rezac, Albizu & Etxepare 2014), may furnish us with examples of row J systems.¹⁹ On the other hand, if transitive *v* is an obligatory licenser, then the resulting patterns will either be ERG-ABS with no DOM (for *v* as an inherent licenser, rows K and M) or NOM-ACC with no DOM (for *v* as a structural licenser, rows J and L). Chol might provide us with an example of the former (Coon 2010, among others), and Japanese the latter.²⁰

As noted above the table in (51), there are no rows corresponding to the predictions made by having *v* as the sole obligatory licenser.²¹ The reason for this is that such patterns seem to be unattested, or at least vanishingly rare. If *v* were an obligatory licenser while a higher head, T or Asp, were a secondary licenser, then the pattern we would expect is a split-S language where either agents (as transitive and unergative subjects) or themes (as transitive objects and unaccusative subjects) are marked differentially, depending on whether *v* is a structural or inherent licenser. If the secondary licenser were lower, Appl or P, then the pattern we would expect is for agents to never be able to be licensed (if *v* is a structural licenser) or for a split-S pattern where themes are marked differentially (if *v* is an inherent licenser). The only language that I have encountered that seems to have one of these patterns is Central Pomo (Mithun 1991), which is split-S and differentially marks themes. The absence (or at least rarity) of such patterns may be a principled gap: one could imagine a constraint on licensers such that there must be (or is strongly preferred to be) at least one obligatory licenser in the middle field/outside the theta domain.

The second main point of crosslinguistic variation in my proposal is the features that trigger DOM, which vary widely across languages. This variation must be

¹⁹ Note, however, that something special would need to be said about varieties of Basque that are split-S with structural ergative from T but also have DOM. It might be that in those varieties of Basque, all objects are licensed, but certain objects require yet *additional* licensing: Appl merges to provide this additional licensing, or perhaps *v* itself can bear an additional P/licensing component. (See Odria 2014 and Fernández & Rezac 2016; thank you to an anonymous reviewer for pointing me to this puzzle and this literature.)

²⁰ A notable gap in the predicted systems is an ergative-absolute pattern with DOM, as found in (for example) Hindi perfectives (Mahajan 1990, among others). Interestingly, this may actually be a desirable result, as ergative languages tend not to have DOM (De Hoop & Malchukov 2008). When DOM in an ergative system does occur, the explanation may be similar to that suggested in footnote 19 for certain Basque DOM varieties, where there *is* licensing available for all objects, but sometimes that licensing is not sufficient, necessitating yet another additional licenser. Hindi perfectives would then instantiate a row K system, but with Appl as a secondary licenser, needed for certain objects that fail to be fully licensed by T. (See Kalin 2014:chap. 4.5 for an account along these lines.)

²¹ Thank you to an anonymous reviewer for pointing out this gap in the predicted typology.

encoded somewhere in the grammar. I have offered a way of encoding this that does not actually make reference to a prominence scale but rather functions through natural entailment relations. If the details of my account are on the right track, the account also naturally encodes the fact that the property of being (for example) inanimate will never trigger marking, since there is no feature/head that introduces inanimacy; inanimates simply lack an Animate projection. Along the same lines, gender and number features (introduced by N and Num respectively) will not be able to trigger DOM, since N and Num are always projected in nominal structure—either Num/N will always introduce uninterpretable Case or they will never do so.²² The account I have proposed therefore predicts that “reverse” DOM, where only objects low in definiteness/animacy are marked, is impossible.²³

With regards to languages that lack DOM, there are several ways that such a lack might come about in the proposed system. (This was mentioned briefly in sect. 3.1.) One possibility is that, in such languages, uninterpretable Case is introduced within the minimal nominal structure of Num and N; since all nominals contain Num and N, it follows that all nominals in such a language require licensing—the activation of a secondary licenser will be required for all objects. Another possibility, discussed above, is that there may be more than one obligatory licenser in certain languages, such that an object can never “escape” licensing and therefore be unmarked.

Finally, languages will of course vary as to their precise grammatical properties, which can influence the surface profile of DOM. For example, the secondary licenser that merges to license an object might require movement of the nominal it licenses, thereby triggering object shift, as in Hindi (Bhatt & Anagnostopoulou 1996) and Sakha (Baker & Vinokurova 2010). Along the same lines, it seems that unlicensed nominals in some languages *do* require (pseudo)incorporation, as in Niuean (Massam 2001), which then feeds other syntactic operations like VP fronting. The interface between the syntax and the morphology is yet another source of surface variation, as this can influence the precise morphological profile of case marking in a language (Legate 2008), for example, via syncretisms and null exponents.

There are many complexities of the surface profiles of DOM that are impossible to cover in a single article, and difficult to model under any theory of DOM. For example, in some languages, DOM is “conjunctive,” triggered only when a nominal has a certain two properties, like being both animate and specific; this is the case for Spanish. To account for conjunctive DOM within the system proposed here, one possibility is that one of the implicated heads—Specific or Animate—only introduces uninterpretable Case when it is in a local relationship with the other implicated head. Another possibility is that there is a piece of structure (or perhaps a feature) unique to nominals that are both specific and animate, and it is this piece of structure that introduces uninterpretable Case. Yet another complexity of DOM in Spanish is that ECM subjects, though they receive object case (*a*), are uniformly marked, whereas

²² While number-based DOM is attested (see, e.g., Woolford 1999), it is extremely rare, and so it might be best accounted for in terms of morphological spell-out, rather than reflecting a difference in licensing.

²³ In some ways, antipassives in which the “demoted” object (which is typically indefinite/nonspecific) is marked as an oblique seem to instantiate something like reverse DOM. I put antipassives aside here, as there is plausibly something different going on in these cases.

direct objects are differentially marked (Ormazabal & Romero 2013). One suggestion for dealing with these cases is that ECM verbs introduce their own obligatory licenser, similar to an inherent case. Finally, in some languages, DOM is optional—either in general or for a subclass of marked objects. This could be modeled under the account proposed here by allowing certain pieces of nominal structure to *optionally* introduce uninterpretable Case, or, alternatively, to optionally be entirely absent. There is still a clear prediction even in the face of optionality: it should never be the case that a “high-prominence” nominal (high in definiteness or animacy) is optionally marked while a lower-prominence nominal is obligatorily marked. This is because any entailed piece of structure that obligatorily introduces uninterpretable Case will require the nominal to be licensed/marked.

An additional challenge for nearly all generative-syntactic accounts of DOM is modeling the effects on DOM of information structure and affectedness, which are not inherent properties of nominals, while at the same time reconciling these effects with the definiteness and animacy scales. One might take the tack that information structure is the primary factor (Dalrymple & Nikolaeva 2011), and that all other DOM patterns are grammaticalized instances of information structure, or (similarly) that affectedness is primary (Næss 2004) and that all other instances of DOM are due to an object’s resemblance to canonically affected objects. Or, one might do as I have here (and as have most of the other Minimalist approaches that I cite), where definiteness and animacy are taken to be the primary cases of DOM. One way to extend the current account to apply to instances of affectedness- and topicality-based DOM is to posit nominal-internal features that encode these semantic/pragmatic factors. Another would be to have dedicated syntactic positions for (for example) topics and affected arguments, and to say that nominals in those positions get licensed.

The hope, of course, is that with the right expanded toolbox—one that includes effects at the morphology–syntax interface and other language-specific complexities—the full range of DOM systems can be modeled under the account proposed here.

6. Conclusion

I have presented a new account of DOM and shown how it can derive DOM in a fairly complex case, for the Neo-Aramaic language Senaya. The core idea is that not all nominals need abstract licensing. Rather, the need for abstract licensing is introduced with certain pieces of functional structure (or features) in the nominal, varying crosslinguistically. All nominals, however, are still able to be abstractly licensed. In DOM languages, certain objects do not get licensed because they (i) do not require licensing and (ii) are not the closest nominal to an obligatory licenser. The only difference between subjects and objects is their relative height, and the only difference between DOM and non-DOM languages is their choice(s) among which features/pieces of nominal structure require licensing, and/or the location and number of obligatory and secondary licensers.

A major question that arises here is why certain nominal features/pieces of nominal structure should need licensing but not others. What I would like to suggest (in the spirit of Ritter & Wiltschko 2014) is that the features/structure that may need formal

licensing are those that need to be anchored to the speech act to be interpreted. Definite and specific nominals fairly clearly relate to the discourse, as definiteness and specificity rely on a particular speaker/hearer context. If we take the CP region of every clause to be linked in some formal way to the speech act/the speech-act participants (Baker 2008), then nominal licensing can be seen as a way to copy a nominal's features to the clausal spine and thereby "anchor" that nominal to the speech act. It is not so clear, however, why animacy features would need anchoring, but this is perhaps related to animates' increased likelihood of being a speech-act participant.

There are several significant tasks that need to be taken up in future work to support the account presented here. The first task is to better understand the relation of this theory of licensing to the original motivations for abstract Case. For some of the data that motivated Case theory, this account extends straightforwardly to them. English, for example, is plausibly a language in which all nominals need licensing, as there is no differential marking. Data like *proud *(of) her daughter* are still amenable, then, to the classic explanation: adjectives aren't licensers, and so a last-resort P (a secondary licenser) must show up to license *her daughter*; similar explanations hold for *the destruction *(of) the city* and **(for) Liana to fall asleep would be a relief*. The prediction that nominals in such positions should be differentially marked in DOM languages is at least sometimes borne out, as seen for the objects of certain adjectives in Hebrew (Danon 2006). When this prediction is not borne out, it must (according to my account) be that there actually is an obligatory licenser in these environments. A challenge relating to another aspect of Case theory is to theoretically differentiate nominals that do not need licensing in a certain language (e.g., nonspecific nominals in Senaya) from PRO. It could be that overt subjects are banned in the positions PRO occupies for reasons independent of Case licensing, as suggested by Danon (2006), drawing on Landau 2004. It might also turn out that what I have identified as Case is a different type of licensing altogether, and that abstract-Case theory is orthogonal to this licensing or (as has been recently argued) that abstract Case simply does not exist (Preminger 2011a, 2014, 2017).

The second task in going forward with this research is to explore the wide variety of differential-subject-marking effects. One notable absence from the systems predicted in (51) is differential marking of subjects in simple finite clauses on the basis of the definiteness/animacy features of the subject (rather than the object). Such patterns do seem to be quite rare; most such patterns are instead driven by the volitionality/agentivity of subjects. When differential subject marking on the basis of definiteness/animacy *is* found, it tends to parallel the differential marking of objects and to appear only in nonfinite clauses (see, among others, Kornfilt 2008, Woolford 2008). Nonfinite clauses are precisely the sort of environment in which we might independently expect to find fewer licensers, and crucially, my account predicts that across a language, which nominals need licensing should be consistent.

Finally, the account presented here could be broadly characterized as intervention-based: nominals blocked from obligatory licensers by interveners are those that may display differential marking. As suggested by an anonymous reviewer, this analysis might therefore bear on analyses of the Person-Case Constraint (Bonet 1994, Anagnostopoulou 2003, Béjar & Rezac 2003, among others), a possibility I am currently exploring (Kalin 2017).

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