Transitivity-aspect interactions in Igbo: a view from event delimitation

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Abstract

Certain Igbo verbs which are obligatorily transitive in non-perfective constructions may appear without an overt complement only in perfectives. Building on a limited previous literature on event delimitation in Igbo, an initial syntactic framework is given first for Igbo cognate objects and next for the perfective/non-perfective alternation. A unified new approach based on event features (as used in Crippen 2019) is sketched out for future research.

1 Introduction

Certain Igbo verbs are obligatorily transitive and invariably take an object across non-perfective constructions, including factative (-rV) and imperfective (na-) constructions. In some cases, this will be a cognate object without a real-world extension or apparent semantic contribution, and thus appears to be syntactically rather than semantically required. However, with the addition of the verbal suffix -la which has been analyzed as a perfective aspect marker (Emenanjo 2015: 455, Nweya 2018: 128), these objects can become optional in a certain class of verbs. This paradigm is illustrated in (1) and (2).

(1) a. *ọ zà -rà
3SG swell -rV NMLZ-swell
(Intended: It swelled.[5][6])

b. ọ zà -rà á- zá
3SG swell -rV NMLZ- swell
It swelled.

c. ọ zà -à -là (á- zà)
3SG swell -VS -PFV NMLZ- swell
It has swelled.

(2) a. ṃ rì -rì
1SG eat -rV food
I ate.

b. ṃ rì -rì ṅrí
1SG eat -rV food
I ate[7].

c. e- ri -e -la -m (ṅrí)
FIN- eat -VS -PFV -1SG
I have eaten[8].

A similar pattern can be observed in negative perfective constructions, which use the suffixes *-be-ghi* in conjunction (Enweonye & Egwuekwe 2015: 199, Ezenwafor 2019: 34). Examples are given in (3).

(3) a. *e- ri -ghi -m
FIN- eat -NEG -1SG

5 1 = first person, 3 = third person, APPL = applicative, DEF = definite, DEL = event delimitor, DETt = determiner, FIN = finite, IMP = imperative, NEG = negative, NMLZ = nominalizer, OBJ = object, PFV = perfective, PROG = progressive, PROX = proximal, SBJ = subject, SG = singular, VS = (open) vowel suffix.

6 Orthographic note: ⟨ r ⟩ is used for /ɹ/ by convention.

7 Note that ṅrí here is not strictly the cognate object, which is èrí. However, ṅrí is not necessarily referential and is also formed from the verb and a nominalizer.

8 Tone data is presented when known, but is missing for some examples.

I did not eat.

b. e- ri -ghi -m ṅrí
FIN- eat -NEG -1SG
I did not eat.

c. e- ri be- -ghi -m (ṅrí)
FIN- eat -PFV -NEG -1SG
I have not eaten.

In (1), for example, *aza* is the cognate object of the verb *za* "to swell." It does not pick out any actual referent in the world, but is necessitated by the verb in absence of a referential complement due to some structural requirement. Evidently, this requirement is either fulfilled or laxed by the presence of the *-la* or *-be* suffix. What is the nature of this requirement, and why should it be impacted by *-la* or *-be*? This constitutes the core of the problem with which this work is concerned.

To date, the only discussion of this issue I am aware of is by Manfredi (1993). Manfredi uses the notion of an event "delimitor" which may be a referential object, cognate object, or the perfective marker, to derive the structural discrepancies at play here. While I will not engage with every aspect of Manfredi's argumentation, the limited nature of previous literature on this topic means that this paper will in effect be a dialogue with Manfredi contextualized by more recent developments in linguistics overall (particularly Minimalism) and in Igbo linguistics, particularly the syntactic treatments in Nweya (2018), Nweya (2021), and Amaechi (2020).

I will first engage in a brief informal description of the semantic properties usually discussed with relation to cognate objects in Igbo in Section 2. I will then attempt to clarify to some extent the phenomenon of event delimitation in Section 3. In Section 4, I will paint in broad strokes the relevant facts of Igbo syntax as held by the recent frameworks mentioned above, and will go on to describe a first pass at accounting for event delimitation using Minimalist syntax in Section 5. Having done this, we can step back and look at another way to formalize event delimitation using event features from Crippen (2019), which will allow us to keep the relevant phenomena connected but allow for individual syntactic and semantic investigation. This constitutes Section 6, which concludes this paper.

2 A first look at cognate object semantics

Further complicating the paradigm presented in Section 1 is the fact that Igbo also features naturally intransitive verbs that can appear with or without a cognate object, a perfective marker, or both. These possibilities are shown in (4).

(4) a. ṃmírī zò -rò
rain fall.V -rV
It rained.

b. ṃmírī à zò -r-o ézò
rain DEF.PROX fall.V -rV fall.N
It really rained.

c. ṃmírī e- zo -la
rain FIN fall.V -PFV
It has rained (but it is no longer raining).

d. ṃmírī à e- zo -la ezo
rain FIN fall.V -PFV
It has really rained (and it could still be raining).

These data indicate the use of the cognate object for "emphasis." This description is one that has been uniformly applied to all cognate objects in Igbo by Nwachukwu, who does also recognize the differing structural requirements governing their presence in transitive and intransitive constructions (Nwachukwu 1987:19-21). Beyond the need for a formal account for this, what remains unaddressed is that cognate objects' differ also in their semantic contribution when used in transitive and intransitive; in the former case their appearance is marked, but in the latter unmarked, which is incompatible with any contribution of emphasis.

3 Event delimitation

Manfredi calls delimitedness a signifier of the "total affectedness" of the object (Manfredi 1993:14). However, this reading doesn't seem to track for a sentence like *ó bìara abía* "3SG actually came" unless we either stipulate that the subject here (3SG) is really an internal object or that there is an implicit argument, such as "here." I suggest that it really is event semantics rather than object semantics at play here. As the emphatic quality of the cognate object seems informally comparable to the emphasis present in certain forms of copied verb reduplication in English ("but do you *like*-like him?"; see Kimper 2008), it seems appropriate to draw the analogy that English verb focus reduplication also semantically affects events themselves moreso than objects involved in the events. Manfredi has later expressed that the CO in cases where it is emphatic "triggers a polarity focus ('emphasis') reading similar to English affirmative *do*-support, giving the lexical predicate a topical or presupposed status" (Manfredi 2012:3), and this to me seems more tenable than Manfredi's earlier claim.

3.0.1 Delimited and non-limited (intransitive) events

Not all events must be delimited in Igbo. Some verbs such as *zo* may appear without any complement, or with a cognate object or a modifier; similarly, *bıa* 'come' may occur without any complement, with a referential object, with a cognate object, or both. Importantly, this means that a delimitation requirement must be lexically specified, i.e. a feature of V.

3.0.2 Type of delimiters

Referential nouns are perhaps the most transparent sort of delimiter. In (5), the event being referred to was completed once the yam was eaten.

(5) ḿ rì -rì dʒī
1SG eat -rV yam
I ate yam.

dʒī in (5) is thus a telic delimiter, but delimiters are not limited to constraining telicity of an object. (6c) shows an example where a sentence is ungrammatical without an object or modifier (same as (6b), repeated from (1) above) but where adding an adverbial modifier makes the utterance grammatical without the need for a cognate object. And as we have seen, (6d) shows that the perfective marker is also a sufficient delimiter.

(6) a. *ɔ́ zà -rà
3SG swell -rV
(Intended: It swelled.)

b. ɔ́ zà -rà á- zá
3SG swell -rV NMLZ- swell
It swelled.

c. ɔ́ zà -ra óbérē ōbērē
3SG swell -rV (small small)
It swelled gradually/slowly/a little bit.

d. ɔ́ zà -à -là (á- zà)
3SG swell -VS -PFV NMLZ- swell
It has swelled.

Event delimitation thus is a broad label encompassing several sorts of semantic effects on an event expressed by a verb. For now, I will proceed to sketching out the syntax involving cognate objects, first in broad terms and then as relates to event delimitation. Later in Section 6, however, I will point towards a possible way to formalize the phenomenon of event delimitation in a way that preserves the unison of these phenomena but still allows for the distinct event-related semantic phenomena at play to be studied individually without being homogenized.

4 Cognate objects in Igbo syntax

4.1 An initial syntactic framework

For the most part, I will take as a starting point the cartographic structure posited by Nweya (2018), Nweya (2021) pointing out significant deviations. However, see also Amaechi (2020) for another different but detailed analysis of Igbo clause structure. One caveat to the present discussion is that I do not enter very heavily into discussions of Case, partially as it is disputed in Igbo (cf. Amaechi 2020, Georgi & Amaechi 2022) and partially to simplify the discussion. Finally, my trees use Bare Phrase Structure and omit empty functional layers that are not relevant to a given example.

(7) a. ḿ rì -rì dʒī
1SG eat -rV yam
I ate yam.

b. ḿ rì -rì dʒī è- rí
1SG eat -rV yam NMLZ eat
I actually ate yam.

A basic transitive sentence in the declarative ("factative" or affirmative, see Amaechi (2020)) is given in (7a) (repeated from (5) and illustrated in Figure 1.

4.2 Base-merge hypothesis

(7b) shows a sentence where a cognate object (CO) is present in addition to a referential object to provide emphasis. This and the following subsection will represent different possible ways to represent the inclusion of COs in the structure. Note that this section primarily deals with structure and not meaning. The semantic contribution of cognate objects are addressed to some extent in section 3.

Perhaps the simplest way of representing how the CO originates in the structure is to say that it is as being base-merged fully formed as its own nominal element (either directly from the lexicon or from a prior or parallel word-formation operation). This is what is implied by the diagram in Manfredi (1993:14), though his actual analysis differs as we shall see in Section 4.4. Manfredi depicts the CO adjoining directly to V to form a complex head. A structure for (7b) under this approach is shown in Figure 2.

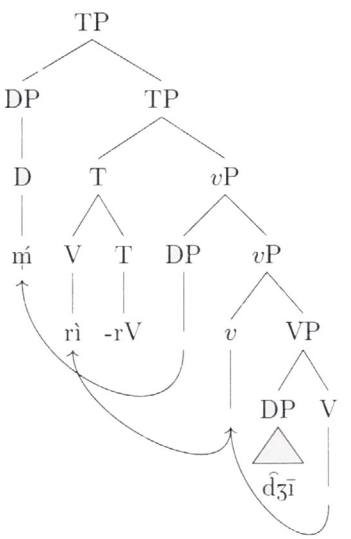

Figure 1: Tree for (5)

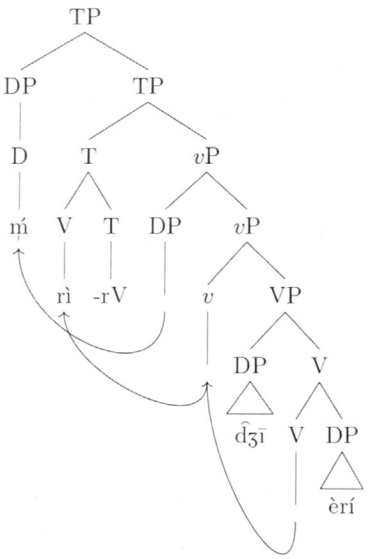

Figure 2: Tree for (7b)

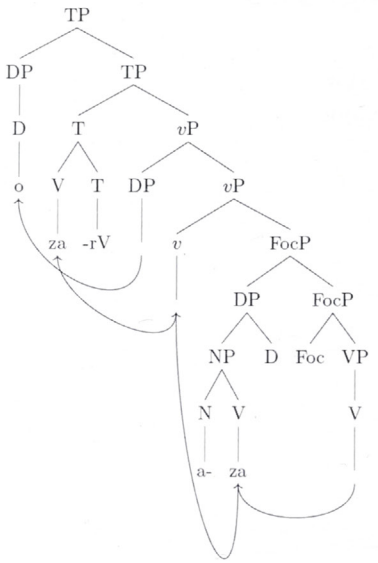

Figure 3: Tree for (1)

4.3 Verb-copying hypothesis

Nweya, however, analyzes cognate objects as arising from verb-copying (Nweya 2018:198-201). Under a view that the CO constitutes verb focus (consistent with Manfredi (1993) among others), the verb actually moves to a functional head Foc on its way to *v*. Here it is nominalized with a nominalizing prefix and a copy of the verb root proceeds further up the verbal spine. We will start with a simpler example with only a cognate object and no referential object to illustrate this. Figure 3 illustrates the sentence given in (1).

There are some potential issues to be clarified regarding this structure. This analysis assumes a Copy Theory of Movement where only the topmost element in a chain of (identical) elements is pronounced (Nunes 2001). In this view, the lower *za* might remain pronounced because its merging with *a-* has rendered it distinct from the higher copy. One question that arises is whether we might expect the entire *aza* complex to raise under V-to-*v* movement, which doesn't seem to be the case under this analysis. If this is indeed an issue, there are a few possible analyses of why raising does not occur. One possibility is that the nominalizer *a-* is held in place by some feature on D. Another is that VP's merging with (covert) *v* triggers Spell-out sending *aza* to PF, but because *v* has some uninterpretable feature and needs to be valued by V (or because T needs to be valued and attach its -rV, and so V needs to move to the phase edge to remain accessible), the system resorts to something like Raising-before-Transfer (Skinner 2009). Being an expensive operation, this only preserves the minimal item with a matching feature.

4.3.1 Evidence from applicatives

Manfredi (1993) gives an example where a cognate object in an applicative construction (which also uses a suffix of the shape -rV on the verb) surfaces with the applicative suffix on the CO as well. This is shown in (8). If this is a widespread pattern, this would provide further support for a view where the CO is derived rather than base-merged (though Manfredi has a somewhat different view as will be seen in Section 4.4). The generation of the CO for (8) under this view is shown in Figure 4.

(8) Ézè buuru m íbu ébúru.

Eze	bu	-rV	-ru	m̩	ibu	e-	bu	-ru.
Eze	carry	-rV	-APPL	1SG	load	NMLZ	carry	-APPL

Eze really carried a load for me.

Note that the structure in Figure 4 does not derive the correct linear order for (8). For this, we may need *m* and *ibu* to move up, e.g. to check Case. To ensure that *eburu* isn't a constituent that moves further up, this should be possible either by stipulating that this Case-related movement occurs before or concurrent to the movement deriving *eburu* or by saying that the CO is somehow "weak" with respect to certain nominal features and thus cannot be assigned case (contra. Manfredi 1993, Amaechi 2020). Another issue is the landing sites of these nominals if they were to move up. One possible solution is to simply create shells of *v*P or FocP, though this does not seem to be a particularly well-constrained operation. Another is to posit higher projections. Nweya argues for both low and high projections for both FocP and ApplP for independent reasons (Nweya 2018:120, 201). These could be potential landing sites, but as both high projections are above TP, this would force us to also stipulate subject movement higher into the C domain, e.g. into TopP. Amaechi, however, argues against the view that subjects in Igbo naturally move into a topic position above TP (Amaechi 2020:147-150).

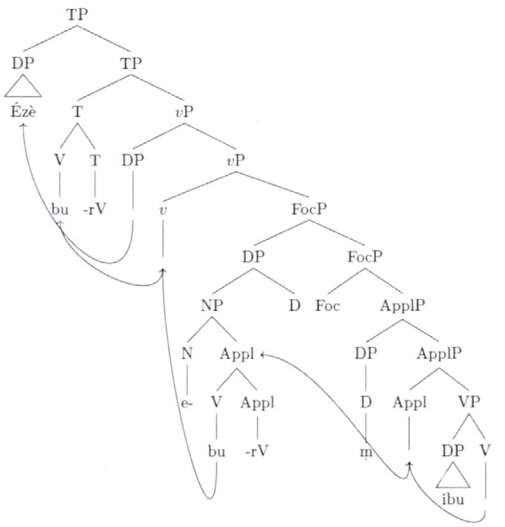

Figure 4: Tree for (8)

It is also not clear whether the applicative suffix surfacing on the CO is a common feature across dialects; I have not found any other data corroborating Manfredi's claim. See (9) for some sentences from Oha (2008) which do not appear to show the suffix on the cognate object.

(9) a. o kwu -u -ru m o- kwu
3SG talk -rV -APPL 1SG NMLZ- talk
They (3SG) spoke for (on behalf of) me.

b. o du -u -ru m ya odu
3SG.SBJ advise -rV -APPL 1SG 3SG.OBJ advice
They$_i$ (3SG) advised them□ (3SG) for me.

c. kwe -e -re m ukwe ṇke ṃ
sing -rV/IMP? -APPL 1SG song DET 1SG
Sing my own song for me[9].

4.3.2 Evidence from argument-reversal verbs

Igbo has a number of verbs that have received some attention for the ability of their subject and object to switch surface position without any morphological indication (Georgi & Amaechi 2022; Uchechukwu & Egenti 2015). Two of these are demonstrated in (10) and (11).

(10) a. Úchè nà- á- kwà ɔkwárà

9 Gloss of ṇke as DET follows Obiamalu (2022).

Uche PROG- FIN cough cough
lit. Uche is coughing a cough.
Uche is coughing.

b. ọkwárà nà- á- kwà Úchè
cough PROG- FIN- cough Uche
lit. A cough is coughing Uche
Uche has a cough. (Uchechukwu & Egenti 2015)

(11) a. Ùju nà- è- ghe ugherē
Uju PROG- FIN- yawn yawn
Uju is yawning.

b. ugherē nà- è- ghe Uju
yawn PROG- FIN- yawn Uju
Uju is yawning. (Iloene 2013)

(12) a. Òkéke zè -rè úzere
Okeke sneeze -rV sneeze
Okeke sneezed. (Aboh & Onuorah 2020)

b. uzerè zè -rè ṃmadu
sneeze sneeze -rV person
Somebody sneezed. (Chinweude 2022)

Some verbs of a semantically similar class seem to have developed a canonical order and no longer vary. One is shown in (13).

(10) ágórō nà- á- gó éwú à
hunger PROG- FIN- hunger goat DEF.PROX
This goat is hungry.

The verbs presented here are only a subclass of Igbo's argument-reversal verbs (or those verbs adjacent to that class), but are included here because their cognate objects all contain an -rV suffix unlike most other cognate objects. This does not appear to have garnered much attention in the literature. While there is no synchronic evidence of a verbal applicative in these structures, it seems possible that a semantically meaningful verbal -rV suffix became fossilized in certain cognate objects resulting from copying a suffixed verb. It seems unlikely that this was simply the factative -rV, as we don't tend to see this suffix on other cognate objects. This hypothesis will need verification and comparison with other potential explanations surrounding the presence of -rV, but if validated could serve to support a verb-copying explanation of cognate objects.

4.4 Lexical insertion at PF spellout

Manfredi's opinion on the CO is that it is neither base-generated as a nominal nor formed by merge-based verb copying, but that it is "generated productively at PF spellout in absolute-final position, as a sentential affix" (Manfredi 2012:3; see also Manfredi 1993:10). This should theoretically be able to account for any fossilized -rV suffixes on the cognate object as discussed in the previous two sections, but of course introduces its own stipulations. I do not have much to say on this here as it does not at a glance appear to have much compatibility with the Minimalist framework adopted here. Manfredi also specifically distances his framework from the Vocabulary Insertion possible with Distributed Morphology (Manfredi 2012:4).

Overall, it is simplest for the moment to assume that cognate objects are base-merged. Further study may be required to conclude one way or the other.

5 Capturing delimitation alternations syntactically

Manfredi posited that a referential object, cognate object or perfective marker may be the "delimitor" for an event (Manfredi 1993:14). Recall that not all verbs require a delimitor, and so the necessity for a delimiter

must be lexically specified. Under Minimalism, we can represent this relationship as an uninterpretable feature [*u*del] on certain V, which must be matched with a [DEL] feature via Agree on an object or perfective marker lest the derivation crash. This Agree relationship is illustrated in Figure 5 for the sentence (1b). After valuation, the verb moves cyclically up to *v* and then T while the subject moves into the specifier of T, deriving the surface linear order for the sentence. .

For an objectless verb in the perfective, the [DEL] feature is on *-la* in Asp instead. Not being able to find a matching feature in the c-command domain, *za* is only able to get valued once it moves up to T and then launches another probe. This is illustrated in Figure 6.

Note that this structure makes certain predictions about which elements will undergo Agree with the verb first when there are multiple elements carrying a [DEL] feature. Assuming the accuracy of Manfredi's proposal that the cognate object is generated under a complex V node, this predicts that cognate objects Figure 5: Tree for (1b) before and after verb and subject movement will always be valued before referential objects or the perfective marker. Figure 7 and Figure 8 illustrate this for (1c) (with a CO) and (7b) respectively.

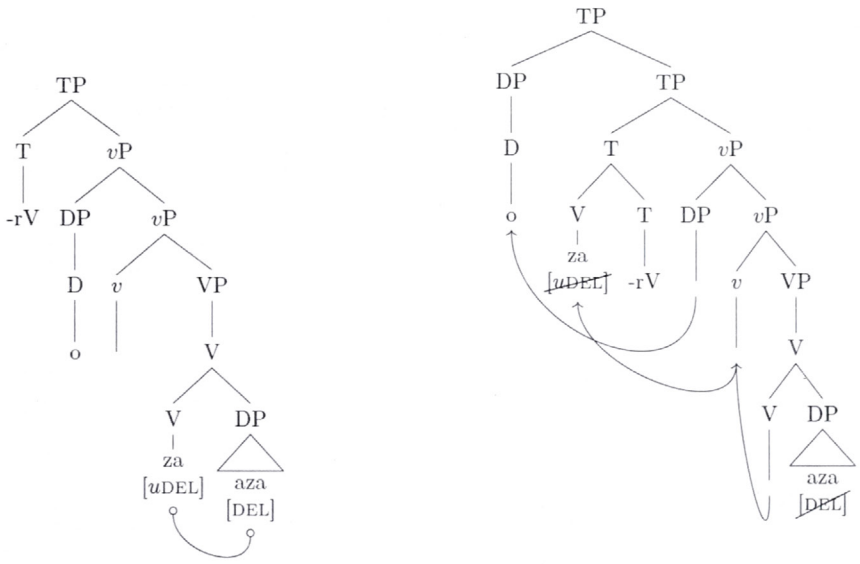

Figure 5: Tree for (1b) before and after verb and subject movement

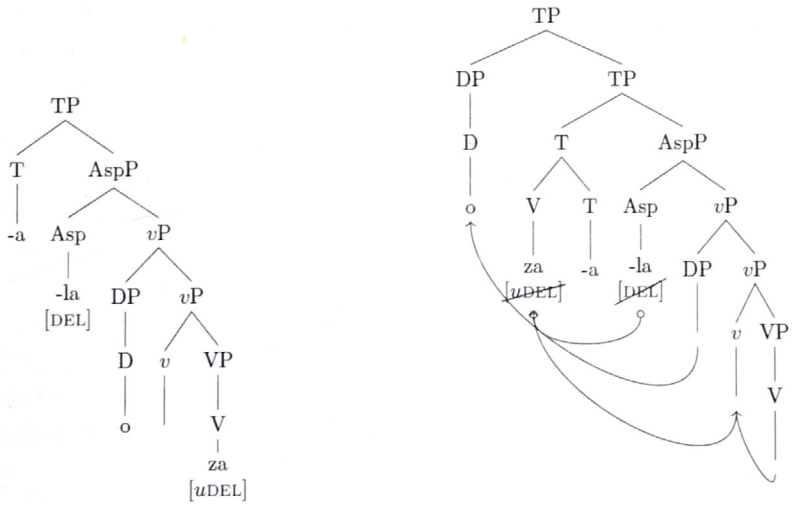

Figure 6: Tree for (1c) without cognate object

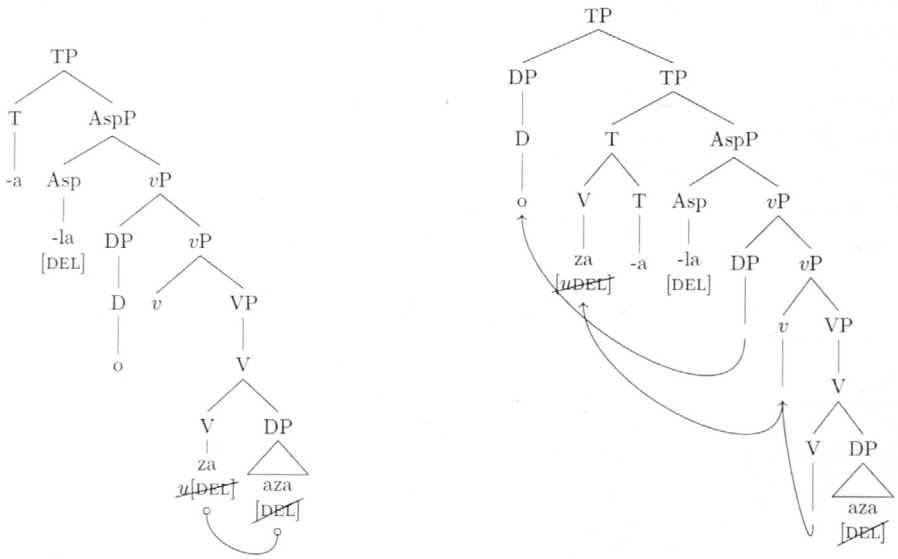

Figure 7: Trees for (1c) with cognate objects

One question that remains to be clarified is how emphasis is derived in a sentence like (7b). One possible approach is to say that a [del] feature that hasn't been deleted by valuing a verb is somehow computed as emphasis at LF. This would predict that a transitive verb in the perfective with a cognate object should read as emphatic; this is borne out in (4d) above, in contrast to (4c) which does not seem to carry an emphatic reading. Interestingly, the sentence in (14) was once given as "they are completely dead" and mentioned as being a way to express the proposition more emphatically than with the -rV form, though this does not seem to be how the sentence is always translated. As for transitive imperfectives, emphasis arises when a verb occurs both with a referential complement and a cognate object, as in (7b) and (8).

(14) ó ŋʷō -ɔ̄ -lā
3SG die -VS -PFV
They (3SG) died./They (3SG) are completely dead.

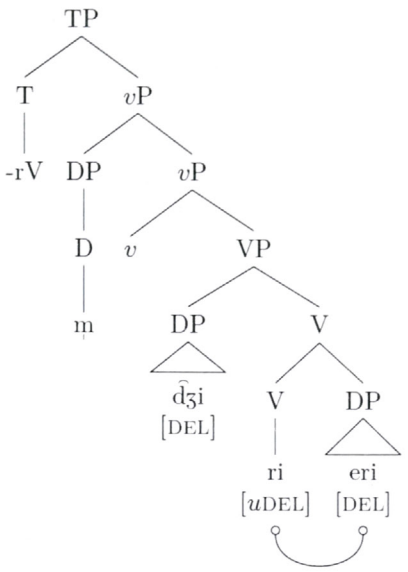

Figure 8: Tree for (7b)

6 Event features: toward a formalization and delimitation

In Section 3 we saw that what we have been calling "event delimitation" seems to consist of a number of distinct ways the semantics of an event can be altered. We have been lumping this all together, but it may be helpful to at least provide something of a framework within which these potentially distinct phenomena can be teased apart. One way I propose to do this is with the use of event (or eventuality) features, or Ɛ-features, similar to their use by Crippen (2019). Crippen employs a functional head Ɛ that undergoes agreement with V or with Asp depending on the context to value Ɛ-features such as [state$_{Ɛ}$] and [durative$_{Ɛ}$].

If we posited an Ɛ head for Igbo below Asp or *v*, we could have an unvalued feature [*u*Ɛ] on Ɛ instead of on V. Different elements in the lexicon either have no Ɛ-features or have a particular Ɛ feature. These features may indicate telicity, perfectivity, adverbial modification, and/or some overlapping relationship between these and/or other features. The Ɛ-head only needs to be valued by one to prevent derivation crash. The lexical specificity of what we have been calling event delimitedness now comes from whether V comes pre-specified with some Ɛ-feature, which would be the case for intransitives such as *zo* 'rain' or bIa 'come.' This all should allow Ɛ-features that do not enter into a valuation relationship and thus are not deleted (or, all such features if we don't stipulate deletion) to contribute semantic meaning that is actually related to the feature/lexical item itself rather than simply being a broad view of "emphasis." This may help account for unexpected semantic contributions from the cognate object that seem to provide some aspectual restriction instead of emphasis, as in (4d). Incorporating a stative feature directly into the structure may also help to account for the differing distribution and semantic contribution of *-rV* across stative and eventive verbs (though see Amaechi (2020) for another view on *-rV*).

In the case of perfectives, Ɛ will not be able to be valued by any head in its c-command domain but may either probe upward for Asp or be attracted to Asp where it can then undergo valuation. Alternatively, we could "cut out the middleman" and have Asp manage all eventuality features.

All of this remains hypothetical, and should be evaluated both empirically and theoretically. But this view, once sketched out more properly, should hopefully provide a framework and some direction to continue investigating phenomena discussed in this paper or those related to it.

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