Factors for hyperactivity in Tigrinya

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1 Introduction

1.1 Background

Hyperactivity. A growing body of research has shown that many languages permit a single nominal constituent to participate in multiple A-relations, including agreement and, movement (see Zyman 2023, Fong & Halpert to appear).

(1) *Hyperagreement in Swahili*

Juma a-li-kuwa **a**-me-pika chakula
Juma 3SG-PST-be 3SG-PERF-cook food
'Juma had cooked food.'

(Carstens 2001)

(2) *Hyperagreement and hyperraising in Luganda*

Abaana$_1$ **ba**-labika [t_1 **ba**-beera mu-nyuumba eno]
2.children 2MS-seem 2MS-live 18-9.house 9.DEM
'The children seem to live in this house.'

(Sheehan & van der Wal 2018)

The Activity Condition. The ability to participate in multiple A-relations raises questions regarding the conditions under which nominals are visible to syntactic operations (Chomsky 2000).

(3) *Activity Condition*

An DP/NP with a valued Case feature ([K : VAL]) is inactive. An inactive DP/NP is not accessible to A-relations.

Raising in English. Paired with a requirement that nominal constituents must have a their Case feature valued (*Case Filter*; Vergnaud 1977/2008, Chomsky 1981), the Activity Condition contributes to an account for Raising constructions in English.

(4) *No Raising from finites clause in English*

  a. It is likely [that **they are** sitting here]
              [K : NOM]

  b. ***They**$_1$ **are** likely [that t_1 **are** sitting here]

(5) *Obligatory Raising from non-finite clauses in English*

  a. *It is likely [**they** to be sitting here]
              [K : −]

  b. **They are** likely [t_1 to be sitting here]
    [K : NOM]

1.2 Overview

Hyperactivity in Tigrinya. The language Tigrinya (Ethiosemitic; SOV) has several distinct monoclausal and biclausal constructions in which a nominal constituent displays hyperactive behaviors with respect to agreement and/or movement.

(6) *Long-Distance Object Hyperagreement in Tigrinya*

     a. **ʔɨt-a sebajti** n-ət-ən   dəbdabe-tat kɨ-**ti**-tsʼɨħif-ən   jɨ-gɨbbaʔ-**a**
        that-FS woman.F ACC-that-FP letter-PL   IRR-S.3FS-write.IPFV-O.3FP S.3MS-need.IPFV-O.3FS
        'The woman needs to write the letters.'

     b. *pro* **ʔɨt-a**   **səbajti** n=ət-om təmharo   kəmzɨ-rəxab-**ət**-om   rəsiʕ-om-**wa**
        3MP ACC=that-FS woman that-MP   student.PL COMP-meet.PRF-S.3FS-O.3MP forget.GER-S.3MS-O.3FS
        'They forgot that the woman met the students.'

(7) *Hyperraising-to-Object in Tigrinya*

     ʔɨt-i   məmħir **n=ət-om**   **təmharo** nɨ-kɨ-xəjd-**u**   jɨ-dɨlj-**om**
     that-FS teacher   ACC=that-MP students   COMP-IRR-leave.IPFV-S.3MP S.3FS-want.IPFV-O.3MP
     'The teacher wants the students to read the book.'

Implications of Hyperactivity in Tigrinya. The usual suspects for the (non-)hyperactive behavior of nominal constituents—including Case-licensing and defectiveness—do not contribute to any concept of Activity in the language Tigrinya.

> **Licensing without Deactivation in Tigrinya**
> Nominal-licensing features and concepts of defectiveness are neither explanatory nor predictive of (non)-hyperactivity.

Hyperactivity as the Null Hypothesis. Given similar conclusions (e.g., Nevins 2005, Carstens & Diercks 2013, Keine 2018), perhaps the new null hypothesis should be that there is no Activity Condition; hyperactivity should, in some sense, represent the default behavior of nominal constituents.

> **Moving beyond Nominal Deactivation**
> Constraints on multiple A-relations should be formulated without reference to activity.
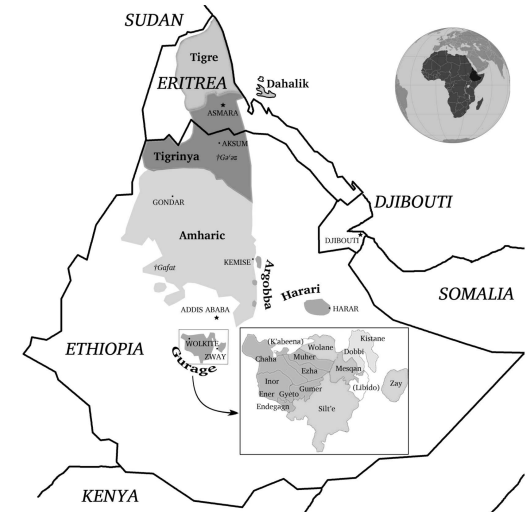
2 Background on Tigrinya

2.1 Ethnographic Information

Classification. Tigrinya is an Ethio-Semitic language on the Afro-Asiatic branch. It is closely related to Tigré and Amharic and more distantly to Arabic and Hebrew.

Population. There are approximately 10 million speakers with significant and under-studied dialectal variation (Eberhard et al. 2024).

Distribution. Tigrinya is spoken predominantly in central highland Eritrea and the Tigray region of Northern Ethiopia on the Horn of Africa. Large immigrant populations exist world-wide.

Consultants. Judgments presented here come from three individuals from the Eritrean regions of Debub and Gash-Barka and a fourth individual from Mekele in the Tigray region of Ethiopia.

Credit: Ronny Meyer (Weninger 2011)

2.2 Language Status

Historical Minoritization. Tigrinya has faced various degrees of minoritization through periods of both colonization and occupation.

Language Use. Tigrinya is a national language of Eritrea and one of the official languages of Ethiopia. Although classified as under-resourced, Tigrinya is a language of instruction in primary school and as well in secondary and post-secondary institutions in Tigrinya-speaking regions.

Academic Representation. Tigrinya is relatively well-represented from a descriptive and historical perspective. While Tigrinya is under-represented in modern theoretical linguistics, the past 25 years have seen a steady increase in generative research, including from Tigrinya-speaking linguists.

2.3 Basic Morphosyntax

Nonconcatenative Root Morphology. Tri-consonantal roots with a base meaning acquire their category and inflectional information through transfixed vowel templates (see Buckley 2003 on Tigrinya templatic morphology and Leslau 1941, Nazareth 2011 and Tesfay 2016 on aspectual forms).

(8) *Imperfective verb form*
ji-sibbir
S.3MS-break.IPFV
'It breaks.'

(9) *"Gerundive" verb form*
səbir-u
break.GER-S.3MS
'It broke.'

(10) *Perfect verb form*
səbər-ə
break.PRF-S.3MS
'It has broken.'

Agglutinating Synthetic Morphology.   Verbs commonly carry prefixal morphology marking finiteness, mood, valency alternations, as well as affixal markers that cross-reference the subject, objects, and applied arguments (Leslau 1941, Nazareth 2011).

(11)   *Transitive configuration*

Yonas n-ət-a   t'irmuz **səbir-u-wa**
Yonas ACC-that-FS bottle   break.GER-S.3MS-O.3FS
'Yonas broke the bottle.'

(12)   *Intransitive configuration*

ʔit-a   t'irmuz **tə-səbir-a**
that-FS bottle   DT-break.GER-S.3FS
'The bottle broke.' / 'The bottle was broken.'

Nominative-Accusative Alignment.   Subjects of transitive and intransitive predicates are aligned with respect to both case and agreement. Internal arguments are differentially accusative marked on the basis of definiteness/specificity and relative prominence (Nazareth 2011).

Word Order.   The default word order is SOV with a strongly head-final verbal domain. There is evidence of both Object Shift and clause-bounded Scrambling/Topicalization.

(13)   *Object Shift in Tigrinya*

ʔit-i   təmaharaj **n=ət-a**   **məts'ħaf₁** biqilt'uf t_1 ji-nbib-a   ʔall-o
that-MS student   ACC=that-FS book   quickly   S.3MS-read.IPFV-O.3FS AUX.PRES-S.3MS
'The student is quickly reading the book.'

(14)   *Scrambling/Topicalization in Tigrinya*

ʔit-a məts'ħaf₁ ʔit-i   təmaharaj biqilt'uf t_1 ji-nbib-a   ʔall-o
that-FS book   that-MS student   quickly   S.3MS-read.IPFV-O.3FS AUX.PRES-S.3MS
'The book, the student is quickly reading it.'

3   Hyperactivity in Tigrinya

Patterns of Hyperactivity.   Nominal constituents in Tigrinya display hyperactive behaviors across several domains (Tesfay 2016, Gebregziabher 2021, Overfelt & Cacchioli under review, Overfelt 2025)

- *Subject Hyperagreement* : The subject controls ɸ-complete agreement on all verbal elements within a clause.

- *Long-Distance Hyperagreement* : An embedded argument controls ɸ-complete agreement in the embedded clause and object agreement on the matrix verb.

- *Hyperraising-to-Object* : An embedded argument controls ɸ-complete subject agreement and raises to matrix object position.

3.1 Subject Hyperagreement

Complex Tense-Aspect Constructions. Matrix clauses in Tigrinya permit complex tense-aspect constructions that combine imperfective and gerundive aspectual verb forms with tense auxiliaries (Tesfay 2016).

(15) *Complex perfect construction in Tigrinya*

binjam sɨwwa **sətj-u** { **ʔi-jju** / **nejjr-u** }
Binyam local_beer drink.GER-S3.MS AUX.NPST-S.3MS AUX.PAST-S.3MS
'Binyam { has / had } drunk beer.'

Multiple Subject Agreement. The logical subject of a clause controls complete ɸ-agreement markers on all verbal elements of the clause.

(16) *Complex progressive construction in Tigrinya*

a. **ʔɨt-om k'oləʕu** gɨt'm-aj **jɨ-nbɨb-u** ʔallə-**wu**
that-MP children poem.M-POSS.1S S.3MP-read.IPFV-S.3MP AUX.NPST-S.3MP
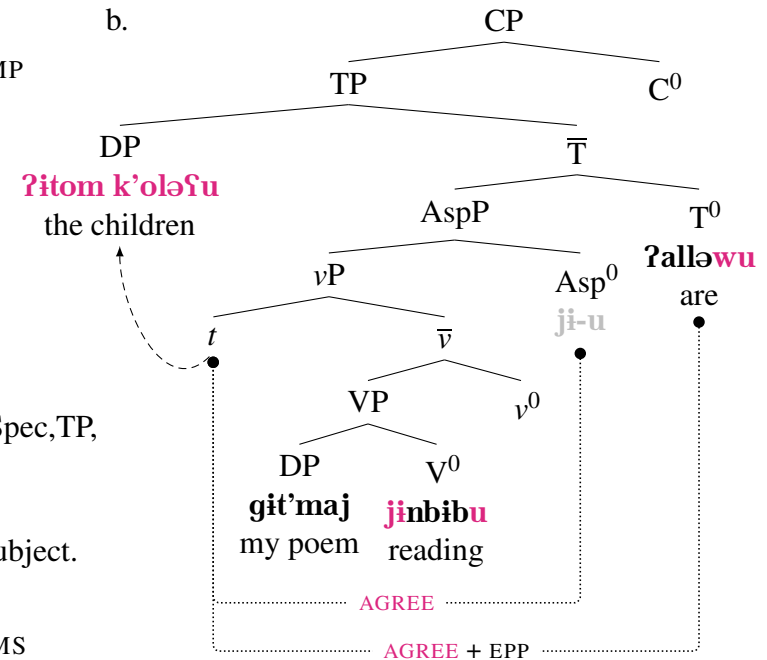'The children are reading my poem.'

(17) *Analysis of Subject Hyperagreement in (16)*

- The hyperactive subject DP is generated as an external argument.
- The head Asp^0 probes for set of ɸ-features.
- The hyperactive DP serves as a goal, valuing the ɸ-features on Asp^0.
- The head T^0 probes for set of ɸ-features and EPP satisfying goal.
- The hyperactive DP serves as a goal, valuing the ɸ-features of T^0, moving to Spec,TP, and is assigned structural Case.

No Default Agreement. Both verbal elements necessarily agree with the grammatical subject.

(18) **ħanti səbajti** maj **tɨ**-səttij **ʔall-a/*o**
that-MP children poem.M-POSS.1S S.3MP-read.IPFV-S.3MP AUX.NPST-S.3MP/3MS
'The children are reading my poem.'

b.

Considering Concord. While Agreement Concord is an analytical possibility here (e.g., Henderson 2006), it is unlikely to account for other instances of hyperagreement (Overfelt & Cacchioli under review).

3.2 Long-Distance Hyperagreement

Complement Clauses Transparent for Object Agreement. The clausal complement of certain predicates are transparent for long-distance ϕ-complete object agreement with the matrix predicate (Tesfay 2016, Gebregziabher 2021, Overfelt & Cacchioli under review, Cacchioli in preparation).

(19) *Hyperagreement within* kɨ-*clause complements of unaccusative predicates in Tigrinya*

expl [**ʔɨt-a** **səbajti** <u>kɨ-**t**</u>-xəjjid   ] **jɨ-gɨbbaʔ-a**   (***tɨ**-gɨbbaʔ-(a))
that-FS woman IRR-S.3FS-leave.IPFV   S.3MS-need.IPFV-O.3FS   S.3FS-need.IPFV-O.3FS
'The woman needs to leave.'

(20) *Hyperagreement within* kəmzɨ-*clause complements of factive predicates in Tigrinya*

pro [**ʔɨt-a** **səbajti** n=ət-om təmharo <u>kəmzɨ</u>-rəxab-**ət**-om   ] **rəsiʕ-om-wa**   (rəsiʕ-om-**wo**)
3MP ACC=that-FS woman that-MP student.PL COMP-meet.PRF-S.3FS-O.3MP   forget.GER-S.3MP-O.3FS   forget.GER-S.3MP-O.3MS
'They forgot that the woman met the students.'

Long-Distance Object Agreement in Tigrinya. Long-distance object agreement is the result of an AGREE relationship between a matrix v^0 and an optionally scrambled nominal constituent (Polinsky & Potsdam e.g., 2001).
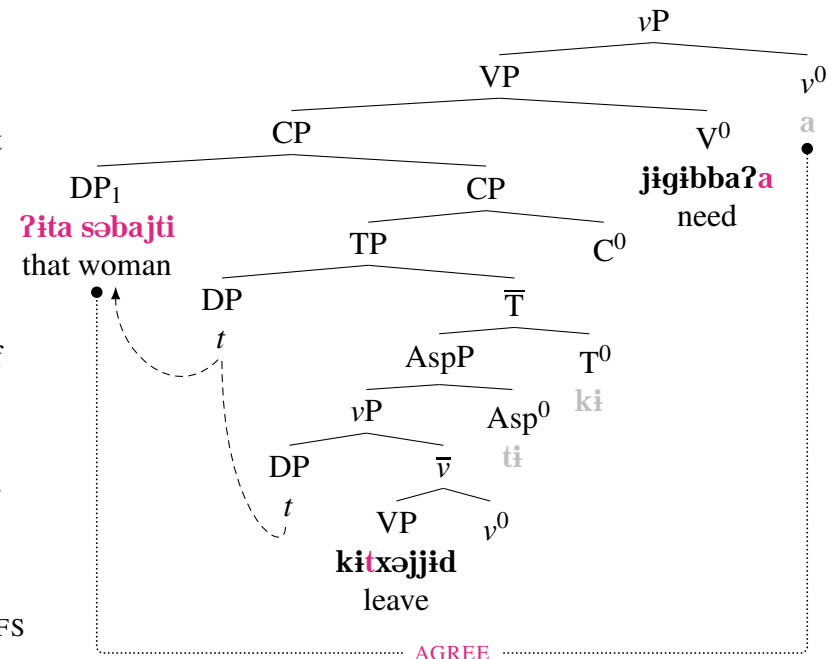
(21) *Analysis of Long-Distance Object Hyperagreement in (19)*

- The hyperactive DP is generated as an embedded argument.
- The hyperactive DP receives structural Case and triggers expected agreement in the embedded clause.
- Scrambling moves the hyperactive DP to the edge of the embedded clause.
- In Spec,CP the DP is local enough for AGREE with unaccusative v^0.

No Raising-to-*Subject*. There is no morphosyntactic evidence for an operation of Raising-to-Subject, even with unaccusatives (though see Gebregziabher 2021).

Optionality. Any nominal constituent that is eligible for agreement is a possible goal, including Case-marked DPs that remain in the embedded clause.

(22) [(**ʔanə**) **n-ət-a** **məts'ħaf** kɨ-∅-nbɨb-a   ] jɨ-gɨbbaʔ-**ni**/**a**
1S that-FS book IRR-S.1S-read.IPFV-O.3FS   S.3MS-need.IPFV-O.1S/3FS
'I need to read the book.'

3.3 Hyperraising-to-Object

Transparent Complement Clauses. The *ki*-clause complements of intensional predicates are transparent transparent for optional Raising-to-Object.

(23) *Hyperraising-to-Object with Intensional Predicates in Tigrinya*
ʔit-i məmħir **n=ət-om** təmharo$_1$ [t_1 nɨ-ki-∅-xəjd-**u**] ji-dɨlj-**om**
that-FS teacher ACC=that-MP students COMP-IRR-S.3MP-leave.IPFV-S.3MP S.3FS-want.IPFV-O.3MP
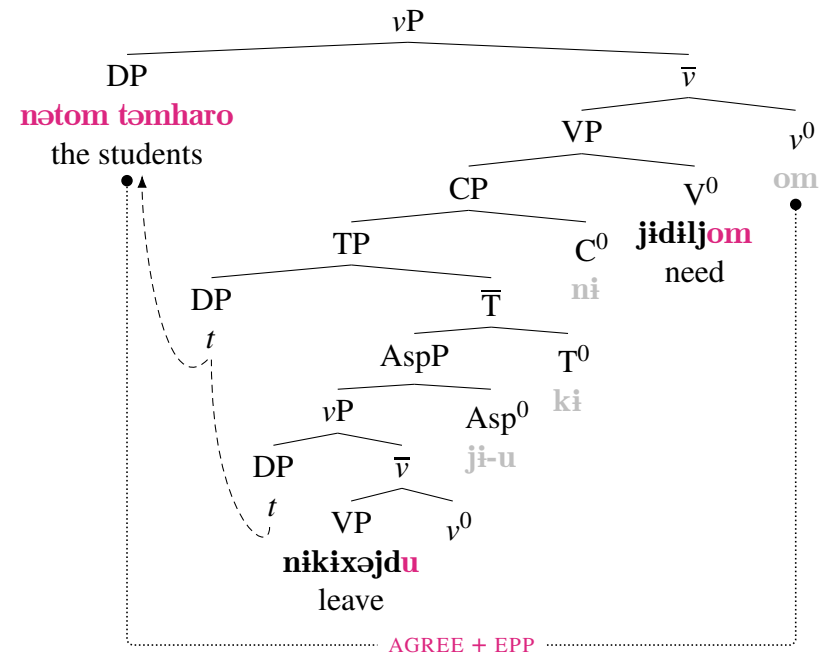'The teacher wants the students to read the book.'

Hyperraising to Object in Tigrinya. Raising-to-Object is the result of an AGREE relationship with a matrix $v^0_{[\text{EPP}]}$ over a permeable clause boundary.

(24) *Analysis of Hyperraising-to-Object (23)*

- The hyperactive DP is generated as an embedded argument.
- The hyperactive DP receives structural Case and triggers expected agreement in the embedded clause.
- Transitive v^0 probes for a set of φ-features and an [EPP] satisfying goal.
- The hyperactive DP values the φ-features of v^0 and Object Shifts.

Promotion under Passivization. As a derived object, it is expected that the hyperactive DP can be be promoted to subject when the matrix predicate is passivized.

(25) **ʔit-om təmharo$_1$** b=it-i memħir [t_1 nɨ-ki-xəjd-u]
that-MP student.PL INS=that-MS teacher COMP-IRR-leave.IPFV-S.3MP
tə-dəlij-om
DT-want.GER-S.3MP
'The students are wanted by the teacher to leave.'

Not Control/Prolepsis. The hyperactive DP can behave as if it is a constituent of the embedded clause, not only the matrix clause.

(26) ??ʔit-i məmħir [**bɨq'ɨlt'uf ʔit-om təmharo** ki-xəjd-**u**] ji-dəlij-**om**
that-MS teacher quickly that-MP student.PL IRR-leave.IPFV-S.3MP S.3MS-want.IPFV-O.3MP
'The teacher wants the students to quickly leave.'

(27) [**ʔit-om təmharo** n=ət-a mets'ħaf ki-nbɨb-**u**-wa]$_1$ ʔit-i məmħir t_1 ji-dəllij-**(om)**
that-MP student.PL ACC=that-FS book IRR-read.IPFV-S.3MP-O.3FS that-MS teacher S.3MS-want.IPFV-S.OMP
'The teacher wants the students to read the book.'

4 Factors for Hyperactivity

The Role of Tigrinya.   The abundance of hyperactive constructions in Tigrinya make it an ideal testing ground for theories of hyperactivity.

> **Factors for Hyperactivity**
> What factor(s) can be identified that are explanatory and/or predictive of hyperactivity in Tigrinya?

Accounting for Variation in Hyperactivity.   Parameterization along different dimensions has been claimed to offer an account for hyperactivity.

- *Case-Licensing and Nominal Deactivation* : Case is not a relevant feature for the licensing/deactivation of nominal constituents in the language.

- *Defective Domains and Non-Deactivation* : Syntactic domains that are deficient on some measure are defective in the sense that they cannot license/deactivate a nominal constituent.

> **Licensing without Deactivation in Tigrinya**
> Nominal-licensing features and concepts of defectiveness are neither explanatory nor predictive of (non-)hyperactivity.

4.1 Case-Licensing and Nominal Deactivation

Case and Activity.   The non-applicability of an *Activity Condition* is an expected property of a language in which traditionally-understood Case is *not* involved in nominal licensing (Carstens 2011, Carstens & Diercks 2013, Sheehan & van der Wal 2018).

(28)   *Activity Condition*

An DP/NP with a valued Case feature ($[\text{K} : \text{VAL}]$) is inactive. An inactive DP/NP is not accessible to A-relations.

On Analogy with Bantu.   Tigrinya could be treated like at least some Bantu languages, as opposed to Indo-European languages, in that the lack of traditional Case-licensing would leave nominals active for multiple A-relations.

(29)   *Luganda hyperactivity*   (Sheehan & van der Wal 2018)

Abaana   **ba**-labika [**ba**-beera mu-nyuumba eno   ]
2.children 2MS-seem   2MS-live 18-9.house   9.DEM
'The children seem to live in this house.'

(30)   *Tigrinya hyperactivity*

[**ʔɨt-a**   **səbajti** kɨ-**tɨ**-xəjjɨd   ] jɨ-gɨbbaʔ-**a**
 that-FS woman IRR-S.3FS-leave.IPFV   S.3MS-need.IPFV-O.3FS
'The woman needs to leave.'

Case and Licensing in Tigrinya.   Along with other Semitic languages, Tigrinya shows several indicators of being a Case-licensing language (Weldu 2004, Nazareth 2011; see Sheehan & van der Wal 2018 for general discussion).

- *Accusative Case* : Definite/specific objects are typically morphologically marked and undergo Object Shift (Nazareth 2011, Overfelt 2022).

    (31)   ʔɨt-i   təmaharaj k'olt'ifu **dəbdabe** ts'ɨħif-u
           that-MS student   quickly letter   wrote.GER-S.3MS
           'The student quickly wrote a letter.'

    (32)   ʔɨt-i   təmaharaj **n**=ət-a   **dəbdabe** k'olt'ifu ts'ɨħif-u-**wa**
           that-MS student   ACC=that-FS book   quickly read.GER-S.3MS-O.3FS
           'The student quickly wrote the letter.'

- *Preposition/Applicative Case Alternation* : Oblique arguments are marked either with a preposition or they are Case marked and cross-referenced with an applicative agreement marker on the verb (Nazareth 2011).

    (33)   **ʔab**=**t-i**   ʕarat məts'ħaf ʔanbir-u
           on=that-MS bed   book   put.GER-S.3MS
           'He put the book on the bed.'

    (34)   **n**=ət-**i**   ʕarat məts'ħaf ʔanbir-u-**lu**
           ACC=that-MS bed   book   put.GER-S.3MS-A.3MS
           'He put the book on the bed.'

- *Passive Agent Marking* : The demoted agent of a passive construction must be marked with a preposition.

    (35)   ʔɨt-i   təmaharaj **n-ət-a**   **dəbdabe** ts'ɨħif-u-**wa**
           that-MS student   ACC-that-FS book   read.GER-S.3MS-O.3FS
           'The student wrote the letter.'

    (36)   ʔɨt-a   debdabe **b**=**ɨt-i**   təmaharaj tə-ts'aħifa
           that-FS letter   by=that-MS student   PASS-write.GER-S.3FS
           'The letter was written by the student.'

- *Free v. Construct State* : Possessors arguments within a DP must be marked with a preposition or appear initial in the DP (Nazareth 2011; though see Gebregziabher 2013).

    (37)   [DP ʔɨt-i   [PP **naj**=**t-i**   **məmħɨr**] məts'ħaf]
               that-MS   GEN-that-MS teacher   book
           'the book of the teacher.'

    (38)   [DP [DP **ʔɨt-a   ħafti**] ʔɨt-i t_1 məmħir]
               that-FS sister.F   that-MS   teacher
           'the teacher's sister'

Hyperactivity is not Case-Discriminating. Nominal constituents that are Case-marked and licensed in embedded clauses remain accessible to additional A-relations; recall that DPs that are Case-marked in the embedded clause are targets for hyperagreement.

(39)   [(ʔanə) n-ət-a məts'ħaf ki-∅-nbɨb-a   ] jɨ-gɨbbaʔ-**ni**/**a**
          1S   that-FS book   IRR-S.1S-read.IPFV-O.3FS   S.3MS-need.IPFV-O.1S/3FS
        'I need to read the book.'

Parameterization. The *Activity Condition* might represent a (macro/micro)-parameter between languages (Baker 2008, 2015, Oxford 2017). How-ever, Case-licensing would still be neither explanatory nor a predictive of which languages are subject to the condition (see English and Tigrinya).

Moving away from Case-Licensing. Tigrinya adds to results that should push us away from theories of (non-)hyperactivity that rely on Case or Case-licensing (see Carstens & Diercks 2013 on Bantu languages and Keine 2018 on Hindi-Urdu).

> **Hyperactivity despite Case-licensing**
> Case-licensing nominals is neither explanatory nor predictive of the (non)-hyperactivity of nominals.

4.2   Defective Domains and Non-Deacitivation

No Deactivation in Defective Domains. The excessive activity of nominal constituents is an expected property of a language in which categories that otherwise license and deactivate nouns are defective within particular domains (Chomsky 1981, 2000).

(40)   *Defectivity Condition*

        Featurally incomplete heads are defective. Defective heads cannot license nominal constituents.

Defectiveness and Licensing. The contrast for Raising in English is often modeled with the assumption that non-finite T^0 is—for various reasons—defective in its inability to Case-license nominals, typically for its lack of nominative Case (Chomsky 2008).

(41)   *Finite T^0 obviates the need for Raising in English*

    a.   It is likely [that **they** **are** sitting here]
                              [K : NOM]

    b.   ***They$_1$** **are** likely [that t_1 **are** sitting here]

(42)   *Defective non-finite T^0 drives Raising in English*

    a.   *It is likely [**they** to be sitting here]
                         [K : −]

    b.   **They** **are** likely [t_1 to be sitting here]
         [K : NOM]

4.2.1 Defective Φ-Agreement

Incomplete Φ-Agreement. While it has been claimed that incomplete φ-agreement does not result in Case-licensing (Chomsky 2000, Ferreira 2009), Carstens (2001) and Nunes (2008) point out that it can be difficult to predict which subset(s) of φ-features result in Case-licensing and when.

(43) *Multiple agreement in French*

Elle est mort-**e**
she be.3S dead-FS
'She is dead.'   (Carstens 2011)

(44) *Hyperraising in Brazilian Portuguese*

o João₁ disse   [que *t₁* **comprou**   um carro]
the João said.3SG that   bought.3SG a   car
'João said that he bought a car.'   (Nunes 2008)

Φ-Complete Swahili Hyperagreement. Taking noun classes to represent agreement for number and gender, Carstens (2001) also argues that hyperactivity in Swahili is observed with complete φ-agreement, facilitated by a "reusable" uninterpretable gender feature on nominals (Carstens 2011).

(45) *Hyperagreement in Swahili*

Juma a-li-kuwa   **a**-me-pika   chakula
Juma 3SG-PST-be 3SG-PERF-cook food
'Juma had cooked food.'   (Carstens 2001)

(46) *Tigrinya hyperactivity*

ʔɨt-a   səba jti ki-**tɨ**-xəjjɨd   ji-gɨbbaʔ-**a**
that-FS woman IRR-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
'The woman needs to leave.'

Agreement Paradigms in Tigrinya. Tigrinya is relevant in this respect because agreement is always φ-complete and transparently shows (almost) entirely non-syncretic morphology for each combination of φ-features (Leslau 1941).

Subject	Imperfective	Gerundive	Perfect
S.3MS	**jɨ**-säbbɨr	säbir-**u**	säbär-**ä**
S.3MP	**jɨ**-säbɨr-**u**	säbir-**om**	säbär-**u**
S.3FS	**tɨ**-säbbɨr	säbir-**a**	säbär-**ät**
S.3FP	**jɨ**-säbɨr-**a**	säbir-**än**	säbär-**a**
S.2MS	**tɨ**-säbbɨr	säbir-**ka**	säbär-**ka**
S.2MP	**tɨ**-säbɨr-**u**	säbir-**kum**	säbär-**kum**
S.2FS	**tɨ**-säbbɨr-**i**	säbir-**ki**	säbär-**ki**
S.2FP	**tɨ**-säbɨr-**a**	säbir-**kɨn**	säbär-**kɨn**
S.1S	**ʔɨ**-säbbɨr	säbir-**ä**	säbär-**ku**
S.1P	**nɨ**-säbbɨr	säbir-**na**	säbär-**na**

Table 1: Subject marker paradigms in Tigrinya

Object	Imperfective	Gerundive	Perfect
O.3MS	jɨ-k'ätl-**o**	k'ätil-u-**wo**	k'ätäl-∅-**o**
O.3MP	jɨ-k'ätl-**om**	k'ätil-u-**wom**	k'ätäl-∅-**om**
O.3FS	jɨ-k'ätl-**a**	k'ätil-u-**wa**	k'ätäl-∅-**a**
O.3FP	jɨ-k'ätl-**än**	k'ätil-u-**wän**	k'ätäl-∅-**än**
O.2MS	jɨ-k'ätlä-**kka**	k'ätil-u-**kka**	k'ätäl-ä-**kka**
O.2MP	jɨ-k'ätlä-**kkum**	k'ätil-u-**kkum**	k'ätäl-ä-**kkum**
O.2FS	jɨ-k'ätlä-**kki**	k'ätil-u-**kki**	k'ätäl-ä-**kki**
O.2FP	jɨ-k'ätlä-**kkɨn**	k'ätil-u-**kkɨn**	k'ätäl-ä-**kkɨn**
O.1S	jɨ-k'ätlä-**nni**	k'ätil-u-**nni**	k'ätäl-ä-**nni**
O.1P	jɨ-k'ätlä-**nna**	k'ätil-u-**nna**	k'ätäl-ä-**nna**

Table 2: Object marker paradigms in Tigrinya

Hyperactivity is not Φ-Discriminating. Nominal constituents that control φ-complete agreement and are licensed in embedded clauses remain accessible to additional A-relations; observe that all agreement relations in hyperactive contexts are φ-complete.

(47)   *Hyperagreement with subjects in Tigrinya*

Ɂɨt-om k'oləʕu gitˀm-aj ji-nbɨb-u Ɂalló-wu
that-MP children poem.M-POSS.1S S.3MP-read.IPFV-S.3MP AUX.NPST-S.3MP
'The children are reading my poem.'

(48)   *Long-Distance Object Hyperagreement in Tigrinya*

[Ɂɨt-a sebajti n-ət-ən dəbdabe-tat kɨ-tɨ-tsˀiħif-ən] ji-gɨbbaɁ-a
that-FS woman.F ACC-that-FP letter-PL IRR-S.3FS-write.IPFV-O.3FP S.3MS-need.IPFV-O.3FS
'The woman needs to write the letters.'

(49)   *Hyperraising-to-Object in Tigrinya*

Ɂit-i məmħir n=ət-om təmharo₁ [*t*₁ ni-kɨ-xəjd-u] ji-dɨlj-om
that-FS teacher ACC=that-MP students COMP-IRR-leave.IPFV-S.3MP S.3MS-want.IPFV-O.3MP
'The teacher wants the students to read the book.'

Independence of Φ-Completeness and Activity. Tigrinya adds to results that should push us away from theories of (non-)hyperactivity that rely on the φ-completeness of licensing heads (see Carstens 2001, 2011 on Bantu languages).

> **Hyperactivity Despite Φ-Complete Agreement**
>
> The completeness of φ-agreement is neither explanatory nor predictive of the (non)-hyperactivity of nominals constituents.

4.2.2 Tense and Defectiveness

No Case-Licensing without Tense. Alexiadou & Anagnostopoulou (1999) argue that the lack of semantic tense on T⁰ in embedded subjunctive clauses is responsible for the lack of nominative case, motivating raising beyond an initial agree relationship.

(50)   *Raising from a defective tenseless clause in Greek*

Ta pedhia arxisan [na trexoun (*avrio)]
the children started.3PL SJV run.3PL tomorrow
lit. 'The children started [to run (*tomorrow)].' (Zyman 2023)

(51)   *Tigrinya hyperactivity*

Ɂɨt-a sóbajti kɨ-tɨ-xəjjɨd ji-gɨbbaɁ-a
that-FS woman IRR-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
'The woman needs to leave.'

The Distribution of Tense in Tigrinya. Embedded complement clauses in Tigrinya differ on the basis of whether they are able to contain tense-expressing auxiliary verbs as part of complex tense-aspect constructions, which presumably reflects the realization/presence of T^0.

- *Tense Auxiliaries* : Embedded complement clause marked with the *kəmzɨ*-prefix can contain complex tense-aspect constructions.

    (52)   ʔit-om səbat [**ʔɨt-a**   **səbajti** ki-**t**-xəjjɨd   **kəmzɨ-nəbər-a**   ] rasiʕ-om-**wa**
             that-MP people   that-FS woman IRR-S.3FS-leave.IPFV COMP-AUX.PAST-S3FS   forget.GER-S-3MP-O.3FS
             'Those people forgot that the woman would leave.'

- *No Tense Auxiliaries* : Embedded complement clause marked with the *kɨ*-prefix cannot contain complex tense-aspect constructions.

    (53)   *[ʔit-a   səbajti   ti-nəbib   **kɨ-ʔall-a**   ] ji-gɨbaʔ-a
             that-FS woman.F S.3FS-read.IPFV IRR-AUX.NPST-S.3FS   S.3MS-need.IPFV-O.3FS
             Intended : 'The woman needs to be reading.'

Evidence for Semantic Tense. Despite the prohibition against tense auxiliaries in *kɨ*-clauses, they can host the tense adverbials.

(54)   [**ʔɨt-a**   **səbajti ts'ɨbaħ**   ki-**t**-xəjjɨd   ] ji-gɨbaʔ-**a**   nəjr-u
       that-FS woman tomorrow IRR-S.3FS-leave.IPFV   S.3MS-need.IPFV-O.3FS AUX.PAST-S3MS
       'The woman needed to leave tomorrow.'

Hyperacitivity is not Tense-Discriminating. Nominal constituents that are licensed in embedded clauses that semantically express Tense remain accessible to additional A-relations. Observe, however, that we can partially predict hyperraising from the morphosyntactic expression of Tense.

(55)   ʔit-i   məmħir **n=ət-om**   **təmharo$_1$** [t_1 nɨ-ki-xəjd-**u**   ] ji-dɨlj-**om**
       that-FS teacher ACC=that-MP students   COMP-IRR-leave.IPFV-S.3MP   S.3MS-want.IPFV-O.3MP
       'The teacher wants the students to read the book.'

Independence of Tense and Activity. Tigrinya adds to results that should push us away from theories of (non-)hyperactivity that rely on the morphosyntactic and semantic expression of Tense (see Zeller 2006 on Zulu).

> **Hyperactivity Despite Variation in Tense**
>
> The expression of Tense is neither explanatory nor predictive of the (non)-hyperactivity of nominals constituents.

5   Towards the Alternative : Phase-Based Theories

Moving on from Activity.   Case, agreement, and tense all fail to offer either an explanatory theory of hyperactivity within Tigrinya or a predictive theory of hyperactivity between languages.

> **Licensing without Deactivation in Tigrinya**
>
> Nominal-licensing features and concepts of defectiveness are neither explanatory nor predictive of hyperactivity.

Independence of Hyperactivity from non-Case-Licensing.   These results should point us towards theories of (non)-hyperactivity cross-linguistically which do not rely on the concept of an Activity Condition (e.g., Carstens & Diercks 2013, Deal 2017, Keine 2018, Fong 2019, Halpert 2019).

5.1   Clause Size and Cyclic Locality

Constraints on Syntactic Operations.   An alternative account for the lack of hyperactivity is based on the interplay between constraints on the locality of formal relationships and the formation of movement chains (Chomsky 1973, 1981, 2000).
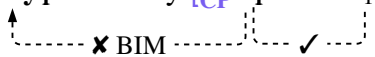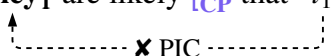
(56)   *Ban on Improper Movement*

       An element cannot be moved from an $\overline{\text{A}}$-position to an A-position.

(57)   *Phase Impenetrability Condition*

       An element in the complement of a phase head (C^0, v^0) is not accessible to syntactic operations from outside the projection of that phase head.

The Size-Opacity Correlation in English.   The contrast for Raising in English can be understood to reflect the fact that there is no grammatically licit means of A-moving a nominal constituent out of a finite CP.

(58)   *No licit A-movement out of a CP*

     a.   *$\textbf{They}_1$ are likely $[_{CP}$ $\boldsymbol{t_1}$ that t_1 are sitting here $]$
           ✘ BIM ········ ✓ ····

     b.   *$\textbf{They}_1$ are likely $[_{CP}$ that t_1 are sitting here $]$
           ✘ PIC

(59)   *Licit A-movement possible out of TP*

     $\textbf{They}$ are likely $[_{TP}$ t_1 to be sitting here $]$

The Size-Opacity Correlation in Tigrinya.   On a slightly different analysis of the relevant structures, there is a similar correlation between the size of an embedded clause and its permeability for A-movement such that morphosyntatactically tenseless clauses permit Raising (cf. Overfelt 2025).

(60)   *Hyperagreement with kəmzɨ-clause complements in Tigrinya*

     ʔɨt-om səb-at   [$_{CP}$ **ʔit-a səbajti** kɨ-t-xəjjid   kəmzɨ-nəbər-**a**   ] **rəsiʕ-om-wa**

     that-MP person-PL   that-FS woman IRR-S.3FS-leave.IPFV COMP-AUX.PAST-S.3FS   forget.GER-S.3MP-O.3FS

     'Those people forgot that the woman would leave.'

(61)   *Hyperraising-to-Object with intensional predicates in Tigrinya*

     ʔɨt-i   məmħir **n=ət-om**   **təmharo₁** [$_{TP}$ **t_1** nɨ-kɨ-∅-xəjd-**u**   ] jɨ-dɨlj-**om**

     that-FS teacher ACC=that-MP students   NI-IRR-S.3MP-leave.IPFV-S.3MP   S.3FS-want.IPFV-O.3MP

     'The teacher wants the students to read the book.'

5.2   Toward Supplementing Phase-Based Locality

Insufficiency of Clause Size Cross-Linguistically.   Numerous languages make relatively clear that cross-linguistic variation cannot be reduced purely to the size of embedded clauses, particularly in light of the inverse Zulu Raising profile (Halpert 2019).

(62)   *Optional Raising out of finite CP in Zulu*

     uZinhle₁   u-bonakala [$_{CP}$ ukuthi **t_1** u-zo-xova   ujeqe   ]

     AUG.1Zinhle₁ 1S-seem   that   1S-FUT-make AUG.1steam.bread

     'It seems that Zinhle will make steamed bread.'

(63)   *No Raising out of infinitival TP in Zulu*

     * **uZinhle₁**   u-bonakala [$_{TP}$ **t_1** uku-(zo-)xova ujeqe   ]

     AUG.1Zinhle₁ 1S-seem   INF-FUT-make AUG.1steam.bread

     'It seems that Zinhle will make steamed bread.'

Supplementing Phases.   There are various attempts to capture variation in hyperactivity (see Zyman 2023, Lee & Yip 2024, Fong & Halpert to appear):

- *Proper Movement* : Movement out of the embedded CP is in fact compliant with the BIM/PIC (e.g. Carstens & Diercks 2013, Fong 2019).

- *Dynamic Phases* : A CP is opaque for further syntactic computation up until it is "unlocked" over the course of a derivation (e.g., Halpert 2019).

- *Delayed Opacity* : A CP is transparent for syntactic computation up until it is "locked" over the course of a derivation (e.g., Deal 2017)

6   Conclusion

Implications of Hyperactivity in Tigrinya.   The usual suspects for the (non-)hyperactive behavior of nominal constituents—including Case-licensing, agreement, and tense—do not contribute to any concept of Activity in the language Tigrinya.

> **Licensing without Deactivation in Tigrinya**
>
> Nominal-licensing features and concepts of defectiveness are neither explanatory nor predictive of (non-)hyperactivity.

Hyperactivity as the Null Hypothesis.   Given similar conclusions (e.g., Nevins 2005, Carstens & Diercks 2013, Keine 2018), perhaps the new null hypothesis should be that there is no Activity Condition; hyperactivity should, in some sense, represent the default behavior of nominal constituents.

> **Moving beyond Nominal Deactivation**
>
> Constraints on multiple A-relations should be formulated without reference to activity.

Towards Locality/Minimality-Based Proposals.   These results remove barriers to fully pursuing theories of non-hyperactivity—*Hypoactivity*—that appeal to various conceptions of Locality and Minimality effects (e.g., Carstens & Diercks 2013, Deal 2017, Keine 2018, Fong 2019, Halpert 2019).

> **Phase-Based Theories of Hypoactivity**
>
> The inability to participate in multiple A-relations reflects locality/minimality constraints.

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