A MORPHOSYNTACTIC ANALYSIS OF THE ỊDÓ PRONOUN

BY

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CERTIFICATION

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DEDICATION

To the memory of Emmanuel Ikpotoki Usenbo

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ABSTRACT

Pronouns, words which refer anaphorically to noun phrases whose referents are named or understood from context, are one of the universal linguistic categories that play a central role in the grammar of languages, including Ẹ̀dó, a Nigerian language. Extant studies on the Ẹ̀dó pronoun system have focused mainly on their identification and classification with scant attention paid to their internal structure and interaction with other categories. This study was, therefore, designed to examine the morphology of Ẹ̀dó pronouns with a view to determining their forms, syntactic distribution and the effects of interface interactions.

Morris Halle and Alec Marantz's Distributed Morphology was adopted as the framework. The descriptive design was used. Three local government areas (Egor, Ovia North-East and Oredo) were purposively selected because they are communities with large population of native speakers. The Ibadan Syntactic Paradigm was used to conduct key informant interviews with 21 native speakers aged between 30 and 80 years, seven from each selected area. Interviews were complemented with textual corpus (bulletins and grammar textbooks) and audio-visual materials (music, movies and documentaries). The data were subjected to interlinear morphemic glossing and syntactic analysis.

There are three forms of pronouns in Ẹ̀dó: independent,affixal and clitic pronouns. The independent ones contain smaller morphemic units. Their internal structure shows the language derives them through five processes: affixation, clipping, compounding, conversion and reduplication. Affixal pronouns are the class maintaining reflexive prefix *tòbọ́* - and *dè* - the class-changing interrogative prefix. Clitics are personal pronouns which attach to other words; they are inaccessible to modification. The syntactic distribution shows that pronouns function as arguments: possessor, subject and object. The only exceptions are interrogative pronouns. Unlike other pronouns, interrogatives are nonarguments restricted to the periphery of a clause. This difference in distribution results from their feature composition, and it reflects in syntactic projection. Interrogative pronouns have the clause typing feature ([Qu]) and therefore project the interrogative phrase within a split complementiser phrase. Other pronouns have the determiner phrase as their maximal projection. Interface interaction effects confirm that morpho-phonology underlies allomorphy in clitic and independent forms. These pronouns assimilate features (nasality and tongue height) from adjacent words. The consequence is the proliferation of personal pronouns. The morphosyntactic interface proves that constructions and temporal distinction restrict the distribution of personal pronouns. For example, if tense and aspect in a declarative sentence are past and perfective, one could use *ọ̀* as third person singular subject. Under negation, the choice remains the same. However, if the event is not yet completed, one would use *ẹ̀* as the subject pronoun. The syntax-semantics interface shows adjacent words affect pronoun distribution; an example is *Òghọ́ghọ́ rrìé íghó mẹ̀* and *Òghọ́ghọ́ rrìé íghó gùmwẹ̀*; both sentences mean “Oghọghọ gives me money”. The effect is that sentences with the same meanings have different first person pronouns, depending on the proximity of the referent to the subject.

Ẹ̀dó pronouns are better described using inferences from their internal structure, function, and interface relations. These factors elucidate their derivation and differences in distribution.

Key Words: Ẹ̀dó, Pronouns, Distributed Morphology, Morphophonology, Morphosyntax
Word count: 500

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LIST OF ABBREVIATIONS

Ø	null phonetic form
√	root
=	clitic boundary
#	word boundary
1	first person
2	second person
3	third person
acc	accusative case position
gen	genitive case position
nom	nominative case position
obl	oblique case position
AdjP	adjectival phrase
ASS	assertive
AspP	aspect phrase
AUX	auxilliary verb
CMPR	comparative particle
COMP	complementiser
ConjP	conjunction phrase
COP	copula
CP	complementiser phrase
DEF	definite
DEM	demonstratives
DIST	distal
DP	determiner phrase
EF	edge feature
EMPH	emphatic
FOC	focus marker
FocP	focus phrase
HAB	habitual aspectual
INC	inceptive
InterP	interrogative phrase
IT	iterative aspect
LOC	locative

NEG	negative
NOML	nominalizer
NP	noun phrase
NumP	number phrase
PL	plural
POSS	possessive
PossP	possessive phrase
PROG	progressive
PROX	proximate
PST	past tense
QM	question marker
QNTF	quantifiers
QU	question feature
RED	reduplicant
REFL	reflexive
ReflP	reflexive phrase
REL	relativizer
RP	resumptive pronoun
SEL	selective
SG	singular
SPF	specific
TopP	topic phrase
TP	tense phrase
VP	verb phrase
vP	light verb phrase

CHAPTER ONE
INTRODUCTION

1.1. Background to the study

Non-lexical nouns, known as pronouns, refer anaphorically to another noun or noun phrase. The speaker can explicitly mention the noun or noun phrase in the same sentence or can make it understandable from the context of discourse. Unlike lexical nouns, pronouns cannot precede or follow a determiner, and do not take attributive adjectives (Abney (1987), Fukui (1988), Noguchi (1997) and Ndimele (1999)). English examples include: i, you, him, who, and each other. Pronouns exist in every language, but the semantic distinctions they encode differ from language to language (Harbour, 2016). Commonly, pronouns distinguish meanings using the role of participants in a discourse, their number and gender (Harley and Ritter 2002) and (Greenberg, 1963). In some languages, pronouns connote social distinctions.

For example, in the fifteenth and sixteenth centuries, *thou* was an English pronoun form used by speakers (i.e. first person participants) to address listeners (i.e. second person participants), who were considered inferior. The inferior participants used the form *ye* to refer to superiors (Wright, (1905) as cited in Howe 2011:1172). Although it is no longer the practice in English, some modern day languages still use pronouns for social distinctions. For example, the researcher observed that the Yoruba language uses *wọ́n* "they" for singular referents, if such persons are older than the speaker.

All pronouns fall into two main categories: those with definite reference and those with indefinite reference. There are seven sub-categories of definite pronouns (demonstrative, interrogative, personal, possessive, reciprocal, reflexive and relative), and five sub-categories of indefinite pronouns (universal, assertive partitive, non-assertive partitive, negative partitive, and quantifying). The language under study has all sub-categories of pronouns.

Ẹ̀dó is a tone language, with an open syllable structure; the basic order of constituents in the Ẹ̀dó sentence is Subject-Verb-Object. Elugbe (1989) classifies it as part of the Edoid group of languages, which fall under the New Benue Congo family (Williamson and Blench 2000). The language is native to Egor, Ikpoba-Okha, Oredo,

Orhionmwon, Ovia North East, Ovia South West and Uhunmwonde local government areas of Edo State; and Oza n'Ogogo community in Ika South, local government area of Delta State (Agheyisi, (1986:vi). Besides communities in the southern parts of Nigeria, Imasuen (1998a:40) reports "there are native speaker migrant communities in Okitipupa, Akotogbo, Okenuhen, Idoani, and Akure areas of Ondo State".

The language has a standard orthography and is available at primary, secondary and tertiary levels of education. Based on the 2006 National Population Commission Census Reports released in 2010, the estimated indigenous land area of this group is 10,835.37 square kilometres, while the population of first language users is 1, 686,041.

It is worthy to acknowledge the conflict regarding the linguistically correct name for the language under study. In the literature, scholars have identified it with different names, including "Ẹdo" (Aigbe 1960, Amayo 1982, Agheyisi 1986, Omogui 1987, Erhahon 1996, Adeniyi 2007, Hagemeijer and Ogie 2011), "Bini" (Melzian 1937, Westermann 1952 and Greenberg 1966), "Edo (Bini)" (Hoffman 1974, Amayo 1976, Emovon 1979) and "Bini (Edo)" (Crystal 2010). The coinage Edo-Bini is a suggestion from one of the 1974 seminars on Ẹ̀dó language. The report of this seminar is not currently available, but Agheyisi (1986: v) explains the idea was to differentiate a single language from the term, which refers to historically related languages spoken in the area. This thesis uses the term Ẹ̀dó for the language under study, because that is what native speakers call their language.

All sub-categories of pronouns comprise the foci of this research. The work examines their morphology (i.e. internal structure) and syntax. It also looks at the manner in which tones, morpho-phonemic rules, semantic features of adjacent words and syntactic processes like focussing and negation affect the internal structure of pronoun forms.

1.2. Statement of the problem

Pronouns comprise a lexical category whose members function typically as noun phrases (Matthews, 2007:323). This similarity of function erroneously leads to the assumption of sameness. Bhat (2007: 53) observes that several characteristics of personal pronouns favour their exclusion from the nominal category. For example, personal pronouns rarely take modifiers and complements. They also do not occur with definite and indefinite articles or demonstratives. These characteristics

distinguish pronouns from lexical nouns, but they are not all applicable to Ẹ̀dó. In this language, personal pronouns admit determiners[1].

Previous studies (Omoregie 1983, Imasuen, 1996 and Imasuen, 2010) discuss pronouns as a word class. The three sources are grammar textbooks which establish six sub-categories of definite pronouns (demonstrative, interrogative, personal, possessive, reflexive and relative) and five sub-categories of indefinite pronouns (universal, assertive partitive, non-assertive partitive, negative partitive and quantifying). The illustrations in these books show that the language has two sets of reflexives and a plethora of personal pronouns. For a closed word class, the number of Ẹ̀dó words which function as pronouns is unusual. The studies which identified these words as pronominal offer no explanations. However, there are subsequent studies which tried to explain the size of the personal pronoun inventory, and to distinguish between the sets of reflexives.

For example, Omoruyi (1986a) and Omoregbe and Edionhon (2017) differentiate the reflexives based on their grammatical functions and syntactic locality constraints. The crux of both papers is that one set of reflexives is emphatic, and its members do not occur in the predicate of a sentence[2]. Omoruyi's paper goes further to explain that personal "pronouns have longer forms and several shorter variants which

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1Pronouns with noun specifiers

(a) òvbì mwẹ̀ nà mòsé gbé
Child 1SG DEM be_fine DEG
This child of mine is too fine.

(b) mà ìwèévà mú òbọ́ yè né èbé
1PL QNTF put hand on DEF paper
Twelve of us signed the paper.

2 Ẹ̀dó reflexive pronouns

(a) Òsàrrọ́ ghé èghẹ́rè vbè úghègbè (Omoruyi 1986a:90)
Osarro look.PST 3SG.REFL in mirror
Osarro looked at himself in the mirror.

(b) èghẹ́rè Òsàrrọ́ khàá (Omoruyi 1986a:91)
3SG.REFL Osaro say
Osarro is referring to himself.

(c) ọ̀ tòbọ́rè khùẹ́ èghẹ́rè (Omoruyi 1986a:91)
3SG 3SG.REFL bathe himself
He bathes himself.

(d) *Òsàrrọ́ kúàn tòbọ́rè (Omoruyi 1986a:91)
Osarro hurt 3SG.REFL
Osarro hurt himself.

are derived via deletion rules (1986a:83)". Although deletion can be used to derive short pronouns, the author does not tell why such short forms exist alongside longer ones, thereby creating a gap in knowledge about the syntax of Edo.

Also, Omoregie (1983) has identified the class of indefinite pronouns in Edo. However, the indefinite pronouns identified seem to have non-distinct forms. Observations of the language in use show that shorter variants are not interchangeable. Furthermore, the use of pronouns in Edo seems to show that subject-predicate distinction is not enough to differentiate reflexive pronouns. Extant studies have not critically engaged the dynamics of Edo pronominals in this regard.

Another limitation of previous studies is inadequate explanation for the proliferation of personal pronouns, and non-distinction between the reflexives as well as some indefinite pronouns. Moreover, these studies neglect pronominal forms for expressing reciprocality, as they did not identify word forms which function as reciprocal pronouns. As such, much of information about Ẹ̀dó pronouns is yet to be documented, thereby posing serious challenges to language teaching and learning. Without adequate information in this regard, one will neither be able to describe all the pronouns evident in the language nor explain how they differ from those in other languages. There is, therefore, a need to re-examine Ẹ̀dó pronouns and the variations in their uses. Scholarly engagements in these regards should provide knowledge that is relevant to the development of educational materials and the revision of existent theories.

Therefore, this study attempts a qualitative description of the morphological forms and syntactic functions of Ẹ̀dó pronouns. Unlike earlier studies, this thesis approaches the subject from three perspectives: morphology, syntax, and the interfaces of grammar. This triangulated approach provides a more fine-grained distinction between the reflexives; gives clues as to which syntactic constructions are acceptable for communicating reciprocal actions. Also, the approach enriches the explanations for the multiplicity of personal pronouns by considering the effects of interfacing between the key components of grammar i.e. phonology, morphology, syntax and semantics. The findings will facilitate the teaching of this language, especially to non-native speakers. They will also prove useful for reformulating certain operations in generative theories like Fusion in Distributed Morphology and Agree in the Minimalist Program.

1.3. Aim and objectives

The aim of this research is to investigate the nature of pronouns in the Ẹ̀dó language. To achieve its aim, the study has the following specific objectives;

1. To describe the morphology of the Ẹ̀dó pronoun
2. To examine the syntactic distribution of Ẹ̀dó pronouns
3. To explain how interactions at the interfaces affect the form and function of Ẹ̀dó pronouns.

1.4. Research questions

In line with its aim, the study attempts the following research questions.

1. In what ways can one describe the morphology of Ẹ̀dó pronouns?
2. To what extent do sentences determine the choice and use of pronouns in the Ẹ̀dó language?
3. In what manner does interaction at the interfaces affect pronoun form and function?

1.5. Scope of the study

This research seeks to describe definite and indefinite pronouns in the Ẹ̀dó language, explain their distribution, and proffer a reason for the plethora of this type of words. The scope covers morphology, syntax, and the effects of interface interactions. The researcher limited the points of interaction to four core components of grammar (i.e. phonology, morphology, syntax and semantics), and restricted the interfaces to three: morpho-phonology, morpho-syntax and syntax-semantics. These focal interfaces were selected, because they are the ones typically used to analyse word categories.

1.6. Significance of the study

The study of pronouns has been "an engine behind the development of many theories in syntax and semantics; as such, many of the research questions are not new. However, addressing these seemingly familiar questions using data from different languages, new theoretical perspectives, and experimental tools could be beneficial to the documentation of less studied language and the development of linguistic theories" (Podobryaev 2015, Par, 1). The thesis calls for a revision of operations in two generative theories: operation *Agree* in the Minimalist Program (Chomsky, 1995)

and the *Fusion* operation in Distributed Morphology (Halle and Marantz, 1993). Thus, it is significant to the development of linguistic theory.

In addition, this work contains comprehensive data on all types of pronouns available in the Ẹ̀dó language. This offers practical benefits, as the data can be employed in future comparative language studies and typological surveys. Reports on such surveys (van Gedelren, 2020 and Helmbrecht, 2015) suggest that languages with large pronoun inventories are those which have pronominal expressions that convey social distinctions or languages which have several number distinctions. Ẹ̀dó distinguishes between singular and plural number, and the language does not evince social distinctions using pronouns. Yet, the language has a multitude of pronoun forms. Findings of this study will offer clarity on the nature of Ẹ̀dó pronouns, and improve the general understanding of this word category.

Furthermore, the community of native speakers will benefit from this research in terms of boosting their language maintenance and documentation. Igboanusi (2008:521) notes that maintenance efforts have become institutional, as the "government has taken steps to introduce certificate courses in Ẹ̀dó". However, Yuka and Omoregbe (2010:1) point out that "Ẹ̀dó is yet to be wholly described. There are still conflicting views on the structure of basic sentential constituents, phonological forms, tone patterns and orthographic representations". This thesis alleviates the issue of basic sentence constituents by focusing on disparate submissions about the nature of pronouns. This is important for harmonising existent records and facilitating the design of instructional materials.

1.7. Operational definition of terms

Argument: a constituent which verbs or prepositions require. For example, Jack bought a book for Jill.

Antecedent: a phrase which provides the interpretation of another constituent in the clause. For example, in the sentence "Children love themselves", the word 'children' is the antecedent of the reflexive pronoun.

Complementary distribution: the term refers to the mutually exclusive use of lexical items in the same syntactic environment.

Definite reference pronouns: these are pronouns which refer to entities that are known to the discourse participants. For example, Adam has new gadgets, which he intends to give away.

Indefinite reference pronouns: these pronouns refer to entities that are not specific. Such persons or things may not be identifiable to the addressee. Consider *some* in this example. The students have all resumed, but some have not paid the fees.

Interfaces: these refer to interactions between the levels of linguistic analyses. There are five of such levels, namely: phonetics/phonology, morphology, syntax, semantics and pragmatics. In this study, I consider the first four levels parts of grammar. So, the interaction between morphology and other levels, for instance, would give rise to morpho-phonology, morpho-syntax, and morpho-semantics.

Interface conditions: these refer to the mapping of sounds to meaningful expressions. One may construe them as conditions on acceptability. For example, one finds that phonology influences outputs in morphology as it obtains in phonologically conditioned allomorphy of the plural morpheme in the following words*:* cat-s /kat-s/, dog-s /dɒg-z/, and box-es /bɒks-ɪz/.

Nominal and **Noun:** A noun is any member of a group of words which function as the subject of a sentence, direct and indirect object of the verb, or as objects of adpositions. A nominal is any word, phrase or clause which functions as or contains a noun. For example, childlike and childish are adjectives with a nominal root child*;* the gerund in "Jonah loves swimming" and the dependent clause in "Do you know what time it is?"

Pronominal and **Pronoun:** a pronoun is any member of a finite set of words in a language that is used as a substitute for nouns or noun phrases. Unlike nouns, pronouns have no inherent meanings; they comprise features. Their meanings and referents lie in the discourse context. A pronominal is any word which functions as a pronoun. For example, Peter and Paul are at home. They can baby-sit John, can't they? "My car is as big as your car" and "Mine is as big as yours".

Typological classification: as opposed to classification based on genetic relatedness or a common ancestry, typological classification establishes language groups based on similarities, such as the internal composition of words and the arrangements of words in phrases and sentences.

1.8. Chapter summary

This chapter presents the overview of a study on Ẹ̀dó pronouns. There are articles and textbooks which discuss the subject, but some of these studies have disparate findings. Hence, this study re-examines the subject using a qualitative

research approach. The aim is to describe pronouns in the language. To achieve its aim, the study set objectives which focus on morphology, syntax, and the interfaces in grammar.

CHAPTER TWO
LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Chapter overview

This chapter presents a review of select studies, intending to provide answers to the following questions[3].

1. What do we know about the Ẹ̀dó pronoun system?
2. Which problems do previous studies associate with pronouns in this language?
3. What methods have been used to solve these problems?
4. What do previous studies recommend for future researches?

The select studies reviewed here focus on Ẹ̀dó pronouns, address the same research questions as this study, and employ a similar framework of analyses. The review is in three main sub-sections: issues in pronoun research, previous studies and theoretical framework.

2.2. Conceptual review of recurrent issues in pronoun research

Since the time of the traditional grammarians when pronouns were first classified as a part of speech, research has focused on their form and functions; the litmus test for identification is their ability to substitute lexical noun phrases. Following the evolution of linguistic theorems, research on pronouns has moved from the question of form and function to issues related to their syntactic projection, the role of pronouns in syntactic processes, and their interpretation.

2.2.1. The issue of form and function

The category of pronouns is a word class where the members do not have uniform characteristics. Some are definite; some are not. While some change their morpho-phonological forms to reflect grammatical features; others have invariant forms. Several studies on pronoun morphology address the form vs function debate.

3These questions were adapted from Olayinka and Oriaku (2006:254); this study changed the second question to "which problems are associated with this system?" Olayinka and Oriaku's question is "where the problem come from?"

Publications on this issue explain the occurrence of two sets of personal pronouns (long and short) in certain languages. Some studies (Omoregie, 1983 and Omoruyi, 1986a) suggest that one set of the pronouns is derived from the other, while others argue that both sets of pronouns exist independently (Abimbola and Taiwo, 2017; Taiwo 2006, 2007, 2011). Curiously, none of these studies approached the issue from the perspective adopted in this work. This thesis revisits the issue of long and short pronouns from the view of allomorphy. Haspelmath (2002:26-27) describes allomorphy as a situation where a given morpheme has two morphological patterns. This thesis contributes to the ongoing debate by considering the effects of interactions between morphology and syntax. The work, specifically, consider how sentence types and grammatical functions influence the morphology of personal pronouns.

2.2.2 The syntax of pronouns

One area of concern in pronoun syntax is the projection. Opinions are divided as to whether pronouns should be analysed as NP (Fukui, 1988) or DP (Abney, 1987). More recent proposals suggest pronouns project phrases which extend beyond NP (Dechaine and Wiltschko, 2002) and DP (Usenbo, 2016). Another area of concern in pronoun syntax is the role of pronouns in syntactic processes. Beyond the role of interrogative pronouns in question formation, pronouns perform other significant functions, especially in processes which involve movement. These pronouns are generally referred to as resumptive pronouns. The erstwhile assumption about resumptive pronouns is that they in complementarity with parasitic gaps, which "are licensed by WH-traces which do not c-command them" (Chomsky 1982:40). Uwalaka (1995) argues that resumptives in Igbo left dislocation constructions can license these gaps. Ọmọruyi (1989:280 ff) reports a related use of resumptive pronouns for the Ẹdo language. The paper notes that subject focussing involves "a leftward movement of the subject noun, which is optionally followed by the focus marker. Then the third person singular pronoun *ọ̀* fills the gap at the extraction site.

2.2.3. Pronoun interpretation

Interpretation is the assignment of specific meaning(s) to an utterance with ambivalent denotations. In pronominal research, the focus on interpretations has largely been examined in terms of anaphora – a process by which a pronoun gets referential content via association with another constituent in the structural or

discourse context. If the context is structural, the associated constituent is found within the same sentence as the pronoun. If the context comprises several sentences, such constituents may be found in any of the sentences preceding or following the one where the pronoun is used. Usually, interpretation depends on co-referencing, which is indicated using sub-script indices as in Perpetual$_1$ bought a book$_2$. She$_1$ put it$_2$ on the table. There are two perspectives to research on pronoun interpretation. There is the morpho-syntactic view (Chomsky 1981, and Gruber, 2013) which derives interpretation from syntactic structure. There are also studies (Levinson, 1987) which posit that interpretation is non-structural and should be studied from the perspective of semantics and pragmatics. This research work adopts the morpho-syntactic perspective, because it matches the scope of this study.

2.3. Review of earlier studies

Textbooks on the grammar of the language describe the Ẹ̀dó pronoun system of in terms of lexical categories. For instance, Omoregie (1983) distinguishes between definite pronouns (*Ataeni Netara*) and indefinite pronouns (*Ataeni Errọ*). The book explains both types are sub-divided. For definite pronouns, there are six subcategories; for indefinite pronouns, there are two subcategories. Chapter five of the book contains the following examples.

1. Amadin tàmàrá mwè. *"*Amadin told me".
2. Ì yá ásán gbé ègbémwè. *"*I use a cane to flog myself*".*
3. Mẹ tòbọ́mwè ọ rú ẹ́rè. "I myself did it".
4. Ònà ọ màá sẹ̀ẹ́. "This is the best".
5. Ghá ọ́níí khín?"Who is it?
6. Íghó né ù rhié mẹ wìrí. "The money which you gave me is lost.
7. Nìbún à tìéré, ìbòzèghè à zẹ́rẹ́ "Many are called, few are chosen".
8. Fìán èmà nè ènórhírhí rrè"Serve pounded yam to whoever comes**.**

Although Omoregie's textbook covers the basics of the Ẹ̀dó pronominal system, the text does not mention expressions that are typically pronominal. For example, there is no mention of equivalent terms for reciprocals such as each otheror one another. A more detailed analysis of Ẹ̀dó definite pronouns is Omoruyi (1986a); a thirteen page article, which discusses only definite pronouns.

Commenting on their syntactic distribution, Omoruyi (1986a:83-84) says "case roles determine the distribution of Ẹ̀dó personal pronouns." The paper also points out that some short pronouns do not occur independently; "they are bound to words from other lexical categories; derived by elision rules and cannot function as

responses to content word questions." The paper classifies personal pronouns into two types: subjective and objective case pronouns. The appendix contains tables showing both types of pronouns.

Assuming a two-way split between constituents of a sentence, one can define subjective case pronouns as the ones found in subject position; while objective case pronouns are those which function in the predicate of a sentence. Omoruyi points out that personal pronouns have underlying forms and variants which are subject to strict distributional rules. The article shows this distribution with the following examples.

9. Ìrẹ́ọ̀n /ọ́ támà ìmẹ̀mwẹ̀/* mẹ̀
   3SG tell 1SG
   He/She tells me.

10. Ìrẹ́ọ̀n / rẹ̀n /ọ́ tíè ùwà/*wá
    3SG call 2PL
    He/She calls you.

The unacceptability of *ìrẹ́ọ̀n/ọ́ támà * mẹ̀* and *ìrẹ́ọ̀n/ rẹ̀n tíè *wá* is because *mẹ̀* and *wá* cannot occur in the predicate of a sentence. Omoruyi (1986a:85) remarks that "if we are right in proposing *ìmẹ̀mwẹ̀* and *ùwà* as the underlying forms for *mẹ̀* and *wá* respectively, we shall either need powerful constraints to block the occurrence of *mẹ̀* and *wá* in objective case or propose some morphophonemic rules that will account for the surface realisations".

This study does not agree that structural case position forms viable basis for distinguishing pronoun forms. In fact, other authors have data which show that some of the objective case pronouns can function as subjects. What we need is an account of the distribution of these forms; if the pattern is generalisable, then we may be closer to understanding what affects pronouns and how these effects manifest themselves. The evidence may not entirely be structural; as Omoruyi observed, it could cut across different levels of grammar.

Besides personal pronouns, Omoruyi's article shows two kinds of possessive pronouns in the language: genitive case pronouns and possessive determiners. It also examines relative pronouns using Chomsky's (1965) recoverability of deletion principle and Doughtery's (1969) pronominalization hypothesis. The paper states that relativization entails sentence embedding, as shown in the example below.

11. Òkpìá nì mìẹ́ ghéá tìé èbé
    Man REL.1SG see AUX read book
    The man that I saw was reading a book.

The derivation of example (11) follows three steps. First, there is embedding of a sentence into the subject of the matrix clause *"Òkpìá [ì mìẹ́ òkpìá] ghéá tìé èbé".* Next, there is relativization which yields *"Òkpìá [nè ì mìẹ́] ghéá tìé èbé".* Then, vowel elision[4] leads to the structure *"Òkpìá nì mìẹ́ ghéá tìé èbé".*

Also, the article examines reflexive pronouns and distinguishes two kinds: anaphoric and appositive reflexive pronouns. It describes their morphological structure and analyses their syntactic distribution using Jackendoff's (1972) precede and command constraint. Omoruyi posits that "reflexive pronouns comprise *ègbè,* a stem which literally means 'body', and an appropriate objective case personal pronoun corresponding to its antecedent" (Omoruyi 1986a:90). The paper submits that reflexive pronouns can precede their antecedents.

12. Ègbẹ́rè Òsàrrọ́ khàá
Himself Osaro say
Osaro is referring to himself.

13. Ọ́ tòbọ́rè khùẹ́ ègbẹ́rè
He himself bathe himself
He bathes himself (the subject bathes without assistance).

The reflexive in example (12) is an anaphoric reflexive, but it is quite similar to the appositive reflexive pronoun in example (13). This other type of reflexive contains a stem - *tòbọ́,* which means self, and a personal pronoun variant in objective case. Omoruyi's article suggests appositive reflexive pronouns can co-occur with anaphoric reflexives, but they do not occur in the predicate of a sentence.

Although Omoruyi's article is the most widely circulated publication on Ẹ̀dó pronouns, subsequent studies have not replicated all of its findings. For instance, Imasuen's six volume grammar series does not emphasise case roles. It also shows the aberrant first person singular in example (9) can occur in the sentence predicate.

14. Wẹ́ẹ̀ èmwá hiá dòó mẹ̀. (Imasuen 1996:111)
Say people all hello me
Say hello to everyone for me.

The acceptability of the above example rules out the possibility of blocking the occurrence of personal pronouns based on their structural case positions. Apart from illustrating the acceptability of *mẹ̀,* Imasuen (1996, 2010a and 2010b) discusses

4Ẹ̀dó does not permit consonant or vowel clusters. For vowels, there would be a glide word-internally or elision of vowels across the word boundary. Usually, the vowel before the boundary is affected, as with the relative marker in example 11.

some other pronoun forms. If one adds these other pronoun forms to the ones identified in Omoruyi (1986a), one would have thirty-six personal pronouns.

The plethora of Ẹ̀dó personal pronoun forms raises the question of reason. Why does this language have so many personal pronouns? There have been no specific responses to this question, but researches have tried to differentiate these pronouns using their length and functions. In Ẹ̀dó textbooks, there is the assumption that longer pronouns are the "underlying forms" of the short variants.

A direct consequence of pronouns with varying lengths is the occurrence of two sets of pronouns performing similar functions. For example, in Ẹ̀dó there are two sets of pronouns which denote possession, two types of reflexives, as well as long and short personal pronouns. Based on their internal composition, previous studies suggest the language derives pronouns from words which are pronouns themselves, as well as forms which belong to other word classes.

Prior studies do not show how these derivations occur. One can investigate this in a framework that allows two levels of syntactic representation. However, with advances in syntactic theory, there is the problem of explaining underlying and variant forms, without the notion of deep and surface structure. Another way of addressing this problem is by studying the features of these pronouns. One may adjudge the line of reasoning in previous studies correctly, if one can clearly segment the pronouns into identifiable Ẹ̀dó morphemes. The study attempts this in chapter four, where it looks at the morphology of definite and indefinite pronouns.

The problem of long and short pronouns is not peculiar to the language under study. It is evident in other languages, and there are studies which address the issue in those languages. Their solutions fall under three themes.

- Long and short pronouns are non-related independent forms.
- Long and short pronouns result from morphosyntactic feature distribution.
- Languages have long and short pronouns because of the distribution of morphosyntactic features and the effects of discourse related factors.

The first thematic response dismisses the idea of relatedness; each pronoun form exists independently in the lexicon. The second admits there is a relationship but insists that long and short pronouns differ in terms of their distribution in a clause. The third thematic response differs from the second, because it distinguishes them in terms of structural distribution and discourse function.

2.3.1. Unrelated long and short pronouns

Taiwo (2006) describes long and short pronouns in Ào dialect of Yorùbá. The article states that "pronouns have their origins in the lexicon as completely formed words, fully inflected for case, number, person, and negation" (Taiwo, 2006:327). Long pronouns have six forms which occur in affirmative and negative sentences. In both construction types, long pronouns have the same form. Short subject pronouns have five different forms in different syntactic positions. Form I pronouns occur before high tone verbs; form II come before mid or low tone verbs. The ones classified as form III occur before future tense and habitual aspect markers; they also function as continuous aspect markers before high tone verbs. Form IV pronouns function as continuous aspect markers before mid or low tone verbs, while the form V pronouns occur in negative sentences.

In two other publications, Taiwo (2007 and 2011) draws further distinctions about the forms of personal pronouns in Ào. These studies assert verbs determine the form of an object pronoun. A high or low tone verb selects a mid-tone pronoun as its object, while a mid-tone verb selects a high tone pronoun as its object. Thus, there are two kinds of object pronouns: the mid-tone object pronouns, which a high or low tone transitive verb selects, and the high tone object pronouns, which mid tone transitive verbs select. The third person singular object pronoun has no lexical representation; the tone on the verb enables the discourse participants to identify the pronoun.

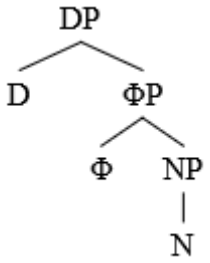
The analyses show that short subject pronouns differ from long ones in terms of their roles as aspectual and negative markers. This supports the idea they are independent words. What Taiwo observed in Ào dialect also exists in the language under study. Unlike the position of those papers, this thesis argues Ẹ̀dó short pronouns are allomorphs which arise from morpho-phonemic and morphosyntactic conditioning.

2.3.2. Morpho-syntactically determined long and short pronouns

Déchaine and Wiltschko (2002) argue that the lexical category 'pronoun' is not a category of uniform syntactic objects. Languages can have up to three pronoun types. Each type projects a noun phrase (pro-NP), phi phrase (pro-ΦP) or determiner phrase (pro-DP). The article distinguished the pronoun types using their morphological complexity, their syntactic functions as arguments or predicates, and

their inherent semantic properties. The structural representation below is based on the discussions inDéchaine and Wiltschko (2002:410).

15.



The pro-NP has the same syntax as lexical nouns, so they allow for modification. Pro-ΦP is any functional category between N and D. Pronouns which project this phrase encode person, number and gender features. The pro-DP are morphologically complex forms; they always have pro-NP and pro-ΦP as sub-constituents, but the former two can function without projecting the determiner phrase.

Another study which proposes a ternary division of pronouns is Japhet (2012). The dissertation investigates pronouns in the Ilaje dialect of Yoruba, using McCarthy's Prosodic Morphological theory and Chomsky's Minimalist Program. The research acknowledges underlying pronouns and reconstructs the basic pronouns by separating them from other syntactic elements. The analyses show one may delete pronouns and recover them as different elements, such as a high tone on subjects. Morpho-syntactic features, which regulate their structural distribution, determine the form of a pronoun. The study concludes that interaction between phonology, morphology and syntax in the Ilàje basic clause produces three kinds of personal pronouns: merged, covert and independent forms.

The current study agrees that pronouns have dissimilar characteristics, which could cause the projection of different syntactic phrases. In chapter four, this thesis uses Déchaine and Wiltschko morphosyntactic types to explain the syntactic distribution of Ẹ̀dó pronouns.

2.3.3. Morpho-syntactically determined and discourse related pronouns

Considering discourse factors that can affect the morphological form of a pronoun, Howe (2009:1) asserts that "it is the raison d'être of personal pronouns to be short – there would be little point in personal pronouns being longer than the noun

phrases they substitute". The article also states that "the length of a pronoun is basically a function of its frequency of use (2009:3)"; the more frequently a people use a pronoun, the shorter it tends to be. In addition, there is formality and reverence. In some languages, pronouns are shorter in informal talks and longer when the discussion is formal, or the addressee revered.

Howe cites an example of the Japanese first person singular pronoun forms, which include *ore, boku, atasi, watasi, watakusi*; the longest form is the most formal. One can state that pronoun length matters for communicative purposes, but it does not show or measure syntagmatic relatedness. The relationship between length and formality mirrors what obtains in Ẹ̀dó language. Speakers rarely use long personal pronouns in everyday speech, but they are quite prominent in sacred discourse.

Japhet (2021) also discusses the roles morphosyntactic and discourse features play regarding the forms and functions of pronouns. The thesis investigates /ilaje personal pronouns, using a combination of three theories: Feature Geometry (Harley 1994), Non-concatenative Morphology (McCarthy 1981) and Phase Theory (Chomsky 2000). The study acknowledges that one can connect the forms Ilaje personal pronouns, but it argues that each one has a representation in the lexicon. It draws a distinction using feature geometry and attributes the difference in function to two features: saliency and logophoric. Saliency is a feature specification of definiteness; its value [± Def] depends on whether or not the discourse emphasises a pronoun. The other feature differentiates two forms of the third person singular form: *òghun* which is [- logohoric] and *òghun* which is [+logophoric].

The findings of previous studies suggest the whys and wherefores of the variation in pronoun form and function requires an understanding of the interaction between tones and pronouns (morpho-phonological features), pronoun form, structural position and clause type (morphosyntactic features), as well as meaning and communicative intent (morpho-semantic and discourse features). To incorporate these features, the study employs a theoretical model that has a discourse component and allows derivation at the levels of phonology, morphology and syntax.

2.3.4. Derived pronouns

Derivation is a word-formation process in which we add bound morphemes to a stem to create new words, which may belong to a different grammatical category (Yule 2010:69). Usually, the process of derivation occurs in open class word

categories and not closed-class ones. This leads one to question the notion that languages have derived pronouns. The literature suggests that Ẹ̀dó forms genitive and reflexives pronouns from a combination of short personal pronouns and other morphemes. Omoruyi (1986a) states that genitive pronouns result from the combination of short personal pronouns and the stem *ọ́ghé*,while the reflexive ones comprise the stem *ègbé* – literally glossed as 'body' and an appropriate personal pronoun. Another form of the reflexive pronoun consists *tòbọ́* and a personal pronoun corresponding to its antecedent (Omoruyi 1986a: 90-91).

The first two terms referred to as stems exist as independent words in the language. Reference books classify them under prepositions and nouns respectively, but the third stem, i.e. *tòbọ́,* does not have a dictionary entry. It features in the entries for other words; in such words, it denotes a meaning that is equivalent to the English '*self"* in words like self-acceptance, self-assurance, self-analysis, etc. Given their status as independent and dependent morphemes, one can reduce Omoruyi's arguments to two processes: compounding and affixation.

Compounding seems to be the typical word-formation process for reflexive pronouns. The report on anaphora in African languages describes reflexives as 'compounds which comprise pronouns and a relational anaphoric term denoting self or a body part' (Safir 2011:27). There is paucity of literature on the morphological derivation of pronouns. This makes Omoruyi's claims pertinent and somewhat suspicious. However, reflexives in Igbo suggest the claims are tenable. Igbo language derives reflexives by combining *ònwé* with pronouns. Uchechukwu (2011:200) explains that *"ònwé"* is a regular in the formation of Igbo reflexive constructions". It does not occur as an independent morpheme in the language; its interpretation comes via association with nouns.

The Igbo *ònwé* is like the dependent form in Ẹ̀dó reflexives. The existence of this Igbo bound morpheme indicates derivation is a rare, not an improbable source of pronouns. Therefore, this study works with the assumption that Ẹ̀dó language has derived pronouns.

2.4. Concern of the present study

The current study starts off with pronouns documented in the literature. Beyond data and inferences from previous studies, this thesis distinguishes itself in three crucial aspects. First is the study's concern with pronoun morphology. Second is

its interest in pronoun syntax topics that are yet to be addressed. Third is its investigation of the effects of interface conditions on the form and function of pronouns.

2.4.1. Pronoun morphology

The first objective of this study is to describe the morphology of the Ẹ̀dó pronouns. Previous studies on pronoun morphology investigated the pattern of pronouns with reference to phenomena reported for nouns. The assumption is that one would find similarities and common features such as number, gender and case.

In Ẹ̀dó literature, scholars claim there are underlying long forms for pronouns; these underlying pronouns take the form of several short variants, but the precise method (s) of their realisation is unexplained. The literature also shows Ẹ̀dó has clitic pronouns. Some of these clitics are like other short personal pronouns, but some are distinct. For example, second person singular *à* and *ọ̀* differ from other second person singular pronouns (see tables in the appendix); but they are similar to second person plural forms and completely identical to one of the third person singular forms.

Investigating the morphology of the Ẹ̀dó pronouns provides a way for this study to explain the nature of clitic pronouns, and to discuss the regularity or irregularity of pronouns as compared to other types of nouns. A morphological analysis can contribute to the subject of pronoun origin by considering plausible explanations such as allomorphy and suppletion.

On the subject of patterning, Howe (2009) investigates the morphology of personal pronouns in English and Japanese. The study analyses the morphology of personal pronouns as two different systematic types: the first is systematic in terms of marking property connections, where such properties showed as shared formative elements such as the *wh-* in English interrogatives; the second is systematic in terms of marking property distinctions by suppletion, whereby a personal pronoun is morphologically distinct from other pronouns with which it shares properties as observed in the English first person case distinctions: *I – me – mine.*

The paper also compares number marking in both languages. Japanese language uses the same inflectional morphemes -tati, -ra to mark plurality for all persons, but the English pronouns have an irregular pattern of plural formation. For example, there is eye and eyes, but not the homophonic *I - Is, gold mine – gold mines but not *mine – mines. The author concludes that the morphology of English

pronouns is ‘irregular’ because plural formation does not conform to the pattern of inflection in the language.

Following Howe’s proposals, this thesis draws inferences from previous studies on Ẹ̀dó nouns. Areas already investigated include number marking (Omoruyi 1986b), case (Omoregie 1983), and agreement (Omoregbe and Aigbedo 2012, Omoregbe and Evbuomwan 2014).

2.4.2. Syntactic distribution

The second objective of this study focuses on the syntax of pronouns. The main question here is the syntactic distribution of pronouns. Previous studies have identified various sub-categories of pronouns. This study explains the precise function of each pronoun using inferences from Diessel’s study of demonstratives.

Diessel (1999)investigates the internal categorisation of demonstratives in eighty-five languages; the study argues there are four types of demonstratives. These are (i) pronominal demonstratives, which substitute for noun phrases in argument position of verbs and adpositions; (ii) adnominal demonstratives, which co-occur with referential nouns; (iii) adverbial demonstratives, which modify verbs; and (iv) identificatory demonstratives, which are used in certain copular and nonverbal clauses.

In languages which formally distinguish pronominal, adnominal, adverbial, and identifiable demonstratives, the paper assumes such demonstratives belong to different categories referred to as (i) demonstrative pronouns, (ii) demonstrative determiners, (iii) demonstrative adverbs and (iv) demonstrative identifiers respectively. The crux of the argument for an internal sub-categorisation of demonstratives is that ‘languages differ as to whether they employ demonstratives of the same or different grammatical categories’ (Diessel, 1999:1). The paper shows that demonstrative pronouns and determiners do not belong to the same category, even in languages where they have the same form.

For instance, English demonstrative determiners are morpho-phonologically indistinguishable from demonstrative pronouns; but the paper argues that one can differentiate them based on paradigmatic relationships. Demonstrative pronouns occur in the same syntactic slot as other independent pronouns, whilst demonstratives determiners are in complementary distribution with articles, possessive markers, and adnominal elements commonly considered determiners.

Ẹ̀dó has demonstrative pronouns and determiners; both occur with elements of different classes. The pronominal demonstratives substitute noun phrases, and like all nouns in the language, they begin with a vowel. Demonstrative determiners do not have this characteristic; like other kinds of determiners, they require a noun phrase.

16. Òwá nà kpọ̀lọ́ sẹ̀ẹ́ òwá níí
House SG.DEF.PROX be_big CMPR house SG.DEF.DIST
This house is bigger than that house.

17. Ọ̀nà kpọ̀lọ́ sẹ̀ẹ́ ọ̀níí
NOML.SG.DEF.PROX be_big CMPR NOML .SG.DEF.DIST
This is bigger than that.

Ẹ̀dó demonstratives reaffirm Diessels findings, as they do not occur in the same syntactic environments. Following Diessel's method of internal re-classification, this study explores complementarity while analysing the distribution of short personal pronouns and reflexives.

2.4.3. Interface interactions

The third object of this study is to explain how interactions at the interfaces affect the form and function of Ẹ̀dó pronouns. Previous studies observe personal pronouns in the language have variant forms; some of which have specific functions, such as the third person singular negative/positive polarity pair, in the example below.

18. Ọ̀ màá rà ẹ̀ í màá (Agheyisi 1986:37)
3SG good QM 3SG NEG good
Is he good or not?

Besides those forms in example (18), there are other pronouns which do not have specific structural roles and are unrestricted in terms of construction types. Yet, their occurrence appears to be determined by features of constituents around them.

Regarding this category of variants, Omoruyi (1986a:84-85) suggests the need for constraints to block their occurrence in certain structural positions, or morphophonemic rules to account for their distribution. Extant studies have also looked at how syntactic constructions affect the forms and functions of pronouns. Omoruyi (1989:280 ff), for instance, notes that subject focussing involves movement of the noun phrase, followed by an optional focus marker.

19. Ẹ̀-í-rè òtuẹ́ hìá (Imasuen 2010a:55)
3SG-NEG-COP greeting all
Ø ọ̀ lèlé ùkhù ẹ̀gbẹ́
FOC RP follow heritage family
'It is not all greetings that are part of a family's heritage'.

20. Osarrọ (ẹ̀ré) ọ̀ bọ́ òwá (Omoruyi 1989:281)
Osarrọ FOC RP build.PST house
It is Osarrọ who built a house.

21. Osarrọ ẹ̀ré ìràn guọ̀ghọ́ íkẹ̀kẹ́ ẹ́rè
Osarrọ FOC 3PL destroy.PST bicycle RP
It is Osarrọ whose bicycle they destroyed.

22. Òsàgié ẹ́rè íràn má ẹ́rè ègiè
Osagie FOC 3PL make.PST RP king
It is Osagie they made king.

As the examples above illustrate, third person singular forms fill the positions from which one extracts the focalised noun phrase. These personal pronouns inflect for number, but previous studies claim they are invariant when they function as resumptives. In chapter four, the study re-examines this function of personal pronouns, because preliminary data suggest that Ẹ̀dó resumptives are not invariant; they have number agreement with their antecedents.

In addition to syntactic functions, studies have investigated morpho-phonological conditioning as an explanation for the differences in pronoun form and function. For example, Taiwo and Usenbo (2015)[5] took Omoruyi's suggestion and tested Ẹ̀dó personal pronouns in a variety of phonological environments using an SVO sentence frame; the goal was to determine the influence of the vowels in the verbs on the choice of pronouns. Data analyses showed that front and back vowels select the third person pronoun variant *ẹ́rè*. The only exceptions were the vowels /ɛ / and / ɛ̃ / which select the variant *ọ́rè*. This implies the actual form of third person singular pronouns depends on the vowel in adjacent words.

There is evidence that phonology affects the form and function of pronouns in other African languages. Sande (2016), for instance, examines agreement in Guébie – a language spoken natively in Côte d'Iviore. In Guébie, pronouns take the form of a single vowel. Subject pronouns are free words, but object pronouns are part of the phonological word of the verb, surfacing as enclitics on the verb or auxiliary. The language marks a distinction between human and non-human pronouns. While human pronouns have set forms, non-human pronouns are always phonologically determined by their antecedents; these need not be in the same local domain or mentioned in the discourse for agreement to hold. For example, a man and his wife are sitting next to a

5Taiwo, O. P. and Usenbo, P. 2015. *Remarks on the Ẹ̀dó Pronominal System*. Manuscript, University of Ibadan

table talking about going to the market. There are eggplants (*trobiə*) on the table; suddenly, the eggplants roll off. The response from either the man or his wife will be:

23. ə ka briɟo
3SG PROG fall
'It is going to fall!'

In the context above, the word 'eggplant', /trobiə/ was not uttered, but the pronoun surfaces with the agreeing vowel [ə] and not any other third person singular pronoun vowels, namely [e], [u], and [o]. Using the framework of Distributed Morphology, Sande argues that any two elements within a syntactic phase could show phonological agreement, as long as both share some morphosyntactic feature.

On account of the illustrations and suggestions in previous studies, this thesis re-examines conditioned alternation in Ẹ̀dó personal pronouns. The thesis employs the same feature-based modularised model of grammar as Sande's paper. The primary reason for adopting the same framework is to provide explanatorily adequate statements about the realisation and functions of Ẹ̀dó pronouns.

2.5. Theoretical framework

The thesis employed the framework of Distributed Morphology. This section discusses mechanics of the theory; presents some examples of how they apply and highlights the suitability of the framework for this research. Distributed Morphology (Halle and Marantz 1993 and 1994) is a theory, which distributes functions of the Lexicon among three levels of grammar: syntax, morphology and semantics. Each level accesses one of three Lexicon replacement lists: *formatives*, *exponents* and *the encyclopaedia*. The list of formatives comprises roots (lexical morphemes) and features (functional morphemes). Roots are acategorial[6]; they acquire their word class in the cause of derivation. So, a root may be a noun or verb depending on its syntactic environment. The list of exponents (or the vocabulary) has items with phonological

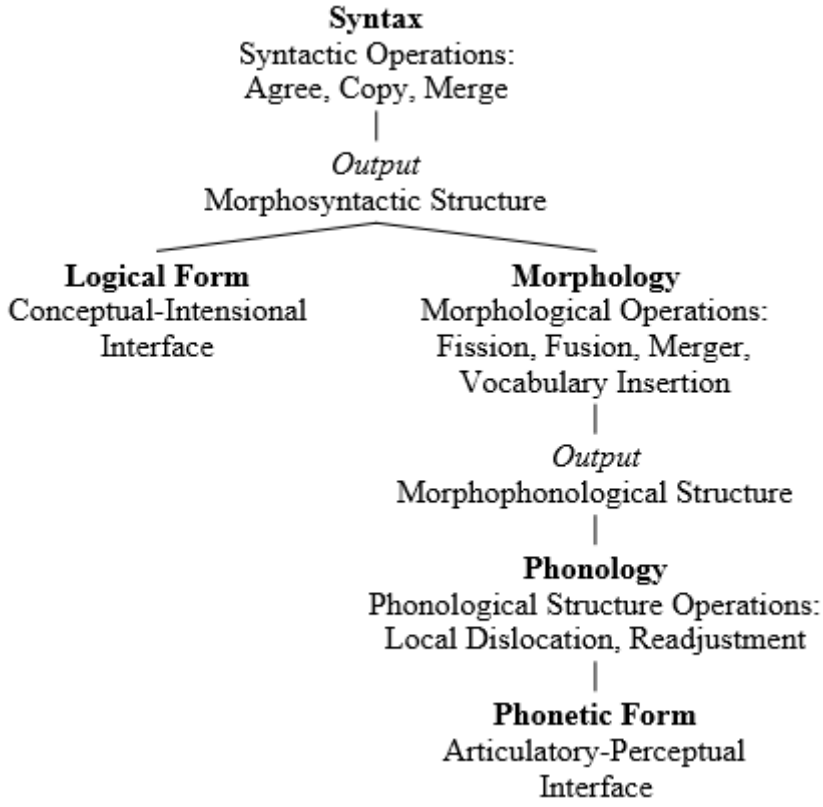
6Marantz (2007) suggests that all roots involve a category head. Siddiqi (2009) provides a detailed account of how to use the category creating heads. Basically, categorisation requires merger of a root with a node containing category information. Following Nevins (2016), the thesis includes categorial information with subscripts on the formative list. So, the illustrations here show tree diagrams where the categorial phrases nP, aP etc. project NPs and AdjPs respectively. Marantz (2007) and Siddiqi (2009) are listed in the reference section, but Nevins (2016) is a collection of unpublished lecture notes available on the author's webpage and the linguistics repository www. ling.auf.net
Nevins, A. 2016. *Lectures on post-syntactic morphology*. Manuscript, University College London Lingbuzz/002587

features; these items are the spoken forms of roots and features. The encyclopaedia is a list of contextual meanings.

2.5.1. Structure of Distributed Morphology (DM)

Distributed Morphology, henceforth DM, has a structure[7] with several components as illustrated in the following schema.

24.



(Source: Researcher, 2023)

Syntax is the generative engine; it has operations which allow one to derive the structures for words, phrases and sentences. Morphology deals with the internal structure of words, and interfaces between syntax and phonology. The phonology component handles issues related to the articulation of expressions, while semantic component is responsible for pairing expressions to their meanings. Unlike the first three components, semantics does not have any internal operations.

7The study adapted the structure in (24) from the illustrations in Halle and Marantz (1993 and 1994) and Marantz (1997). In other DM literature like Harley and Noyer (1999) and Siddiqi (2009)), one will find similar structures, but with arrows connecting phonology (phonetic form) to semantics (logical form), as well as semantics to discourse and pragmatics (encyclopaedia). Although connections between these interfaces comprise parts of the theory, their non-inclusion here does not affect its applicability to the problems of this study. This is because the thesis does not explore those interfaces.

Syntax in Distributed Morphology uses the same operations as the Minimalist Program. This means derivations proceed bottom-up and structure building uses external and internal Merge operations. It also implies that we check/value features via Agree, and that derivation proceeds in Phases. The derivation of any expression has two structural descriptions (i.e. *Output*). The first comes from the Syntax as a hierarchical structure; it contains roots, feature morphemes and the constituent structure of an expression. This output feeds semantics and morphology.

Semantics is the same as *Logical form* in (24). It provides meaning based on the derivation of an expression. When the morphosyntactic features in such expressions prove insufficient for interpretation, there is recourse to the encyclopaedia which provides information required for context-based interpretations as is the case with figurative expressions.

Morphology is the component where operations linearise structure in ways that reflect the speech patterns of a language. A direct consequence of these operations is the difference in the number of terminal nodes. They may be less or more depending on how morphemes realise the categories they project. For example, Ẹ̀dó realises the feature [NUM] as a free morpheme as in *èbé* 'book' and *ávbé èbé* 'books'; but for a few nouns, it uses suppletion as in *ọ̀vbókhàn* 'child' and ìbìẹ́kà *'*children'. For some other nouns and all pronouns, number is a replacive inflection as in *òkpìà* 'man' and *ìkpìà '*men'. Since number distinction is evident, Syntax creates a node for it. When the value is singular, there is a null element in that position; but if it is plural, there may be a need for post-syntactic operations in morphology and phonology.

Morphological operations are of two kinds. There are structure changing operations and there is the operation which provides the morpho-phonological forms of roots and feature morphemes. This study employs three morphological structure operations: merger, fusion and fission. *Merger* moves an element from one position in the tree and adjoins it to another; both constituents will have separate exponents. *Fusion* is used where adjunction does not suffice for morphological structure. The operation applies when features from different syntactic nodes are realised in one word. *Fission* is the opposite of fusion; it splits constituents such that one syntactic node has distinct points of exponence.

The operation which brings morpho-phonological forms into the derivation is *Vocabulary Insertion (VI)*. It operates cyclically and the forms it introduces are vocabulary items (morphemes). Vocabulary items consist of features, which are

available at different points in a derivation. Example (25(a)) shows the structure of vocabulary items as illustrated in Halle and Marantz (1994:275).

25 (a)

Semantic features
Syntactic features
Morphological features
} /Phonological features/

25(b) {1SG, NOM} / ì, mɛ̀ , ìmɛ̀ , ìmɛ̀ŋɛ̀ /

From 25 (b), one would observe it is possible to have several phonological feature bundles for a set of morphological, syntactic and semantic features. The English gloss for that example is one item - 'I', but the Ẹ̀dó vocabulary has four forms that spell-out the same features. This analogy holds for roots; the only difference is their specific phonetic forms (Embick, 2015) and non-grammatical, semantic content (Harley, 2009). Take the root √ lʌv; in English, it could be the abstract notion of an emotion or the activity of an entity that is experiencing or expressing that emotion. Each of these vocabulary items has its own morphological features, which determine whether it takes agreement and tense inflections; as well as syntactic features, which indicate its position in the structure. Unlike feature morphemes, interpreting roots depend both on morphosyntactic context and the encyclopaedia.

This one-to-many correspondence between feature specifications of vocabulary items makes vocabulary insertion a competitive process. The choice is subject to the *Maximal Subset Principle.* Explaining how this principle works, Halle (1997:128) states that one can insert a vocabulary item into a node, if that item matches all, or a subset of the features at that position. The principle does not resolve all conflicts between items eligible for vocabulary insertion (Embick and Noyer 2007), but there are ways around this problem[8]. In the analyses, this study adopted the extrinsic ordering approach (Halle and Marantz, 1993). *Extrinsic ordering* arranges vocabulary items in descending order; the item with more features takes precedence over others.

At the level of *phonology*, there is movement and readjustment of structure; these operations ensure well-formedness of the phonetic form. The movement operation is *Local Dislocation* (Embick and Noyer, 2001). Local dislocation affects words that are morphologically distinct but realise one phonetic form. The operation

8Other solutions are the feature geometry approach (Harley 1994) and the universal hierarchy of features (Noyer 1997).

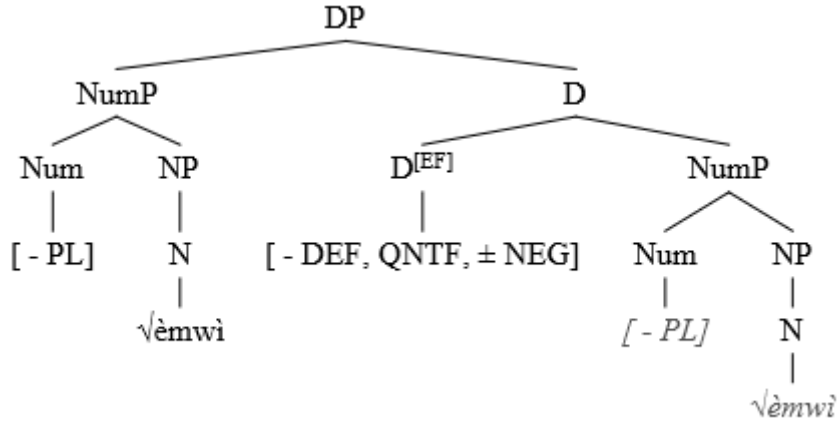
differs from movement in syntax and morphological structure because it requires precedence and linear adjacency. One can explain *readjustments* as the idiosyncratic application of phonological rules. They are idiosyncratic because they only affect specific words, unlike phonological rules which apply whenever their conditioning environments are available. Readjustments alter the phonological features of vocabulary items to make the output from phonology legible at the phonetic interface.

2.5.2. Descriptions in Distributed Morphology

In DM, structures have two descriptions; there is a morphosyntactic one, which contains formatives (i.e. syntactic, semantic and morphological features) and a morpho-phonological one, which contains the exponents (phonological features) that spell-out the formatives (Harley and Noyer, 1999). A derivation begins with selection of feature morphemes and roots from the list of formatives. This produces the *Numeration* (or *Lexical Array*). The syntax constructs a well-formed structure – the morphosyntactic description, which transfers in *phases* to LF and PF. En route PF, morphological operations apply. These operations bring phonological features into the derivation; they may also alter the structure, so it conforms to language specific morphological requirements.

Consider the derivation of an indefinite pronoun – *èmwìrhọ̀kpà,* which means the same as the expressions *"anything" or "nothing"*. From *the list of formatives,* one would select the root √emwi, a quantifier, and other grammatical morphemes like definiteness and plural markers. With these, *Syntax* uses *Merge* to generate the morphosyntactic description for *èmwìrhọ̀kpà* as shown in (26).

26.

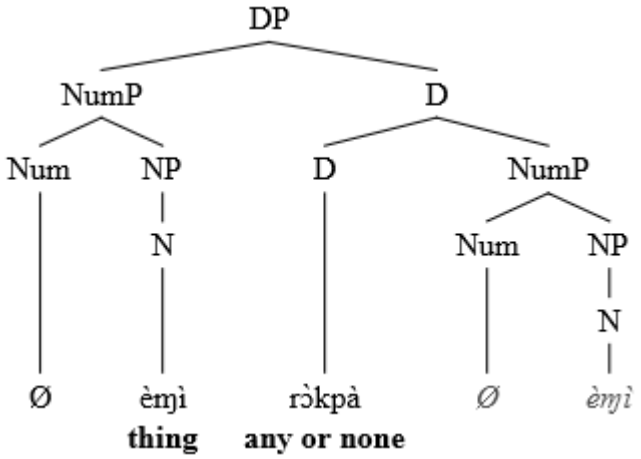


In example (26) and all other phrase markers in the thesis, texts in italics with gray font colour indicate movement. Structure building begins from the root which merges as complement of Number. Number itself projects the complement phrase of the determiner. To satisfy the edge feature [EF] of the determiner, its complement moves into the specifier position. Once the Numeration is exhausted, and features checked, the morphosyntactic description moves to the interpretational and morphological components. In the morphology, there is only one operation-vocabulary insertion. This involves selection from *the list of exponents.*

Formatives		***Exponents***
√emwi**n**[- PL, - DEF, QNTF, ±NEG]	↔	/èmɲīrɔ̀k͡pà /
√emwi**n**	↔	/èmɲì/
[- PL]	↔	/Ø /
[- DEF, QNTF, ±NEG]	↔	/rɔ̀k͡pà/
[+NEG, PRS, HAB]	↔	/í/
[+NEG, PST]	↔	/mà̀/
[+NEG, MOD]	↔	/Ɣɛ́/

On the left side of the two-direction arrow are features and roots which produce the Numeration; forms which spell-out formatives are on the right. Using the *Maximal Subset Principle* as a guide,the head of the determiner phrase will be /èmɲīrɔ̀k͡pà/ as shown in the morphophonological description below.

27.



In DM, one may also linearise structures at the level of phonology. For the indefinite pronoun under consideration, there is a need for PF operations. As shown in (27), the nominal root moves and attaches to the quantifier; both items realise one phonological word. The operation is called *local dislocation*; it affects linearly adjacent constituents. The derivation of *èmwìrhọ̀kpà* does not require anyother post-

syntactic operations. It is important to note that operations in morphology and phonology have no effects on interpretation.

For example, the reader would have noticed the quantifier has binary values for negation. So, at what point in the derivation does [+ NEG] or [- NEG] take effect? All interpretations happen in the semantics. At this level, there is access to morphosyntactic contexts and *the Encyclopaedia*. Both provide information for LF representations of vocabulary items. While the lexicon replacement list handles figurative meanings, the structural context shows all features in the derivation and their relations to one another. Consider *èmwìrhọ̀kpà* in the following sentences.

28. Ù hòó nè dẹ̀ èmwìrhọ̀kpà rà
    2SG want COMP buy anything QM
    Do you want to buy anything?

29. Ẹ̀ í rè èmwìrhọ̀kpà
    3SG NEG COP nothing
    It is nothing.

The examples above show negation may or may not contribute to the meaning of the partitive pronoun; it depends on constituents in the clause. If it is a declarative construction, the pronoun is non-assertive, as in example (28). When there is a preceding [+NEG] morpheme in the sentence as in (29), the pronoun is negative.

2.5.3. Key assumptions of the theory

The key assumptions that distinguish DM from other theories are Late-insertion, Underspecification and Morphosyntactic Decomposition (Halle & Marantz, 1994: 275- 277).*Late insertion* means phonetic forms enter the derivation after syntax. *Underspecification* implies a vocabulary item may not have all features of the syntactic node it occupies. *Morphosyntactic decomposition* derives words and clauses using same operations.

2.5.3.1. Morphosyntactic decomposition

This first objective of this thesis is to describe the morphology (internal structure) of pronouns. There is no consensus opinion on this subject; some scholars consider pronouns to be independent lexemes, which decompose into features. Others suggest pronouns have internal structures, which one can segment into smaller morphemic units. Data supports both positions; as shown in the following examples.

30. èɡbé mwẹ̀
body 1SG
My body

31. èɡbémwẹ̀
1SG.REFL
Myself

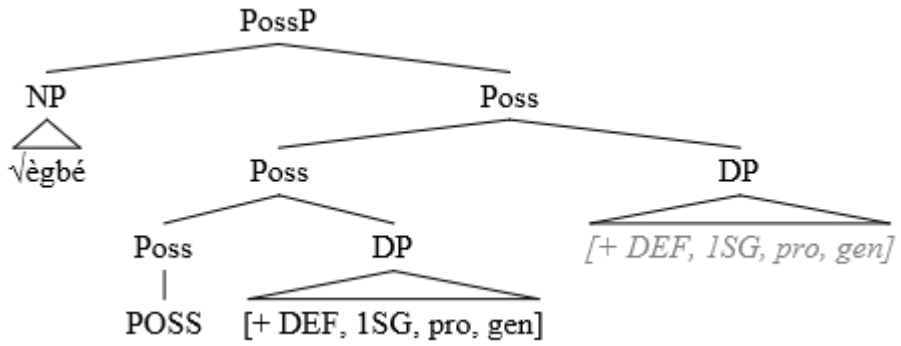
32. tòbọ́mwẹ̀
1SG.REFL
Myself

These examples contain a variant of the first person singular: it is a modifier in (30); it heads the compound word in (31), and serves as the base for the derivational affix in (32). The study proposes that syntax derives Ẹ̀dó pronouns like the reflexives above. This proposal explores the assumption that one will find syntactic hierarchical structure all the way downto the level of words. Consider the structure and derivation of (30) and (31). To begin, Syntax selects items from the list of formatives.

Formatives		***Exponents***
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ìmɛ̀ŋɡè/
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ìmɛ̀/
[DEF, 1SG, emph, nom, acc]	↔	/mɛ̀ŋɡè/
[DEF, 1SG, acc, obl, gen]	↔	/ŋɡè/
[DEF, 1SG, nom, acc]	↔	/mɛ̀/
[DEF, 1SG, nom]	↔	/ì/
[POSS]$_{\textbf{aff}}$	↔	Ø / Root$_{\textbf{n}}$ _____
[POSS]$_{\textbf{aff}}$	↔	/ɔ́ɣé/
[REFL]	↔	Root$_{\textbf{n}}$ / _____Ø
[REFL]$_{\textbf{aff}}$	↔	/tòbɔ́/
√*egbe*$_{\textbf{n}}$	↔	/èɡ͡bé/
[REFL$_{\textbf{aff}}$, √egbe$_{\textbf{n}}$, POSS$_{\textbf{aff}}$, DEF, 1SG, acc, obl, gen]	↔	/èɡ͡bémŋɡè/
[REFL$_{\textbf{aff}}$, DEF, 1SG, acc, obl, gen]	↔	/tòbɔ́ŋɡè/

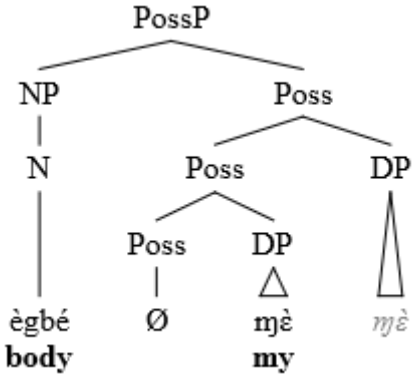
Operation merge uses formatives to construct the possessive phrase (cf. Usenbo 2016), building the structure from bottom to top. First, the pronoun (possessor) merges as complement of a possessive head; then a nominal root (possessee) merges in its specifier. The morphosyntactic description which results passes to LF for interpretation and morphology for other structural operations.

33.



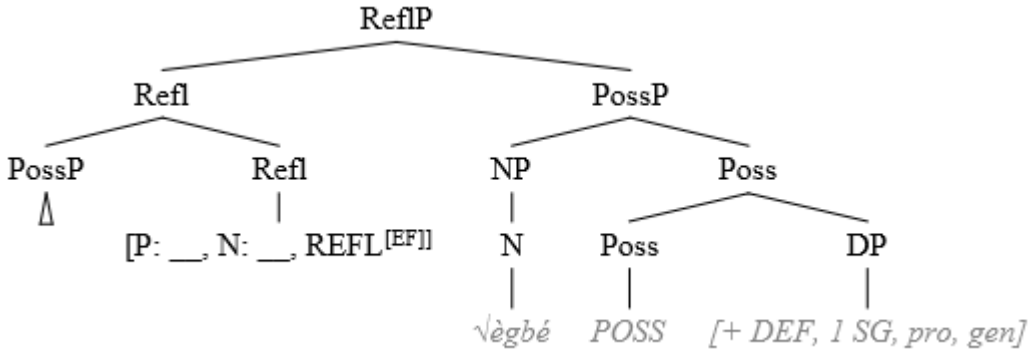
Example (33) shows *merger* of Poss and the head of its complement phrase. Then, there is insertion of vocabulary items. Afterwards, the structure moves to phonology. This example has no phonological operations. So linear adjacency and the internal composition of terminal elements at vocabulary insertion is the same as what obtains in the morpho-phonological description.

34.



To derive *ègbémwẹ̀* "myself", the possessive phrase merges with the head of a reflexive pronoun. As the morphosyntactic description in (35a) shows, the reflexive enters the derivation with unvalued person and number features. Valuation takes place via Agree with a constituent which has interpretable phi features.

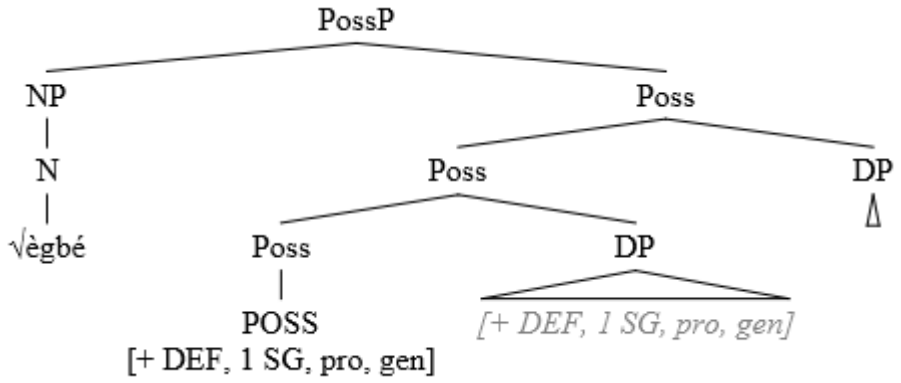
35. (a)



The reflexive probes its domain and agrees with the only available goal - the complement of Poss. This Agree operation is an instance of feature sharing (Frampton and Gutman 2006, and Preminger 2017) rather than copying (Chomsky 2001). As a result, the features remain visible on the reflexive but receive spell-out on the pronoun. There is also internal merge of PossP. This move satisfies the edge feature on REFL. After exhausting syntactic operations, the morphosyntactic description transfers to semantics and morphology.

In the morphology, there is *merger* of Poss and the head of its complement phrase. This head has cumulative exponence; this is the reason all the features are stacked under the label DP. Following merger, there is *fusion* of Poss and its adjoined complement. This is the classic version of fusion postulated in Halle and Marantz (1993). The merger operation feeds it; as such it applies between sister nodes as shown below.

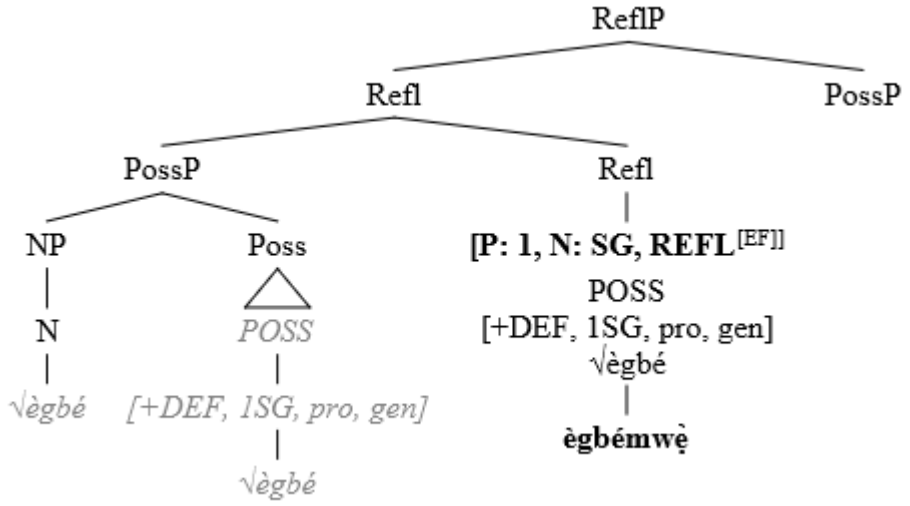
35. (b)



This study maintains that fusion is a local operation but proposes that a prior application of merger is optional. Fusion can apply so long as there is adjacency. With this revision, one can account for differences in the realisation of the possessive

phrase *ègbé mwẹ̀* “my body” and the reflexive pronoun *ègbémwẹ̀* “myself”. For this kind of reflexive pronoun, morphological structure operations will continue with two instances of fusion: one between N and Poss; the other between Poss and Refl. Both reduce the points where vocabulary insertion will apply as shown in the morphosyntactic description in (36).

36.



This description of *ègbé* reflexive pronouns shows that some Ẹ̀dó reflexives contain a possessive phrase. So, there is evidence of syntactic structure within words; but is this correct? The study believes its analyses is accurate, because one can use the same operations to explain the morphology of possessive pronouns which contain the overt POSS marker and indefinite Ẹ̀dó pronouns which contain bound nominal roots.

2.5.3.2. Underspecification

The second objective of this research seeks to explain pronoun distribution. Ẹ̀dó language has many pronouns with similar features and functions. Previous works explain this by establishing distinctions in the structural positions pronouns can occupy and the types of construction, where they are acceptable. As mentioned in the review, this method does not resolve the problem adequately. The assumption of *underspecification* allows the present study to discuss the issue without recourse to structural restrictions. Consider the forms of personal pronouns in these examples.

37. Ọ̀ / Ìrẹ̀n dèé
    3SG come.PROG
    He/She is coming.

38. Ẹ̀ / Ìrẹ̀n í dèé
3SG NEG come.PROG
He/She is not coming.

39. Ọ̀ / Ìrẹ̀n rẹ̀ẹ́n vbénè à lé èvbàré hẹ̀ẹ́
3SG know how IMP cook food how
He/She knows how to cook.

40. Ọ̀ / Ìrẹ̀n má rẹ̀ẹ́n vbénè à lé èvbàré hẹ̀ẹ́
3SG NEG know how IMP cook food how
He/She doesn't know how to cook.

41. Ọ̀ / Ìrẹ̀n má rẹ̀ẹ́n wẹ̀rẹ̀ ù gbé ìbìẹ́kà*;*
3SG NEG know COMP 2SG hit children*;*
ẹ̀ / ìrẹ̀n ghẹ́ dàmwẹ́=ùé ghèé
3SG NEG test=2SG see
She does not know that you beat children; she would not have dared you.

There are three third person singular pronouns in the examples above. Unlike the longer form (*ìrẹ̀n*) in all examples, the short ones are restricted to the subject position. They differ in terms of polarity; *ẹ̀* is inherently negative while *ọ̀* is positive. The one which is positive also functions in negative sentences, depending on the construction marker. These examples show the use of these forms depends on the feature specification of a given pronoun, and features of items in adjacent nodes. For third person singular, *ìrẹ̀n* is the elsewhere form with the widest distribution. As the examples show, it co-occurs with all negative morphemes. With regard to the other two, *ẹ̀* will be the most eligible vocabulary item for negative constructions marked with *í* or *ghẹ́;* the *ọ̀* form will be appropriate, if *má* is the negative marker.

2.5.3.3. Late insertion

All Ẹ̀dó personal pronouns can occur in negative clauses, but very few undergo constituent negation. These select few occur in the same structural positions as other forms. If derivations were to begin with fully formed words; one would have problems deciding which lexical items to select. DM takes care of this potential conflict with *Late Insertion.* Consider the following examples.

42. Ọmọyẹmwẹ lé èvbàré né ìrẹ̀n / ẹ́rẹ̀
Ọmọyẹmwẹ cook food for 3SG
Ọmọyẹmwẹ cooks for him/her.

43. Ọmọyẹmwẹ í lé èvbàré né ìrẹ̀n / ẹ́rẹ̀
Ọmọyẹmwẹ NEG cook food for 3SG
Ọmọyẹmwẹ does not cook for him/her.

44. Ẹ́ í ìrẹ̀n /* ẹ́rẹ̀ ẹ̀ré Ọmọyẹmwẹ lé èvbàré ná
3SG NEG 3SG FOC Ọmọyẹmwẹ cook food for
It is not him/her Ọmọyẹmwẹ cooks for.

These examples show differences in the form and function of third person singular pronouns. In (42), there is a declarative sentence which is negated in the other two examples. Negation in (43) affects the proposition of the sentence, but in (44) it affects one constituent. Observe that in the oblique object position, both are acceptable. However, only one form is acceptable for constituent negation. The language marks this kind of negation overtly via focussing of affected constituents.

Working with the assumption of late insertion, access to vocabulary items comes after syntax has generated the structure. The next step following syntax is morphology, where one selects exponents for vocabulary insertion. In the Ẹ̀dó exponents list, there are ten items which spell-out [3SG]. Of these allomorphs *ìrẹ̀n* is the only one with emphasis as part of its feature specification; this explains its acceptability in example (44) above.

In addition to the usefulness of DM assumptions, the study adopted the theory because its operations proffer detailed explanations to the research questions. On pronoun distribution, for instance, the study finds there are two kinds of personal pronouns: clitics and independent morphemes. These independent forms function in similar argument positions, but their distribution differs in terms of the morphology of the predicate.

45. Ọ̀ gù-ẹ́rè-gùánrán
3SG speak_to-3SG-speak_to.PST
He/she spoke to him/her.

46. Mẹ̀ yà-ìrẹ̀n-yí
1SG believe-3SG-believe
I believe him/her.

47. Èdrrẹ́và sẹ́-ìmà-ràé-ø yè èsúkù
driver leave – 1PL – leave-PST at.in.on school
The driver left us at school.

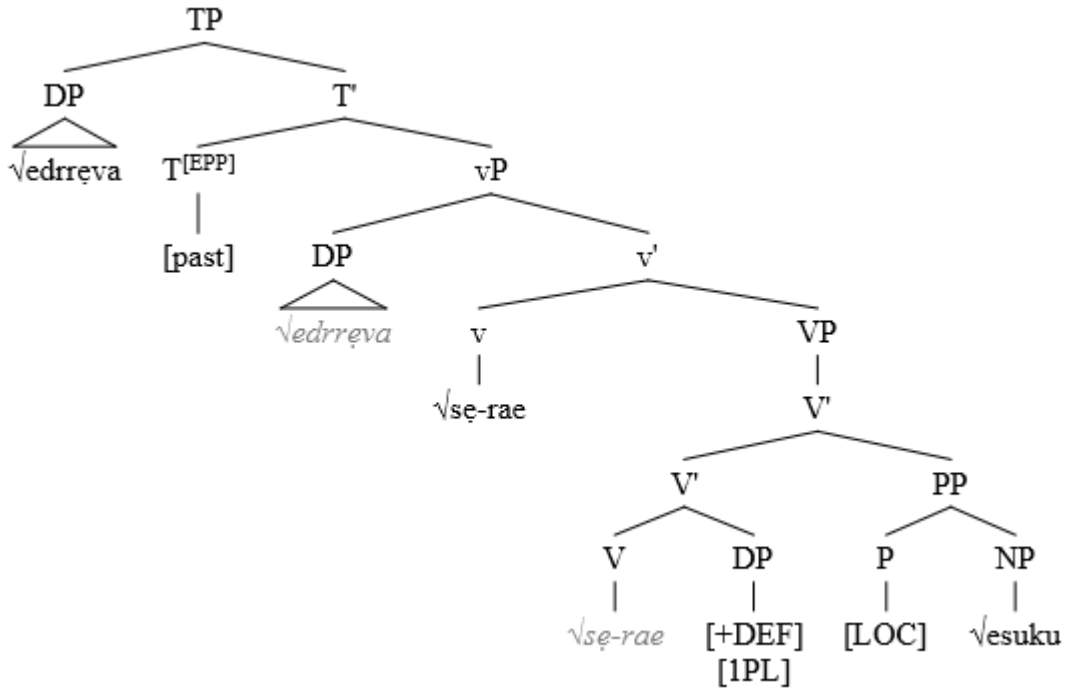
From the examples (45), (46) and (47), one can observe pronouns within discontinuous verbs[9]. DM allows the study to explain this phenomenon using two

9Ẹdó has different kinds of these verbs. Some are phrasal verbs, such as the one in example (a). Others are simply verbs whose realizations depend on transitivity (examples b and c).

(a) Òkóró mú-ègbẹ́rè-màá-ø ẹ̀vbò (Imasuen 2010a:42)
Prince show-3SG.REFL -to-PST people
The prince showed himself to the people.

operations: *Fission* and *Merger*. Consider the derivation of example (47). List 1 provides √edrrẹva, √sẹ-rae, √esuku, [past]$_T$, [LOC]$_P$ and [DEF, 1PL, pro] for the Numeration. Syntax combines these using *Merge* and produces the morphosyntactic description for *Èdrrẹ́và sẹ́-ìmà-ràé yè èsúkù.*

48.

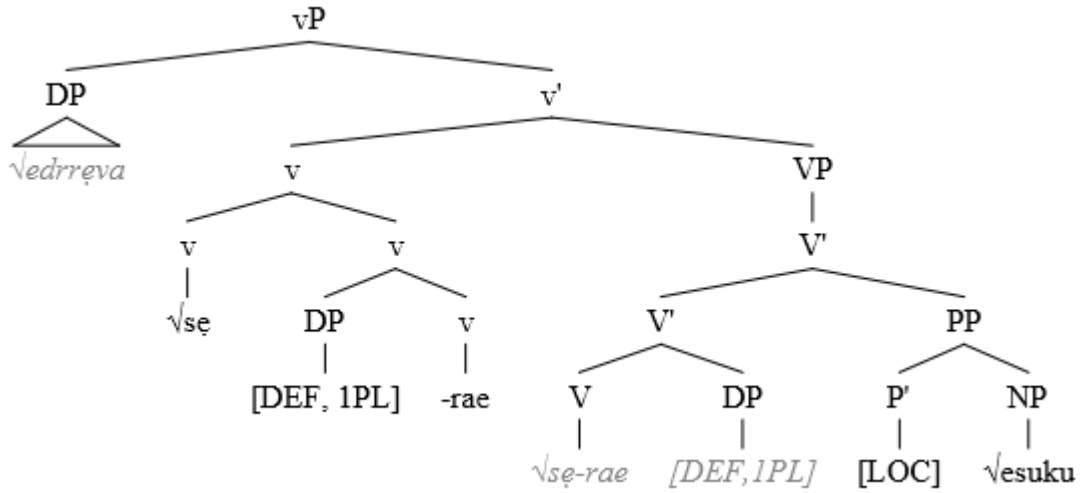


In the syntax, there are two movement operations: V-v movement, which saturates the null light verb and movement of the subject from Spec-vP to Spec-TP to satisfy [EPP]. After operations in Syntax, the morphosyntactic description goes for interpretation and morphological structure operations. The first of these is *Fission,* whichsplits a terminal node into two. For the content of the verb to be legible at PF, fission applies. Then, there is merger of the internal argument. After fission and merger, vocabulary insertion selects eligible items and places them under the terminal nodes. Prior to vocabulary insertion, the vP would look like the structure below.

(b) Mẹ̀ yàyí
1SG believe
I believe.

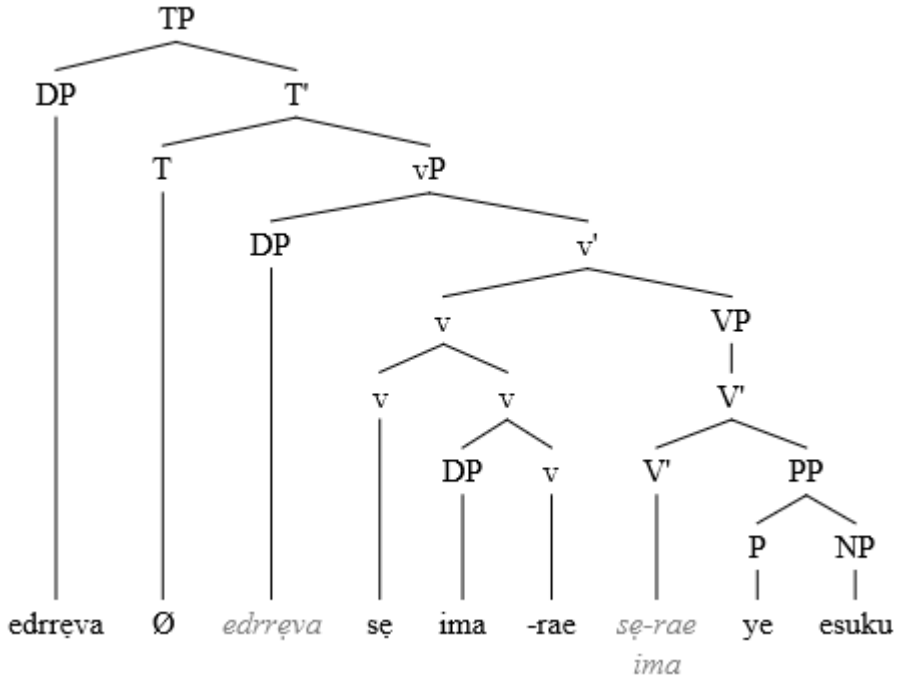
(c) Mẹ̀ yà-ìrẹ̀n-yí
1SG believe-3SG-believe
I believe him/her.

49.



Formatives		***Exponents***
√edrrẹva	↔	/èdrɛ́và/
√sẹ-rae	↔	/sɛ́ràé/
√esuku	↔	/èsúkù/
[past]$_T$	↔	Ø
[LOC]$_P$	↔	/yè/
[DEF, 1PL, emph, nom, acc, obl, gen]	↔	/ìmàŋà/
[DEF, 1PL, emph, nom, acc, obl, gen]	↔	/ìmà/
[DEF, 1PL, emph, nom, acc]	↔	/màŋà/
[DEF, 1PL, acc, gen]	↔	/ŋà/
[DEF, 1PL, nom]	↔	/mà/
[DEF, 1PL, nom]	↔	/à/

50.



There are six exponents for the features [DEF, 1PL]. Following extrinsic order, */ìmàŋà/* is the most eligible vocabulary item. However, this form also connotes surprise or disbelief. Hence, the form */ìmà/* appears in example (50), because it is more common in everyday speech.At the level of phonology, there is *local dislocation* of the vocabulary items under v. As a result, all three would realise a single word */sɛ́ìmàràé/. *Readjustments* follow local dislocation, such that the phonetic form of the utterance is produced and/or perceived as */èdrɛ́và símàràé yè èsúkù/* "the driver left us at school".

2.5.4. Justification for the choice of Distributed Morphology

Distributed Morphology was selected on the basis of the researcher's familiarity with the workings of the theory, rather than its theoretical supremacy over other models of morphosyntactic analyses developed in the generative school and other schools of thought. The choice was motivated by the realisational nature of the theory. DM works with morphological, syntactic, semantic and contextual features instead of fully formed words. This is crucial to the analyses of languages like Ẹ̀dó, where utterances often differ from their structural representations.

Another factor which influenced the choice of this framework is the suitability of its key assumptions to the objectives of this study. As outlined in the previous section, the key assumptions of DM can adequately explain the research objectives. The objectives address issues in three sub-fields of linguistics: morphology, syntax and the interfaces of grammar. For theory-based analyses, the study requires a framework that is compatible with all three sub-fields. This is where DM trumps equally viable frameworks like the Principles and Parametres Theory, and the Minimalist Program. Some of the studies reviewed employed these alternative theories. Studies which were not limited to issues in syntax, resorted to a combination of frameworks.

With the adoption of DM, there is no need for mixed theoretical orientations. This further justifies this study's choice of the theory. The generative component of Distributed Morphology relies on the same operations as the Minimalist Program, so there is no need to seek an extra theory to address issues pertaining to syntax. Another advantage of working with DM is that its architecture supports enquiry into all other core areas of grammar this study is interested in (i.e. phonology, morphology and semantics) as well as their interfaces.

2.6. Chapter summary

This chapter appraises the literature on pronouns, with the aim of describing existent knowledge of Ẹ̀dó pronouns; identifying problems associated with the pronoun system of the language; discussing methods that have been used to solve these problems; and explaining how the thesis uses recommendations from previous studies. In addition, the chapter explains how this thesis differs from other studies; presents an overview of the theoretical framework and provides a justification for its adoption.

CHAPTER THREE
METHODOLOGY

3.1. Chapter overview

This chapter details how the researcher conducted the study. It discusses the research design; identifies the population and explains the sampling procedure. It also looks at instrumentation and methods employed in data collection, presentation, and analyses.

3.2. Research design

The research design follows the qualitative approach. Qualitative research is concerned with structures and patterns; and how a phenomenon exists. It involves "studying things in their natural settings and employs a variety of empirical materials collected using multiple methods such as case studies, introspection, interviews, observation and visual texts" (Denzin and Lincoln, 2005:2). This is in tandem with the data collection procedure adopted in this research. Another reason the study was designed based on the qualitative approach is because it is well-suited to the aim and objectives of the study. Furthermore, this study selected the qualitative approach, because it would lead to a better understanding of Ẹ̀dó pronouns. This is informed by the assertion that qualitative researches are self-explanatory (Jegede 2006:114). They generate information which can be used to describe a phenomenon. Thus, qualitative researches provide bases for revising existing theorems and developing new ones. In this thesis, the approach underlies the sampling procedure, the type of data collected, as well as the methods of data collection and analyses.

3.3. Study population and sample

The study population comprises persons who can communicate in oral and written forms of the Ẹ̀dó language. There are more than one million of such persons living in the country. The sample for this study comprises twenty-one native speakers selected from three (Egor, Ovia North-East and Oredo) out of the seven local government areas where the language is spoken. The three of them were picked,

because they have high concentrations of native speakers. Also, the tertiary institutions which offer degree programmes in the language are located in those environs.

3.4. Sampling procedure

The study used purposive sampling to select the twenty-one native speakers, seven from each local government area. The study required participants with various language abilities. So it chose individuals from diverse fields. Selected persons work as palace chiefs, local language anchors, artisans, language teachers, and clergymen from orthodox churches. The study also included active and retired public sector workers as well as students pursuing degree courses in the language.

There were two criteria for inclusion in the study. The first criterion is frequency and purpose of language use. This criterion targeted informants who use the language in domains outside of the home. The second criterion is literacy in English and Ẹ̀dó. This criterion was to enable the study to include indigenes who learnt the language as a school subject.

3.5. Method of data collection

This study employed data from primary (82.05%) and secondary (17.95%) sources. The researcher collected data with help from two research assistants. The study used three methods: interviews, extraction from pre-existent data, and participant observation. For interviews, the study selected twenty-one key informants between the ages of 30 and 80; seven from each selected indigenous Ẹ̀dó language community. Six of the respondents are students; eight are civil servants; two are clerics; two work for the royal palace and the remaining three are retirees. The ratio of first to second language users is 16:5, and the male to female ratio is 2:1.

Getting data from secondary sources entailed content analyses of a corpus comprising previous surveys on lexical categories in the language, Ẹ̀dó language textbooks, articles, church bulletins and audio-visual materials (music, movies and documentaries). There are a sizeable number of textbooks on this language. This study chose Omoregie (1983) which is the text used for undergraduate courses. It also chose the series approved for junior and secondary certificate examinations. The latter comprises all texts listed as Edo course book in the reference section. In all, this study

employed 780 data tokens comprising 640 tokens from field notes and 100 from academic publications, 22 from bulletins, and 18 from audio-visuals.

3.6. Instrumentation

The study collected data using the Ibadan Syntactic Paradigm as a guide. To include all sub-categories of pronouns, the study changed personal names to pronouns. Following the rider contained in the paradigm, this study added extra sentence samples to the instrument. The additional samples are from section two of the Anaphora in African Languages Questionnaire (Safir 2008), part one of the Berlin-Utrecht Reciprocals Survey (Dimitriadis 2007), and section two of the Describing Negation Systems Questionnaire (Miestammo 2016). These changes allowed the study to examine all sub-categories of pronoun; assess acceptable argument positions, as well as pronominal reference within and across clauses. Informants had access to a printed copy of the guide; the study collected their responses using two digital voice recorders, with inbuilt microphones. For content analyses of the secondary sources, the study employed other instruments: pen and paper for the textual corpus, a digital video recorder, and television for the audio-visual corpus.

3.7. Methods of data presentation and analysis

The study coded the data in the official orthography of the language and added two digraphs representing the labiodental nasal (i.e. ‘mw’ from Agheyisi 1986) and the palatal nasal (i.e.‘ny’ from Omozuwa 2013). Both digraphs are not yet in the official orthography, but they serve distinctive purposes in linguistic studies. In addition to the digraphs, the study used IPA symbols to distinguish between words. These symbols are noticeable in the tone marks accompanying the data; currently, the orthography does not include tone marks. This thesis includes the orthographic representations and their corresponding IPA symbols in the appendix section. Interlinear morpheme-by-morpheme glossing follows the Leipzig conventions.

In chapters one, two and four, the study presents the data sample as textual examples and tree diagrams. For tree diagrams, the study used LingTree (Version 1.0.0.0; SIL 2018). Besides the tokens used as illustrations, the thesis also has tables showing different sub-categories of pronouns in the appendices.

The study adopted both the descriptive and explanatory orientations to linguistic studies; so, there are two kinds of data analyses. The first is a description of the Ẹ̀dó pronoun using common linguistic terms and concepts[10]. The second provides explanations for the phenomena described. These explanations are based on the framework of Distributed Morphology.

3.8. Chapter summary

This chapter discusses the research methods. The study used the qualitative approach to data collection and analyses. It employed data from both primary and secondary sources. These were obtained via interviews, participant observation, and content analyses. The data analyses are in two formats: a basic linguistic description and a Distributed Morphology explanation of the observations.

10One may construe this as using what Dixon (2010) refers to as Basic Linguistic Theory.

CHAPTER FOUR
ANALYSES AND DISCUSSION OF FINDINGS

4.1. Chapter overview

This chapter presents analyses and discussions of the data; there are sections for each research question. In sections 4.3 and 4.4, the study describes the internal structure of Ẹ̀dó pronouns. It then explains these descriptions in section 4.5 using Distributed Morphology. The sections which address the syntax of pronouns and their interface interactions follow the same pattern of data analyses.

4.2. The morphology of Ẹ̀dó pronouns

Studies, like Taiwo (2006:1), have defined morphology as "the study of rules governing the formation of words in a language". There are two main branches of morphology: inflection and word formation. Word-formation handles the creation of new word forms; it has several processes. Inflection is "any change which distinguishes grammatical forms of the same lexical unit" (Matthews, 2007:194). Inflection can also create new words (this obtains with class-changing affixes); but unlike word-formation, inflection is a single process which applies either as an additive or a replacive inflection.

Here, the study addresses the first objective of the thesis, which is to investigate Ẹ̀dó pronoun morphology. It describes patterns of inflection and word-formation apparent in the pronoun system and explores allomorphy as an explanation for the variation in pronoun forms.

4.3. The internal structure of Ẹ̀dó pronouns: a descriptive analysis

A descriptive analysis focuses on what is observable in the data. It does not consider why a language is the way it is; it also does not compare the linguistic structure of one language against models established for other languages (Dryer 2006). From this perspective, the study makes the following claims:

- Ẹ̀dó pronouns have number inflections.

- Inflection in the pronoun system is replacive.
- The pronouns have an internal structure; and some can decompose into smaller morphemic units.
- By implication, some Ẹ̀dó pronouns are derived word forms.

4.3.1. Inflection in the Ẹ̀dó pronoun system

Fabregas and Scalise (2012:66) define inflection as "a morphological operation that adapts a word to particular syntactic context manipulating properties like number, gender, case, aspect, tense, or mood". In Ẹ̀dó language, replacive inflections mark a difference between singular and plural forms of nouns and pronouns. For pronouns, the strategy is clear in the demonstrative, personal, possessive, and reflexive sub-categories. Consider the following examples.

51.	ìmẹ̀mwẹ̀	ìmàmwà
	1SG.EMPH	1PL. EMPH
	I/me	We/us
52.	tòbọ́ - ìrẹ̀n	tòbọ́ – ìràn
	REFL - 3SG	REFL - 3PL
	Himself/herself	Themselves
53.	ọ́ghé - ùwẹ́	ọ́ghé – ùwà
	POSS - 2SG	POSS - 2PL
	Yours	Yours
54.	ọ̀~nà	è~nà
	NOML.SG~DEF.PROX	NOML.PL~DEF.PROX
	This (one)	These (ones)

From the gloss, one would observe there are definite pronouns which one can segment into morphemes associated with particular meanings. However, it is impossible to isolate the number morpheme in all four examples. This is how replacive inflection operates; it indicates grammatical distinctions by substituting specific segments in the morpho-phonological representation of words. In the examples above, inflection changes the non-initial vowels of the definite pronouns in (51) - (54). In example (54), it only affects the nominalizer. This analogy extends to all cases of number inflection; the only difference is the form of the substituting affix. While possessive, personal, and reflexive pronouns use the form {à}, demonstrative pronouns use {è} for the proximate and {é} for the non-proximate form.

It is important to note the manner in which inflection applies in the Ẹ̀dó pronoun system.Inflection is a maximally productive process; which affects all words in any category whose members inflect for any given feature (Fabregas and Scalise 2012:66). Although all Ẹ̀dó definite pronouns have either singular or plural referents, not all personal pronoun variants inflect for number.

55.

[+1, SG]	ì	mẹ̀	ìmẹ̀	mwẹ̀	mẹ̀mwẹ̀	ìmẹ̀mwẹ̀
[+1 PL]	à	mà	ìmà	mwà	màmwà	ìmàmwà

56.

[+3, SG]	ẹ̀	ọ̀	ẹ́n	ẹ́rẹ̀	ọ́rè	rẹ̀n	ìrẹ̀n	ẹ́nrẹ̀n	ọ́nrẹ̀n
[+3, PL]					ìràn				

In the first person, all variants mark plural using the replacive affix {à}, but when the third person forms mark plural, the output is the same for all variants - *ìràn*. Observe that only one singular form - *ìrẹ̀n,* closely resembles the plural. What one observes in third person plural is not peculiar to pronouns. Omoruyi (1986a:63) notes that nouns which denote humans use replacive inflections for number; like the third person forms above, not all singular/plural noun pairs share identical forms.

4.3.2. Word-formation and the Ẹ̀dó pronoun system

Word-formation (derivational morphology) refers to morphological processes used to create new words. Fabregas and Scalise (2012:86) note "the processes alter one or more properties associated with an item, making it necessary for the derived word to also be listed". There are several word-formation processes; the Ẹ̀dó pronoun system employs five: affixation, clipping, compounding, conversion and reduplication.

4.3.2.1. Affixation

Affixation is the morphological process wherein bound morphemes attach to a base (Katamba and Stonham 2006:46); these morphemes may indicate grammatical relationships, in which case they are inflectional. Affixes may also be derivational (Ndimele 1999:40), when their use marks changes in the lexical categories of their hosts. Consider the following.

57.	tòbọ́$_{\text{Aff}}$	+	ìrẹ̀n	→	tòbírẹ̀n
	REFL		3SG		3SG.REFL
	Himself/Herself				

58.	tòbọ́$_{Aff}$	+	mwẹ̀	→	tòbọ́mwẹ̀
	REFL		1SG		1SG.REFL
	Myself				
59.	dè$_{Aff}$	+	ọ̀mwá	→	dọ̀mwá
	INT		person		INT.person
	Who				
60.	dè$_{Aff}$	+	èmwí	→	dèmwí
	INT		thing		INT.thing
	What				

Examples (57) - (60) show that affixation changes meaning and category, so it is derivational. The Ẹ̀dó language attaches bound morphemes like the reflexive and the content question marker to nouns or personal pronouns to create reflexive and interrogative pronouns.

4.3.2.2. Reduplication

Reduplication derives new words by repeating all (full reduplication) or part (partial reduplication) of an existing word. Some languages use reduplication for inflection; but in other languages, the process causes grammatical category changes (Fabregas and Scalise (2012), Yuka (2014) and Lieber (2018)). In the Ẹ̀dó pronoun system, reduplication may not change the category of existing words; but it always affects meanings.

61.	èvá	→	év~èvá
	NUM		RED ~ NUM
	Two		Both / Twos
62.	ọ̀-nà	→	ọ̀n~ọ́-nà
	NOML.SG~DEF.PROX		SPF~NOML.SG -DEF.PROX
	This one		this particular one
63.	ìràn	→	ìràn~ìràn
	3PL		3PL~3PL
	They/Them		clique[11]

These examples show total reduplication of the words on the flat end of the arrow. The process is transparent in example 63, but examples of 61 and 62 suggests otherwise. Morpheme structure conditions are the reason both examples appear to be cases of partial reduplication. The Ẹ̀dó language does not permit contiguous

11English has no equivalent expression for this pronoun. In Nigerian Pidgin, the expression is *dem-dem*; it denotes third person plural referents who are always victims, villains or beneficiaries.

sequences of identical sounds. Possible resolution strategies for violations like * èvá ~èvá and * ọ-nà~ọ-nà are *elision* for non-high vowels and *glide-formation* for high vowels. In examples 61 and 62, vowel elision has applied; hence the modified internal structure of the output words.

4.3.2.3. Conversion

Conversion is a morphological process which derives new lexemes from existing ones. The process involves a change of category with no overt marker of that change (Lieber, 2018:4). Conversion lacks uniform characterisation. For some languages, conversion is a highly productive strategy for creating new words; in other languages, the process derives a negligible number of words. There is also the flexibility in the levels of identity between the morpho-phonological forms. A language like English (Lieber, 2017) maintains strict formal identity between the segments in the input and output words; the only difference is the stress pattern. For example, bottleis a noun in "Dr Pepper put the drink in a bottle" In the imperative sentence "Bottle the drink", the same word form is a verb. However, it is not all languages that retain same morpho-phonological form. For some languages, a change in syntactic category necessitates a change in form. In such languages, conversion is often accompanied by other word-formation processes.

The Ẹ̀dó language makes minimal use of conversion, compared to other word-formation processes. Usenbo and Agbo (2023)[12] note that conversion derives Ẹ̀dó adverbs, adjectives and pronouns from nouns and verbs; but, the process does not always result in identical input and output pair of words.

64. (a) Ọ̀ khọ̀ọ́ ọ̀mwá èsì
3SG look_like person good
He seems to be a good person.

(b) Ọ̀ khọ̀ọ́ ọ̀mwá nè ì rẹ̀ẹ́n
3SG look_like person REL 1SG know
He/she looks like someone I know.

65. (a) Sùnú yè èmwí èvá (Imasuen 1996:70)
touch_with_mouth LOC thing two
nè ìràn yá ùnú kàán vbè ìghàé-ìyẹ̀n nà
REL 3PL INST mouth touch LOC discussion DEM
Mention two things which they talked about in this discussion.

12Usenbo, P. and Agbo, M. S. 2023. *Adducing Evidence for Conversion*. Manuscript, University of Benin

(b) Làré nè ì khàmàá rùẹ́n èmwí
Come so_that 1SG tell 2SG thing
Come so that I tell you something. (Agheyisi 1986:100)

Examples 64 and 65 illustrate conversion from nouns to pronouns. In examples 64 and 65(a), there two concrete nouns *èmwí* "thing" and *ọ̀mwá* "person". When conversion applies to those words, they become assertive partitive pronouns as shown in examples 64 and 65 (b). Although the nouns and pronouns consist of totally identical sounds and tones, the study treats the pronouns as examples of words derived via conversion because they only refer to indefinite entities.

4.3.2.4. Compounding

Compounding is a process which forms words by joining two or more independent word units. A compound may also contain bound forms (linking elements). Based on internal structure and meaning, one may classify compounds into three types: endocentric, exocentric, and coordinate compounds (Fabb, 1998). Endocentric compounds have a head element; other units which combine with this element provide additional information about the head. So, the meaning of endocentric compounds centre on the meanings of the heads. For example, a *blackboard* is a board which has black colour.

Exocentric compounds do not have head elements. For such compounds, meaning is related to, but not derived from, the meanings of the individual units. For example, one cannot derive the meaning of spoilsport (a person who ruins other peoples' pleasure) by combing the meanings of spoil (to prevent something from being satisfactory) and sport (competitive activity which needs physical effort and skill). Copulative compounds are coordinate structures where both constituents contribute equally to the meaning of the derived word. For example, something which is bittersweet is both bitter and sweet.

In the Ẹ̀dó pronoun system, there are two kinds of compounds: endocentric and phrasal. Endocentric compounds include strong genitive pronouns and the *ègbé* reflexives shown in the examples below.

66. *ègbé* + personal pronoun → reflexive pronoun
(a) ègbé + ìmẹ̀mwẹ̀ → ègbímẹ̀mwẹ̀
body + 1SG myself

(b) ègbé + ùẹ́ → ègbùẹ́
body + 2SG yourself

67.	*ọ́ghé*		+	personal pronoun	→	possessive pronoun
	(a)	ọ́ghé	+	ìmẹ̀mwẹ̀	→	ọ́ghímẹ̀mwẹ̀
		POSS	+	1SG		mine
	(b)	ọ́ghé	+	ùẹ́	→	ọ́ghùẹ́
		POSS	+	2SG	→	yours

The data reveals that reflexive pronouns have fewer forms than personal pronouns. Previous studies explain this in terms of case roles, arguing that pronouns in reflexive compounds are those which serve as objects (Omoruyi 1986a). The thesis cannot sustain this argument, as many personal pronoun forms function as objects, yet the language does not derive reflexives from them. This study suggests there are fewer reflexives, because compounding does not apply to every pronoun variant. The strong genitive pronouns reinforce this idea. Although they contain the same personal pronoun variants as the reflexives, there are fewer forms of the possessive.

Phrasal compounds are structures with non-transparent meaning and low productivity formed by morphologically free forms. Unlike other compounds, they contain markers of grammatical function inside them. Morphologists consider them compound words for two reasons. First, the combinations are not semantically predictable. Second, it is not possible to replace any of the free forms with other words (Fabregas and Scalise 2012:121 -122). Examples of phrasal compounds are non-assertive partitive pronouns like *ọ̀mwá-kè-ọ̀mwá* ‘anyone’.

4.3.2.5. Clipping

Clipping is the process of shortening a word without changing its meaning or part of speech; frequently, clipping changes the word’s stylistic value (Bauer 2003:40). Clippings may be identical to the full form of the word (e.g. zoo << zoological garden) or mutated (e.g. varsity << university). Irrespective of the phonological shape of the output words, clipping operates in the same manner. It creates new words by reducing syllables of existing words. Fabregas and Scalise (2012:128) identify the following properties of clipping.

i. Clipping does not change grammatical category or meaning.
ii. Compared to the non-clipped version, a clipped word has usage differences.
iii. Words from clipping conform to phonological words of the language.
iv. The elements subtracted do not correspond to morphemes

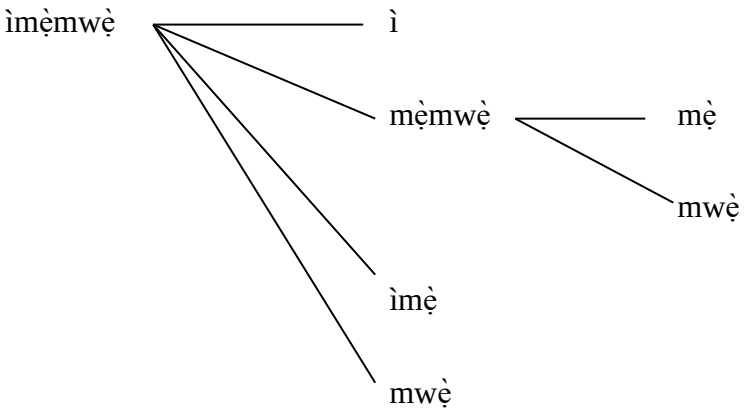
In the Ẹ̀dó language, the process has all properties listed except the fourth one. There are four types of nominal clipping in the language: back-clipping, fore-clipping, free-and-apt clipping and free clipping (Adeniyi and Yuka, 2012). Back-clipping shortens words from the end (*òkún<<òkúnmárhíà* “the sea did not spoil anything”), while fore-clipping applies at the beginning of the word (*òkún<<àífíòkún* “one cannot trick the seas”). Free-and-apt clipping subtracts from the beginning and end of the word (àmẹ̀zẹ̀, mẹ̀zẹ̀ and àmẹ̀ *<<àmẹ̀zẹ̀ísíọ̀fọ́* “river water does not cause sweat”). Free clipping splits the word in two and retains both forms (*ẹ̀dó* and *óghọ̀ghọ̀<<ẹ̀dóghọ̀ghọ̀* “day of joy”).

Extending this classification to other word classes, one can state that free clipping is the prevalent type in the category of pronouns. For most clipped pronouns, the subtracted elements correspond to morphemes in the language. For example, the general quantifying pronoun *éhìá* ‘all’ is clipped to *hìá* when it functions as a determiner. The subtracted element *{é}* is the plural form of the nominalizer.

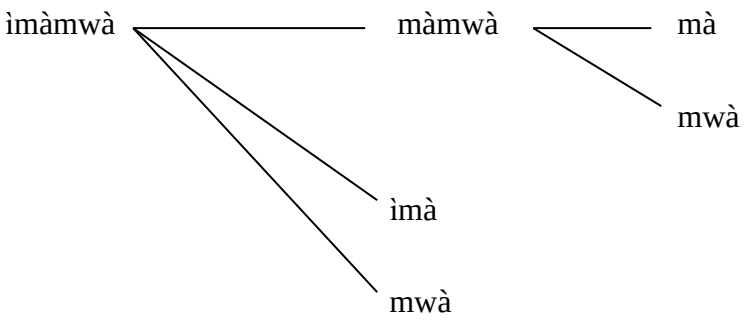
With personal pronouns, clipping can create up to four short forms depending on how the pronoun is split. Data show one can reduce the clipped pronouns into even shorter forms as examples 68 (a) and (b) illustrate. However, there are instances where the language does not retain all forms of the input word. This happens with the plural forms in 68 and 69 (b) where the subtracted initial vowels of the first and second person are discarded.

68. First person pronouns

(a) singular forms

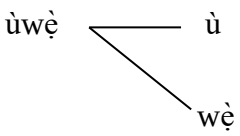


(b) plural forms



69. Second person pronouns

(a) singular forms



(b) plural forms

ùwà ——— wà

Clearly, these examples illustrate clipping; but one could analyse the data differently. Perhaps similarity in the morpho-phonological forms of long and short pronouns is arbitrary and not a sign of relatedness. This thesis posits the Ẹ̀dó language derives short pronouns via clipping, because these pronouns have the properties of clipping outlined above. Also, the data shows that clipped and non-clipped forms represent the respective person-number feature bundles in specific environments. The next sub-section provides details about these environments.

4.4. Allomorphy and variation in Ẹ̀dó personal pronouns

Allomorphy refers to the situation where a morpheme is spelled-out as different forms, each one occurring in a different environment. The variant forms have the same features and meaning as the morpheme. Each morph is related to others through some change in phonological shape (Fabregas and Scalise, 2012:15-16). Consider these examples.

70. Èbé ẹ̀ré
Book 3SG
His/her book

71. Ìtálàwẹ̀ ọ̀ré
Trousers 3SG
His/her/its trousers

72. Ọ̀tẹ́n ọ́nrẹ̀n
Relative 3SG
His/her relative

As a weak genitive pronoun, the 3SG morpheme has four variants, including those in the above examples and the form *ìrẹ̀n,* which can replace the three others. Examples (70) and (71) have near identical forms, but example (72) is not so similar. The term for morphs such as the one in example (72) is *suppletive.* A suppletive form is one which does not share phonological similarities with other morphs and the underlying morpheme.

Observe that spell-out of 3SG is morpho-phonemically conditioned by features of sounds in its environment. In example 70, the final vowel of the noun and the initial vowel of the pronoun are oral vowels with near identical features; the only difference is that /e/ is [+ tense]. This difference does not pose any problems to feature matching; when vowel elision applies to /e/, the initial vowel of the pronoun will be realised as /ɛ/ i.e. ẹ in *ẹ̀ré* because the feature [± tense] does not apply to consonants. Example 71 also illustrates a sequence of oral vowels, but the final vowel of the noun is [- back, - round], while the initial vowel of the pronoun is [+ back, + round]. When vowel elision applies to the ẹ in *ìtálàwẹ̀*, the acceptable 3SG variant will be a personal pronoun that the initial vowel has similar features as the preceding sound /w/. The approximant /w/ is also [+ back, + round]; this is the reason 3SG is realised as *ọ̀ré* in that example. The phrase in example 72 is also an instance of phonologically conditioned allomorphy. Here, the trigger is nasality. There are two 3SG variants which begin with nasal vowels: *ọ́nrẹ̀n*and *ẹ́nrẹ̀n*. The *ọ́nrẹ̀n* variant is the acceptable form in that example because of the vowel which precedes it. Taiwo and Usenbo (2015)[13] suggest that phonological allomorphy involving these two vowels includes a dissimilation rule. The rules states that [- high, - low, - back, -

13Taiwo, O. P. and Usenbo, P. 2015. *Remarks on the Ẹ̀dó Pronominal System*. Manuscript, University of Ibadan

round, ± nasal] vowels i.e. /ɛ/ or /ɛ̃/ become [- high, - low, + back, + round, ± nasal] i.e. /ɔ/ or /ɔ̃/ when they occur before each other.

Besides phonological features, pronominal allomorphs are subject to morpho-semantic features. Consider the forms of the first person singular in the following examples.

73. Ọmọyẹ í lé èvbàré gìé ìmẹ̀
Name NEG cook food to 1SG.EMPH
Ọmọyẹ does not cook and bring food to me.

74. Ọmọyẹ í lé èvbàré gún mwẹ̀
Name NEG cook food for 1SG
Ọmọyẹ does not cook and bring food to me.

75. Ọmọyẹ í lé èvbàré mẹ̀
Name NEG cook food 1SG
Ọmọyẹ does not cook for me.

The form of 1SG depends on the structure and features of the c-commanding constituents. If one has a double object construction, the form is *mẹ̀*. When there is a preposition, the form is either *ìmẹ̀ or mwẹ̀;* spell-out depends on whether the preposition conveys other information, such as proximate or distal. If the oblique object is far from the subject, the preposition takes one of two forms as (73) and (74) show; if the referent is proximate, the acceptable form will be the one in (75).

4.5. Internal structure of Ẹ̀dó pronouns: a Distributed Morphology approach

This sub-section analyses the descriptions discussed above in the theoretical framework. One tenet of Distributed Morphology is that syntactic structure exists even at the level of words. The data supports this idea, but this approach can not solely account for Ẹ̀dó pronouns formed via clipping[14].

4.5.1. Affixation

Affixation is a morphological process which combines a base form (i.e. a free morpheme) and affixes (i.e. bound morphemes). The process is divided into four sub-

14Unlike other derivational processes, clipping targets syllables rather than morpho-syntactic units. It is possible to provide a theory-based account of clipping, but this thesis does not pursue it for reasons of clarity and cohesion. A theoretical explanation of clipping requires the combination all the operations of Distributed Morphology outlined here and other concepts like “tiers” and “association lines” from Autosegmental Phonology - a theory which this thesis has not touched upon. Some recent studies which have applied it to morphological analysis include Kalin (2022), Kalin (2020), Faust, Lampitelli and Ulfsbjorninn (2018) and Ulfsbjorninn (2021).

types based on the position of the bound morphemes. Such morphemes maybe prefixes which are placed before (prefixation) the free morpheme; suffixes which are placed after (suffixation); infixes which are placed within the base (infixation); or discontinuous morphemes which are placed around (circumfixation) the base. Of these four types, only infixation is non-existent in the Ẹ̀dó language. The language uses affixation for both inflectional and derivational purposes. As an inflectional process, affixation places bound morphemes at the end of a word. It is applicable in two verbal categories: tense and aspect (Aikhionbare, 1989). As a word-formation strategy, affixation is a very productive technique for creating nouns from verbs (*lẹ́*"to run" →*ù-lẹ́*"race") and predicative adjectives (*kpọ̀lọ́* "to be fat" →*ù-kpọ̀lọ́-mwẹ̀* "fatness"); the process can also be combined with compounding (*kpé* "to wash" + *àkọ̀n* "teeth" → *kpákọ̀n* "to wash one's teeth" → *ù-kpákọ̀n* "chewing stick"). In the category of pronouns, affixation is equally productive; the difference is that the bound morphemes only attach as prefixes.

The explanation for affixation in Distributed Morphology is *Morphological Merger* (*M-Merger* or simply *Merger*). Marantz (1988 and 1989) describes this morphological structure operation as the means through which morphemes that have independent syntactic projections become part of other constituents. Consider the following sentences.

76.	Ì	tòbọ́-mwẹ̀	dẹ̀ré	nèné	èbé
	1SG	REFL-1SG	buy:PST	DEF: SPF	book
	I bought the book myself.				

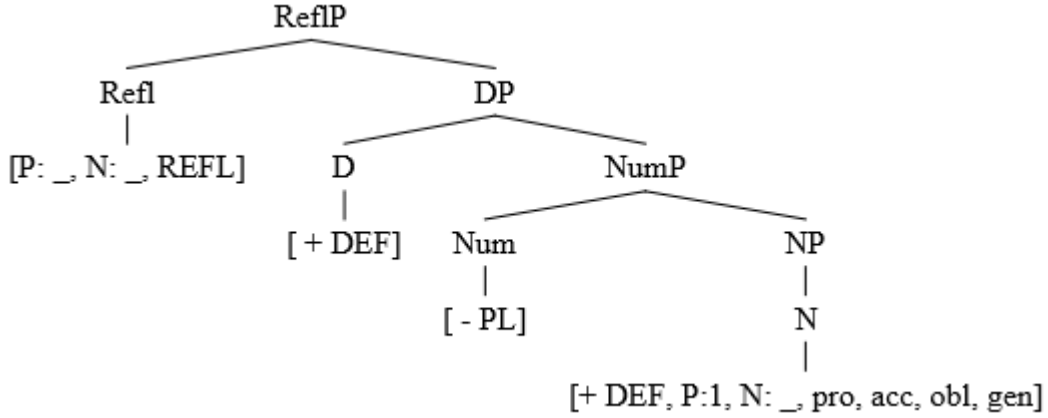
77.	Dè-ẹ̀ghẹ̀	nè	ù	yá	rré
	QM-time	REL	2SG	use	come
	When did you arrive?				(Omoruyi 1988:25)

In the examples above, one would find a class maintaining affix in (76) and a class changing affix in (77). A class maintaining affix is a bound morpheme which retains the lexical category of the base to which it attaches. A class changing affix has the opposite effect; when such bound morphemes attach to a base, the category changes. One can explain the realisation of the pronouns in those examples as M-merger of a reflexive or an interrogative affix and a pronoun or a lexical noun. The vocabulary items contain information about placement of bound morphemes (Halle

and Marantz, 1993 and Nevins, 2016[15]). This information appears as hyphens in the exponents list; one should interpret them as instructions to place affixes on the left or right of a base. To derive the pronoun *tòbǫ́-mwę̀*, syntax selects formatives and builds a hierarchical structure using operation *Merge*.

Formatives		***Exponents***
[DEF, REFL, √egbe***n***, POSS**aff**, 1SG, acc, obl, gen]	↔	/ègbémɲè/
[DEF, REFL**aff**, 1SG, acc, obl, gen]	↔	/tòbɔ́mɲè/
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ímèmɲɛ̀/
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ímè/
[DEF, 1SG, acc, obl, gen]	↔	/mɲè/
[DEF, 1SG, emph, nom, acc]	↔	/mèmɲè/
[DEF, 1SG, nom]	↔	/ì/
[DEF, 1SG, nom]	↔	/mè/
[DEF]	↔	Ø
[DEF]	↔	/né/_____Root**n**
[REFL]**aff**	↔	Ø /_____Root**n**
[REFL]**aff**	↔	/tòbɔ́-/
[INT]**aff**	↔	/dè-/_____Root**n**
[INT]**aff**	↔	/ínú/_____Root**n**

78.

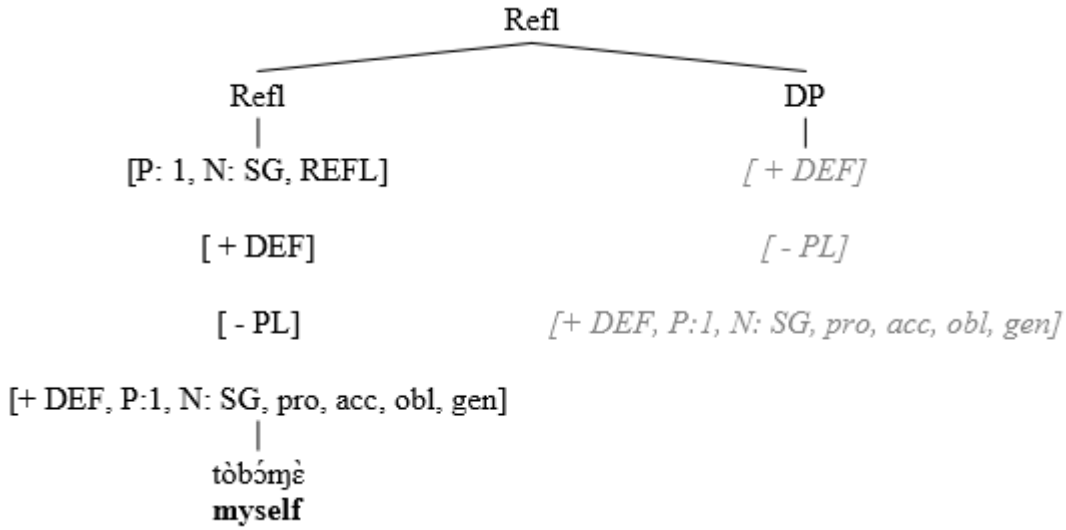


Following *Merge*, there are two applications of operation *Agree*. First, there is Agree, which copies the feature of Num to N. This is operation Agree as described in Chomsky (2001); the only difference is that the probe searches upwards. There are publications like Zeijlstra (2012) which support the view that probes may be structurally lower than goals. The second use of the operation values person and number features of the reflexive head. It follows Chomsky's downward probe-goal search; the difference is that *Agree* involves feature sharing (Preminger, 2017) not copying. This means spell-out of number and person features will be on the pronoun.

15Nevins, A. Feb. 14, 2016. *Lectures on post-syntactic morphology*. Retrieved Aug. 12, 2016, from http://ling.auf.net/ Lingbuzz002587

After syntactic operations, the structure transfers to the semantic and morphology components; from where the structure in (79) is transferred to the articulatory perceptual interface.

79.



In the morphology, there is *Merger* of Num and N. The reason is that number is a replacive inflection in pronouns. Next, the number-noun head and the determiner undergo the revised version of fusion proposed in this thesis. Although D is null in definite pronouns, fusion with it creates the structural adjacency that Refl requires for merger and subsequent fusion with the pronoun. Once, D, Num and N have been morphologically merged and fused to Refl, vocabulary insertion selects an eligible item - */tòbɔ́ŋɛ̀/* and places it under one node as shown in (79). The final component is phonology; this example does not need phonological structure operations. The phonetic form is acceptable as it is.

4.5.2. Inflection

Inflection is "any change of form which differentiates grammatical forms of the same lexeme" (Matthews, 2007:194). Inflections mark distinctions in all sub-categories of Ẹ̀dó definite pronouns except the interrogative, reciprocal, and relative

80. Dèmwì nè ọ́nîì khín vbè òdọ́
QM:thing REL NOML:DEM:DIST:SG COP LOC there
What is that over there? (Imasuen 1996:78)

81. Énîì ọ̀ré òwá nè ìvbìèsùkú vbìẹ́
DEM:DIST:PL COP house REL children:school sleep
Those are dormitories. (Imasuen 1996:78)

82. Ẹ̀tín ẹ́rè sẹ̀ẹ́ ọ́ghùẹ́
Strength 3SG surpass POSS:2SG
His strength surpasses yours. (Usẹnbọ 2016:39)

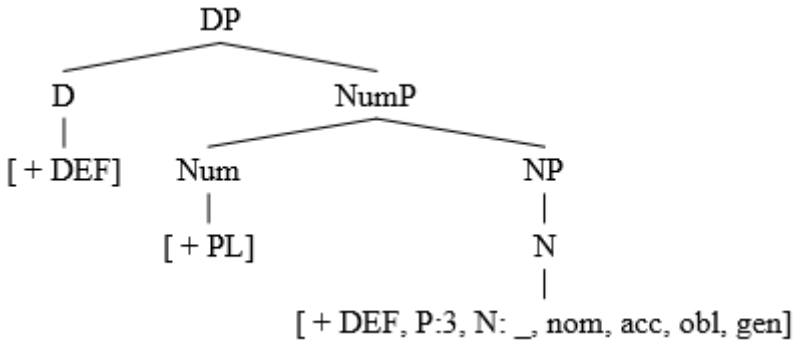
83. Úgbó ọ̀khọ́khọ̀ ìràn yé vbé ọ́ghùwà
Farm fowl 3PL be like POSS:2PL
Our poultry is like yours. (Usẹnbọ 2016:39)

One can find demonstrative (examples 80 and 81); as well as weak and strong genitive (examples 82 and 83) pronouns. From the examples, one would observe two things: First, there are perceptible differences between singular and plural forms. Second, morphemes which indicate number are inseparable from those which encode other features. Using Distributed Morphology, one can explain the internal structure of these pronouns in terms of *Merger* and *Fusion*. Consider the structure and derivation of the personal pronoun in example (83). To begin, select constituents from the list of formatives.

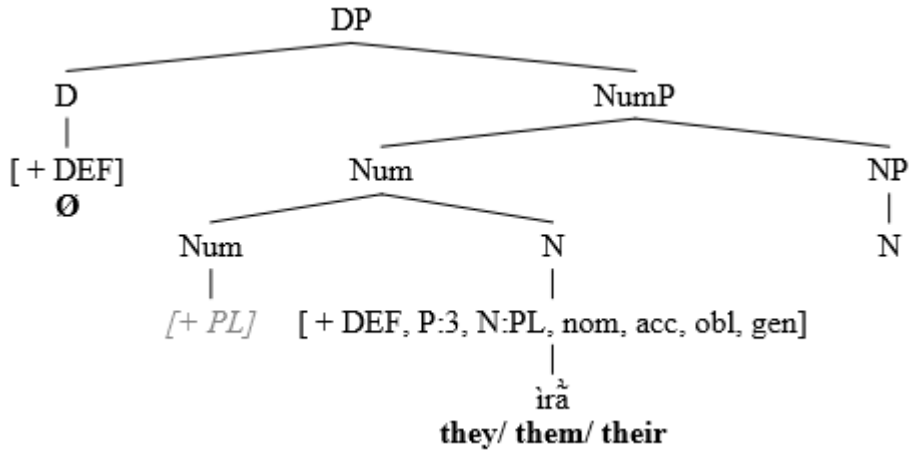
Formatives		***Exponents***
[DEF]	↔	/Ø/
[DEF]	↔	/ né / / _____ $\text{Root}_{\mathbf{n}}$
[- PL]	↔	/Ø/
$[+\text{PL}]_{\mathbf{aff}}$	↔	/ à /
[+PL]	↔	/àβé/ / _____ $\text{Root}_{\mathbf{n}}$
[DEF, 3SG, emph, nom, acc, obl, gen]	↔	/ ìrɛ̃ /
[DEF, 3PL, emph, nom, acc, obl, gen]	↔	/ ìrɔ̃ /
[DEF, 3SG, nom, acc, gen]	↔	/ɔ́rè / / [+round] _____
[DEF, 3SG, nom, acc, gen]	↔	/ɛ́rè /
[DEF, 3SG, nom, acc]	↔	/ɛ̀ /
[DEF, 3SG, nom]	↔	/ɔ̀ /

Combine the formatives using operation *Merge,* beginning with the noun. Agree would apply between number and the head of its complement phrase; this values the number feature of the pronoun. Structure building continues with merge of the number phrase as complement of D. After this, the morphosyntactic description in (84(a)) transfers to the semantic and morphological interfaces.

84. (a)



84. (b)



In the morphology, as shown in 84(b), there is *merger* of Num and N. This movement operation puts Num and N under the same node. Since Num is a replacive affix in pronouns, *fusion* will follow merger. Then, one can access the exponents list. On the list, there is one exponent with all features in the morphosyntactic description. Select and insert it under the appropriate node. This morphophonological description in 84(b) is then transferred to the articulatory-perceptual interface.

4.5.3. Compounding

Compounding is a process which combines independent lexical items. There are usually two of such items, but there could be more (ten Hacken, 2017:1). Although morphologically complex, research treats compounds as words because they function as heads in syntax (Harley 2009:129) and denote concepts which may or may not be determined by the meanings of their individual constituents.

In the Ẹ̀dó language, compounding creates new lexical words typically nouns and verbs from words of the same category (*òwá* "house" + *èbé* "paper" →*òwá-èbé* "school"). The combination could also involve words from different categories (*kpàá* "lift" + *ègbé* "body" →*kpàá-ègbé* "rise"). Compounding in the pronoun system involves a definite or indefinite pronoun and nouns or words from other functional categories.

85. Reflexive pronouns

Ọ̀	khẹ̀ké	né	ù	nọ̀	ègbé-rùẹ́	ọ̀tà
3SG	be_appropriate	COMP	2SG	ask	REFL - 2SG	question

It is appropriate that you ask yourself questions.

86. Possessive pronouns

Ọ̀ghó-mwẹ̀	ẹ̀ré	ní	khín
POSS-1SG	FOC	DEM	COP

That is mine.

87. Negative partitive pronouns

Ì	í	rhìé	èhé-rhọ̀kpà
1SG	NEG	go	place-QNTF

I am not going anywhere.

88. Assertive partitive pronouns

Wẹ́ẹ̀	né	dọ́mwàdẹ́	ọ́ghé-ẹ̀	gùálọ́	ìnwìnà
Say	COMP	QNTF	POSS - 3SG	search_for	work

Tell each person to search for a job.

89. Indefinite relative pronouns (Imasuen 1998a:43)

Èsù	khàmàrá	Ìgiésù	"Èmwí-kè-èmwí	nè	ù	hòó,
Satan	tell.PST	Jesus	thing-and-thing	REL	2SG	want
ì	ghá	rú=ẹ̀	nè =ùẹ́"			
1SG	AUX	do=3SG	for=2SG			

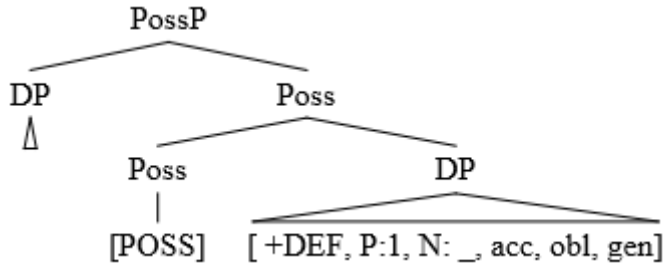
Satan said to Jesus "whatever you want, I will do for you".

The examples above show compounding in both definite and indefinite pronouns. Some of these compounds do not have any pronominal elements in them, which suggests indefinites such as the one in examples (87) - (89) have also undergone conversion to the pronominal category. The reader would have noticed a difference between POSS in examples (86) and (88). The marker in (86) is a conditioned form of the possessive marker–*ọ́ghé.* When combined with personal pronouns, it yields a possessive pronoun. Often, there is the need for internal modification of the resulting words. DM proponents acknowledge such changes, noting that information in vocabulary items may not generate correct outputs in all cases. When such instances arise, acceptable phonetic forms may be obtained from

readjustment rules (Halle and Marantz, 1993:124). Consider the internal structure of possessive pronouns, as illustrated with first person singular.

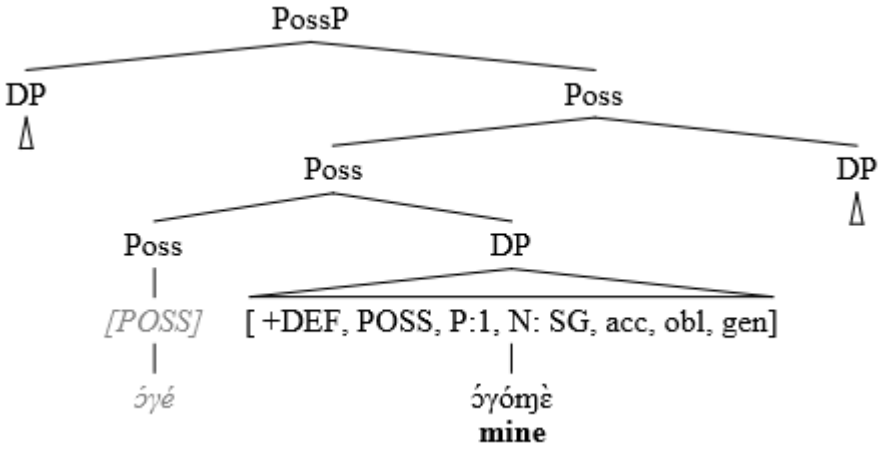
Formatives		***Exponents***
[+ DEF]	↔	/Ø/
[+ DEF]	↔	/né/ / ____ $\text{Root}_{\mathbf{n}}$
[POSS]	↔	/Ø/ / $\text{Root}_{\mathbf{n}}$ _____
[POSS]	↔	/ɔ́gé/
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ìmɛ̀ŋɛ̀/
[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ìmɛ̀/
[DEF, 1SG, emph, nom, acc]	↔	/mɛ̀ŋɛ̀/
[DEF, 1SG, acc, obl, gen]	↔	/ŋɛ̀/
[DEF, 1SG, nom, acc]	↔	/mɛ̀/
[DEF, 1SG, nom]	↔	/ì/
[DEF, POSS, 1SG, acc, obl, gen]	↔	/ɔ́gómŋɛ̀/

90.



Derivation begins in syntax with the merge of formatives to produce the morphosyntactic structure above. The lower determiner phrase, which is the possessor, merges as complement of the possessive marker; and the higher one, which is the possessee, merges in specifier position (Usenbo 2016:58). Next, Agree values the number feature in the respective determiner phrases. As shown before, the probe-goal search between N and Num is upwards. After operation Agree, the structure transfers to the interfaces for interpretation and language specific morphological operations. There are two of such operations - *merger* and *fusion* of POSS and the head of its complement. These morphological operations rearrange the feature bundle of the pronoun and the possessive marker. When *VocabularyInsertion* applies, the strong genitive pronoun will be at a single node as shown in (91) below.

91.



The morpho-phonological description in (91) transfers to the articulatory-perceptual interface via phonology. Here, readjustments apply; such that the articulated form of the compound word is */ɔ́gɔ́mɲɛ̀/* as opposed to **/ɔ́gémɲɛ̀/* which should realise the fusion of POSS and the first person singular variant.

4.5.3.1. Phrasal compounds

Phrasal compounds are phrases which function as words. Examples of this kind of compound can be found in indefinite pronouns, such as the following.

92. PhrasalCompounds

(a) ọ̀mwá- kè - ọ̀mwá
person - and - person
Whoever

(b) èmwì- kè - èmwi
thing - and - thing
Whatever

(c) èhé - kè- èhé
place - and - place
Wherever

(d) ẹ̀ghẹ̀ - kè - ẹ̀ghẹ̀
time - and - time
Whenever

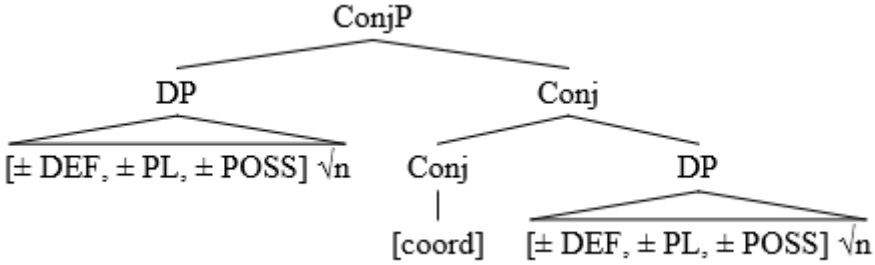
(e) ọ́ghòmwà - kè - ọ̀mwá
POSS:1PL- and - person
Anybody's

Examples (92 (a) - (d)) comprise a coordinating conjunction and nouns which denote concepts such as person, place, thing, and time. From the gloss, one would

observe these forms function as indefinite relative pronouns. The language also has a phrasal compound which serves as an impersonal possessive pronoun, as shown in (92 (e)). Unlike the first four examples, (92 (e)) combines the possessive marker, a personal pronoun, and a lexical noun.

Irrespective of the conjuncts, this study proposes a single structure for phrasal compounds. This proposal originates from two assumptions. One, compounds with the conjunction 'and' are words which comprise syntactic phrases (Fabb 1998). Two, one can analyse coordination using same endocentric, binary branching tree structure evident in the syntax of other lexical and functional categories (Johannessen (1993), Kayne (1994), Progovac (1998), Carston and Blakemore (2005)). These studies posit conjunction phrases where conjuncts merge in specifier and complement positions; the head may project multiple specifiers, depending on the number of coordinated terms. Accordingly, the internal structure of examples (92 (a)–(e)) would be a phrase such as the one in (93) below.

93.



Example (93) shows Ẹ̀dó pronouns such as those illustrated in example (92) contain fully formed phrases. Although few pronouns have this kind of complex internal structure, other types of nouns suggest that words which contain phrases are not a rarity in the language. The study culled the following from Agheyisi (1986:78) and Yuka and Evbuomwan (2016:71).

94.	ọ̀ -	gbẹ̀n	úgbó	→	ọ̀gbùgbò
	NOML	clear_foliage	farm		farmer
95.	ọ̀ -	dó	ẹ̀kì	→	ọ̀dóẹ̀kì
	NOML	do	market		trader
96.	ù -	kpé	àkọ̀n	→	ùkpákọ̀n
	NOML	wash	teeth		chewing stick
97.	ùvbí	nè	ọ̀	rè	ẹ́rọ́mwọ̀	→	ùvbí-nẹ́rọ́mwọ̀
	girl	REL	RP	be	bronze		brown skin girl

98.	ọ̀mọ́ child	nè REL	ọ̀ RP	rè be	òɡìè royalty	→	ọ̀mọ́-nóɡìè respected child
99.	ìyẹ̀n news	nè REL	ọ̀ RP	rè be	màá good	→	ìyẹ̀n-nọ̀màá gospel
100.	íyé mother	nọ̀khuà great				→	íyè-nọ́khuà grand-mother

Examples (94) - (100) show words derived from a combination of nouns or nominal affixes, relative clauses, verbal and adjectival phrases. Pafel (2017) establishes four categories of these kinds of words, and broadly defines them as compound words whose non-head constituent is a syntactic phrase.

4.5.3.2. The derivation of phrasal compounds

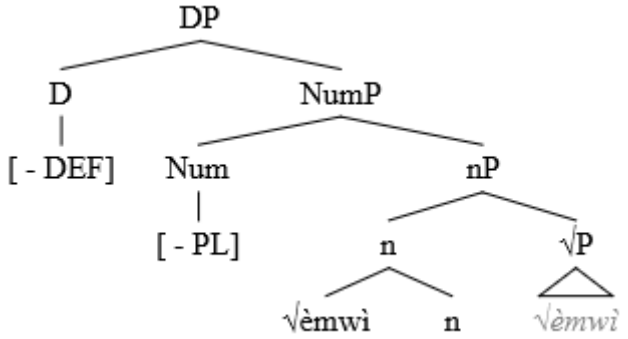
In contemporary literature, there are four ways to account for such phrasal compounds. Proponents of these approaches posit such phrase-based words result from *Merge* (Lieber and Scalise 2006), *Insertion* (Ackema and Neeleman 2004), *Conversion* (Harley 2009), or *Multiple Spell-out* (Sato 2010). The merge option allows limited interaction between syntax and morphology; it assumes such words have the structure: [XP [YP] X], where X is the head of the compound. The insertion approach is based on a parallel architecture of grammar (Jackendoff 1997). It allows larger units such as phrases to be inserted into smaller ones (i.e. syntactic terminal nodes), if such units possess matching features. In the conversion approach, phrasal elements within words undergo zero-derivation to an appropriate category. This entails morphological merger of the phrase and a categorising head, which typifies the phrase. Following merger, the phrase will denote a concept associated with its type and will partake in the same morphosyntactic processes as other words in that category. The multiple spell-out approach suggests that phrasal compounds result from renumeration of phrases as words; it uses a blend of *Merge* and *Conversion*.

Of the four approaches to phrasal compounding, the ones Harley and Sato propose are more compatible with the theoretical framework of this study. Both assume phrasal compounding requires some sort of conversion process; the difference lies in Sato's inclusion of *multiple spell-out* (i.e. syntactic renumeration) as proposed in Uriagereka (1999).

The model builds on the idea that derivations occur in phases and allows subsequent use of spelled-out phrases. Such phrases return as lexical items to the workspace, from where they merge into positions in the larger construction. Sato (2010:17) explains that syntactic renumeration obliterates the internal structure of spelled-out forms, rendering them terminal elements. This thesis combines the conversion technique discussed in Harley (2009) and renumeration as applied in Sato (2010). Both proposals proffer a DM-based exposition of phrase-to-word conversion and phrasal compounding. Consider the structure and derivation of the indefinite pronouns in this example taken from Omoregie (1983:40).

101. (a)	Kpèé	ùrhù	èmwí-kè- èmwí	né	Ekristi tárè	
	shout	voice	thing-and-thing	COMP	Christ	say.PST
	màá	ọmwá-kè-ọmwá	vbè	úwú	ìràn	
	to	person-and-person	LOC	inside	3PL	
	Preach whatever Christ said to anyone among them.					

101. (b)

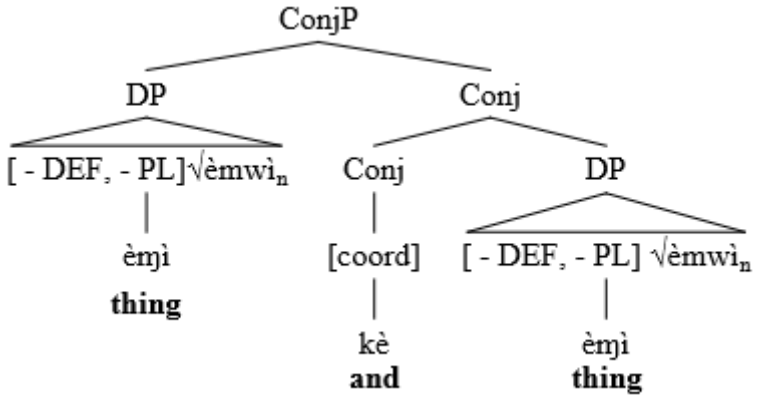


The derivation begins with merge of the root phrase and a categorial head[16]. Categorising heads may be overt constituents; they may also be realised as null elements. Irrespective of form, these heads have a strong affixal feature which triggers head movement as indicated in (101b).Next, there is external merge of nP and NumP, as well as NumP and D.

16These heads may be null or realised overtly as derivational affixes.

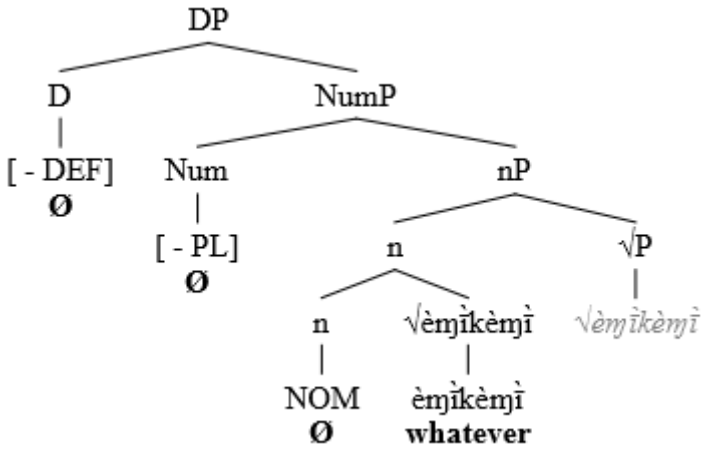
	n^o	v^o	a^o
√ghọ̀ghọ̀	ò- ghọ̀ghọ̀	ghọ̀ghọ̀-Ø	------
	happiness	to be happy	
√dò	è-dò	dò-Ø	------
	extra	add extra	
√òsé	Ø-òsé	m-òsé	nọ́-mòsé
	beauty	to be beautiful	beautiful

101. (c)



In the morphology, vocabulary insertion inputs the string *[èɱì̀ # kè # èɱì̀]*. Although these items are independent morphemes, the conjunction and its complement phrase are phonologically spelled-out together. For this reason, *local dislocation* will apply joining the non-initial conjunct and the coordinating conjunction as in *[èɱì̀ # kè # èɱì̀] → [èɱì̀ # [kè + èɱì̀]]*. There would also be *readjustment*; so at the articulatory-perceptual interface, one will realise the string as *[[èɱì̀ # k + èɱì̀]]*. Once the conjunction phrase is spelled-out at PF, it is renumerated as a single morpheme and derivation continues with its merge into a position in the larger construction.

101. (d)



To derive the indefinite pronoun, there is a reduction of the conjunction phrase *[èɱì̀ # k+èɱì̀]* to a root morpheme i.e. *√èɱì̀kèɱì̀* in (101 d). This morpheme projects a phrase which first merges as complement of a category-creating head. To satisfy the [+AFFIX] feature of the nominaliser, the root moves and adjoins to it. Structure building continues with two external merge operations: the nominal phrase and number, as well as number phrase and the determiner. Then, the structure transfers to

the other components. In the morphology, there is vocabulary insertion of */èŋ̀kèŋ̀/*. This is an acceptable sequence of sounds; thus, no other operations will apply.

From this discussion, one can infer that pronominal phrasal compounds result from grammaticalization of conjunction phrases. The question which remains is whether those forms are words or phrases. The answer requires detailed analyses of the morphological, syntactic, and semantic properties of the expression (ten Hacken 2017). This study evaluated phrasal compounds using all three criteria, and found they are more like words than syntactic phrases.

Morphologically, they consist of free morphemes. Also, nominal roots in these phrase-based words do not inflect for number; this is characteristic of indefinite pronouns. Syntactically, they function as noun phrases. However, the semantics of these compounds differ remarkably from that of noun phrases.

102. (a) (ávbé) èmwí nè ù dẹ̀lere vbòó?
PL thing REL 2SG buy:IT:PST QM
Where are the things you bought?

(b) (ávbé) èmwí-ke-èmwí nè ù dẹ̀lere vbòó*?*
PL thing-and-thing REL 2SG buy:IT:PST QM
Where are the offering items you bought?
*****Where are the whatever you bought?

(c) Èsù khàmàrá Ìgiésù **"**Èmwí-kè-èmwí
Satan tell.PST Jesus thing-and-thing
nè ù hòó**,** ì ghá rú=ẹ̀ nè=ùẹ́"
REL 2SG want 1SG AUX do=3SG for=2SG
*****Satan said to Jesus "the offering items you want, I will do for you".
Satan said to Jesus "whatever you want, I will do for you".

As a noun, the term *èmwí-kè-èmwí* refers to the paraphernalia used in African religions. Observe that the denotation of *èmwí* 'thing' in (102 a) relates closely to the 'collection of things' in (102 b). However, when the expression functions as a pronoun, its meaning varies. Following the gloss in example (101 a) it refers to spoken utterances, but in example (102 c) it refers to the desires of the addressee. This loss of semantic content is typical of grammaticalization. In addition, the study subjected these pronouns to the test of modification. The results show these compound pronouns differ from phrases, as one cannot modify the conjuncts individually. Consider the following clauses.

103. (a) Ọ̀mwá nọ́wègbé Ìsẹ́ ghéà khín
Person strong Isẹ PERF be
Isẹ was a strong person. (Omoregie 1983:49)

(b) Èmwí-kè- èmwí dàn nè éghìàn kọ́
thing-and-thing evil REL enemy plant
í zọ̀ọ́ vbè àgbọ̀n ìvbí Òsà
NEG sprout LOC world child.PL God
Whatever evil the enemy plants will not sprout in the lives of God's children. (Imasuen 1998b:43)

(c) Ògbọ̀mọ́ mù ùkpọ̀n (nọ́fùà)
Ogbọmọ carry cloth (white)
kè èkhàrhà (nékhéré) rré
and umbrella (small) come
Ogbọmọ brought a (white) cloth and a (small) umbrella.

In the Ẹ̀dó language, attributive adjectives follow nouns as shown in example (103a). With phrasal compounds, modification is only acceptable when the adjective appears after the second conjunct as in (103 b). Since phrasal compounds do not permit insertion, one should regard them as words given that conjunctive phrases allow for independent modification, as shown with the parentheses in (103 c).

4.5.4. Conversion

Conversion is a word-formation process, which involves changes in the grammatical category of words without attendant changes in their phonology (Fábregas and Scalise 2012: 98). Compared to the output in the Ẹ̀dó adjectival and adverbial categories (Usenbo and Agbo, 2023)[17], conversion is non-productive in the pronoun category of the language. Data for this study shows the process derives only two pronoun forms–*ọ̀mwá "*someone" and *èmwì "*something".

104. Lexical Nouns
(a) Ọ̀mwá èsì Ozo khín (Imasuen 1996:59)
Person good Ozo be
Ozo is a good person.

(b) Vbè ìrùéèmwì nà, mà ghá rùé èmwì
LOC lesson DEM, 1PL AUX learn thing
nè ì rré ùghà
REL RP be_at room (Imasuen 1996:23)
In this lesson, we will learn about things which are found in a room.

105. Indefinite Pronouns (assertive partitive)
(a) Ọ̀mwá rré ẹ̀khù
Person be_at door
Someone is at the door.

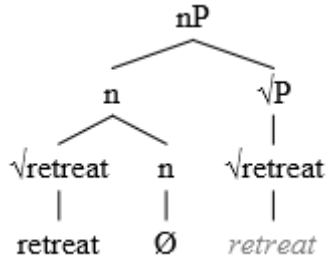
17Usenbo, P. and Agbo, M. S. 2023. *Adducing Evidence for Conversion*. Manuscript, University of Benin

(b) Ì khián yá dẹ̀ èmwì
1SG go INC buy thing
I am going to buy something.

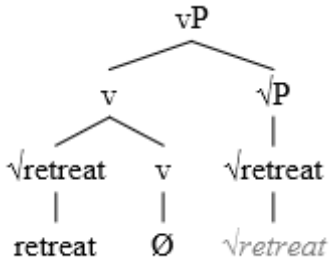
The reader would have observed sameness of morpho-phonological form and structural function of the constituents glossed as person/someone and thing/something in examples (104) and (105). Based on total identity between the nominal and pronominal forms, one can state conversion is the word-formation process at work.

In Distributed Morphology, conversion entails merger of a root and a categorising head. This head projects a phrase, but the output behaves like a word-level unit, taking part in the same morphological processes as other members of its category. In terms of semantic contribution, categorising heads typify propositions. Roots, which combine with them, denote concepts associated with the categorial phrases (Harley 2009:143). Consider the word '*retreat'* in the following sentences.

106. *Retreat* is a form of religious activity.



107. The enemy *retreat* -ed.



In examples (106) and (107), the word *retreat* serves as a noun and verb, respectively. One would also observe that √P which merges with v bears the past tense suffix. In English, tense morphology manifests in the category of verbs; so it is certain that v is responsible verbal interpretation of √*retreat* in (107). The analysis of conversion as morphological merger with a category-defining head is straight-forward and accurate for the languages to which previous works applied it.

However, it is unsuitable for the present purpose because conversion is within the nominal domain. Pronouns and other types of nouns perform the same functions; so, to some extent, their syntax and semantics overlap. Consider the structure and derivation of the word *èmwì* in the following examples.

108. (a)

Èmwí	èsó	kpàtàkì		rrǫ́ǫ̀	(Imasuen 1997:91)
thing	QNTF	important		be_available	
né	à	yá	rẹ́ẹ́n	àdàzẹ́	
COMP	1PL	use	know	benefactor	

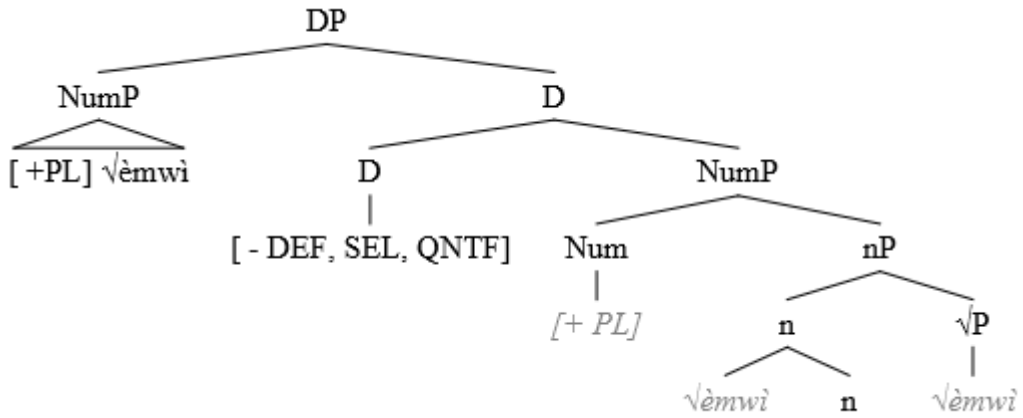
There are some important things one can use to identify a benefactor.

108. (b)

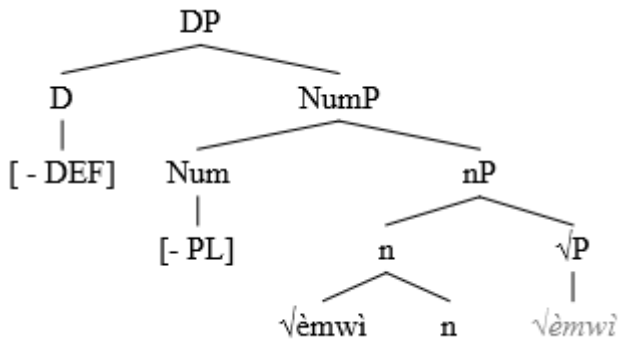
Wẹ	rá	dèé,	dẹ	èmwí	gù	mwẹ
2SG	INC	come	buy	thing	for	1SG

When you are coming, buy something for me.

109. (a)



109. (b)



The root *èmwì* projects a phrase whichmerges as complement of the nominal category head, projecting a nominal phrase. This phrase merges with number, projecting NumP which merges with D. In example (109 (a)), there is internal merge of NumP; this satisfies the edge feature of indefinite determiners. This movement is

not illustrated in (109(b)) because it has no effects on linearization. The next step for both uses of *èmwì* is interpretation and morphological structure operations. In the morphology, there is insertion of vocabulary items into the terminal nodes.

Looking at the structural descriptions, the only differences in the internal structure of *èmwì* as a lexical noun (109 (a)) and pronoun (109 (b)) are the values for number and the features of D. In terms of interpretation, there is little distinction between 'some things' and 'something'; both expressions refer to indefinite, unspecified objects. Despite the similarity, the study considers *ọ̀mwá* and *èmwì* as distinct types of words. Its position stems from differences established with distributional tests. Carnie (2013) discusses how such tests serve as criteria for determining the category of words.

There are two types of distribution: morphological and syntactic. Morphological distribution refers to the kinds of associated morphology, for example, inflection, the order of affixes etc. Syntactic distribution looks at the positions such words occupy and other words that appear nearby. Consider *ọ̀mwá* and *èmwì* in the following clauses.

110. Definiteness, specificity and quantification

(a) Órhùmwù ọ́kpá rré ẹ̀khù
Person one be_at door
A person is at the door, as well as someone is at the door.

(b) Nè ọ̀mwá rré ẹ̀khù
DEF person be_at door
The person is at the door, but not *the someone is at the door.

(c) Nè nè ọ̀mwá rré ẹ̀khù
DEF SPF person be_at door
The particular person, but not *the particular someone is at the door.

(d) Órhùmwù èsó rré ẹ̀khù
Person QNTF be_at door
Some persons, but not * some somebodies are at the door.

111. Number marking

(a) Ọ̀mwá dòó miẹ́ mwẹ̀ (Imasuen 1998b 5:43)
person INC see:PST 1SG
A person came to see me.

(b) Èmwá dòó miẹ́ mwẹ̀ (Imasuen 1998b 5:43)
people INC see:PST 1SG
People came to see me.

(c) Ọ dẹ̀rẹ̀ èbé / èmwì nè rùẹ́
3SG buy:PST book / thing for 2SG
He bought a book for you, or he bought something for you.

(d) Ávbé èbé / èmwì nè ù dẹ̀lẹ́rẹ̀ vbòó
PL book / thing REL 2SG buy:IT:PST QM
Where are the books or things, but never *the somethings you bought?

112. Modification

(a) Ọ̀mwá òrùkhọ̀ọ́ í rrí àrriọ́bá (Imasuen 1996:59)
person wicked NEG eat kingdom
A wicked person will not inherit the kingdom.

(b) Rhìé - ọmẁá èsì - bàá èɡbé
take - person good - add body
Collaborate with a good person / someone good.

(c) Èmwí nọ̀màá ọ́kpá í vbè sẹ́ ọ́rè èɡbé
Thing good one NEG also reach 3SG body
No good thing will come to him. (Bulletin, second week of advent)

(d) Dẹ̀ èmwì nọ̀màá mẹ̀
buy thing good 1SG
Buy a good thing (or something good) for me.

From analyses of data such as those in (110) – (112), this study ascertained the following about the use of *ọ̀mwá* and *èmwì* as lexical or functional morphemes.

ọ̀mwá (lexical morpheme)

- takes replacive inflection
- can be singular or plural
- occurs with quantifiers as well as the markers for definiteness and specificity
- can be modified by adjectives
- may be used in these sentence frames: X is/are here; She called X or She gave a gift to X

ọ̀mwá (functional morpheme)

- has an invariant morphology
- can only be expressed in singular
- does not occur with quantifiers or the markers for definiteness and specificity
- can be modified by adjectives
- may be used in these sentence frames: X is/are here; She called X or She gave a gift to X

èmwì (lexical morpheme)

- does not inflect
- can be singular or plural
- occurs with quantifiers as well as the markers for definiteness and specificity
- can be modified by adjectives
- may be used in these sentence frames: X is/are here; She called X or She gave a gift to X

èmwì (functional morpheme)

- does not inflect
- can only be expressed in singular
- does not occur with quantifiers or the markers for definiteness and specificity
- can be modified by adjectives
- may be used in these sentence frames: X is/are here; She called X or She gave a gift to X

These statements of distribution show clearly that *ọ̀mwá* and *èmwì* are indeed forms which belong to the lexical and functional categories of morphemes. As concrete nouns, they show evidence of inflection; and one can mark them as [±plural, [± definite], as well as [± specific]. As pronouns, the same forms have an invariant morphology. They neither inflect for number nor allow markers of definiteness and specificity. Also, the sentence frames suggest application of a derivational process. A clear indicator that conversion is the process at work is total morpho-phonological identity of the nominal and pronominal *ọ̀mwá* and *èmwì* in the above examples.

Further, studies have observed that the syntactic contexts of input and output words overlap with derivational processes, unlike inflectional ones which impose restrictions on the output words (Fabregas and Scalise 2012:86). The data corroborates this observation, as both pronominal and nominal forms occur in phrases which are indefinite and singular.

4.5.5. Reduplication

Reduplication is a morphological process where an entire word or part of it is copied and attached to the same word (Haspelmath, 2002:24). In the Ẹ̀dó language, reduplication serves both inflectional and derivational purposes. As an inflectional process, it is marks number distinction on adjectives (e.g. *òvbì ẹ́rè yé bẹ̀tẹ̀* "his/her

child is chubby" → *ìvbìẹ́rè yé bẹ̀tẹ̀~bẹ̀tẹ̀* "his/her children are chubby") and pluractionality on verbs that do not take the aspectual suffix which performs the same function in other verbs (e.g. *fián* "cut" → *gìá* "cut an object into several pieces" → *gìá~gìá* "cut several objects or several persons cutting the same object"). As a derivational process, reduplication is evident in both lexical and functional word classes (*ókhì* "circle" →*ókhì~ókhì* "ripples", *gèlè* "really" → *gèlè~gèlè* "truthfully", *èsó* "some" →*ès~ésò*"none"). The process can also creates words from phrases (vbè òbọ́ "at hand"→ vbè òbọ́~vbè òbọ́ "instantly").

There are two approaches to reduplication in the theory of Distributed Morphology. Both differ in terms of the copied element (i.e. the reduplicant or RED) and post-syntactic operations involved in the derivation. One approach assumes RED is a null morpheme, the other considers it an overt morpheme. Haugen (2011) points out that the former treats reduplication as readjustments in phonology; while in the latter, vocabulary items serve as the trigger for reduplication.

Using the null morpheme approach, there are three ways one could derive pronouns via reduplication: (i) applying readjustment rules to alter precedence relationships in the morpho-phonological description (Raimy 2000); (ii) interweaving cyclicity and morphological rebracketing (Harris and Halle, 2005); and (iii) adding transcription junctures to the morphosyntactic description (Frampton, 2009).

The overt morpheme approach derives reduplicated pronouns using one of the following assumptions: (i) RED is an independent syntactic morpheme which undergoes *merger* with a base (Marantz 1989); (ii) reduplication results from the hierarchical arrangement of morphosyntactic features and heads (Sato 2010); and (iii) the exponence of RED involves *local dislocation*, which linearises the reduplicant (Haugen and Harley 2013).

Although both approaches derive reduplicative morphemes by copying phonological features of adjacent constituents, this study adopted the overt rather than the null morpheme approach because data show the reduplicants perform syntactic and semantic functions. In the following sub-sections, the thesis discusses these functions and their structural representation.

4.5.5.1. Functions of the reduplicant

The data reveals reduplication adds meaning to existent forms. This meaning may describe how the action of the verb applies to participants. It could identify a

particular referent from a group. In the former, reduplication serves the function of aspect marking; in the latter, it is an indicator of specificity. Specificity is a feature of constituents which express given information; the Ẹ̀dó language marks it morphologically. Typically, specificity occurs in same constructions as constituents which convey definiteness.

113. Ékítà fián-ọ̀mwá-ré
dog cut-person-eat
A dog bit a person. (Omoruyi 1987:213)

114. Né ékítà fián né ọ̀mwá ré
DEF dog cut DEF person eat
The dog bit the person. (Omoruyi 1987:213)

115. Né~né ékítà fián né~né ọ̀mwá ré
RED~DEF dog cut RED~DEF person eat
The particular dog bit the particular person. (Omoruyi 1987:213)

116. È-nà kẹ̀kẹ́ nẹ́
NOML.PL – DEF.PROX spoil.PST already
These ones are spoilt already. (Omoregie 1983:38)

117. Hànọ́ èn~é-nà hìn vbè úwú ẹ́rẹ̀
select RED~NOML.PL – DEF.PROX out LOC inside 3SG
Select these particular ones from it. (Omoregie 1983:38)

From the examples, one would observe that specificity is a reduplicant. It copies its phonological features from determiners which are definite, as the article in example (115) and the proximate demonstrative pronouns in example (117) show. There are two other demonstrative pronouns: *ọ́nìí* and *énìí*. The language derives both from the distal demonstrative determiner - *nìí*; but reduplication does not apply to them (Omoruyi, 1987:221). Quantifing pronouns also show evidence of reduplication, but the process is less productive in this sub-category.

118. Ì làré èbé ésò kùá
1SG throw.PST book QNTF away.PL
I threw away some books. (Omoregie 1983:53)

119. Èsó rré èmwá
QNTF be_at here
Some are here. (Agheyisi 1986:34)

120. Ì sẹ́ èvbá; ì má miẹ́ ìràn èsò~ésò
1SG reach.PST there 1SG NEG see 3PL RED~QNTF
I got there; I found none of them. (Agheyisi 1986:34)

The quantifier *ésò* functions as a nominal modifier in (118), and as a noun phrase in (119). In both examples, it contributes an existent quantity to the interpretation of the sentence. However, when reduplication applies, as in example (120), the quantificational value associated with the morpheme becomes null. Agheyisi (1986:34) states that *èsésò* only occurs in negative clauses. The reason it is so constrained may be some principle in the grammar of the language, or merely an arbitrary property of the reduplicated quantifier. Whatever explanations exist will constitute a suitable theme for future enquiries. From this thesis, one can say the phonetic form for [+ specific] results from attaching RED to a [+ definite] determiner.

Aside from specificity, reduplication conveys aspectual information. The term "aspect typically denotes the duration of activities described by verbs; for example, whether the activity is ongoing or completed" (Radford, 2006:278). This typical connotation of aspect differs from the sense in which this study used the concept. As used here, aspect refers to "the internal temporal constituency of an event" (Comrie, 1976:3). What it expresses is the manner in which events take place; not their duration or completedness" (van Gelderen, 2017:75).

Aspect has two broad categories: perfective and imperfective. Perfective aspect considers the action as a whole unit; it does not distinguish the separate stages that make up the event. Conversely, the imperfective looks at the internal composition of events (Comrie 1976:16). In Ẹ̀dó, the imperfective may be habitual or progressive (Dunn1968:216, as cited in Omoruyi, 1991:5). The language expresses it with six auxiliary verbs: *ghá, ghárá, ghẹ, ghí, ráand té* (Omoruyi, 1991:7). It marks perfective with a post-verbal form *ne,* which bears a high or low tone depending on completedness of the action with respect to the time of utterance (Yuka and Omoregbe, 2011:375). This study finds that auxiliaries and adverbials are not the only means for expressing aspect in Ẹ̀dó. Data shows that personal, possessive and enumerative pronouns express habitual and iterative aspect.

Habitual aspect depicts actions repeated at different instances; its extension over time characterises it (Comrie, 1976:27-28). Iterative aspect describes actions that are repeated at a given instance. Bybee, Perkins, and Pagliuca (1994:127) associate this aspect with three types of repetition.The distinction is based on how iteration affects the participants (distributive) and how often the repetition occurred; once (iterative) as opposed to repetition on multiple occasions (frequentative). The frequentative appears similar to habitual aspect, but Comrie (1976) points out a

remarkable difference. Habitual events can extend indefinitely and do not always involve repetition; but frequentatives involve prolonged periods and frequent occurrences of the situation during that time.

121. HabitualAspect (Omoregie 1983:41)

ọ́ghẹ́~ọ́ghẹ́		ẹ̀ré	ọ̀	hòó
RED~3SG.POSS		FOC	RP	want
né	à	khúán	yí	
COMP	1PL	earn	LOC	

It is always his account that he wants us to garner money into.

122. IterativeAspect

Child:	Íyé	ínú	èmiówo	rè	ì	khián
	mother	QM	meat	COP	1SG	INC
	rhìé	yè	dọ́mwàndẹ́	ọ́kpán		
	put	LOC	QNTF	plate		

Mom, how many pieces of meat should I put in each plate?

Mother:	Vìọ́	évà~évà	lèlé	ẹ́rè
	Place.IT	RED~two	be_allover	3SG

Put two pieces of meat in each plate.

123. FrequentativeAspect (Omoregie 1983:40)

Ìràn~ìràn	ẹ̀ré	ọ̀	gbìná
RED~3SG	FOC	RP	fight

It is they who always fight. (They are the ones always fighting)

124. DistributiveAspect (Imasuen 1996:64)

ọ̀mwá	nè	ọ̀	gbẹ́n-rẹ́n	èbìán	nè	ìmà	dá
person	REL	RP	write-PST	passage	REL	1PL	ASP
tìé		fòó	lòó	ìkpẹ̀mwẹ̀	èhá:		
read.PST		finish.PST	use.PST	word	three:		
kàkàbọ́,		gbé	kèvbè	ẹ̀sẹ́sẹ́mwẹ̀nsé.	Dọ́mwàndẹ́	ọ́ghẹ́	
exceedingly		excessively	and	extremely.	QNTF	3SG.POSS	
vbè	èhá~èhá	nà	mwẹ̀ẹ́	èhé	nè	ọ̀	
LOC	RED~three	DEM.PROX	have	place	REL	RP	
múdìá	yí	vbè	ìfíẹ̀mwẹ̀.				
stand	at	LOC	sentence				

The person who wrote the passage which we just read used three words: exceedingly, excessively and extremely. Each one of these three has its position in the sentence.

Examples (121) - (124) above illustrate the different kinds of aspect. These distinctions are more commonly encoded on verbs (Inkelas, 2014); but Ẹ̀dó marks them via pronoun reduplication. In all four examples, the resulting words have same meanings and lexical category as the stems; but they sometimes differ in function, as

one will observe in example (124). Although reduplication does not alter the stems' denotation and category, the process clearly makes a difference in their connotation.

4.5.5.2. Structural representation of reduplicated pronouns

This study starts from the premise that Ẹ̀dó has a determiner phrase, because the language has a definite article and such items do not merge in the specifier of noun phrases; they project their own phrase (Abney, 1987). Based on this hypothesis, Usenbo (2016) analysed Ẹ̀dó possessive constructions using a split determiner phrase (Split DP). According to that study, the Ẹ̀dó DP has three functional projections: possessive phrase (PossP), number phrase (NumP) and determiner phrase (DP). It established thematic relations in the possessive phrase; number phrase is where plural marking takes place; and the determiner phrase is the domain for definiteness. This thesis adopts the structure DP > NumP > PossP > NP for possessive pronouns.

To account for the internal structure of other types of pronouns, this study proposes a more articulate DP structure. The proposal takes its cue from Grohmann and Haegeman (2003), Aboh (2004), and Aboh, Corver, Dyakonova and van Koppen. (2010); these works suggest one can expand the DP to accommodate discourse related information. Specificity is a function of reduplication which falls squarely under discourse. For pronouns which have that feature, the study added a Topic Phrase (TopP). This phrase serves as the domain for given information. TopP in the DP is analogous to the one in a split complementiser system (Caruso 2016:31); its projection licenses some definite articles and demonstratives.

For pronouns which express aspect, the study supposes Ẹ̀dó language has a split inflectional system; one where at least tense and aspect have separate projections. Previous studies note an intricate link between these categories (Dunn (1968:216) as cited in Omoruyi (1991:2)). Future tense and the imperfective aspect, for example, are both marked by a homophonous auxiliary – *ghá.* Structurally, tense and aspect may seem non-distinct; this is because the language also marks both using tonal changes.

Notwithstanding, this study proposes extended inflectional projections, because of instances where tense and aspectual markers are clearly distinct. In Ẹ̀dó language, there are verbs which mark past tense with an overt morpheme - the rv suffix. This tense marker may combine with another verbal suffix referred to as the lv suffix; it has several morpho-phonologically conditioned variants.

125. Ọ́ só-rò (Aikhionbare 1989:304)
3SG cry-PST
He/She cried.

126. Ìràn dẹ́-lẹ́ ávbé íbàtà níbún (Imasuen 2010a:33)
3PL buy-IT PL shoe QNTF
They buy many shoes.

127. Ọ́ gbẹ́-nẹ́-rẹ́ ẹ̀mwẹ́ yè òtọ́ (Aikhionbare 1989:310)
3SG write-IT-PST word LOC ground
He/She wrote the words down.

128. Atiti kpàn-nọ́ àlìmó(Imasuen 2010a:33)
Atiti pluck-IT orange
Atiti plucks oranges.

In the examples above, the gloss for all variants of the lv suffix is IT (i.e. iterative) following the description of this suffix as "a plural / reiterative morpheme" (Aikhionbare, 1989:302), which encodes pluractionality as shown in (126) - (128). In the absence of an overt plural morpheme or quantifier, the suffix also marks plurality on the object noun phrase as the gloss shows in example (128).

Differences in the functions of Ẹ̀dó verbal suffixes lend credence to the idea that tense and aspect have separate INFL nodes. Extended inflectional projections allow external merge of the lv suffix as head of its own phrase. Given the linear order of these verbal categories, one can assume that tense phrase is higher than aspect phrase. The aspect phrase should provide a structural position for the aspectual reduplicant as well as the lv suffix, since they perform the same function.However, verbal aspect differs from the aspect marked via reduplication. Data shows language users can mark aspect twice in a clause: one on the verb and the other via reduplication of a DP internal constituent.

129. Aspect marked via a change in verbal morphology (iterative aspect)
Vìọ́ èmiówo lèlé ẹ́rè
put.IT meat be_allover 3SG
Put meat in each plate.

130. Reduplicated numeral (iterative aspect via reduplication)
Vìọ́ (èmiówo) èv~évà lèlé ẹ́rè
put.IT (meat) RED~two be_allover 3SG
Put two (pieces of meat) in each plate.

From these examples, one would observe that aspect on the verb and DP-internal constituent are the same; this only applies to iterative aspect. It is possible to

use the lv suffix and reduplication simultaneously. In such constructions, both markers represent distinct grammatical aspects.

131. Aspect marked via suffixation (iterative aspect)
Ìràn gbẹ̀n-nẹ́-rẹ̀ èbé
3SG write-IT-PST book
They wrote books.

132. Aspect marked via suffixation and reduplication (iterative and distributive)
Ìràn gbẹ̀n-nẹ́-rẹ̀ èbé èv~évà
3SG write-IT-PST book RED~two
They wrote two books each.

Although the distributive aspect is a kind of iteration, it does not imply a repetition of the event. In example (131), the third person referents have written several books. Each person may have written one or more books; plus, the writing exercises may have been a collective effort (i.e. co-authorship). Reduplication in (132), informs one about the authors' contributions to the number of books written. The reduplicant signifies each third person referent wrote two books. While verbal iteration implies repetition of the event, the distributive tells us how the participants took part in the said event (i.e. individual authorship).

Another perceptible difference lies in the morphology and syntax of the aspectual markers. Ẹ̀dó marks verbal aspect in three ways. One can use an auxiliary verb, the lv suffix or a morphosyntactically conditioned form of a lexical verb. Where these strategies do not apply, one may infer verbal aspect from the determiner phrase. The language marks aspect in this phrase via reduplication of a lexical noun, pronoun, or numeral. Like the verbal categories, these constituents project phrases in the syntax. However, they do not undergo head movement like the lv suffix and have no effects on the morphological realisation of the verb; even when the aspect they encode characterises events rather than participants.

133. Ìràn~ìràn ẹ̀ré ọ̀ gbìná (Omoregie 1983:40)
3SG~3SG FOC RP fight
They are the ones always fighting.

134. Ì-gbìná ~ì-gbìná ẹ̀ré ìràn gbìná
RED~fight FOC 3SG fight
Fighting is all they do**.**

135. Ọ́kp̀~ọ́kpà ẹ̀ré ìràn yá rréè (Imasuen 1998b:45)
RED~one FOC 3PL manner come
They came one by one.

Examples (133) and (134) show reduplication marks the frequentative aspect. The reduplicated in (133) pronoun tells one the subject fights a lot, and in (134) reduplication communicates how often the action takes place. Example (135) shows distributed aspect. The reduplicated numeral describes how the subject referents arrived, individually and not collectively, as a group of persons.

4.5.5.3. Derivation of reduplicated pronouns

Based on these differences, this study claims that aspect in the Ẹ̀dó determiner phrase is distinct from the one in the inflectional domain of a clause. To provide a representation of these differences, the study added an aspect phrase to the structure of pronouns. Reduplicated pronouns convey meanings which build on features, and the denotation of words which the reduplicant copies. The composition of meaning suggests reduplication follows the structural arrangement of heads.

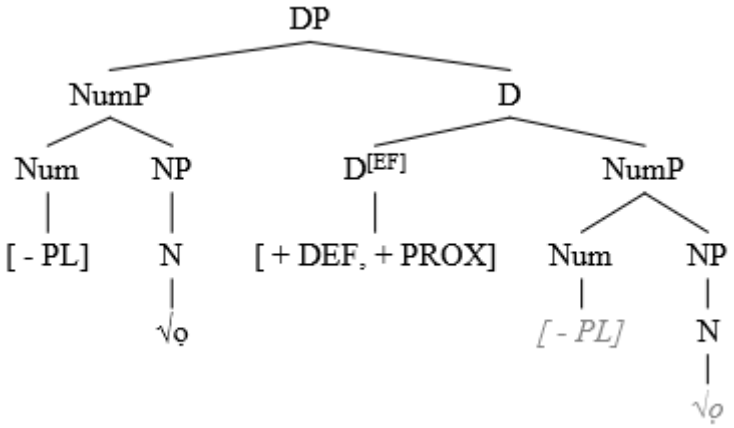
136. ọ̀-nà màá sẹ̀ẹ́ ọ́-nìí
NOML.SG – DEF.PROX good CMPR NOML .SG - DEF.DIST
This one is better than that one.

137. ọ̀n~ọ́-nà ẹ̀ré ọ̀ màá sẹ̀ẹ́
RED~NOML.SG – DEF.PROX FOC RP good CMPR
vbè é-hià
LOC NOML .PL-QNTF
This particular one is the best of all.

Formatives Exponents

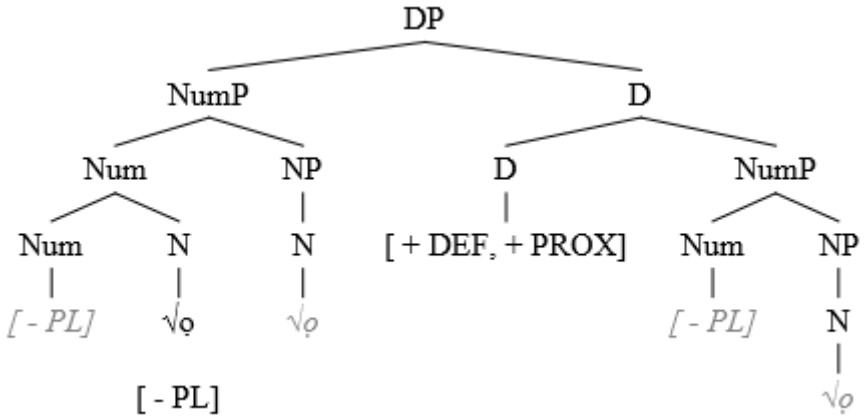
√ọ**n** [- PL]	↔	/ ɔ̀ -/
√e**n** [+PL]	↔	/ è -/
[- PL]	↔	/Ø/
[+ PL]	↔	/àβé/
[+ DEF]	↔	/Ø/
[+ DEF]	↔	/ né / / ____ X, where X is an NP
[+ SPF]	↔	RED
[+DEF, +DIST]	↔	/ nìí /
[+DEF, +PROX]	↔	/ nà /
[+DEF, +SPF, +PROX, - PL]	↔	/ ɔ̀nɔ́nà /
[+DEF, +SPF, +PROX, +PL]	↔	/ ènénà /

138.



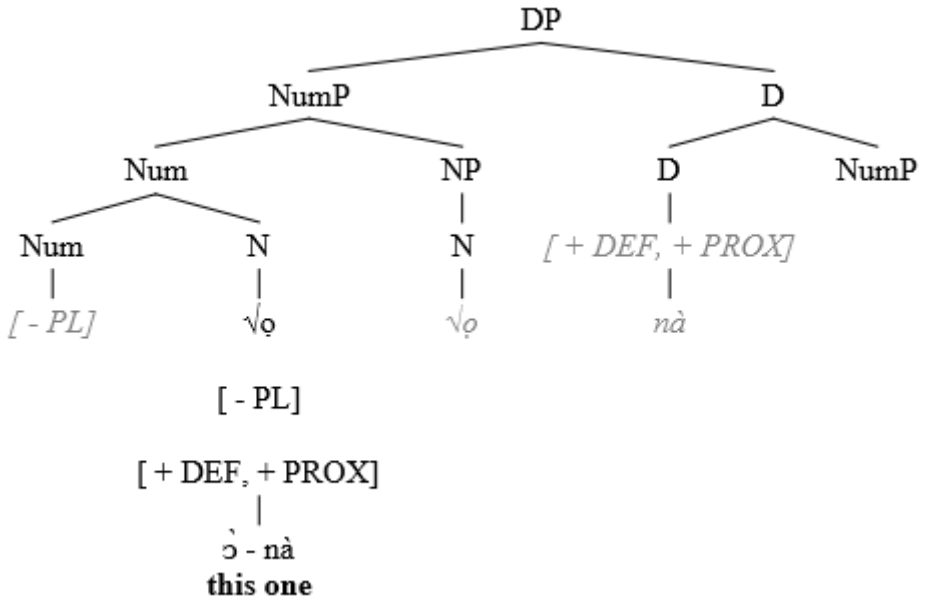
To begin, select a nominal root and determiner from the list of formatives. Then merge the root with the number marker to yield a number phrase. Merge this phrase with the definite proximate determiner, which heads the maximal phrase. To satisfy the edge feature of this determiner, copy number phrase into Spec-DP. Then transfer the morphosyntactic description in (138) above to the semantic and morphological interfaces.In the morphology, there is merger and fusion of Num and N, as shown in (139). These operations apply for Num to be realised with the root.

139.



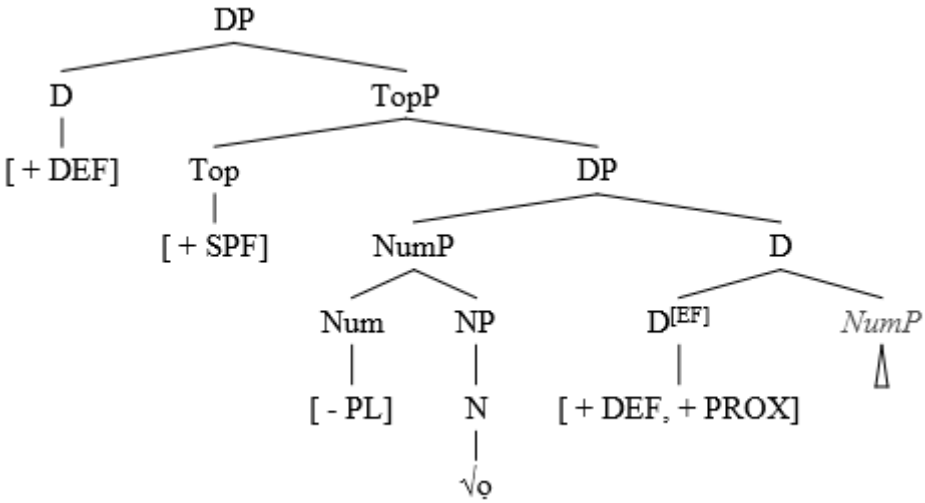
The features in the morphosyntactic description above will be collapsed into a single bundle using the revised fusion operation. This reduces the points of exponence to one as shown in (140).

140.



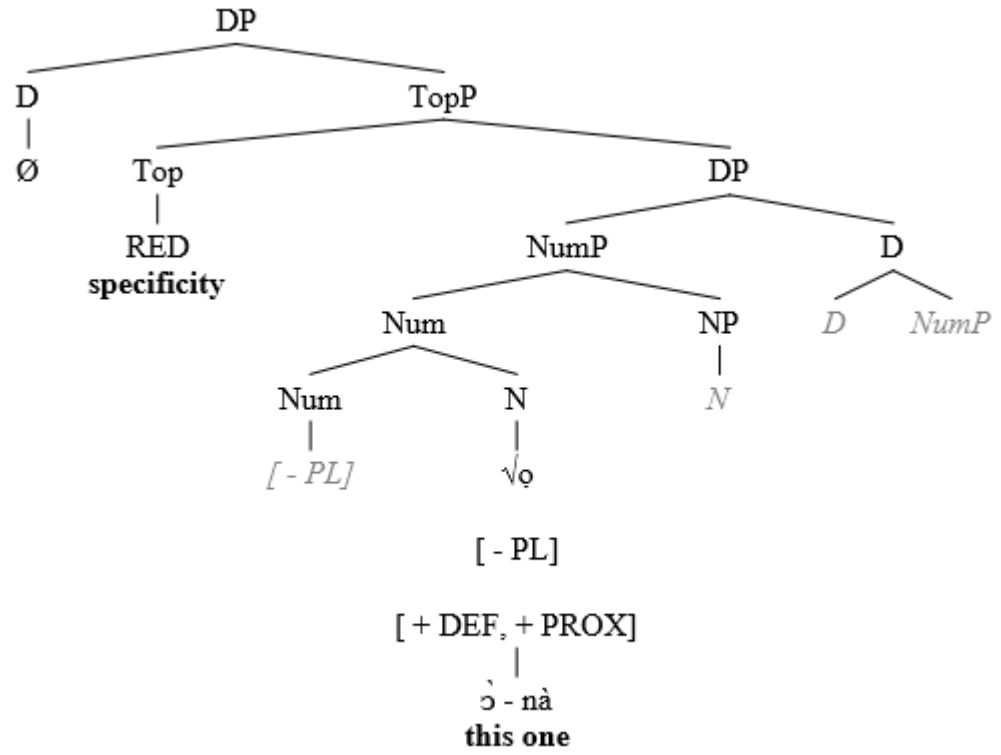
One can extend this analysis to reduplicated demonstrative pronouns. For that, one needs a DP with a projection for topic phrase, as shown in example (141).

141.



The demonstrative pronoun merges as complement of Topic. The Topic Phrase itself merges as complement of the higher phase head. The syntax has one instance of internal merge, which places NumP in specifier position. The structure is transferred for interpretation and morphological structure operations. As discussed above, merger, fusion and vocabulary insertion apply in the morphological component producing the structure example (142) illustrates.

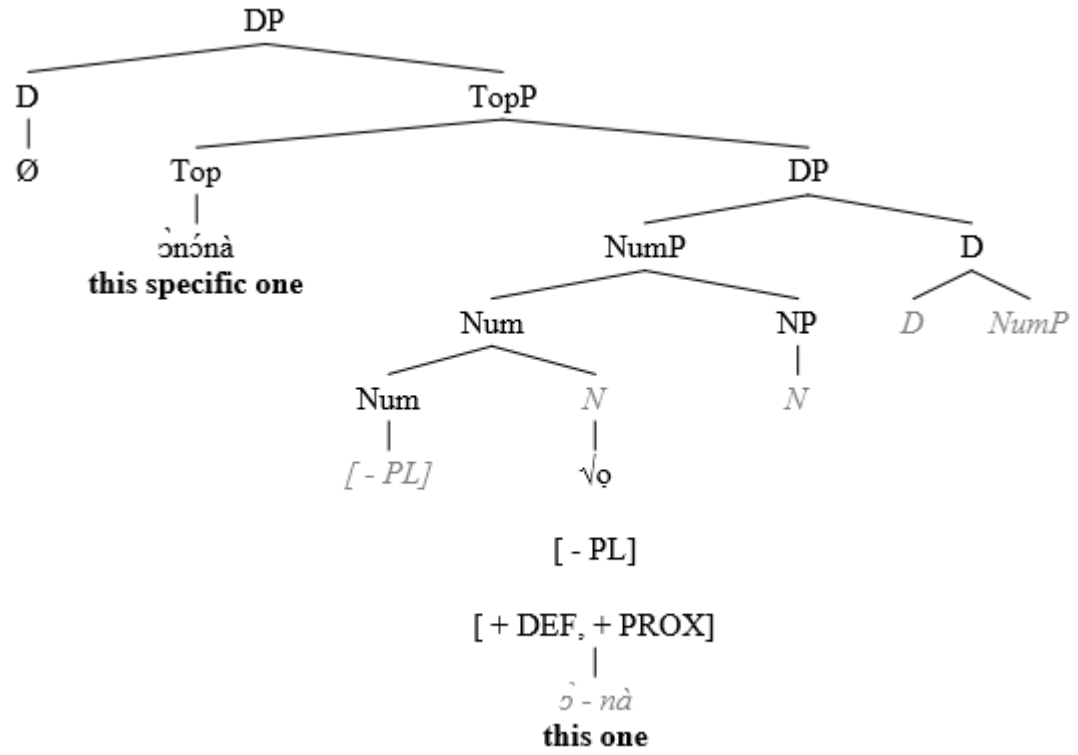
142.



After vocabulary insertion, the structure transfers to phonology for other operations. There are three of them: *copying*, *local dislocation*, and *readjustments*. These operations result in the morphophonological description depicted in (143).

Copying:	RED	/ ɔ̀nà /	→	/ ɔ̀nà /	/ ɔ̀nà /
		this one		this one	this one
Local Dislocation:		/ ɔ̀nà /	+	/ ɔ̀nà / →	*/ ɔ̀nàɔ̀nà /
		this one		this one	----------
Readjustments:		*/ ɔ̀nàɔ̀nà /	→	/ ɔ̀nɔ́nà /	
				this specific one	

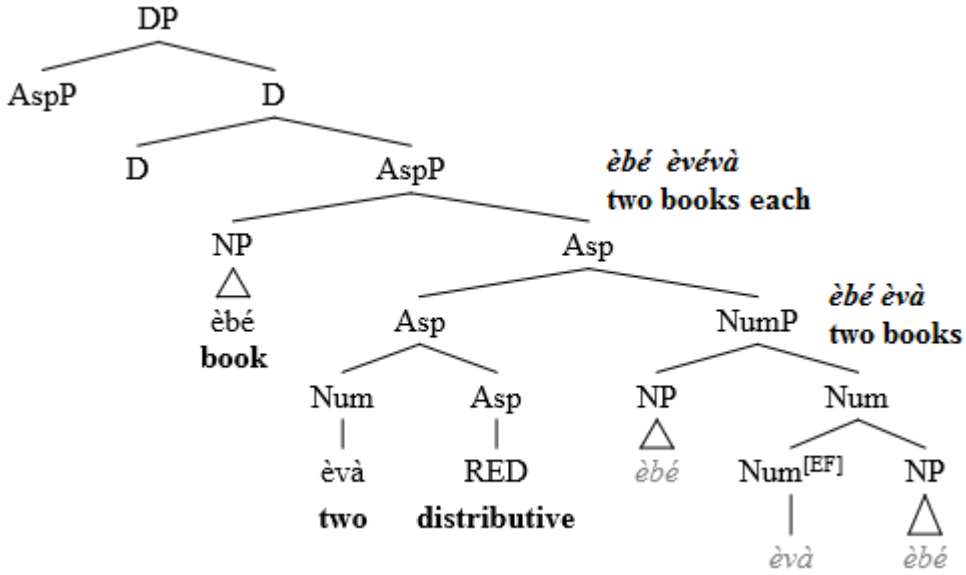
143.



RED triggers *copying* – the operation through which reduplicants get phonological features. Here, copying targets the complement of Topic, producing a pair of identical vocabulary items (i.e. total reduplication). This copy needs a base; so, it attracts the demonstrative pronoun. However, *local dislocation* of N to Top produces an unacceptable form. The problem lies with the identical sequence of sounds. To correct this, *readjustment* applies to the internal structure of */ ɔ̀nàɔ̀nà /. In this example, it removes one vowel from the hiatus resulting in / ɔ̀nɔ́nà /, which is the acceptable phonetic form. One can observe a difference in tones after vowel elision.

This split-DP analysis proffered for demonstratives readily extends to other expressions formed via reduplication. Consider the structure and derivation of aspectual reduplicants, illustrated in (144) with an enumerative quantifying pronoun.

144.



NP merges as complement of Num and moves into specifier position, to satisfy the [EF] on the numeral *èvà* "two". Next, NumP merges with the head of aspect phrase. Asp has strong affixal features which trigger overt head movement of Num. To maintain asymmetry between the numeral and its complement, NP moves to Spec-Asp. This movement also derives the acceptable linear order. Then, AspP merges with D. The only determiners which function in this structure are the demonstrative one: *nà* and *nîì*. Both have the edge feature. So, when either is available, there is movement of AspP to Spec-D. Once syntactic operations are exhausted, the structure transfers to the semantic and morphological interfaces. In the morphology, vocabulary insertion applies producing a structure that will undergo copying, local dislocation and readjustment in the phonology component.

The pitch difference observed with specificity in demonstrative pronouns is also evident in aspectual reduplication. This study is unsure why the reduplicated forms contain high tones when the simple pronouns come with low tones. The phenomenon suggests the Ẹ̀dó language has what Inkelas and Downing (2015) and Rubino (2009) describe as morphologically complex reduplicative constructions.

4.6. Results and discussion of Ẹ̀dó pronoun morphology

This discussion focuses on the first objective of the study, which is "to describe the morphology of the Ẹ̀dó pronoun". The specific research question is "in what ways can one describe the morphology of Ẹ̀dó pronouns?" Related research

questions include “Do Ẹ̀dó personal pronouns have longer forms with short variant realisations?” “If they do, how are the short forms derived?” Responding to these questions involved analysing the internal structure of all pronouns and comparing them to the morphological patterns already established for other types of nouns.

The data analyses showed pronouns inflect for number, using the replacive strategy. For example, demonstrative pronouns indicate plurality by changing their initial vowels. For other definite pronouns, the change occurs at the end of the word or within it.

145.	ọ̀-nà	è-nà
	This (one)	These (ones)
146.	ọ̀-khàẹ̀mwẹ̀	è- khàẹ̀mwẹ̀
	Chief	Chiefs
147.	ọ́nrẹ̀n	ìràn
	3SG	3PL
148.	ọ̀vbókhàn	ìbìẹ̀ka
	child	children

The vowel changes and suppletion illustrated above are identical to the nominal pluralisation strategies identified in Omoruyi (1986b). Besides similarities in number marking, the study found there are pronouns one can decompose into smaller morphemic units, as Adeniyi (2007) and Adeniyi and Yuka (2016) have done for other types of nouns. This finding is significant as it shows Ẹ̀dó language has derived pronouns. The study established five derivational processes: affixation, clipping, compounding, conversion, and reduplication.

149.	dè$_{\text{Aff}}$	+	èmwí	→	dèmwí
	INT		thing		What
150.	ègbé	+	mwẹ̀	→	ègbémwẹ̀
	body		1SG		myself

151.	ìmẹ̀mwẹ̀	→	ìmẹ̀, mwẹ̀
	1SG long form		1SG short forms
152.	ọ̀mwá	→	ọ̀mwá
	person		someone
153.	ọ̀-nà	→	ọ́n~ọ́-nà
	this one		this very one

In the examples above, the study exemplifies clipping with the first person singular. That example shows there is a relationship between long and short personal pronouns; clipping derives the short forms from the long one. This aligns with the position of extant studies (Omoruyi (1986a) and Omoregie (1983)) which describe long pronouns as "underlying forms". Apart from inflection and derivation, the study found that the realisation of short personal pronouns depends on features of adjacent constituents.

154. Èbé ẹ̀ré / ọ̀ré / *ǫ́nrẹ̀n
Book 3SG
His/her book

155. Ìtálàwẹ̀ ẹ̀ré / ọ̀ré / *ǫ́nrẹ̀n
Trouser 3SG
His/her/its trouser

156. Ọ̀tẹ́n *ẹ̀ré / *ọ̀ré / ǫ́nrẹ̀n
Relative 3SG
His/her relative

Short personal pronouns also function as weak genitive pronouns. The 3SG morpheme has four allomorphs, including those in the above examples and the form *ìrẹ̀n*, which can replace the other three. Observe that the 3SG form is morphophonemically conditioned. When the possessee ends with an oral vowel, *ẹ̀ré* and *ọ̀ré* are acceptable; if it ends with a nasal vowel, the acceptable form is *ǫ́nrẹ̀n.*

To summarise this discussion of the data in response to the first objective, there are two main points to be made. One, Ẹ̀dó pronouns have a regular morphology as their patterns of inflection matches what previous studies have described for other types of nouns in the language. In terms of word-formation, the derivational processes identified in this study are also evident in other types of nouns; the only exception is conversion. Two, the language has long personal pronouns and shorter variants which occur in specific environments. The internal structure of Ẹ̀dó pronouns show that some pronouns are derived word forms.

4.7. The syntax of Ẹ̀dó pronouns

This section addresses the second objective of the study, which is to examine the syntactic distribution of Ẹ̀dó pronouns. It investigates the syntactic functions of definite and indefinite pronouns. Also, it looks at personal pronouns in different argument positions; as well as co-referencing within and across clauses.

4.8. The syntax of indefinite pronouns: a descriptive analysis

Indefinite pronouns refer to individuals who are not identifiable by an addressee (Matthews, 2007:189). There are three categories of indefinite pronouns: universal, partitive, and quantifying. Universal pronouns refer collectively to people or things; partitive pronouns refer to parts of the collection of individuals or things; while quantifying pronouns specify the referent's number.

4.8.1. Universal and partitive pronouns

Ẹ̀dó universal pronouns form a unitary category, but there are three types of partitive pronouns: assertive, non-assertive, and negative. Non-assertive partitive pronouns are homonyms of some negative ones.

157. Èmwìhìá né ìmà khìán lòó gùé rùẹ́
Everything COMP 1PL AUX use be_with 2SG
Everything that we are going to use is with you. (Imasuen and Imasuen 2014)

158. Làré nè ì khàmàá rùẹ́n èmwí
Come so_that 1SG tell 2SG thing
Come so that I tell you something. (Agheyisi 1986:100)

159. Ọ̀mwárhọ̀kpà rré òwá rà
Anybody be_at house QM
Is anybody at home?

160. Ọ̀mwárhọ̀kpà í gù - rùẹ́ - mùá ẹ̀mwẹ̀
Nobody NEG argue-2SG-argue word
Nobody argues with you.

Examples 157 – 160 show universal and partitive pronouns occupy both subject and direct object positions. Also, one can observe the meaning distinctions between non-assertive partitive pronouns and negative ones. Their adjacency to negative morphemes determines whether the pronoun is assertive or negative.

4.8.2. Quantifying pronouns

There are two sub-categories of quantifying pronouns: general and enumerative. The enumerative ones use numerals and refer to actual amounts, while general quantifying pronouns specify what one may consider a high, low or total amount. Quantifying pronouns are identical / near identical to indefinite determiners.

161. Nìbún rà tiè-rè, ìbòzẹ́ghẹ́ rà zẹ́-rẹ́
QNTF INC call-PST, QNTF INC choose-PST
Many are called, few are chosen. (Omoregie 1983:40)

162. Èmwá ìbòzẹ́ghẹ́ ẹ̀ré ọ hàrẹ́ íghó ìràn;
People QNTF FOC RP pay.PST money 3PL
ẹ̀vbò nìbún má hàrẹ́
people QNTF NEG pay.PST
It was a few persons who paid their levy; many persons did not pay.

163. Èvbàré rhọ̀kpà rré òwá rà
Food QNTF be_at house QM
Is there any food in the house?

164. É-rhọ̀kpà í rré èmwá
NOML-QNTF NEG be_at here
There is none here.

Quantifiers in the language perform two functions: nominal modification (determiner quantifiers as in examples 162 and 163) and substitution (pronominal quantifiers as in examples 161 and 164). Though similar, the study considers these quantifiers distinct because of their functions and the order of constituents. Determiner quantifiers must be linearly adjacent to the noun phrase, whereas the pronominal ones function as both quantifier and noun.

4.9. The syntax of definite pronouns: a descriptive analysis

Definite pronouns have more specific reference than indefinite ones. Typically, they associate with grammatical and/or discourse features such as person, number, gender, case, emphasis, deixis. In the Ẹ̀dó language, there are seven types of definite pronouns which fall into two sub-groups; those associated with case, person and number features (Personal, Possessive, Reflexive and Reciprocal pronouns) and those which may change form to match the number specification of their referent (Demonstrative, Interrogative and Relative pronouns).

4.9.1. Demonstrative pronouns

Demonstrative pronouns function as substitutes for noun phrases. The following sentences illustrate the demonstratives available in Ẹ̀dó language.

165. Ọ̀nà kpọ̀lọ́ sẹ̀ẹ́ ọ̀nìí
DEF.SG.PROX be_big CMPR DEF.SG.DIST
This (one) is bigger than that (one).

166. Ínú íghó ènà khín
QM money DEF.PL.PROX be
How much are these (ones)?

167. Vịọ́ énìí rré
Take.IT DEF.PL.DIST come
Bring those (ones).

168. Ì hòó né ì dàmwèhọ́ ọ̀nọ̀nà
1SG want COMP 1SG listen DEF.SG.PROX.SPF
I want to listen to this very one.

169. Énénà yẹ̀ẹ́ mwẹ̀
DEF.PL .PROX.SPF please 1SG
I like these very ones.

From the examples above, one would notice that Ẹ̀dó demonstrative pronouns differ in terms of three features: number (singular or plural as in examples 165 -169); deixis (proximate or distal as in examples 166 and 167); and specificity (as in examples 168 and 169).

4.9.2. Interrogative pronouns

Interrogative pronouns generate content questions. Ẹ̀dó has several pronouns which perform this function. Consider the forms glossed as QM in these examples.

170. Dèmwì nè ọ́nîì khín vbè òdọ́
QM.thing REL DEM.DIST.SG COP LOC there
What is that over there? (Imasuen 1996: 78)

171. Ínú ẹ́gógó ọ̀ tú
QM clock 3SG cry
What time is it?

172. Ebili vbòó
Billy QM
Where is Billy?

173. Vbè ùwẹ̀ rá rhìé
QM 2SG INC go
Where are you going?

174. Vbè ọ̀ sùnú (Imasuen 1996:29)
QM 3SG happen.PST
What happened?

175. Vbè ọ̀ rú hẹ́ (Agheyisi 1986:60)
QM 3SG do manner
How did he/she behave?

176. Ghá ọ́nìí khín (Agheyisi 1986:57)
QM DEF.SG.DIST COP
Who is that?

177. Àvbá rré èvbáà (Imasuen 1996:36)
QM be_at there
Who are those over there?

From the examples above, one can observe that interrogative forms get their interpretations from the lexical morphemes, as examples (170) and (171) illustrate. Their interpretations also depend on verbs and adverbial particles, as shown in the gloss for *vbè* in examples (173) – (175). Although they elicit responses to the same type of question, interrogative pronouns have different characteristics. One way to differentiate them is the number of referents, as shown in examples (176) and (177). Another distinction is their placement in clause initial or final positions.

4.9.3. Relative pronouns

Relative pronouns are used to introduce clausal modifiers of noun phrases. Apart from introducing the clause, the relative pronoun represents the internal function of the noun phrase within the clause. Consider these examples.

178. The students read the books **which** the professor recommended.

179. Amelia is the girl **whose** mother sells vegetables.

In the examples above, the relative pronouns share features of the underlined noun phrases: definiteness in example (178), and genitive case in example (179). Relative pronouns in Ẹ̀dó differ from the bold entries in the examples above. They are all indefinite pronouns and they do not agree with the antecedent phrases. The data shows three kinds of relative clauses: the ones introduced with the morpheme *nè,* condensed relative clauses and those which employ compound indefinite pronouns. Previous studies like Agheyisi (1986) identify *nè* as a relative pronoun; this study suggests it is a relative clause marker not a pronoun. Consider these examples.

180. Èmwá nè í réè nọ̀ ẹ̀mwẹ̀ rùẹ́n / wùẹ́n
People REL RP came ask word 2SG
The people who came asked after you. (Imasuen 1997:5)

181. Ìràn yévbè èbé nọ̀kàká nè ẹ̀hóhò hóhò khián
3PL like leaf dry REL wind blow along
They are like dry leaves which the wind blows along.
(Bulletin, second week of advent)

182. Rhìé ènọ̀rhírhí yẹ̀ẹ́ rùẹ́ mẹ̀
Give whichever please 2SG 1SG
Give me whichever pleases you. (Omoregie 1983:88)

183. Nọ̀rhírhí rràá ùhì ghá rrí òyà
Whoever breach law AUX eat disgrace
Whoever breaches the law will be punished. (Omoregie 1983:39)

184. Èmwíkèmwí nè ù rú, yá òbọ́ rú ẹ̀sé
Whatever REL 2SG do use hand do well
Whatever you do, use your hands to do it well. (Ẹdẹnazogie 2018)

185. Ọ̀mwákọ̀mwa nè ọ̀ rréè ghí tótàá khẹ̀ẹ́ mwẹ̀
Whoever REL RP come AUX sit wait 1SG
Whoever comes should wait for me. **(**Omoregie 1983:39)

Examples (180), (181), (184) and (185) show clauses with *nè*. In these examples, there are resumptive pronouns. This study takes resumption as evidence that *nè* is not a pronoun, but an invariant relative marker. It is the resumptive that occupies the relative clause internal position of the noun phrase; *nè* only introduces the relative clause. These examples show Ẹ̀dó splits the functions of a relative pronoun between the marker and a resumptive pronoun. The resumptive is glossed as RP; in example 180, it is realised as *í* and in 185, it is realised as *ọ̀*. If one compares the examples (180) and (185), one would observe number agreement between the antecedent and pronoun; but there is none between the antecedent and the marker.

The clauses in (182) and (183) illustrate relative clauses which employ compound indefinite pronouns. Dixon (2010:337) describes these as condensed relative clauses. In such constructions, the indefinite pronouns perform the function of *nè* and the clause internal position of the antecedent phrase is a gap. Examples (184) and (185) illustrate the third type of relative construction. Depending on the position of the antecedent, they may not have resumptive pronouns. Such clauses refer to the antecedent using one of three indefinite pronouns: *ọ̀mwá-kè-ọ̀mwa* "whoever", *èmwì-kè-èmwi*"whatever" or *(è)-nè-ọ̀-rhírhí* "whichever".

4.9.4. Personal pronouns

Personal pronouns denote speech participants and indicate the roles their referents play in the sentences where they occur (Bhat 2007:9). Ẹ̀dó pronouns have two participant roles: speaker and addressee. It also has forms for the person/object of discourse. Levinson (1983:68-72) describes the speaker as someone who makes the utterance; first person pronouns encode this role. Second person pronouns encode the addressee; this role is for someone to whom one directs an utterance.

186. Ìrẹ̀n má rẹ́ẹ́n ìmẹ̀
3SG NEG know 1SG
Does he/she not know me?

187. Ọ́ wẹ́ẹ̀ Ø ìrẹ̀n má rẹ́ẹ́n rùẹ́
3SG say COMP 3SG NEG know 2SG
He/she said that he/she does not know you.

188. Úwà rrié úgbó (Ọmọruyi 1989:290)
2PL go farm
Are you going to the farm?

189. Ìràn ghàé èvbàré vbè èvbáà (Usenbo 2017:6)
3PL share food LOC there
They share food over there.

190. Gí ẹ̀ yá úhúmwú ẹ̀ mú émwí
let 3SG use head 3SG carry thing
nè ọ́ mwamwa
REL RP arrange (Agoba and Ikponmwonsa 2009)
Let him/her face the consequences of his/her actions.

These examples show pronoun forms which denote speaker (1SG in example 186); addressee; and subject of the discourse (3SG in examples 187 and 190). The pronouns also show variation for number, as illustrated with second and third person plural in examples (188) and (189). In addition to variation in terms of plurality, the study observed that certain constructions require specific pronoun forms.

191. Ọ́ \ ìrẹ̀n mòsé
3SG be_beautiful
He/she is beautiful.

192. Ọ́ \ ìrẹ̀n mòsé sẹ̀ẹ́ Nosa
3SG be_beautiful CMPR Nosa
He/she is more beautiful than Nosa.

193. Nosa mòsé sẹ̀ẹ́ ọ́rè \ ìrẹ̀n
Nosa be_beautiful CMPR 3SG
Nosa is more beautiful than he/she.

194. Ìrẹ̀n ẹ̀ré ọ́ mòsé sẹ̀ẹ́
3SG FOC RP be_beautiful CMPR
He/she is the most beautiful.

In these examples, one would observe third person singular forms differ in terms of function as subject (example 192) and object (example 193) of comparison. For superlatives, only emphatic pronouns like the one example (194) are acceptable.

This variation in the choice of form applies to first, second and third person. In terms of the order of constituents in a phrase, data shows personal pronouns occupy the same position as lexical nouns. They also occur with demonstrative determiners (example 195), quantifiers (example 196) and relative clauses (example 197), but variants like clitic personal pronouns are not accessible to modification.

195. Ìràn níì í màá
3PL DEM.PL NEG be_good
Those people are not good.

196. Mà ìwèévà mú òbọ́ yè né èbé
1PL twelve put hand LOC DEF paper
Twelve of us signed the paper.

197. Ìràn zé ízẹ̀ giè ìmà nè ì rré òwá
3PL take.portion rice to 1PL REL RP be_at house
They bring rice to those of us that are at home.

Although pronouns and other types of nouns occupy the same positions, their syntactic distribution is not identical. In the clause, personal pronouns occur at all positions available for noun phrases; but some variants are restricted.

- subject of a sentence

198. Ù / wẹ̀ sẹ̀tín mọ̀mọ́ Ejoni íghó
2SG can lend John money
You can lend John some money.

199. Ọ̀ / ìrẹ̀n tótàá yè óré
3SG sit LOC outside
She/he is sitting outside.

200. Ọ́rè / ẹ́rè nọ̀
3SG to be
It is (it).

- Direct object

201. Wà rràá ẹ́rè(Edionwe 2016)
2PL catch 3SG
You catch it (Take up the chorus).

202. Ogbẹiwi í rẹ̀rẹ́ rùẹ́
Ogbẹiwi NEG deceive 2SG
Ogbeiwi is not deceiving you.

203. Ogbẹiwi sú mwẹ̀ sẹ́ Èkó
Ogbeiwi escort.PST 1SG to Lagos
Ogbeiwi accompanied me to Lagos.

- Indirect object

204. Rhìé èrọ̀ gùn mwà (Imasuen 2010a:32)
Bring knife to 1PL
Bring us a knife.

205. Tòbọ́rùẹ́ rhìé èbé nà giè ẹ́rè
2SG.REFL take letter DEM to 3SG
Take this letter to him/her yourself.

206. Ọ̀ ghá rú ẹ́rè nè=ùẹ́ (Imasuen 1996:103)
3SG will do 3SG for=2SG
He/she will do it for you.

Examples (198) - (206) show personal pronouns in different structural positions. Short forms like the second person singular *ù*(198) and third person singular *ọ̀*(199) function only as subject pronouns. Other short variants like the third person singular *ẹ́rè*in (200 and 201)function as subjects and objects. Clitics like the second person singular *ùẹ́*in example (206) only occur in the predicate of a sentence.

Besides grammatical function, the morphology of verbs also affects pronoun distribution. Ẹ̀dó language realises some verbs as discontinuous words. They comprise two morphemes which may be the verb split in two (example 207); the verb and a preposition, or the verb and a noun, which restricts its reference (example 208).

- object of a discontinuous verb

207. Ghẹ́ yá-mwẹ̀-yùnú
NEG embarrass-1SG-embarass
Do not embarrass me!

208. Ghà gù - rùẹ́ - mùá - ẹ̀mwẹ̀
QM with -2SG - argue - word
Who is arguing with you?

209. Ọ̀ gù-ẹ́rè-gùánrán
3SG with-3SG-speak.PST
He/she spoke with him/her.

Examples (207) - (209) show the direct objects as parts of the verbs. Few personal pronouns can fill this verb-internal position. The study observed all emphatic variants can serve this function. The language uses some others for this purpose, but they lack a uniform feature. Their role as objects of discontinuous verbs distinguishes them from other variants in their respective person and number groups.

Another factor which affects the use of personal pronouns is their function in indirect speech (i.e. as logophoric pronouns). Ẹ̀dó has nine third person singular

pronouns (*ò, ìrẹ̀n, rẹ̀n, ẹ́rẹ̀, ọ́rè, ọ́nrẹ̀n, ẹ́nrẹ̀n, ẹ́n* and *ẹ̀*) but only those in the following examples can function as subjects of a complement clause.

210. Ọ̀ wẹ́ẹ̀ Ø ìrẹ̀n / ẹ̀ í dèé
3SG say COMP 3SG NEG come.PROG
He said that he (speaker) / (someone else) is not coming.

211. Ọpọ̀ta khàmàrá Arhuanran ghẹ̀ ìrẹ̀n ghá rrí Ẹ̀dó
Ọpọ̀ta tell.PST Arhuanran COMP 3SG will come Benin-City
Ọpọ̀tatold Arhuanran that he(Ọpọ̀ta)will come to Benin-City.

212. Ọpọ̀ta khàmàrá Arhuanran ghẹ̀ ọ̀ ghá rrí Ẹ̀dó
Ọpọ̀ta tell.PST Arhuanran COMP 3SG will come Benin-City
Ọpọ̀ta told Arhuanran that hewill come to Benin-City.

From examples (210) - (212), one would observe one logophoric pronoun. Although the language uses several personal pronouns for reported speech, the form in (211) is the only one that refers to the subject of a matrix clause. Unlike its use as a personal pronoun, the function of *ìrẹ̀n* as a logophoric pronoun restricts it to the subject position in complement clauses. The form in (212) can refer to the object of the matrix clause or someone known to speaker and addressee.

4.9.5. Possessive pronouns

Possessive pronouns consist of personal pronouns and a morpheme which implies belonging to someone/something; being part of something; or being made from something. Consider words glossed as POSS in the following sentences.

213. Khàmàá Epita né ọ̀ vìn ámà nyà ọ́ghîmà
Tell Peter COMP 3SG cut mark on 1PL.POSS
Tell Peter to put an inscription on ours.

214. Ẹ̀ í rè ọ́ghùẹ́
3SG NEG be 2SG.POSS
It is not yours.

215. Ọ́ghẹ́rè ọ́kpá ẹ̀ré ọ̀ rẹ̀ẹ́n
3SG.POSS one FOC 3SG know
He only knows his own (He is self-centred).

The pronouns which contain POSS denote adnominal possession using one constituent for possessor and possessee. This marks a distinction between personal pronouns which function as possessors (*íbàta mwẹ̀* "my shoe") and possessive pronouns (*ọ̀ghómwẹ̀* "mine"). Both function as possessor, but for possessive pronouns, one infers the possessee from the discourse (Usenbo, 2016).

Apart from the difference in their internal structure, possessive pronouns and personal pronouns which function as possessors act alike. They both express ownership, kinship, and body-part terms. As phrases, they occupy the same argument positions. Also, personal pronouns which are acceptable as possessors are largely the same ones that constitute possessive pronouns. All long personal pronouns perform these functions, but there are fewer short forms. The common feature of the acceptable short pronouns is that they are independent forms, which serve as internal arguments. This observation affirms the position in van Baal and Don (2018) and Omoruyi (1986a) - possessive pronouns are derived from forms which express accusative case.

The description of pronouns in this thesis is similar to that of previous studies. However, there is a difference between the long pronouns in this study and those identified in Omoregie (1983) and Omoruyi (1986a). Those works consider *ìrẹ́ọ̀n* an emphatic third personal singular pronoun that can combine with the possessive marker. The current study agrees *ìrẹ́ọ̀n* is emphatic; but it does not show that *ìrẹ́ọ̀n* undergoes any word-formation process, or that it functions as a possessor.

4.9.6. Reciprocal pronouns

Reciprocity expresses the notion that X did something to or felt something about Y and vice versa (Saah, 2018). Languages mark this situation in two ways: pronoun technique and verbal derivations (Dixon 2012). Ẹ̀dó employs the pronoun technique. Data show the language employs an invariant form - *ègbé*. Like other pronouns, the reciprocal functions as a noun phrase. One can use a reciprocal pronoun when the verb denotes an action or emotion which is mutually performed or experienced.

216. Ìrẹ̀n vbé Ebili tótàá kẹ́ ègbé
3SG and Billy sit adjacent RECP
He/She and Billy are sitting next to each other.

217. Ọ̀ khẹ̀ké né ùwà rhié ìyòbọ̀ nè ègbé
3SG be_appropriate COMP 2PL give help to RECP
It is appropriate that you help each other/one another.

218. Ìràn í yá àrò bẹ̀ghè ègbé
3PL NEG use eye see RECP
They cannot stand each other/one another.

219. Wà ghẹ́ gí à mìámìáègbé (Ehigiator 2017)
2PL NEG let 1PL forget RECP
Let us not forget each other /one another.

Observe the relationship between the Agent (examples 216 and 217), Experiencer (example 218 and 219) arguments in the examples above. The antecedents are plural; the gloss of each sentence shows the actions are reciprocal. One can also use *ègbé* in constructions where the antecedent arguments are singular. In such cases, the interpretation is not reciprocal. Consider the following examples.

220. Òzó rhìéré òvbì ẹ́rè lèlé ègbé
Ozo take.PST child 3SG follow body
Ozo took his child along with him.

221. Khàmàá Osarrọ né ọ̀ rhìé - ọmẁá - bàá
Tell Osarrọ COMP 3SG take-person-add
ègbé, déghẹ̀ né ìnwìnà bùún gbé nè ìrẹ̀n ọ̀kpá
body if DEF work much DEG for 3SG one
Tell Osarrọ to employ someone, if the work is too much for only him.

In examples (220) and (221), the participants are engaged in physical movement or completing some task. But, it is one person who undertakes the activity.

4.9.7. Reflexive pronouns

Reflexives are the sub-category of pronouns, which refer to another constituent within the same clause. This constituent may be a lexical noun or a personal pronoun. Constituents to which reflexives refer are called controller (or antecedent), while the pronouns are called anaphor. In Ẹ̀dó reflexive constructions, anaphors occur in the sentence predicate, but antecedents occupy a range of positions. Consider the constituents in argument positions of the following sentences.

222. Subject / object argument

(a) Ù bẹ̀ghé ègbùẹ́
2SG see 2SG.REFL
You see yourself!

(b) Ọ̀ mú ègbẹ́rè rhìá
3SG carry 3SG.REFL spoil
He/she destroyed himself/herself.

223. Subject / indirect object argument

(a) Ọ̀ khẹ̀ké né ù nọ̀ ègbérùẹ ọ̀tà
3SG be_appropriate COMP 2SG ask 2SG.REFL question
It is appropriate that you ask yourself questions.

(b) Ọ̀ khẹ̀ké né ù tòbọ́rùẹ́ nọ̀ ọ̀tà
3SG be_appropriate COMP 2SG 2SG.REFL ask question
It is appropriate that you ask questions yourself.

224. Subject / PP argument

(a) Ìràn khiẹ́n ọ́nrẹ̀n nè èbgbíràn
3PL sell 3SG to 3PL.REFL
They sell it to themselves.

(b) Ì rrí òwá, né ì yá ròró nè èbgbémwẹ̀
1SG go home COMP 1SG INC think of 1SG.REFL
I am going home to think about myself. (Amowie and Ogbomo 2010)

225. Object / PP argument

(a) Ebaba tàmàá ìmà ẹ̀mwẹ̀ nè èbgbímà
Father tell.PST 1PL word for 1PL.REFL
Father admonished us.

(b) À rá bùú-ẹ̀-ùdè nè èbgbẹ́rè,
IMP INC give-3SG-advice for 3SG.REFL
ọ̀ ghá mú òhù
3SG AUX carry anger (Igbinomwanhia and Osasuyi 2017)
He gets furious, when one is counsels him.

226. Reflexive constructions with inverse order

(a) Èbgbíràn Ø ìràn yá _____ rrí òyà
3PL.REFL FOC 3PL use 3PL.REFL eat disgrace
It is themselves they disgraced. (Imasuen 1998b:69)

(b) Èkhuè èbgbíràn mú-Ø ìràn
Shame 3PL.REFL catch-PST 3PL
They are ashamed of themselves.

The examples above show agreement between the antecedent and reflexive pronoun. The antecedent may be subject or object, while the reflexive occupies object and prepositional argument positions. It is also clear reflexives can precede their antecedents as shown in example 226(a). Such constructions typically involve object focussing, or have the same entity performing the agentive and experiencer or beneficiary roles. The linear order shows Ẹ̀dó reflexive constructions allow both cataphoric and anaphoric reference.

4.9.8. Resumptive pronouns

A resumptive is any constituent which duplicates the role of a phrase that has the same reference (Matthews 2007:346). In Ẹ̀dó language, this role duplicating

constituent is obligatory for subject movement. In other structural positions, the use of a resumptive is optional; the choice depends on the type of construction.

227. Subject noun phrases

(a) Té ìrẹ̀n yévbè èrhán (Bulletin, second week of advent)
EMP 3SG.EMP like tree
nè ọ̀ zọ́ọ́ vbè ọ̀kpẹ́n ẹ̀zẹ̀
REL RP sprout LOC side river
He is like a tree that sprouts at the side of the river.

(b) Ẹ̀ í rè Òsàrrọ́ ọ̀ bọ́ òwá (Omoruyi 1989:289)
3SG NEG COP Osarro RP build house
It is not Osaro who built a house.

228. Direct Object

(a) Òwá ẹ̀ré Òsàrrọ́ bọ́rè _____ (Omoruyi 1989:289)
house FOC Osarro build.PST house
It is a house Osarro built.

(b) Ìràn yévbè èbé nọ̀kàká (Bulletin, second week of advent)
3PL like leaf dry
nè ẹ̀hóhò hóhò _____ khián
REL wind blow leaf dry along
They are like dry leaves which the wind blows away.

229. Object of a preposition

(a) Òzó ẹ̀ré ọ̀ rrìé íghó ná ____ (Agheyisi 1986:100)
Ozo FOC 3SG give.PST money to Ozo
It is Ozo that he/she gave the money to.

(b) Òzó zẹ́ èkẹ̀ kùé èwá nè
Ozo pour sand on mat REL
Osagie tán ùkpọ̀n nyà _____
Osagie spread cloth on mat
Ozo poured sand on the mat that Osagie spread cloth on.

From examples (227) – (229), one would observe that object movement and relativisation of a subject require pronoun retention, but other structural positions use gaps. The literature explains that the Ẹ̀dó resumptive pronoun is an obligatory subject concord marker which has the same form as third person singular *ọ̀* (Amayo 1975:15). Also, there is no agreement between the resumptive and constituents it duplicates (Omoruyi, 1989:281).

Based on these descriptions, Adesola (2006) and Rolle (2010) have likened the Ẹ̀dó resumptive to an expletive pronoun. Data for this study is inconsistent with

proposals in the literature. Though it shows pronoun retention is obligatory for subjects, the study finds there are several forms. The data also suggest resumptive pronouns are not dummy placeholders.

230. Objects in embedded clauses

(a) Vbè Ijesu Kristi$_j$ rhiọ́kpáègbé,
when Jesus Christ arose,
ẹ́ í rè èmwáhìá$_k$ Ø ọ̀$_k$ miẹ́ ọ́nrẹ̀n$_j$
3SG NEG be everyone FOC RP see.PST RP
When Jesus Christ arose, it was not everyone that saw Him.
(Bulletin, the liturgy of holy week)

(b) Zẹ̀vbénè érhá tòhán ìvbì ẹ̀ré, èrriọ́ Ẹ̀nọ́yaẹ́nmwà$_j$
just_as father mercy children 3SG, so one's_owner
tòhán ìràn$_k$ nè í$_k$ yá ọ̀ghọ̀ nè ẹ́nrẹ̀n$_j$
mercy 3PL REL RP gift respect to RP
Just as a father has mercy on his children, so the Lord has mercy on those who honour him. (Bulletin, seventh week of ordinary time)

231. Constituent negation

(a) Ẹ̀ í rè ùwẹ̀$_j$ èmwá$_k$ nè í$_k$ réè
3SG NEG be 2SG people REL RP come
nọ̀ ẹ̀mwẹ̀ ọ́nrẹ̀n$_j$
ask word RP
It is not you the people that came asked after.

(b) Ẹ̀ í Ẹsọhẹ$_j$ Ø ọ̀ yá tuẹ́=ọ̀$_j$ vbè ígué
3SG NEG Ẹsọhẹ FOC 3SG INC visit=RP LOC village
It is not Ẹsọhẹ he/she went to visit in the village.

232. Movement from a double object construction

(a) Osagie$_j$ ẹ̀ré ìràn má ẹ́rè$_j$ ègiè
Osagie FOC 3PL make.PST RP king
It is Osagie they made king. (Omoruyi 1989:283)

(b) Ègiè$_j$ ẹ̀ré ìràn má Osagie ẹ́rè$_j$
king FOC 3PL make.PST Osagie RP
It is a king they made Osagie. (Omoruyi 1989:284)

Examples (230) - (232) establish other forms that are used in place of gaps. Examples 230 (b) and 231 (a) indicate that antecedent noun phrases and pronouns, which occupy their positions in the relative clause, agree in number. Since there is agreement, it is means that elements glossed as RP are not pleonastic; they contribute to semantic interpretation.

Biberauer and van der Wal (2012) note there are expletive pronouns which have semantic content. Their finding does not weaken the position of this thesis; as shown in the interlinear gloss, what we have in the examples above are resumptive, not expletive pronouns. This position is based on three arguments.

One, there is a distinction in the interpretational effects of forms used for pronoun retention and expletive construction. Two, they differ in terms of structural position. Three, they differ with respect to agreement. Compare the resumptive forms above to the pronouns glossed as IMP(ersonal) and EXPL(etive) in these examples.

233. Impersonal constructions

(a) À rrí ọ́rè
IMP eat 3SG
We eat it (It is edible). (Agheyisi 1986:1)

(b) À í gbé ọ̀nà
IMP NEG kill DEM.SG
We do not kill this one.

234. Extraposition

(a) Ọ̀ gí à rẹ́ẹ́n wẹ́ẹ́ ìmà ọ̀ré biẹ́ ùwà
EXPL allow IMP know COMP 1PL COP bore 2PL
It shows that we gave birth to you. (Aghahowa and Azamumwan 2018)

(b) Ọ̀ khọ́ ghẹ̀ àmẹ̀ khián rhọ̀ọ́
EXPL resemble COMP water INC rain
It seems that it is about to rain.

Examples (233) and (234) show the two pronouns used for impersonal and expletive functions. Observe that they have invariant forms. This is unlike resumptive pronouns, which inflect to reflect number agreement with the duplicated constituent.In terms of interpretation, resumptive pronouns are coreferential with constituents in the same constructions; but expletive pronouns are non-referential. Also, resumptive and expletive forms have distinct structural positions. Expletive forms are always subjects; resumptives are never subjects in a main clause.

4.10. The syntax of Ẹ̀dó pronouns: a Distributed Morphology approach

This section explains differences in the structural distribution of indefinite and definite pronouns using clause type and syntactic projection. From the descriptive account, the reader would have observed two patterns. On the one hand, there is complementary distribution between forms in same sub-categories, and other forms in

the pronoun system. On the other, there are forms like quantifying pronouns which are in complementary distribution with forms in their sub-category, and functional morphemes such as indefinite determiners. Complementarity is evident in all sub-categories of pronouns; the exceptions are reflexive forms which co-occur.

4.10.1. Syntactic projection

Indefinite and definite pronouns project different phrases. Indefinites are D-type pronouns; they comprise indefinite determiners, nouns, numerals and terms which indicate quantity. They function as arguments and their interpretation is independent of other constituents. Consider the following sentences.

235. Òkpiá ọ́kpá rré ẹ̀khù
man QNTF be_at door
A man is at the door.

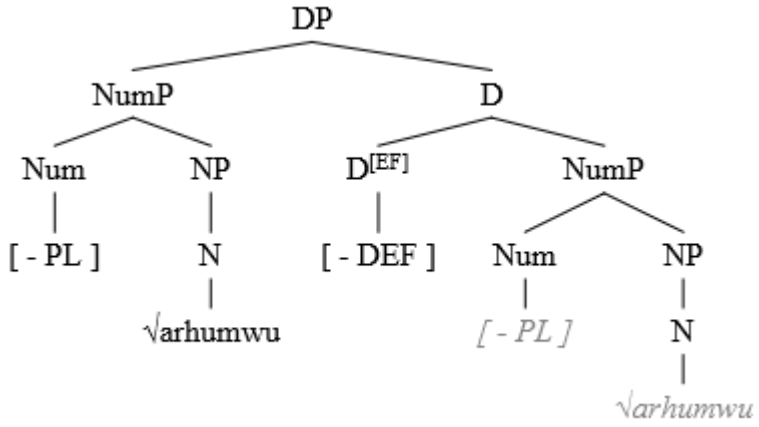
236. Árhúmwú-ọ́kpá rré ẹ̀khù
person – QNTF be_at door
Somebody is at the door.

237. Ọ́kpá rré ẹ̀khù
QNTF be_at door
There is one at the door.

These examples show a quantifier which modifies a noun phrase in (235); heads a compound in (236), and functions as a noun phrase in (237). In all three examples, the quantifier projects a DP; the only difference is the external merge position of other constituents. To derive the determiner phrase, Syntax merges formatives to produce the structure in example (238).

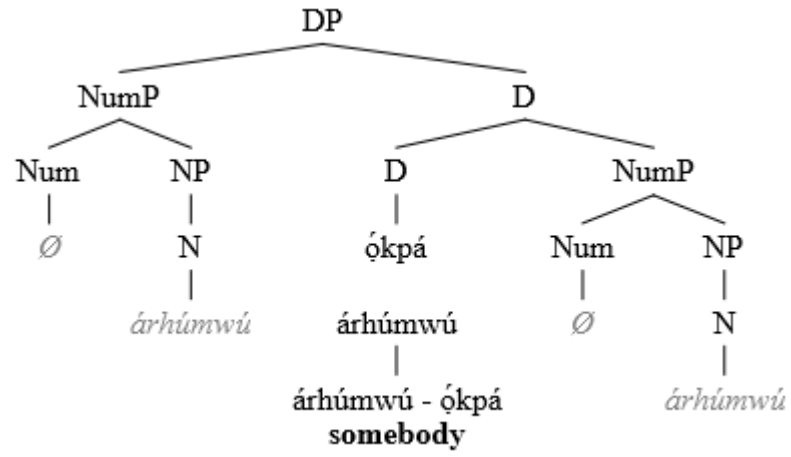
Formatives		***Exponents***
√okpia$_{n}$	↔	/òk͡pyá /
√arhumwu$_{n}$	↔	/áṛúmụ́ /
[- PL]	↔	/Ø /
[- DEF]	↔	/ɔ́k͡pá / / Root$_{n}$_____
[- DEF]	↔	/Ø / elsewhere
[- DEF, SEL]	↔	/ èsó / / Root$_{n}$_____
[- DEF, DSTR]	↔	/hyá / / Root$_{n}$_____
[-DEF**,**DSTR]	↔	/dɔ́mà dɛ́ / _____Root$_{n}$

238.



Derivation of the assertive partitive pronoun begins with merge of the nominal root and Num. Next, there is merge of the number phrase and determiner. To satisfy its edge feature, the complement of D moves into its specifier. Then, the structure transfers to the semantic and morphological components. The revised fusion and vocabulary insertion apply in the morphology, producing the structure in (239).

239.



The structure in (239) moves to the articulatory-perceptual interface via the phonological component, where *readjustment* applies. This phonological structure operation resolves the vowel hiatus which results from fusion of the root and D. It changes the output word *árhúmwú-ọ́kpá* to *árhúmwØ-ọ́kpá /áɾúmɲɔ́kpá/* which is the acceptable phonetic form.

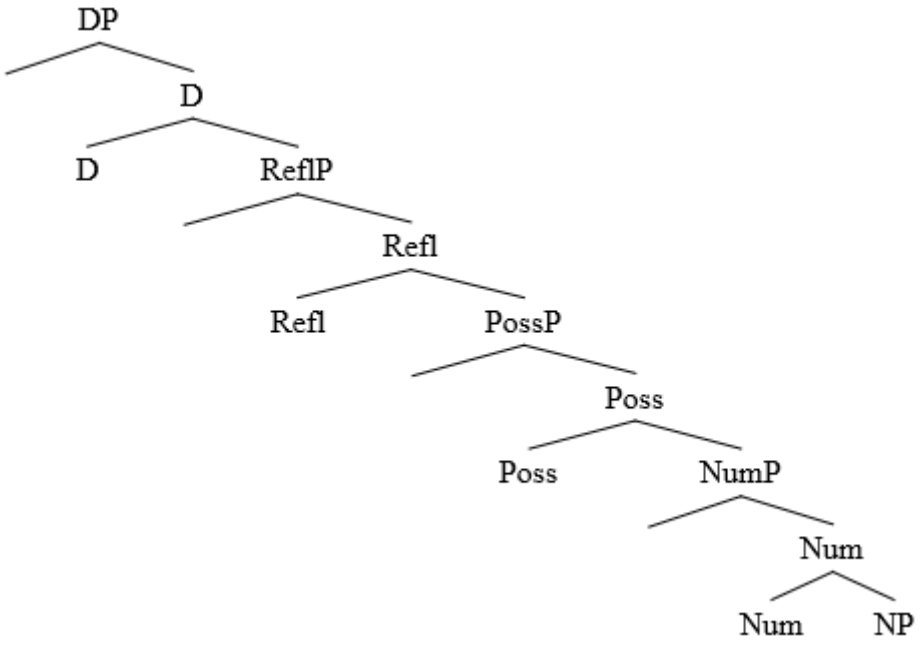
The quantifying enumerative pronoun *ọ́kpá* in example (237) and the indefinite determiner in the assertive partitive pronoun have the same syntax; the difference lies in the realisation of nominal roots in the DP. For assertive partitive pronouns, the NP complement of *ọ́kpá* is overt and available at all stages of

derivation. When *ọ́kpá* functions as a quantifying enumerative pronoun, the noun phrase is unavailable after syntax.

A plausible explanation, which the data supports, is NP ellipsis. Quantifying pronouns which co-occur with nouns function as modifiers rather than nominal substitutes. If the complement noun phrase is available after syntax, it becomes part of a simple compound word as illustrated in (239) above.

Definite pronouns comprise morphemes, which indicate co-referentiality, deixis, emphasis, number, person, possession, and reciprocality. They have the characteristics in Déchaine and Wiltschko's classification of pronoun types. They functionasarguments;encodepersonandnumberfeaturesandhave the same distribution as lexical nouns. Given the similarities, this study proposes that definite pronouns have the structure in (240). Evidence for this phrase structure comes from the overt realisation of heads in the DP and morphosyntactic composition.

240.



- Overt realisation of heads in the DP

Personal pronouns start out as heads of NP. All other definite pronouns contain NP because they comprise a nominal categorizing head or one of two nominal roots: personal pronouns for possessives and reflexives, lexical nouns for reciprocal and relative pronouns, or a nominalising affix (demonstrative pronouns).

241. Ọ̀-nà kpọ̀lọ́ sẹ̀ẹ́ ọ̀-níí
NOML.SG-DEF.PROX be_big DEG NOML.SG-DEF.DIST
This (one) is bigger than that (one).

242. Ọ́ghó - mwẹ̀ ọ̀-nà khín (Imasuen 1998b:12)
POSS-1SG NOML.SG-DEF.PROX be
This is mine.

243. Wà tòbọ́ – ùwà Ø ọ̀ sí ẹ́zọ́ nè èbé-ùwà
2PL REFL-2PL FOC RP pull problem for REFL-2PL
It was you, yourselves, who caused problems for yourselves.
(Imasuẹn 1998b:31)

The forms which contain personal pronouns, like the possessives and reflexives, have an even more expanded phrase structure. The study proposes that the markers for possession (*ọ́ghé*) and co-referentiality (*tòbọ́* and *èbé*) merge as heads of the possessive (PossP) and reflexive phrases (ReflP) respectively. When these heads are available, they project phrases which lie between NumP and the maximal phrase. Demonstrative pronouns differ from other definte pronouns, because the marker for definiteness has overt realisations as deictic determiners nà and *níí*. The nominal constituent in demonstratives is only realized, after fusion with these determiners.

- Simpler morphosyntactic forms and co-occurence with determiners.

Personal pronouns co-occur with demonstrative determiners and quantifiers, as these clauses illustrate.

244. (a) Èmwì níbùn rré ùkònì
thing QNTF be_at kitchen
There are many things in the kitchen.

(b) Ìràn níbùn rré ùkònì
3PL QNTF be_at kitchen
There are many of them in the kitchen.

245. (a) Ágá níì í màá
chair DEF.DIST NEG be_good
That chair is not good.

(b) Ìràn níì í màá
3PL DEF.DIST NEG be_good
Those people are not good.

Further, the study has shown that personal pronouns indicate number with replacive inflections. Thus, they have simpler morphosyntactic structures compared to indefinite pronouns, which decompose into morphemic units for different features.

4.10.2. Clause type

One can classify sentences into types based on their structure. These types constitute "a universal closed system, where each member associates with a specific force" (Sadock and Zwicky (1985) as cited in Portner (2004:235)). The force may be declarative, exclamatory, imperative, etc. Clause types have formal representations in syntax; they are uninterpretable features in the complementiser phrase (CP). Data suggests clause type affects the distribution of interrogative pronouns.

Ẹ̀dó uses several of these pronouns for question formation. They differ in terms of the information they request and constructions used to pose the question (Omoruyi, 1988). Previous studies show Ẹ̀dó content word questions involve merge of interrogative pronouns with a focus construction (examples 246 and 247), a relative clause (example 248), a simple declarative sentence (example 249), or a sentence fragment (example 250).

246. Àvbá ẹ́rè Osarọ dẹ́ ẹ́wù ná
QM FOC Osarọ buy.PST cloth for
Who (pl) did Osarọ buy clothes for? (Omoruyi 1988:29)

247. Ínú àmẹ̀ ẹ́rè ọ̀khọ́khọ̀ nwọ́ vbè ẹ̀zẹ̀
QM water FOC chicken drink LOC river
How much water does the chicken drink from a river?

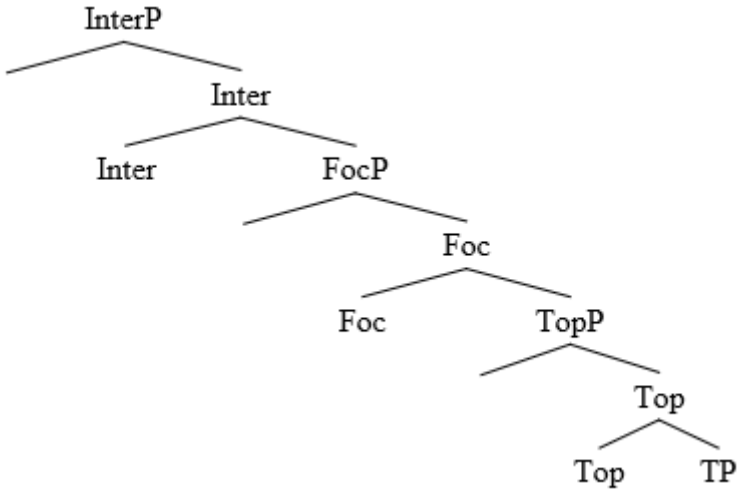
248. Dè-èhè nè ù rhìé
QM-place REL 2SG go
Where are you going? (Omoruyi 1988:25)

249. Vbè ọ́ sí ẹ́rè
QM 3SG cause 3SG
Why is it so? (Omoruyi 1988:30)

250. Òwá rùé vbòó
house 2SG QM
Where is your house? (Agheyisi 1986:160)

Given the sentence structures and syntactic processes in these examples, the study proposes Ẹ̀dó interrogative pronouns project a complementiser phrase. The analysis employs the split-CP (Rizzi, 2001 and Rizzi and Cinque, 2016) which allows the question feature project its own phrase. The tree diagram in (251) illustrates the proposed syntactic structure.

251.



The interrogative phrase (InterP) is for vocabulary items like interrogative pronouns which have the question feature [Qu]. InterP projects between the phrase for a complementiser, which is equivalent to the English ‘that’ and the tense phrase (TP). For questions where discourse has structural representation, there will be intermediate projections between InterP and TP. For example, the questions in (247) and (248) will require focus (FocP) and topic phrases (TopP), respectively. The focus phrase presents information which has not been mentioned before. The topic phrase performs a related function; it is for given information.

4.11. Results and discussion of Ẹ̀dó pronoun syntax

The following discussion focuses on the second objective of the thesis, which is “to examine the syntactic distribution of Ẹ̀dó pronouns”. The main research question is “to what extent do sentences determine the choice and use of pronouns in the Ẹ̀dó language?”This question involved analyses of the functions of pronouns, such as subject of a sentence and object of a verb or preposition. Related to this central question are issues such as the use of personal pronouns in syntactic processes which entail movement, as well as their role in adnominal possessive constructions.

Descriptive analyses of the sub-categories show that Ẹ̀dó pronouns act as subjects and objects of verbs. They also function as objects of prepositions. However, there are notable differences in their distribution, especially the definite pronouns. For example, personal pronouns can perform subject and object roles. However, forms like the second and third person singular, *ù* and *ọ̀* only occur in subject position, while others, like the clitic second person singular, *ùẹ́* only function as objects.

252. Ù sẹ̀tín mọ̀mọ́ Ejoni íghó
2SG can lend John money
You can lend John some money.

253. Ọ́ ghá rú ẹ́rè nè=ùẹ́
3SG will do 3SG for=2SG
He/she will do it for you. (Imasuen 1996:103)

254. Ìràn níì í màá
3PL DEM.PL NEG be_good
Those people are no good.

255. Mà ìwèévà mú òbọ́ yè né èbé
1PL twelve put hand on DEF paper
Twelve of us signed the paper.

Besides differences in their structural distribution, the analyses show personal pronouns can occur with determiners and numerals; they also function as resumptive pronouns.Regarding the other types of Ẹ̀dó pronouns previous studies did not explore, this study found that the language has indefinite relative pronouns.

256. Èmwíkèmwí nè ù rú, yá òbọ́ rú ẹ̀sé
whatever REL 2SG do use hand do well
Whatever you do, use your hands to do it well. **(**Ẹdẹnazogie2018)

257. Ẹ̀ í rè Òsàrrọ́$_j$ ọ$_j$ bọ́ òwá
3SG NEG COP Osarro RP build house
It is not Osaro who built a house. (Omoruyi 1989:289)

258. Ẹ̀nọ́yaẹ́nmwà tòhán ìràn$_k$ nè í$_k$ yá ọ̀ghọ̀ nè ẹ́nrẹ̀n
one's_owner pity 3PL REL RP gift respect to 3SG
The Lord has mercy on those who honour him.

The examples above illustrate the use of an indefinite form as relative pronoun and a variant of third person singular personal pronoun as a resumptive. Both examples align with the descriptions in Omoregie (1983) and Omoruyi (1989). However, the analyses in this study are contrary to Agheyisi (1986) which considers the form *nè* a pronoun. This thesis takes that morpheme as a relative clause marker. The analyses on the use of personal pronouns as resumptives also corroborate the facts in extant studies, but there are some new findings.

For example, the literature identifies only two forms – *ọ̀* and *ẹ́rè*; this study identifies other forms which also function as resumptive pronouns. Extant studies (Amayo (1975), Omoruyi (1989), Adesola (2006) and Rolle (2010)) suggest the Ẹ̀dó resumptive and its antecedent do not share any features. Using relative clauses, this study shows there is number agreement between resumptives and their antecedents.

To sum up this discussion of the data in response to the second objective of the study, there are two main points to be made. One, definite and indefinite pronouns occur in complementary distribution, with forms in their respective sub-categories, as well as other members of the pronoun system. The only exceptions are the *tòbọ́*-reflexive forms, which can be appositive to personal pronouns. Two, Ẹ̀dó pronouns function as arguments and project a DP; the only exceptions are the interrogative ones. These pronouns do not project a DP, because they have a clause type feature; the domain of that feature is the complementiser phrase. This thesis adopts the position (Rizzi 2001, Rizzi and Cinque 2016, and Rizzi and Bocci 2017) that discourse related information such as interrogative have their structural representation in the left periphery of the clause. Thus, it proposes that interrogative pronouns head a projection in a split complementiser phrase.

4.12. Ẹ̀dó pronouns at the interfaces of grammar

The interfaces of grammar refer to points of interaction between processes which are usually evident at distinct levels of language description. Hallman (2006:365) explains that the production of linguistic expressions involves processes in different modules of grammar. Each module imposes it effects without recourse to the contribution of processes at other levels. However, this division of labour is set aside at the interfaces where processes at work do not belong to one module. Hu and Pan (2019:1) distinguish two kinds of interfaces. The first is one where the "faculty of language interacts with systems for externalisation, inference, planning, and organisation of action" (Berwick and Chomsky 2016: 89–90 as cited in Hu and Pan 2019). The second interface is one where interactions between modules of grammar take place. This section focuses on the second kind; its objective is to explain how interaction at the interfaces affects the form and function of Ẹ̀dó pronouns. In Distributed Morphology, the interfaces lie between *synta*x, which generates structures; *morphology*, which supply morphemes; *phonology*, which is for pronunciation; as well as *semantics* and the *encyclopaedia*, which provide lexical and discourse-based interpretations.

All derivations begin with a hierarchical organisation of lexical items in syntax; these structures are not failure proof. They may / may not meet the interface condition, which states that "information in expressions which language generates must be accessible to other systems, including speech and thought" (Chomsky

2004:106). Accessibility of syntactic structure to pronunciation and interpretation is determined at the interfaces. As shown in previous sections, terminal nodes in the morphosyntactic and morpho-phonological descriptions sometimes differ. These differences arise when syntactic objects are not usable as generated. In such cases, specific operations either re-arrange the nodes or readjust vocabulary items. Sato (2010:1) explains that such operations do not constrain syntactic objects; their function is repair, making such structures legible to the Articulatory-Perceptual and/or Conceptual-Intentional systems.

4.13. Pronouns at the interfaces: a descriptive analysis

In explaining the syntax of pronouns, the study relied on their structural distribution. The analyses showed several personal pronoun variants occur at the same positions, while others are mutually exclusive. They also revealed differences between reflexive pronouns. Data suggest that the variation observed in form and functions of Ẹ̀dó pronouns are not entirely random. One can explain it based on interactions at the interfaces of grammar. The following sub-sections describe how interactions at the morphology-phonology, morphology-syntax, and syntax-semantics interfaces determine the realisation of forms, as well as the specific functions these pronoun forms can perform.

4.13.1. Ẹ̀dó pronouns at the morphophonological interface

Ẹ̀dó language has a few bound personal pronouns. They function like lexical nouns, but they cannot be modified. Another difference between free personal pronouns and the bound ones is that the bound pronouns solely occur in internal argument positions. Consider the following examples.

259. Ògiè mwà mà ghà rhié èkpọ́mwẹ̀ nè=ùẹ́
Ruler 1PL 1PL will give thanks to=2SG
Our king, we will give thanks to you.

260. Ọ́níì nyá=à òbọ́ dé nẹ́
DEM.SG pull.PST=2SG hand fall already
That is now out of your hands. (Amowie and Ogbomo 2010)

261. Ì hòó nè ì mìẹ́=ọ̀
1SG want to 1SG see=2SG
I want to see you.

The clitic pronouns in (260) and (261) are quite distinct from the one in (259) and others which have the same person/number features. This is because clitic pronouns and the verb or preposition to which they attach have common phonological features. In these examples, the features are tensed vowels of the verb and pronoun as in (259). Example (260) shows a complete identity between the vowel of the verb and the clitic; while in example (261), the common feature is tongue height.

Data shows it is acceptable to use these clitic pronouns as possessors in adnominal possessive constructions. In such constructions, the possessee noun phrase determines the morphophonological form of the pronoun. Consider the following examples; acceptable second person singular variants are in bold font.

262. (a) òvbì *****ù / **wẹ̀ / rùẹ́ / ***rùẹ̀n / *wùẹ̀n / **ùẹ́ / ***á / *ọ́ / **ùwẹ̀**
child 2SG
Your child

(b) èbé *****ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / *ùẹ́ / *á / *ọ́ / **ùwẹ̀**
book 2SG
Your book

(c) èkùyẹ́ *****ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / *ùẹ́ / *á / * ọ́ / **ùwẹ̀**
spoon 2SG
Your spoon

(d) ọ̀tẹ̀n *****ù / *wẹ̀ / **rùẹ́** / * rùẹ̀n / *wùẹ̀n / **ùẹ́** / *á, / *ọ́ / **ùwẹ̀**
relative 2SG
Your relative

(e) òwá *****ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / *ùẹ́ / **á** / *ọ́ / **ùwẹ̀**
house 2SG
Your house

(f) ùnú *****ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / **ùẹ́** / *á / *ọ / **ùwẹ̀**
mouth 2SG
Your mouth

(g) òbọ́ *****ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / *ùẹ́ / *á / **ọ́ / ùwẹ̀**
hand 2SG
Your hand

(h) èhọ́ *ù / **wẹ̀** / **rùẹ́** / *rùẹ̀n / *wùẹ̀n / *ùẹ́ / *á / **ọ́** / **ùwẹ̀**
ear 2SG
Your ear

(i) àkọ̀n *ù / **wẹ̀ / rùẹ́ / ***rùẹ̀n / *wùẹ̀n / *ùẹ́ / *á / **ọ́** / **ùwẹ̀**
teeth 2SG
Your teeth

In examples 262 (a-i), one finds three independent pronouns; the short forms: *wẹ̀*and *rùẹ́* and the longer variant *ùwẹ̀*. These work for all kinds of adnominal possession. The examples show that acceptable clitic pronouns are like the final vowels of the possessum. The similarity in example 262 (a) is tongue height; while examples 262 (e- i) show total identity in segmental features.

It is important to note a distinction between the discussions here and those in the literature. Previous studies refer to pronoun forms which function as possessors as possessive adjectives (Omoregie, 1983); noun qualifier or determiners (Omoruyi, 1986a). This thesis refers to them as pronouns, because of the results from syntactic tests, which 'assess relatedness of words and their hierarchical structure in sentences' (Carnie, 2013). The study employed three of such tests, namely substitution, modification, and sentence fragment.

Substitution tests the categorial identity of expressions. If one expression can replace another in a phrase or clause, then both expressions are members of the same category. Consider the following examples.

263. (a) òwá Ozo
House Ozo
Ozo's house

(b) òwá ìmẹ̀
House 1SG
My house

(c) òwá nọ̀kpọ̀lọ
House big
A big house

(d) òwá nà
House this
This house

As examples 263 (a) and (b) show, pronouns can replace the possessor without altering the sense and structure of the phrase. However, the meaning and construction type changes completely when one substitutes the noun with an adjective or a determiner as examples 263 (c) and (d) illustrate. Similarity between the proposition in 263 (a) and (b) implies that constituents which function as possessors can either be lexical nouns or pronouns, not adjectives and determiners.

The test of modification looks at the relationship between constituents. An expression which modifies attributes some property to the modified expression. In

Ẹdo language, it is possible to have adjectives in possessive phrases. The possessive phrase is part of the DP. Data shows it is acceptable for D to be an overt element.

264. (a) òwá Ozo nọ́fuà
House Ozo white
Ozo's white house

(b) òwá mwẹ̀ nọ́fuà
House 1SG white
My white house

(c) òwá mwẹ̀ nọ̀kpọ̀lọ
House 1SG big
My big house

(d) òwá mwẹ̀ nà nọ́fuà
House 1SG this white
This my white house (This white house of mine)

From the examples above, one would observe that unlike lexical nouns, adjectives do not modify pronominal possessors as examples 264 (b) - (c) show. The data reveals it is acceptable to use pronouns alongside demonstratives, as in 264 (d). Since determiners do not select themselves, one can confirm that pronouns which function as possessors are not a sub-type of determiners.

Sentence fragment tests show the pronouns in these examples have the same syntax as forms categorised as possessive pronouns. Sentence fragment tests check for constituency. A sentence fragment is an incomplete utterance which can answer a question. This test confirms nominal and pronominal possessors are constituents of the same kind, as they can serve as responses to the same questions.

265. (a) Dè èbé ọ̀mwá nè Osarrọ tié
QM book person REL Osarrọ read
Whose book is Osarro reading?

(b) ọ́ghé Osazẹ
POSS Osazẹ
Osazẹ's

(c) èbé Osazẹ
book Osazẹ
Osazẹ's book

(d) ọ́ghómwẹ̀
POSS.1SG
Mine

(e) èbé mwẹ̀
book 1SG
My book

266. (a) Dè èbé nè Osarrọ tié
QM book REL Osarrọ read
Which book is Osarro reading?

(b) èbé Osazẹ nîì
book Osazẹ DEM
That Osazẹ's book (That book which belongs to Osazẹ)

(c) èbé mwẹ̀ nîì
book 1SG DEM
That my book (That book which belongs to me)

(d) ọ́ghùẹ́ nîì
POSS.2SG DEM
That yours (That book which belongs to you)

In response to the questions, one finds the possessive marker may be overt or null. When the marker is overt and the possessor is not a noun, the sentence fragment is a pronoun, as shown in 265 (d) and (e). Interestingly, these possessors can occur with determiners as the fragments in example 266 (b) - (d) show. The lack of complementary distribution between determiners and those pronouns is a clear sign that Ẹdo possessors can either be lexical nouns or pronouns.

Based on their features and the results of syntactic tests, this study affirms there are no adjectival or determiner type of personal pronouns in Èḍó language. In lieu of lexical recategorisation, this study suggests that pronouns which function as possessors be called "strong and weak genitive pronouns" (Radford, 2006:280). Weak genitives have a null possessive marker and need to be linearly adjacent to the possessee as in 265 (e) and 266 (c). On the contrary, strong genitive pronouns have an overt marker, which combines with the possessor; the language realises both forms as a single vocabulary item, as 265 (d) and 266 (d) illustrate.

4.13.2. Ẹ̀dó pronouns at the morphosyntactic interface

This sub-section focuses on interactions between morphology and syntax. The study observed that the inherent features of the pronouns, the structure of clauses and temporal distinctions influence the choice of acceptable pronoun forms. For example, if the event in a declarative sentence is happening at the time of utterance, one would choose *ọ̀* as a third person singular subject. But, if the sentence is negative, that form would be unacceptable.

The Tense, Aspect and Modality (TAM) system of Ẹ̀dó language comprises two tenses: past and non-past, three aspects: perfective, progressive, and habitual; and at least six modals (Dunn 1968 as cited in Omoruyi 1991) More recent studies like Yuka and Omoregbe (2011) note that the native speakers distinguish tense along three

time points: past, present and future. These temporal distinctions are available in negative constructions; but such require particular personal pronouns. Consider the forms of the third person singular in the following examples.

267. (a) Ọ kpé ọ́kpán
3SG wash plate
She washed plate.

(b) Ọ má kpé ọ́kpán
3SG NEG wash plate
She did not wash plate.

268. (a) Ọ kpè ọ́kpán
3SG wash plate
She is washing plate.

(b) Ẹ́ í kpè ọ́kpán
3SG NEG wash plate
She is not washing plate.

269. (a) Ọ ghá kpòló òwá
3SG FUT sweep house
She will sweep the house.

(b) Ẹ́ í khián kpòló òwá
3SG NEG FUT sweep house
She will not sweep the house.

In examples (267) - (269), one would observe two short forms of the third person singular. Both function as subjects. The *ọ̀* variant occurs in declarative and negative sentences, while the *ẹ̀* variant only occurs in negative sentences. Although this form only occurs in negative sentences, its use depends on whether tense is present as in 268 (b) or future as in 269 (b). Besides tense, the use of *ẹ̀* depends on the type of construction.

270. (a) Ákpáwẹ̀ àmẹ̀ rhọ̀ọ́ré, ọ̀ \ *ẹ̀ ghà yó úgbó
If water fall.PST 3SG AUX go farm
If it rained, he/she would have gone to the farm.

(b) Ákpáwẹ̀ àmẹ̀ rhọ̀ọ́ré, *ọ̀ \ ẹ̀ ghẹ́ yó úgbó
If water fall.PST 3SG NEG go farm
If it rained, he would not have gone to the farm.

Examples 270 (a) and (b) show the same third person singular variants in conditional clauses. In both sentences, the event occurred before the utterance. However, the acceptable subject pronoun in the negative clause is the *ẹ̀* variant. The only difference between 270 (b) and the examples considered earlier is the negative

marker. Unlike *ẹ́* and *má,* which negate declarative sentences according to temporal distinctions, the use of *ghẹ́* depends on the construction. It is acceptable for imperative sentences and conditional clauses. On the basis of examples like (267) - (270), this study posits that clause structure, tense and negation affect the syntactic distribution of personal pronouns. What we observed in third person singular forms is also perceptible in first and second person.

271. Èbàbá wẹ́ẹ̀ né ù dòó yá dẹ̀ ékà
Father say COMP 2SG SEQ INC buy akara
Father said that you should come and go and buy akara. (Imasuen 2010:25)

272. Òsàgíẹ̀dẹ́ hòó né ùwẹ̀ ghá rré èvbáà
Osagiede wish COMP 2SG AUX be_at there
Osagiede wishes that you will be there. (Imasuen 2010:118)

273. Ì /mẹ̀ rrí òwá, né ì /*mẹ̀ yá ròró nè èghémwẹ̀
1SG go home COMP 1SG INC think of 1SG.REFL
I am going home to think about myself.

Examples (271) - (273) show first and second person pronouns as subjects of complement clauses. Other variants which can serve this purpose are first person singular *ìmẹ̀mwẹ̀, ìmẹ̀.* Forms like *mẹ̀* and *wẹ̀* also function as subjects. However, their forms are unacceptable in sentences such as the ones in examples (271) and (272). A tenable explanation is that both forms cannot be subjects in clauses with overt complementisers.

4.13.3. Ẹ̀dó pronouns at the syntax-semantics interface

In previous sub-sections, the study discussed two kinds of Ẹ̀dó reflexive pronouns: the ones which contain a nominal root *"ègbè"* and others which contain an affixal reflexive morpheme *"tòbọ"*. Analyses of their syntactic distribution showed the "*ègbé"* reflexives function as internal arguments, while *"tòbọ́"* forms act as adjuncts. One may also find them in external argument position in imperative constructions, as shown in the examples below.

274. Tòbọ́rùẹ́ ná èrhùmwù
2SG.REFL chant prayer
Pray by yourself.

275. Ù fián ẹ́rè tòbọ́rùẹ́
2SG cut 3SG 2SG.REFL
You cut it yourself.

276. Ù fián ẹ́rè nè ègbérùẹ
2SG cut 3SG for 2SG.REFL
You cut it for yourself.

The examples above show a difference in the semantic function of reflexives. Using *tòbọ́* reflexives implies the referentis the participant who performs the action. This distinction does not conform to the position in some contemporary studies. For example, Omoregbe and Edionhon (2017) state that *ègbè* and *tòbọ́* reflexives are widely used in anaphora - a relationship, where the interpretation of the anaphor depends on that of the antecedent (Huang 2016:21). This interpretational dependency aptly characterises *ègbè* forms, but one cannotdescribe *tòbọ́* reflexives in the same manner. As example (274) shows, *tòbọ́* forms can occur without antecedents.

In fact, earlier studies like Omoregie (1983) and Omoruyi (1986a) describe *ègbè* forms as reflexive pronouns, but classify *tòbọ́* forms as emphatic and appositive pronouns, respectively. This study adopts the position of these earlier works, because the data confirms that *tòbọ́* reflexives can be appositive to their antecedent. However, it does not affirm the submission that *tòbọ́* reflexives can not occur in the predicate of a sentence" (Omoruyi 1986a:91). Consider the following examples.

277. Ọ̀ tòbọ́rè khùẹ́ ègbẹ́rè
3SG REFL:3SG wash REFL:3SG
He washed himself. (Omoruyi 1986a:91)

278. À sẹ̀tín tòbọ́mwà rú ìnwìnà nà
1PL AUX REFL:1PL do work DEM
We can do this work ourselves. (Imasuen 1997: 60)

279. Ọ̀ dẹ́ né èbé tòbọ́rè
3SG buy.PST DEF book REFL:3SG
He/she bought the book himself/herself.

In these examples, one finds *tòbọ́* reflexives in three different structural positions. They can be next to the subject; they can also occur between the auxiliary and verb, or in post-verbal positions. This flexibility in linear order implies the language does not restrict *tòbọ́* reflexives to specific parts of a sentence.

Besides reflexive pronouns, the study observed the semantics of adjacent words play a role in the syntactic distribution of personal pronouns. This observation is based on the interaction between prepositions and short first person singular.

280. Oghọghọ rrìé íghó mẹ̀
Oghọghọ give money 1SG
Oghọghọ gives me money.

281. Oghọghọ rrìé íghó nè ìmẹ̀ / gì ìmẹ̀
Oghọghọ give money to 1SG / to 1SG
Oghọghọ gives money to me.

282. Oghọghọ rrìé íghó gù mwẹ̀
Oghọghọ give money to 1SG
Oghọghọ gives money to me.

The variant in (280) can function as an indirect object, but never as the object of a preposition. Examples (281) and (282) show two variants which occur with prepositions; the form of those variants depends on the morphosemantic features of the preposition. There are three prepositions in the examples above: *nè*, *gì* and *gù*. All of them are equivalent to the English *'to'*, but there are differences in their interpretation. The preposition *nè* conveys a sense of proximity as in a physical transfer of the direct object to the recipient; the others imply something similar to a wire transfer or the use of an emissary. So, when one uses either *gì* or *gù*, the subject and indirect object are not in the same physical space. These examples suggest the features proximate and distal have effects on pronoun distribution.

4.14. Pronouns at the interfaces: a Distributed Morphology approach

In the framework of Distributed Morphology, one can explain the effects of interface interactions on Ẹ̀dó pronouns using operations in morphology and phonology. At the interface between morphology and phonology, there is *readjustment*, which affects the phonological features of the pronouns. For clitic pronouns, movement, i.e. *linear dislocation*, accompanies this operation. In chapter two, the thesis provided illustrations of both operations; the operations are the same. So, this chapter has no sub-section dedicated to a DM account of pronouns at the morphophonological interface. But, the morphosyntactic and syntax-semantics interfaces have aspects of DM operations the thesis has not touched upon. The relevant operation for both interfaces is *vocabulary insertion*. At the syntax-semantics interface, one also needs to consider semantic functions (i.e. theta roles) and how these functions map onto specific syntactic positions.

4.14.1. DM and Ẹ̀dó pronouns at the syntax-semantics interface

Earlier, the study described how syntax/semantics interface relations determine the morphological forms of first person singular pronouns. Examples (280) - (282) show all three variants have same phi-features; they only differ with respect to

the predicate. The theory encodes this difference as features, which show the specific position of arguments in a clause.

283. Contextual features[18] of short first person singular pronouns

[DEF, 1SG, emph, nom, acc, obl, gen]	↔	/ìmè/ /√v ([±DIST])_____
[DEF, 1SG, nom, acc]	↔	/mɛ̀/ /√v _____
[DEF, 1SG, acc, obl, gen]	↔	/ɱè/ /√v ([+DIST]) _____

The illustration in (283) shows that morphological, syntactic, semantic and phonological features are not enough to determine the most suitable exponent for a given terminal node. As their structural case features indicate, all three forms can be structurally adjacent to a verbal root. Two of the variants can also function as oblique objects, but the choice depends on proximity (i.e. [±DIST]).

One can explain the allomorphy observed in first person singular using the principle of competition. Distributed Morphology takes exponence of syntactic terminal nodes as a competition between vocabulary items which have a subset of features specified for that node. Since derivations proceed bottom-up, one will expone the pronoun before the verb or preposition. Thus, one can reduce the choice of acceptable variants to vocabulary insertion. This operation is sensitive to contextual features (Embick and Marantz, 2008). It looks outwards to c-commanding features without information about the vocabulary items; and inwards to c-commanded vocabulary items. For example; if a verbal root is structurally adjacent to a [+DEF, 1SG, acc] node, the most suitable exponent for that node would be */mẹ̀ /*.

Besides personal pronouns, the previous sub-section showed how interaction at the syntax-semantics interface affects the distribution of reflexive pronouns. Syntactically, the *ègbè* reflexives act as arguments; but, the *tòbọ́* reflexives behave like adjuncts. They occupy different positions in a clause and can co-occur with the *ègbè* reflexives. Semantically, *ègbè* reflexives perform roles like THEME and BENEFICIARY; while *tòbọ́* reflexives only act as AGENT. Based on these observations, the study proposes that Ẹ̀dó reflexive forms consist of different functional words.

The distinctions observed here have been studied in a wide range of languages. As discussed in Constantinou (2014), the consensus is that emphatic forms like the *tòbọ́* reflexives are intensifiers, which are identical to reflexive anaphors. One may describe them as follows.

18Contextual features specify the parts of a phrase into which a vocabulary item can be inserted.

Reflexive anaphors indicate a syntactic or semantic argument is co-referential with another argument of the same predicate. The co-argument is the antecedent of the anaphor (König and Gast, 2002).

Reflexive intensifiers indicate the particular nominal constituent which performs the action of the verb. This nominal constituent is the focus of the intensifier (König and Siemund, 2000).

Both definitions suggest two things. One, interpreting intensifiers and anaphors requires noun phrases. Two, this semantic relationship is visible in syntax. Consider the reflexives in these sentences.

284. (a) Ẹfosa kpòkpó èɡbẹ́rè
Ẹfosa worry 3SG.REFL
Ẹfosa worries himself.

(b) Ọ̀ khẹ̀ké né ùwà rhié ìyòbọ̀ nè èɡbúwà
3SG be_appropriate COMP 2SG give help to 2PL.REF
You should help yourselves.

285. (a) Osarẹtin tòbọ́rè kpé ọ́kpán
Osarẹtin 3SG wash plate
Osarẹtin washes plate by him/herself.

285. (b) Ọ̀ khọ̀ọ́ ọ̀mwá
3SG look_like person
nè ọ̀ ghá tòbọ́rè hàé òsá
REL RP AUX 3SG.REFL pay debt
He looks like someone who will repay the debt himself.

As shown in example (284), the *èɡbè* forms always occur with an antecedent. Thus, one can say they are reflexive anaphors. The *tòbọ́* forms are also co-referential, but their antecedents need not be overt. This explains why they can occupy the subject position in imperative sentences. Unlike *èɡbè* reflexives, *tòbọ́* forms can merge in non-argument positions. This is because intensifiers have two structural positions (Gast and Siemund 2006). They may be appositive to noun phrases, as in 285 (a) or adjoined some other constituents in a sentence as in 285 (b). The examples above show that *tòbọ́* forms are more like intensifiers than anaphors. Therefore, the study suggests that future researches consider *tòbọ́* forms as reflexive intensifiers and the *èɡbè* forms as anaphors.

4.14.2. DM and Ẹ̀dó pronouns at the morphology-syntax interface

Earlier in this chapter, the study described how interactions between morphology and syntax affect the distribution of personal pronouns. Specifically, the study showed how negation and tense affect one's choice of third person singular *ẹ̀* and *ọ̀*. The effect extends to other third person singular variants.

286. (a) Èbé ẹ̀ré/ ìrẹ̀n nọ́
Book 3SG be
It is his book.

(b) Ẹ̀ í rè èbé ẹ̀ré / ìrẹ̀n
3SG NEG be book 3SG
It is not his book.

(c) Ẹ̀ í ìrẹ̀n ẹ́rè ọ̀ nyae èbé
3SG NEG 3SG FOC RP own book
He is not the owner of the book.

287. Contextual features of third person singular pronouns
[DEF, 3SG, nom, acc, obl, gen] ↔ /ɛ̀ré / [+NEG] _____
[DEF, 3SG, emph, nom, acc, obl, gen] ↔ / ìrɛ̃̀ / [+NEG]_____[FOC]

As those examples illustrate, *ẹ̀ré* and *ìrẹ̀n* may be used in genitive constructions (286 (a)) and sentential negation containing such structures (286 (b)). The variant with the wider distribution is *ìrẹ̀n*. For constituent negation (286 (c)), this is the only acceptable form. As shown in (287), their syntactic distribution results from differences in their contextual features. Where *ìrẹ̀n* is used for clausal negation, instead of other acceptable forms, the choice depends on discourse related factors, such as the speaker's intention to emphasise the referent. Besides this alternation between third person singular forms, the study found that morphosyntactic interaction also affects the use of other personal pronouns. Consider the following sentences.

288. Ọ̀ yèré ẹ̀mwẹ̀ nè ì khàmàrá ọ́nrẹ̀n
3SG remember.PST word REL 1SG tell.PST 3SG
He/She remembered the word which I told him/her. (Agheyisi 1986:165)

289. Mẹ̀ khàmàrá ẹ́rè ẹ̀mwẹ̀ nè ọ̀ rrọ́ mwẹ̀ ékhọ̀e
1SG tell.PST 3SG word REL RP be_at 1SG mind
I told him/her what is on my mind.

290. Èbàbá wẹ́ẹ̀ né ù dòó yá dẹ̀ ékà rré
Father say COMP 2SG SEQ INC buy akara come
Father said you should come and go and buy akara.[19](Imasuen 2010a:25)

19 "Father said you should come and go and buy akara" has no equivalent English gloss. The context of the discourse is a home with children of different ages. It is time for breakfast, and their father has

291. Wẹ̀ dòó yá dẹ̀ ékà rré
2SG SEQ INC buy akara come
You, come and go and buy akara.

Examples (288) and (290) show first and second person pronouns as subjects of complement clauses. Data shows that other variants which occupy these positions are the emphatic first variants. Otherswhich are not emphatic but function as subjects like *mẹ̀* in (289) and *wẹ̀* in (291), are unacceptable. This is because of differences in their contextual features. Although, they all have nominative case feature, forms like *mẹ̀* and *wẹ̀* are unacceptable in (288) and (290) because those clauses have overt complementisers. Thus, at vocabulary insertion, one would choose more specific short forms like *ì* and *ù* over them.

4.15. Results and discussion of Ẹ̀dó pronouns at the interfaces

This discussion centres on the third objective of the thesis, which is "to explain how interaction at the interfaces affects the form and function of Ẹ̀dó pronouns". The research question is "in what manner does interaction at the interfaces affect pronoun form and function?" Responding to this question required analysing how the function of a pronoun underlies its form. Previous studies did this using the concept of assimilation (Imasuen 1997:71) and identified word classes which trigger changes in pronoun form. Omoregie (1983:45) explains that *"ola nokiekie vbe uta ra eni ẹre ọ rri ola omuhen ataeni maa vbe ihe"*. That quotation says it is the final vowel of a verb or noun that determines the initial vowel of a pronoun. What this study has done is to evaluate the statement. Given its focus on the similarity between the internal structure of the pronoun variants and nouns, the study tried to determine whether there are factors which affect pronoun form and function. Thus, attempting the research question also involved looking into instances where the realisation of a pronoun depends on interpretation and structural contexts besides linear precedence between the pronouns, nouns and verbs.

Data forming the basis of this discussion comes from the same sample used for the morphological and syntactic descriptions. The analysis started from the interface mentioned in the literature, i.e. morpho-phonology. In clitic second person

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asked a younger child to call an older sibling. The utterance contains three clauses; you can try to understand it by following the underlined verbs.

An instructtion:	Come	(Father said "you should come")
Reasons:	Go	Your reason for going to father is to run an errand (and go)
	Buy	The errand is to buy bean cakes (and buy akara)

singular pronouns, for example, the study found the vowel in the verb or preposition is near or completely identical to that of the pronoun.

292. Èmwá nà ghá guá=á
here this AUX to accommodate=2SG
This place will accommodate you.

293. Èmwíkèmwí nè ù gùàlọ́ ghá sẹ́=ọ́ òbọ́
whatever REL 2SG look_for AUX reach=2SG hand
Whatever you seek, will get to you.

Besides morpho-phonologically conditioned allomorphy, data showed the variant realisations of personal pronouns depend on structural function as established in extant studies. Further, it revealed other determinants of pronoun form, such as syntactic processes and the temporal distinction of events. For example, the analyses of personal pronouns in negative constructions show interaction between pronouns, their syntactic functions, and the type of negation.

294. Ọ̀ vìọ́ èbé gù mwẹ̀
3SG bring.IT book to 1SG
He brings books to me.

295. Ẹ̀ í vìọ́ èbé gù mwẹ̀
3SG NEG bring.IT book to 1SG
He does not bring books to me.

296. Ẹ̀ í ìmẹ̀ ẹ̀ré ọ̀ vìọ́ èbé giè
3SG NEG 1SG FOC 3SG bring.IT book to
It is not me he bring books to.

The examples above illustrate forms of first and third person singular pronouns. Observe that realisation of third person singular depends on whether the sentence is affirmative or negative. For the first person forms, the reader will observe that *mwẹ̀*is acceptable in both affirmative and negative sentences. However, when constituent negation applies, exponence of the first person singular becomes *ìmẹ̀*. What is intriguing about first person forms is that the *mwẹ̀* variant can undergo constituent negation in stative predication.

297. Ọ̀ rhìé èbé mwẹ̀
3SG take book 1SG
He takes my book.

298. Ẹ̀ í rhìé èbé mwẹ̀
3SG NEG take book 1SG
He does not take my book.

299. Ẹ́ í èbé mwe ẹ̀ré ọ̀ rhìé
3SG NEG book 1SG FOC 3SG take
It is not my book he takes.

Extant studies emphasise the link between personal pronoun forms and two syntactic functions: subject and object. Here, we have found that their role as possessors allows the usage of forms that would be unacceptable if they were objects of a verb or preposition. Similarly, this study provides new insights into the third person singular forms *ẹ̀* and *ọ̀*. Hitherto, studies described *ẹ̀* as a short pronoun which functions as the subject of negative sentences. Data analysis affirms that *ẹ̀* only functions as a subject, but it does not occur in every negative sentence; its occurrence depends on temporal distinctions. In sentences where *ẹ̀* is the subject, tense is either present or future. If the event occurred before the time of utterance, the *ọ̀* variant is the acceptable form.

In terms of interpretation, this study found differences in the semantics of reflexive pronouns. In the literature, *ègbè* and *tòbọ́* forms are described as emphatic and appositive reflexive pronouns. Though, the *tòbọ́* forms can be appositive to other nouns, the analyses show that unlike the *ègbè* forms the use of *tòbọ́* reflexives does not require any antecedent. Its use is determined by the need to indicate or emphasise the referent that performed the action.

300. Ọ́ dẹ́ né èbé
3SG buy.PST DEF book
He/she bought the book.

301. Ọ́ dẹ́ né èbé tòbọ́rè
3SG buy.PST DEF book 3SG.REFL
He/she bought the book himself/herself.

302. Ọ́ dẹ́ né èbé nè ègbéẹ́rè
3SG buy.PST DEF book for 3SG.REFL
He/she bought the book for himself/herself.

The examples above show interpretational differences which accompany the use of each type of reflexive. The *tòbọ́* forms emphasise the agent argument, while *ègbè* reflexives point out the recipient/beneficiary. Besides the reflexive sub-category, the study found that the semantic features of prepositions affect the meanings of personal pronouns. Usually, demonstrative pronouns serve as markers for the features proximate and distal. In Ẹ̀dó language, personal pronouns reflect these features. When this sub-category occurs with prepositions which have either feature, one interprets

them as referring to an entity in the same physical space as other discourse participants or far away from them.

To sum up this discussion of the data in response to the third research objective, there are two main points to be made. One, interactions in grammar affect the morphological realisation, syntactic distribution and semantic interpretation of pronouns. The effects are obvious in definite pronouns, particularly personal and reflexive pronouns. This explains why Ẹ̀dó language has so many forms of personal pronouns and two distinct sets of reflexives. Two, the set of reflexives hitherto referred to as emphatic/appositive pronouns are truly not pronouns. Evidence from the syntax-semantics interface shows these forms have the syntax of adjuncts. Unlike reflexive pronouns, the *tòbọ́* reflexives can occur without an antecedent phrase. Where there is an antecedent, it needs to be the agent argument.

4.16. Chapter summary

This chapter addresses the three objectives set for this study. The first investigates the morphology of the Ẹ̀dó pronominal system. To achieve this objective, the study established patterns of inflection and word-formation. Based on its analyses, it reached the following conclusions.

- Ẹ̀dó pronouns have number inflections.
- Inflection in the pronoun system is replacive.
- One can segment some pronouns into lexical and functional morphemic units.
- Therefore, one can consider some pronouns in the language derived words.

Derived words arise from several word-formation processes; in the Ẹ̀dó pronoun system, there are five of such: affixation, clipping, compounding, conversion and reduplication. Besides inflection and derivation, the analyses reveal allomorphy is responsible for the plethora of personal pronouns. The study found their phonetic forms are determined by the morpho-phonemic and morpho-semantic features of adjacent constituents. There is also evidence of suppletion, as some pronouns bear no resemblance to other forms which have the same person and number features.

The second objective which this chapter addresses is the syntactic distribution of Ẹ̀dó pronouns. Data show pronouns are in complementary distribution with other members of their sub-categories, as well as other sub-categories in the pronoun system. The only exceptions are the reflexive pronouns which co-occur and may be in

the same clause with personal pronouns. The study found the use of indefinite pronouns is also exclusive with respect to other functional categories.

Using Distributed Morphology, the study explains that clause type and syntactic projection are responsible for differences in the distribution of pronouns. The theoretical analyses indicate indefinite pronouns function as arguments and their interpretation is not determined by any constituent in the local domain. Definite pronouns also function as arguments, but they encode phi features; and like nouns, they may occur with modifiers. Thus, the study proposes Ẹ̀dó pronouns have a split-DP structure. The indefinite pronouns project the maximal phrase, i.e. DP; personal pronouns are heads of the lowest phrase, i.e. NP, while other definite pronouns are heads of intermediate projections between NP and DP. Interrogative pronouns have a feature which determines clause type; this feature is nonexistent in other sub-categories of pronouns. So, unlike others, interrogative pronouns do not enter the syntax as DP constituents. Their external merge position is the left periphery of the clause.

This chapter also addresses the third objective, which is to explain how interaction at the interfaces affects the form and function of Ẹ̀dó pronouns. The analyses show interactions at three interfaces of grammar; these are the morphology-phonology; morphology-syntax; and syntax-semantics interfaces. Data shows that bound pronouns (i.e. pronominal clitics) attach themselves to morphemes which have similar phonological features. These clitics function as personal and possessive pronouns. Previous studies ascribe their role in adnominal possessive constructions to determiners and adjectives. This study suggests that they are weak genitive pronouns. Also, the study found that functional categories such as tense and negation affect the morphological realisation of pronouns and their syntactic distribution. The same effects are noticeable with the interpretive features: proximate, distal, and emphasis.

The study explains the effects of the interface condition on Ẹ̀dó pronouns using post-syntactic operations available in Distributed Morphology. Specifically, it asserts that allomorphy at the morphology-syntax and syntax-semantics interfaces can be reduced to differences in the contextual features of pronouns. The choice of any variant over others is determined via competition at vocabulary insertion. Analyses of pronouns at the syntax-semantics interface provide evidence which supports the uniformity of theta assignment hypothesis (Baker 1988). The study found that Ẹ̀dó reflexive pronouns have distinct semantic functions; these functions have specific

syntactic configurations. Based on differences in their syntax and semantics, the study concludes that ègbè reflexives should be categorised as reflexive anaphors and the tòbọ́ reflexives as intensifiers.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0. Introduction

This chapter presents the summary of definite and indefinite pronouns in the Ẹ̀dó language. The study covered morphology, syntax and the effects of interface interactions on the form and functions of pronouns. The scope was restricted to the morpho-phonological, morpho-syntactic and syntax-semantics interfaces. The analysis provides a basic description of pronouns using common concepts in language studies and theory-based explanations in the framework of Distributed Morphology.

5.1. Summary of findings

i. The morphology of Ẹ̀dó pronouns

An underlying assumption about pronoun morphology is similarity with that of lexical nouns; this study confirms the assumption. From morphological analyses, it found identical patterns of inflection and word-formation. As in the nominal system, pronouns inflect for number, and the inflections are also replacive. The language derives definite (i.e. demonstrative, possessive, reflexive, interrogative) and indefinite pronouns through five processes: affixation, clipping, compounding, conversion and reduplication.

The study observed affixes are class-maintaining (the overt reflexive marker *tòbọ́* -) and class-changing (the interrogative prefix *dè* -). When combined with personal pronouns or nouns, they produce words with different meanings. It also discovered that subtracted elements of clipped pronouns correspond to morphemes in the language. The analyses distinguished two types of compounds: endocentric and phrasal. For conversion, the study found that all zero-derived pronouns have their origins in the nominal category. It found reduplication in both definite and indefinite pronouns; in all cases, the reduplicant had interpretational effects.

Using operations in Distributed Morphology, the study explained that affixation, inflection, compounding (endocentric), and reduplication result from two

morphological structure operations: merger and fusion. For phrasal compounding, it adopted the notion of syntactic renumeration. The analyses of zero derived pronouns, however, did not align with extant approaches in DM literature. Besides inflection and derivation, the analyses revealed allomorphy is responsible for the large number of personal pronouns. The study found that morpho-phonemic and morpho-semantic features of adjacent constituents determine the choice of phonological forms. It also found evidence of suppletion among personal pronouns; the clitic forms bear no resemblance to other short pronouns which spell-out the same phi features.

In summary, the study posits the morphology of Ẹ̀dó pronouns is regular. This is based on similarities between patterns and processes observed here and what previous studies have documented for nouns in the language. The present study asserts phrasal compounds are words, because they do not allow adjectival modification of the independent constituents. It maintains that zero derived pronouns are distinct from identical nouns, even though their structural representations are identical. Its position emanates from tests which reveal that derived pronouns do not inflect for number, and cannot admit quantifiers or markers for definiteness and specificity. Finally, the study posits pronoun reduplication performs syntactic and semantic functions. Depending on the stem, one may find the reduplicant in the Tense/Aspect phrase or Determiner phrase. In the former, reduplication describes how the action applies to participants; in the latter, it is an indicator of specificity.

ii. The syntactic distribution of Ẹ̀dó pronouns

Previous studies claim that Ẹ̀dó pronouns function as nominal replacements. They also claim that personal pronouns act as modifiers. This study re-examined these claims and found that pronouns are in complimentary distribution with members of their sub-categories, as well as other sub-categories in the pronoun system. The only exception are reflexive forms which co-occur with personal pronouns. It found the use of indefinite pronouns is exclusive with respect to determiners.

Universal, partitive, and quantifying are types of indefinite pronouns found in the study. They function as subjects and objects. The quantifying ones are (near) identical to determiner quantifiers; the study distinguished them in terms of their functions and constituent order. Determiner quantifiers modify noun phrases and must be linearly adjacent to them; whereas the pronominal quantifiers function as quantifier

and noun. For definite pronouns, the study found five types: demonstrative, interrogative, personal, possessive, and reflexive.

Contrary to claims in the literature, the study did not find any relative pronoun. What exists is an invariant morpheme *nè*, which introduces relative clauses. Also, it found that personal pronouns function as resumptive pronouns and possessors in adnominal possessive constructions. Previous studies claim such pronominal possessors are determiners and adjectives. This study established these personal pronouns do not act like adjectives or determiners and suggested that such pronouns be referred to as weak genitive pronouns. On their use as resumptives, the data here was inconsistent with earlier works. Previous studies suggest the language has one resumptive pronoun; the data revealed four of them.

The study explained the syntactic distribution of Ẹ̀dó pronouns using Distributed Morphology and inferences from the cartographic approach. Data analyses proved indefinite pronouns function as arguments; their interpretation is not determined by any constituent in the local domain. Definite pronouns also function as arguments, but they encode phi features; like lexical nouns, they may occur with modifiers. The study ascribed these differences to syntactic projection and clause type. The study proposed a split-DP structure, where personal pronouns head the noun phrase; other definite pronouns head intermediate projections, while indefinites head the maximal phrase.

The effect of clause type on pronoun syntax was most apparent in the interrogative forms. Unlike other sub-categories, interrogative pronouns have a clause typing feature, and they only occur clause-initial or clause-final positions. Based on these observations and the syntactic processes Ẹ̀dó content question formation employs, the study posited that interrogative pronouns project a phrase within the Split-CP.

In summary, the study submits Ẹ̀dópronouns function as arguments. This submission is based on their syntactic distribution. Pronouns act as subject, direct object, and objects of prepositions (i.e. oblique objects); personal pronouns can also function as indirect objects. The only pronouns with different distribution are *tòbọ́*-reflexives. The literature describes them as emphatic reflexive pronouns; but this study reveals these forms are not like pronouns. Though they have wide structural distribution, they only function as non-arguments.

iii. Ẹ̀dó pronouns and interactions at the interfaces

Interfaces refer to interactions between different modules of grammar. The study looked at how these interactions affect the form and functions of pronouns. The analyses suggested interactions between morphology and phonology, morphology and syntax, as well as syntax and semantics, offer principled accounts for the variation in personal pronoun forms. For example, the study found pronominal clitics attach themselves to morphemes which have similar phonological features. These clitics function as personal and possessive pronouns. Hitherto, short personal pronouns which act as possessor were categorised as determiners and adjectives. This study argued against this description and suggested they be classified as weak possessive (genitive) pronouns.

In addition, the study observed functional categories such as tense and negation have effects on the realisation of pronouns and their syntactic distribution. Similar effects are observable with the features proximate/distal and emphasis. Further, the study used semantic functions to distinguish the set of reflexives. Analyses revealed the use of tòbọ́ reflexives implies the referent is AGENT. The ègbè reflexives have a range of thematic roles. Based on differences in the syntax and semantics of the reflexives, the study concludes they belong to distinct categories. The ègbè forms are reflexive anaphors, whereas the tòbọ́ forms are reflexive intensifiers.

The study explains the effects of interface interactions on Ẹ̀dó pronouns using post-syntactic operations available in Distributed Morphology. Specifically, it argues that allomorphy noticeable at the morphology-syntax and syntax-semantics interfaces results from differences in the contextual features of pronouns. The choice of one variant over others is determined via competition.

5.2. Conclusion

The research problem revolves around inadequacies of previous studies on pronouns. The most widespread is the idea that nominals and personal pronouns differ, because the latter do not take modifiers and complements (Bhat, 2007). Another pertinent issue is the proliferation of pronoun forms; the literature is replete with various forms of Ẹ̀dó pronouns, but few studies have tried to explicate them. One explanation is that deletion rules derive shorter personal pronoun variants from longer forms (Omoruyi, 1986a:83). There have also been attempts (Omoruyi, 1986a and Omoregbe & Edionhon, 2017) to use locality constraints to differentiate between

reflexive forms in the language. Besides the impressive number of pronouns, other interesting finds from previous studies include the non-distinct forms of indefinite pronouns (Omoregie, 1983) as well as unexplored topics such as expressions for reciprocality. The study reached the following conclusions;

- Ẹ̀dó personal pronouns admit modifiers.
- Syntactic locality constraints are not enough to distinguish the reflexive forms. Although *ègbè* reflexives only function as internal arguments, their semantic roles make them available as verbal or prepositional objects. The only semantic role associated with *tòbọ́* forms is Agent; this may be why previous studies refer to them as emphatic/appositive subject reflexives. This description is inaccurate, because *tòbọ́* reflexives have the syntax of adjuncts.
- The internal structure of pronouns confirm that some pronouns are derived. With respect to personal pronouns, the study found that clipping explains why the language has both long and short variants.
- Indefinite pronouns appear non-distinct for two reasons: the processes from which they were derived and semantic relations with other members of their sub-category. The language derives some indefinite pronouns from nouns via conversion; these appear non-distinct from nouns. To establish them as different lexical items, the study tested their morphological and syntactic distribution. The results show that, unlike the nouns from which they are derived, indefinite pronouns have an invariant morphology and do not take markers for number or specificity. Other morphologically non-distinct indefinites are the non-assertive and negative partitive pronouns. These forms are homonyms; their interpretations differ based on the presence/absence of a negative marker.
- On the expression of reciprocality, data showed Ẹ̀dó language uses the pronoun technique.

5.3. Recommendations

This thesis provides a detailed description of Ẹ̀dó pronouns. Although the investigation touched on various modules of grammar, it sparingly attempted issues, such as the effects of phonological processes on the morphology and syntactic distribution of pronouns. For example, the study found that*ìrẹ́ọ̀n* does not behave like any other long pronoun. Previous studies claim it is the underlying third person

singular pronoun, which means *ìrẹ́ọ̀n* is emphatic; can occur in all structural positions available to nouns; and serves as input from which short personal pronouns are derived. Data confirms *ìrẹ́ọ̀n* is emphatic, but unlike other personal only occupies the subject position in focus constructions. Also, its morphology is different. In Ẹ̀dó language, all long personal pronouns can derive other definite pronouns; *ìrẹ́ọ̀n* is the only form which does not take part in word-formation.

Based on its peculiarities, the study suspects this form is a pseudo-pronoun. It instantiates the application of phonological structure operations on the third person singular *ìrẹ̀n*, the focus marker *ọ̀ré* and the resumptive pronoun *ọ̀*. Native speakers use two other forms: *mọ̀* and *wọ̀* for first and second person singular, respectively; their realisation is only perceptible when they focalise the pronouns *mẹ̀* and *wẹ̀*. Unlike the third person singular *ìrẹ́ọ̀n*, textbooks do not list these other forms as pronouns.

Intra-disciplinary researches may confirm or refute the reality of these suspicious pronouns. Such future studies could combine the qualitative approach adopted in this study with experimental methods in phonetics and phonology. This integrated approach will enable us to infer direct causal relationships between morpho-phonological operations, pronoun forms, and their syntactic distribution.

Another prominent issue at the phono-syntactic interface is the role of pronouns in negation. Previous studies agree constituent negation employs the negative marker *í;* the controversy centres on the interaction between the negator and pronouns. Omoruyi (1986a &1989) suggests that language users delete the segment of the negative marker when the constituent is a pronoun. What provides negative interpretations is the pronoun, and the dissociated tone. Imasuen (1998) suggests the negator is responsible for interpretation. It remains visible in such constructions; but its segmental features become identical to the pronoun.

One may deem the submissions in previous studies valid, because Ẹ̀dó has contour tones and does not permit identical sequences of sounds. The plausibility of both explanations signals the need for a re-analysis of pronouns in negative constructions. Since the contention lies with aural perception, prospective studies may conduct an acoustic analysis of pronouns in negative constructions. Such studies can also approach the problem using formal methods in experimental syntax.

5.4. Contributions to knowledge

The purpose of this study was to facilitate the knowledge of Ẹ̀dó pronouns. Using primary and secondary data, the study attempts questions pertaining to pronoun morphology, pronoun syntax, and the role of interface interactions on pronoun form and function. The analyses provide three key contributions to linguistic theory.

First, morphological analysis reveals derivational (word-formation) processes apply to pronouns. This shows pronouns have a similar morphology as nouns; it also sets them apart from other functional word categories. Derived definite pronouns all contain personal pronouns which function as direct objects. Their internal structure supports the claim that languages derive possessives from pronouns which express accusative case (van Baal & Don 2018; and Omoruyi 1986a). Also, it adduces evidence in favour of multiple spell-out (Uriagereka 1999).

Second, the syntactic analysis elucidates operation Agree. According to Chomsky (2001), the operation involves a downward / inward search for features. However, Zeijlstra (2012) has argued that search is upwards / outwards. Another issue is the application of Agree. What happens when this operation applies? Chomsky says the probe copies features from the goal, but Preminger (2017) posits the operation involves feature sharing, not copying. This study supports all three positions. Reflexive pronouns suggest that Agree involves a downward search for phi-features; the reflexive marker shares these features with personal pronouns. The derivation of personal pronouns reveals upward search and feature copying. In addition, the analysis reveals that Ẹ̀dó language has overt heads for categories in both nominal (Aboh et al. 2010) and clausal (Rizzi 2001) left periphery.

Third, interaction of pronouns at the syntax-semantics interface proves the uniformity of theta assignment hypothesis (Baker, 1988) true. Ẹ̀dó has two sets of reflexives; they are near identical in form and are considered anaphoric pronouns. Using UTAH as a heuristic guide, this study established differences in semantic function and syntactic distribution.

One of the practical implications of these contributions to scholarship is that they call attention to the need for curriculum revision. Currently, Ẹ̀dó language is available as a subject at all three levels of education. A survey of the teaching and learning materials reveals authors treat tòbọ́-reflexives as anaphoric pronouns. This study has shown that they are ‘AGENT-oriented intensifiers’ (Gast and Siemund, 2006), not anaphors. Another practical implication is its clarification of how operation

Agree works, and structural representation. Generative linguists often draw distinctions between minimalist and cartographic approaches to syntax. This thesis demonstrates how one can seamlessly integrate both.

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APPENDIX A
IBADAN SYNTACTIC PARADIGM

1.0BASIC INFORMATION:

Name of language: ……..……
Number of dialects: ……....
Name of Informants: ……..……
…….
…….
…….
…….
Language/Dialect in the data sample: …….....
Place:
……....
Date: ……..
Interviewer/Researcher: …….
Name of corresponding audio file: ....……....
Comments/Observations: ……..
……
……
……
……...

Note: You are free to add more grammatical samples to the list provided here, because the list provided here is not exhaustive. You should be conscious of idiomatic use of some expressions appearing to be used literarily.

2.0. Greetings

Greetings	Greetings	Responses
Good morning ma/sir		
Good afternoon		
Good day		
Good evening		
Good night		
Good bye		
Welcome		
Well done		
I greet you		
Safe journey sir/ma		
Welcome sir/ma		
Please, have something to drink / eat sir/ma (or how do you say "here is kolanut / garden egg		
Well done Sir/Ma		
Thank you Sir/Ma		

3.0 Noun phrases: This section is designed to test the noun phrase to ascertain among other things headedness, location of the head, the numbers of modifiers allowed in nominal phrases. These test examples are arranged in such a way that will enable you to have more than one structure in one construction because the nouns are not altogether the same.

One house/car/cat/ book	
The houses/cars/cats/ books	
Three houses/cars/cats/ books	
Four houses/cars/cats/ books	
Five houses/cars/cats/ books	
Six houses/cars/cats/ books	
Seven houses/cars/cats/ books	
Eight houses/cars/cats/ books	
Nine houses/cars/cats/ books	
Ten houses/cars/cats/ books	
Many houses/cars/cats/ books	
Some houses/cars/cats/ books	
A few house/car/cat/ book	
Few houses/cars/cats/ books	
The house/car/cat/ book	
An egg/orange/apple	
All the houses/cars/cats/ books	
Some houses/cars/cats/ books	
This man/car/cat/ books	
That man/car/cat/ books	
These men/cars/cats/books	
Those men/cars/cats/books	
That tall man/house/	
Those tall men/houses/	
This tall man/house	
These tall men/houses	
This long car/table/street	
That long car/table/street	
These long cars/tables/streets	
Those long cars/tables/streets	
This big house/table/car/book	
These houses/tables/cars/books	
That houses/tables/cars/books	
Those houses/tables/cars/books	
A man/table/car/cat/rat	
An umbrella/plate/spoon/cloth	
A block/yam/goat/boy/girl	
Anegg/umbrella/underpants/eye	
A bag/shoe/city/town/hall/farm	
An award/army/ant	
The tall man/boy/girl/house/tree	
The shot man/boy/girl	
The yam/shoe/goat/plate/table/car/book	
The short man/boy/story/holiday	
The short men/boys/stories	
That tall man/boy/building/house	
Those tall men/boy/building/	
This tree/house/shirt/bucket/bicycle/	

The tree at the backyard/	
The tree in the house/compound/village	
The book on the table/freezer/TV/chair/car/bag	
the books on the table/freezer/TV/chair/car/bag	
The car in the garage/house/market/yard	
The cars in the garage/house/market/yard	
My head/book/child/money/car/cloth	
Your (sg) head/eyes/book/child/money/car/cloth	
Your (pl) head/eyes/book/child/money/car/cloth	
His head/eyes/book/child/money/car/cloth/house	
Her head/eyes/book/child/money/car/cloth/house	
Our heads/eyes/books/children/money/cars/cloths/houses	
Their heads/eyes/books/children/money/cars/cloths/houses	
It head/eyes/jaw/back/house/bag/yam/rice/beans	
Ayo's chair eyes/jaw/back/ house/bag/yam/rice/rag	
John's book eyes/jaw/back/ house/bag/yam/rice/bag	
The book of John/boys/elders	
The house of Ayo/boys/elders	
Ola's house eyes/jaw/back/ house/bag/yam/rice/bag	
Fola's shop eyes/jaw/back/house/bag/yam/rice/beans	
Olu's car/book/bag/school/friend/yam/rice/beans	
Ola's brother/aunt/uncle/father/mother	
Ola's sister/aunt/uncle/father/mother	
The book/car/chair/house is mine	
The book/car/chair/house is yours (sg)	
The book/car/chair/house is yours (pl)	
The book/car/chair/house is ours	
The book/car/chair/house is theirs	
The book/car/chair/house is his/hers/its	
The book/car/chair/house is my own	
The book/car/chair/house is your own (sg)	
The book/car/chair/house is your own (pl)	
The book/car/chair/house is our own	
The book/car/chair/house is their own	
The book/car/chair/house is his/her/its own	
That is good/bad/tall/short/loud/rough/kind/fine/nice	
This is good/bad/tall/short/loud/rough/kind/fine/nice	
Those are good/bad/tall/short/loud/rough/kind/fine/nice	
These are good/bad/tall/short/loud/rough/kind/fine/nice	

3.1. Demonstratives

This	
I want this	
This book	
This shoe	
These	
Give me these	
I want to buy these yams	

That	
That is good	
That house is good	
Those	
Those are good	
Those books are what I want	
Right here	
Come right here	
It is over there	

3.2 Pronouns

I saw/killed/ate/bought the cat	
You (sg) saw/killed/ate/bought the cat	
He/she/it saw/killed/ate/bought the cat	
We saw/killed/ate/bought the cat	
You (pl) saw/killed/ate/bought the cat	
They saw/killed/ate/bought the cat	
The man saw/called/loved me	
The man sees/calls/loves me	
The man saw/called/loved us	
The man sees/calls/loves us	
The man saw/called/loved you (sg & pl)	
The man sees/calls/loves you (sg & pl)	
The man saw/called/loved him/her/it	
The man sees/calls/loves him/her/it	
The man saw/called/loved them	
The man sees/calls/loves the m	
It’s me	
It’s him	
It’s you (sg. & pl.)	
It’s a dog	

3.3. Specific phrases for nominal constructions

The old man	
The very old man	
The very old ugly man	
The book	
The black book	
The long black book	
The two long black cars	
That long black beautiful car	
The young short black hunter killed two small white bird	
The two big lovely green bag	
My new ruler/shoe/car/plant/ear	
My two new ruler/shoes/car/plant/ears	
My small dirty leg/eye/hand two new ruler/shoes/car/plant/ears	
My two very small dirty ugly legs/ears/cars/clothes/yams	

Our two very small dirty ugly legs/ ears/ cars/ clothes/yams	
Your very small dirty ugly legs/ears/cars/clothes/yams	
The small red feather/bucket/chair/cup	
The two small ugly red feather/bird/	
The two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
Our two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
Your two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
His/her two tiny ugly black feather/mat/cutlass/dog/fan/book	
Their two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
Those two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
These two tiny ugly black feathers/mats/cutlasses/dogs/fans/books	
This two tiny ugly black feather/mat/cutlass/dog/fan/book	
That two tiny ugly black feather/mat/cutlass/dog/fan/book	

4.0 Basic Sentences

I am coming	
You/they/the men are coming	
He/she/it has come	
We/they/the boys have come	
I am drinking water	
You/they/the boys are drinking water	
I will come	
You/they/the boys will come	
You/they/they boys would come	
Ola ate rice/yam/corn/cat/dog/meat/fish	
Olu/the man ate yam/the meat/the food	
Ola/the man has eaten	
Ola/the man will eat	
Ola/the man is eating	
Fola has eaten	
Fola will eat	
Fola is eating	
Ola can eat	
It is raining	
Ola is running	
I want him to come	
He wanted me to come	
He has not come	
He is not coming	
They are houses	
He is in the house	
They are in the market	
Their children are at the farm	

The rope is longer than that	
I brought water for him	
I have been called	
He has been called	
This is my hut	
I am a farmer/student/boy/girl/politician	
I am not a farmer/student/boy/girl/politician	
Olu arrived yesterday/last week/year/month	
Olu did not arrive yesterday/last week/year	
Olu did not arrive since yesterday	
Olu will arrive tomorrow	
Olu will not arrive tomorrow	
Olu has not arrived	
Olu is coming	
Olu is already coming now	
Olu is coming right now	
Olu is here	
Olu is there	
I heard that Olu arrived yesterday	
Olu should arrive tomorrow	
I Want Olu to arrive tomorrow	
I don't know if Olu will arrive tomorrow	
It is good that Olu came	
It is not good that Olu should not come	
I said Olu should come	
Let him return quickly	
Olu said I should go out	
Olu said you should go out	
Olu said he/she/it should go out	
Olu said you (pl) should go out	
Olu said they should go out	
Olu is tall	
Olu sleeps	
The boy feels the pain	
He has cold	
Do you recognize him?	
Our father appreciated the work	
I hear the music	
John has a car	
You deserve the man	

You may have to try other verbs to discover more about their behaviour. Examples of stative verbs are *adore, agree, appear (seem), appreciate, be (exist), believe, belong to, concern, consist of, contain, cost, deny, depend on, deserve, detest, disagree, dislike, doubts, equal, doubt, equal, feel, hate, have (possession), hear, imagine, include, involve, know, lack, like, loathe, look(seem), love, matter, mean, measure, mind, need, owe, own, possess, promise, realize, recognize, remember, resemble, satisfy, see, seem, smell, sound, suppose, surprise, taste, think (opinion), understand, want, weigh, wish,* etc. Examples of action verbs include: a*ssigned, attained,*

considered, decided, delegated, directed, enforced, established, generated, hired, hosted, improved, increased, managed, merged, oversaw, produced, replaced, restored, drafted, edited, enlisted, explained, expressed, joined, judged, listened, marketed, outlined, promoted, analysed, conducted, examined, gathered, invented, organized, summarized, persuaded,etc.

5.0 Tense and Aspect

She eat food	
He ate	
He is eating	
He has eaten	
He will eat	
Wont we eat tomorrow	
He speaks	
He is speaking	
He spoke yesterday	
He will speak tomorrow	
He will speak	
He will do it	
He will not do it	
He usually talks	
He is talking	
It has passed	
I will be working	
He worked	
We will be asking	
He will not keep asking	
Ayo is sleeping	
I am coming	
You are sleeping	
The man usually comes	
Olu has gone	
I would have passed	
He would have eaten	
It would have rained	
She is yet to see/call/kill/bite/cut them	
He does not see/call/kill/bite/cut them	
He does not have money	
He does not go to farm	
Olu did not go	
He did not come	
He came in the morning	
My father went/called/got home	
I am not satisfied	
My father will come back home	
He should/would come tomorrow	
He should/would have come tomorrow	
I hoped that he would come tomorrow	

6.0 Prepositions

I picked the money at the market	
I saw the money in the house	
I saw the money on the ground	
I kept the money in my pocket	
May be it is in my purse	
The book is on the table	
I left it in the room	
The bag is on the chair	
It is above you	
It is under the chair	
It is on the chair	
I am going to the market	
It is on the table	
The snail is at the bottom	
He is standing by the tree	
John is at the door	
He stood by the car	
John is behind me	
He is off the table	
We rested under the tree	
She is inside the house	
He gave the book to me	
He kept it for me	
He sold yam for him	
He is with me	
He did it with carefulness	
He will look for it	
He will be a at home by now	

Specific sentence constructions

7.1 Imperative/Command sentences

Sit down	
Let's sit down	
Let him sit down	
Let them sit down	
Let the boys sit down	
Go out of here	
Get out	
Come here	
Come here	
The man said go out	
Go out of my office	
Leave me alone	
Please leave me alone	
Little kids, come out here	
Little kids, I said come out here	
I said, stop beating him	

Stop shouting	
Don’t cry	
The boss said you are up	
Come in and eat your food	
Don’t be late today	

7.2 Interrogative constructions

You saw me.	
Did you see me?	
You saw him	
Did you see him?	
You have come	
Have you come?	
He has reported to work	
Has he reported to work?	
He killed the dog	
Did he kill the dog?	
Olu arrive yesterday	
Did Olu arrive yesterday?	
Or, did Olu arrive yesterday?	
The name of that one is rat.	
What is the name of that one?	
Your name is Ola	
What is your name?	
He came yesterday	
When did he come?	
John came	
Who came?	
He sat at the back	
Where did he sit down?	
He saw a cat.	
What did he see?	
Olu is there.	
Where is Olu?	
Olu will arrive today.	
Which day did Olu leave?	
He will return tomorrow	
When will he return?	
He would return by road	
How would he return?	
He will ride bicycle or derive car	
Will he ride bicycle or drive a car?	
Olu is coming from Ibadan	
Where is Olu coming from?	
He did something	
What did he do?	
Olu went to greet Ayo	
Who did Olu go to greet?	

Olu is greeting someone	
Who is Olu greeting?	
You said something.	
Why did you say that?	
The thief stole his money in the class	
Where did the thief steal his money?	
The car that Olu bought is over there	
Where is the car that Olu bought?	
Olu that bought the car is here.	
Where is Olu that bought a car?	
The name of the place that Olu bought his car is Lagos	
What is the name of the place that Olu bought his car?	

7.3. Compound Sentences

Olu carried a chair but did not go home	
He suffered a lot but he did not die	
She is intelligent and she knows it	
Foluke was singing and the people were dancing	
Grandma is behind the house; the children are indoors	
Will the corn sellers come here today, or would they go to the other market?	

7.4 Negative Constructions

I didn't see him	
The boys did not see the man	
Olu bought a dress at Ibadan	
Olu did not buy a dress at Ibadan	
Olu did not buy a dress	
They ate together	
They did not eat together	
They ate without eating together	

8.0 Relative clauses

Olu killed a goat in the house	
Olu that killed the goat in the house	
The goat that Olu killed in the house	
The house where Olu killed a goat	
I have bought a car	
The car that I bought	
I who bought a car	
I that I'm talking have bought a car	
I came when they were eating	
Immediately the game started, so rain started	
As the started the game, it began to rain	
Before the rain started I have entered my house	

8.1. Conditional clauses

If it rains I will go	

If it does not rain I will go	
If you buy the book I will give you a gift	
I said if you come, I will be fine	
Whether it rains or not, it will be fine	
Even if you cry, I will not carry you	
If it rains early in the year, the crop will be good	
If you come home late I will not open the door	
If I die speak well of me	
If he leaves, we are doomed	
If he comes I will be there	
If anyone who touches it dies	
If he comes, I would have told you	
If he comes you would have heard	
If it turns out that way, we are wining	

8.2 Sentence final adverbs

Olu has been there before	
They have not been there before	
He/She did not come at all	
Olu did not come yesterday	
Ayo speaks his language well	
He/She walks briskly	

APPENDIX B
DATA TABLES

Table B1: Subject Personal Pronouns

Person	Number	Underlying Forms	Variants	Gloss
1st	Singular	ìmẹ̀mwẹ̀	mẹ̀mwẹ̀, ìmẹ̀, mẹ̀, ì	I
	Plural	ìmàmwà	màmwà, ìmà, mà	We
2nd	Singular	ùwẹ̀	wẹ̀, ù	You
	Plural	ùwà	wà	You
3rd	Singular	ìrẹ́ọ̀n	ìrẹ̀n, rẹ̀n, ọ̀	He/She/It
	Plural	ìràn		They

(Source: Omoruyi 1986a:83)

Table B2: Predicate Personal Pronouns

Person	Number	Underlying Forms	Variants	Gloss
1st	Singular	ìmẹ̀mwẹ̀	ìmẹ̀, mwẹ̀	Me
	Plural	ìmàmwà	ìmà, mwà	Us
2nd	Singular	ùwẹ̀	rùẹ́, ùẹ́	You
	Plural	ùwà	rùá, ùá	You
3rd	Singular	ìrẹ́ọ̀n	ìrẹ̀n, rẹ̀n, ẹ́rẹ̀, ẹn	Him/Her/It
	Plural	ìràn		Them

(Source: Omoruyi 1986a:84)

Table B3: Complete Table of Ẹ̀dó Personal Pronouns

Person	Number	Underlying Forms	Pronoun Variants	Quantity Of Forms
1st	Singular	ìmẹ̀mwẹ̀	ì, ìmẹ̀, mwẹ̀, mẹ̀mwẹ̀, mẹ̀	6
	Plural	ìmàmwà	à, ìmà, mwà, màmwà, mà	6
2nd	Singular	ùwẹ̀	ù, wẹ̀, rùẹ́, rùẹ́n/wùẹ́n, ùẹ́, á, ọ́	9
	Plural	ùwà	wà, rùá, ùá	4
3rd	Singular	ìrẹ́ọ̀n	ọ̀, ìrẹ̀n, rẹ̀n, ẹ́rẹ̀, ọ́rè, ọ́nrẹ̀n, ẹ́nrẹ̀n, ẹ́n, ẹ̀	10
	Plural	ìràn	ìràn	1

(Sources: Omoruyi 1986a, Imasuen 1996, 2010a and 2010b)

Table B4: Possessive Pronouns

Person	Number	Weak Genitive Pronouns		Strong Genitive Pronouns	
1st	Singular	***ìkẹ̀kẹ̀ mwẹ̀***	my bicycle	***ọ́ghòmwẹ̀***	Mine
	Plural	***ẹ̀wù mwà***	our shirt	***ọ́ghòmwà***	Ours
2nd	Singular	***òwẹ̀ rùẹ́***	your leg	***ọ́ghùẹ́***	Yours
	Plural	***ìbìẹ́kà rùá***	your children	***ọ́ghùá***	Yours
3rd	Singular	***ágá ìrẹ̀n***	his chair	***ọ́ghẹ́rè***	His/Hers/Its
	Plural	***ìvbì ìràn***	their children	***ọ́ghìràn***	Theirs

(Source: Omoruyi 1986a:85-86)

Table B5: Interrogative Pronouns

A	B	C	D
dè=ọ̀mwá QM=person who	***ínú =íghó*** QM=money how much	***vbè*** QM what , where, how	***ghà*** QM who (SG)
dè=èmwí QM=thing what	***ínú=Ø*** QM how many	***vbòó*** QM where	***àvbá*** QM who (PL)
dè=ẹ̀ghẹ̀ QM=time when	***ínú=ẹ́gógó*** QM=clock what time		
dè=èhé QM=place where			
dè=ọ́ghé QM=POSS whose			
dè=Ø QM which			
dè-vbénè QM=like how			

Table B6: Derivation of Personal Pronouns

Person and Number	Long Pronouns	Short Pronouns			
[+1]	ìmẹ̀mwẹ̀	ì	mẹ̀mwẹ̀	mẹ̀	mwẹ̀
		ìmẹ̀	mwẹ̀		
[+1, +PL]	ìmàmwà		màmwà	mà	mwà
		ìmà	mwà		
[+2]	ùwẹ̀	ù	wẹ̀		
[+2, +PL]	ùwà		wà		
[+3]	ìrẹ̀n		rẹ̀n		
[+3, +PL]	ìràn				

Table B7: Derivation of Possessive and Reflexive Pronouns

1 Singular	Personal	***ìmẹ̀mwẹ̀***	***ì***	***ìmẹ̀***	***mwẹ̀***	***mẹ̀mwẹ̀***	***mẹ̀***		
	Reflexive	***ègbímẹ̀mwẹ̀***		***ègbímẹ̀***		***ègbémwẹ̀***			
	Possessive	***ọ́ghímẹ̀mwẹ̀***		***ọ́ghímẹ̀***		***ọ́ghómwẹ̀***			
1 Plural	Personal	***ìmàmwà***	***à***	***ìmà***	***mwà***	***màmwà***	***mà***		
	Reflexive	***ègbímàmwà***		***ègbímà***		***ègbémwà***			
	Possessive	***ọ́ghímàmwà***		***ọ́ghímà***		***ọ́ghómwà***			
2 Singular	Personal	***ùwẹ̀***	***wẹ̀***	***rùẹ́***	***rùẹ́n***	***wùẹ́n***	***ùẹ́***	***ù***	***á***	***ọ́***
	Reflexive	***ègbúwẹ̀***		***ègbéwẹ̀***		***ègbùẹ́***			
	Possessive	***ọ́ghúwẹ̀***				***ọ́ghùẹ́***			
2 Plural	Personal	***ùwà***	***wà***	***rùá***	***ùá***				
	Reflexive	***ègbúwà***							
	Possessive	***ọ́ghúwà***							
3 Singular	Personal	***ìrẹ̀n***	***rẹ̀n***	***ẹ́rè***	***ọ́rè***	***ọ́nrẹ̀n***	***ẹ́n***	***ọ̀***	***ẹ̀***
	Reflexive	***ègbírẹ̀n***				***ègbẹ́rè***			
	Possessive	***ọ́ghírẹ̀n***				***ọ́ghẹ́***			
3 Plural	Personal	***ìràn***							
	Reflexive	***ègbíràn***							
	Possessive	***ọ́ghíràn***							

Table B8: Universal and Partitive Pronouns

Universal Pronouns	*Assertive Partitive Pronouns*	*Non-Assertive Partitive Pronouns*	*Negative Partitive Pronouns*
àgbọ̀nhìá everybody	***árhúmwúọ́kpá*** somebody	***ọ̀mwárhọ̀kpà*** anybody	***ọ̀mwárhọ̀kpà*** nobody
èmwáhìá everyone	***ọ̀mwá*** someone	***ọ̀mwárhọ̀kpà*** anyone	***ọ̀mwárhọ̀kpà*** noone
èmwìhìá everything	***èmwì*** something	***èmwìrhọ̀kpà*** anything	***èmwìrhọ̀kpà*** nothing
èhéhìá everywhere	***èhọ́kpá*** somewhere	***èhérhọ̀kpà*** anywhere	***èhérhọ̀kpà*** nowhere
	dọ́mwàdẹ́ each		***érhọ̀kpà*** none

Table B9: Quantifying Pronouns

Quantifying Pronouns		
General		*Enumerative*
éhìà *all*	***ènọ́kpá*** *other*	*Cardinal numbers* • ***ọ́kpá, èvá, èhá****, etc.* • *one, two, three etc.*
èsó *some*	***ènọ́kẹ̀rẹ́*** *remaining*	*Reduplicated cardinal numbers* • ***ọ́kpọ́kpá, èvèvá, etc.*** • *one each, two each*
èsésò *none*	***ìbòzẹ̀ghẹ̀*** *few*	*Ordinal numbers* • ***nókàrò, nógièvá, nógièhá*** • *first, second, third etc.*
érhọ̀kpà *any*	***níbùn*** *many*	
érhọ̀kpà *none*		

APPENDIX C
ẸDÓ ALPHABETS AND PRONUNCIATION

Table C1: Alphabets and Phonetic Representations

A	AN	B	D	E	Ẹ	ẸN	F	G	GB	GH	H	I
a	an	b	d	e	ẹ	ẹn	f	g	gb	gh	h	i
[a]	**[ã]**	**[b]**	**[d]**	**[e]**	**[ɛ]**	**[ɛ̃]**	**[f]**	**[g]**	**[gb]**	**[ɣ**	**[h]**	**[i]**
IN	K	KH	KP	L	M	MW	N	NW	NY	O	Ọ	ỌN
in	k	kh	kp	l	m	mw	n	nw	ny	o	ọ	ọn
[ĩ]	**[k]**	**[x]**	**[kp]**	**[l]**	**[m]**	**[ɱ]**	**[n]**	**[ŋw]**	**[ɲ]**	**[o]**	**[ɔ]**	**[ɔ̃]**
P	R	RH	RR	S	T	U	UN	V	VB	W	Y	Z
p	r	rh	rr	s	t	u	un	v	vb	w	y	z
[p]	**[ɹ]**	**[ɽ]**	**[r]**	**[s]**	**[t]**	**[u]**	**[ũ]**	**[v]**	**[β]**	**[w]**	**[j]**	**[z]**

(Sources: Omozuwa, 2013 and Agheyisi, 1986)