

YORUBA *ní* AND *sí*: AN ASYMMETRY IN THE CLASS OF PREPOSITIONS

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Abstract: This paper examines two grammatical elements *ní* and *sí* which have been considered as prepositions in the grammar of Yoruba (Benue-Congo). We argue that these two elements belong to different word classes; *ní* is a preposition, while *sí* is a verb. We present novel data that show syntactic asymmetries that exist between the two elements: behavior under extraction, the possibility of pseudocleft formation, the order of the phrases in a clause, iteration, formation of complex prepositions, and subcategorization. The *ní*-phrase acts like an adjunct phrase but this is not so with the *sí*-phrase. The adjunct phrase is a prepositional phrase headed by *ní*. It is demonstrated that the preposition constitutes a phase head in Yoruba, thus movement out of the PP is banned which explains the lack of preposition stranding with *ní*. The element *sí*, on the other hand, can be stranded. It is argued that *sí* is the non-initial verb in a serial verb construction.

Key words: adjunct, argument, extraction, preposition, serial verb construction, Yoruba

1. Introduction

Yoruba like most other African languages attests very few prepositions (Watters 2000). The status of the elements *ní* and *sí* as verbs or as prepositions in Yoruba has long been a debate in the literature on the grammar of the language. Authors such as Awobuluyi (1978), Yusuf (1999) and Adesola (2005b) listed these two elements as prepositions in the language but they also note that the elements have verbal counter-

parts. The relevant examples where these elements have been claimed to be prepositions are as in (1). The claim is that the main verb *rà* ‘buy’ in the sentences is a transitive verb requiring a subject argument and an object argument, hence the DP introduced by the elements *ní* and *sí* are not part of the argument structure of the verb. The phrase after the object argument is an adjunct.

(1) Baseline declarative sentences

- a. *Adé ra işu ní Ìbàdàn.*
 Ade buy yam NI Ibadan
 ‘Ade bought yam in Ibadan.’ *ní*-adjunct
- b. *Adé ra işu sí Ìbàdàn.*
 Ade buy yam SI Ibadan
 ‘Ade bought yam (and the yam is) in Ibadan.’ *sí*-adjunct

Both *ní* and *sí* are translatable to English as ‘in’, ‘at’, ‘to’, ‘on’, ‘for’, ‘into’. But for the sentences in (1), the main difference in the interpretation is that in (1a), Ade bought the yam at Ibadan but the yam is no longer necessarily in Ibadan (because Ade has returned to Lagos, where he lives, with the yam). In (1b), on the other hand, Ade bought the yam and the yam ‘exists’, that is, it is in Ibadan now (even though Ade has returned to Lagos where he lives). Put differently, in the context ‘Ade bought yam in Ibadan and went to Lagos’ example (1a) is felicitous but (1b) is not.

In this paper, we present novel data that show that the only element with a true prepositional status in (1) is *ní* and that the element *sí* is a verb in all its areas of occurrence in the grammar of the language. The data indicate that in (1), only *ní*-phrase exhibits properties of an adjunct while the *sí*-phrase does not. Rather, the DP following *sí* functions like an argument of a verb, and the DP after *ní* is the complement of the preposition. Given the empirical evidence, the central thesis of the present contribution is that for the structure where we have *ní* (1a), the PP is an adjunct adjoined to the VP. On the other hand, *sí* in (1b) is the non-initial verb (V2) in a serial verb construction.

Yoruba grammarians such as Ogunbòwale (1970) and Ajiboye (2011) claim that Yoruba has only two true prepositions, viz. *ní* and *sí*. As prepositions they require a DP complement, and these are often not subcategorized by the lexical main verb in a simple declarative sentence such as (2).

(2) *ní* and *sí* as prepositions (Ajiboye 2011: 32)

- a. *Kòkúma lọ [sí Èkó].*
 Kokuma go sí Lagos
 ‘Kokuma went to Lagos.’
- b. *Adé wà [ní ilé].*
 Ade exist NI house
 ‘Ade is at home.’

Yusuf (1999) and Adesola (2005b) argue that both *ní* and *sí* have verbal counterparts as exemplified in the following sentences. Put differently, the two elements display dual functions as verbal predicates and as prepositions. See also Lord (1993: Chapter 2) for this and other functions for *ní*. Lord (1993) suggests that the preposition *ní* is historically derived from a former locative verb *ní*, which is related to the homophonous verb of possession.

(3) *ní* and *sí* as verbal predicates

- a. *Adé ní owó.*
 Ade have money
 ‘Ade is rich.’
- b. *Omi (k)ò sí.¹*
 Water NEG exist
 ‘There is no water.’

Awobuluyi (1978: 98ff.) observes that *ní* often occurs with nouns referring to place, time, manner or circumstance, and that it never

¹ Note that the verb *sí* is licensed only in negative existential sentences. In the positive existential constructions, the verbs allowed are *wà* and *bẹ* (Ọlọjẹde 1990). The verb *bẹ* often requires the progressive marker to express the existential.

precedes anything that is not a noun or nominalization. He notes that *sí* occurs with nouns referring to place, time, humans and animals. Bamgboṣe (1990: 154), on the other hand, argues that *sí* is a postverb — a verbal element that occurs after the main verb.²

Adesola (2005b) classifies the prepositions in the language based on whether they allow for preposition stranding or preposition pied-piping or both. Arokoyo (2018) and Ajayi (2019) discuss preposition stranding and pied-piping in Yoruba focus constructions. The preposition *ní* cannot be stranded but can be moved alongside with its complement to the left edge of the clause in constructions such as focus, cf. (4). Adesola observes that *sí*, on the other hand, can be stranded. This means that we can move the complement of *sí* without moving *sí* along with the complement. An attempt to move *sí* along with its complement to the clause-initial position is ungrammatical; see (5). The focus constructions in examples (4) and (5) are based on the sentences in (2). The basic pattern of focus in Yoruba is that when a constituent is focused, the item is fronted and the focus copula *ni* (with a mid tone) appears immediately after the focused XP.

(4) *ní* allows preposition pied-piping

- a. **Ilé ní Adé wà ní.*
 house FCOP Ade exist NI
 ‘Ade is at HOME.’

² In this present study we do not consider *ní* that is found in some constructions where they appear to behave like the second verb and take a nominal complement (cf. Bamgboṣe 1966; 1990; Awobuluyi 1978). These are constructions Lord (1993: 24) referred to as “bitransitive” in English. Lord mentioned six of such verbs. Some examples from Lord (1993: 23) are provided below (i).

- (i) a. *Ó kọ wa ní Yorùbá.*
 3SG teach us NI Yoruba
 ‘S/he taught us Yoruba.’
 b. *Ó bi wọn ní ibèrè kan.*
 3SG ask them NI question one
 ‘S/he asked them a question.’

- b. *Ní ilé ni Adé wà.*
 NI house FCOP Ade exist
 ‘Ade is AT HOME.’

(5) *sí* allows preposition stranding

- a. *Èkó ni Kòkúmọ̀ lọ sí.*
 Lagos FCOP Kokumo go SI
 ‘Kokuma went to LAGOS.’
- b. **Sì Èkó ni Kòkúmọ̀ lọ.*
 SI Lagos FCOP Kokumo go
 ‘Kokuma went to LAGOS.’

Ajayi (2019) points out another difference between prepositions like *ní* which allows pied-piping and *sí* that bans it. He notes that in all preposition pied-piping cases the preverb element *tí* is obligatory under focus-fronting. But in stranding cases, that is, with *sí*, the preverb is missing. Note that (6b) is grammatical only without *ní*, cf. (4).

(6) Presence of the preverb *tí* under *ní* focus (Ajayi 2019: 105)

- a. *Mo ri Túndé ní ojà.*
 I see Tunde NI market
 ‘I saw Tunde at the market.’
- b. *Ojà_i ni mo tí ri Túndé (*ní) t_i*
 market FCOP I PV see Tunde NI
 ‘It was at the market that I saw Tunde.’

(7) Absence of the preverb *tí* under *sí* focus (Ajayi 2019: 73)

- a. *Màmá bí Tóbi sí Míami.*
 Mother give.birth Tobi SI Miami
 ‘Mother gave birth to Tobi in Miami.’
- b. **Míami_i ni mama tí bí Tóbi sí t_i*
 Miami FCOP mother PV give.birth Tobi SI
 ‘It was in Miami that mother gave birth to Tobi.’

Adesola (2005b) and Ajayi (2019) works are remarkable as they illustrate how the two prepositions behave syntactically. Apart from Adesola (2005b) that provide empirical data from preposition pied-piping and stranding, and Ajayi (2019) that observes the occurrence of the preverb under focus constructions from *ní*-phrase that, none of the other authors show the syntactic asymmetries that the prepositions exhibit. We will argue in this study that Adesola and Ajayi's observations follow given that *ní*-phrase is an adjunct, where *ní* is a preposition, hence preposition stranding is banned because prepositions are phase heads in Yoruba. The same assumption explains the presence of the preverb in *ní*-phrases. The preverb *tí* is attested under adjunct \bar{A} -movement (that is, displacement to a non-argument position) but banned under movement from an argument position (Déchaine 2001: 100). This indicates that *sí*-phrases such as that in (1b) is not an adjunct, but rather a VP with the DP that follows the verb *sí* being a complement in an argument position. Adesola and Ajayi did not consider these differences as a result of argument vs adjunct distinction. The present study presents novel sets of data that suggest that the elements *ní* and *sí* do not belong to the same syntactic category, while *ní* is a preposition, *sí* is a verb. The data are mainly based on the diagnostics in distinguishing arguments and adjuncts, and contain both cross-linguistic and Yoruba language-specific tests. Tests such as iteration, relative word order of phrases with *ní* and *sí*, and the formation of pseudoclefts used in the present study have not been used in the previous studies. Unless otherwise stated, the data for the present work come from a combination of the authors' intuitions, and consultation with other native speakers of Yoruba. The dialect reported here is the standard variety of the language.

The paper is structured as follows. In §2, we investigate the differences between the two elements by applying some cross-linguistic and Yoruba language-specific tests that indicate that the elements do not belong to the same syntactic category of preposition. This is followed in §3 by a further difference in terms of constituents that can follow the two elements, where the data show that prepositions in

Yoruba do not take pronominal clitics as complements. We employ generative syntax framework (Adger 2003; Carnie 2013) in the present study. §4 presents an analysis of *ní* preposition as a phase head in Yoruba (cf. Abels 2003); and for *sí* we postulate that it is a non-initial verb in a serial verb construction, and assumes VP-shells in a VP complementation structure. §5 summarizes and concludes the paper.

2. The asymmetries

Taking the sentence in (1) as the baseline sentence, we show in this section that there are a number of syntactic asymmetries between the *ní*-phrase and the *sí*-phrase. Most of these tests have been applied to prepositions and verbs in other (African) languages in order to tell the two syntactic categories apart. See, for instance, Lefebvre & Brousseau (2002: Chapter 11) for Fongbe and Ameka (2003) for Ewe. We start by providing some cross-linguistic data that indicate the difference between adjuncts and arguments in §2.1 to §2.3. §2.4 considers the differences in meaning usage of the two elements, while in §2.5 we examine some more syntactic asymmetries that are based on extraction.

2.1. Iteration

A major difference between adjuncts and arguments (or complements) is that the number of arguments is strictly limited because of the selection properties of the lexical head, but for adjuncts, there can be any number (Sportiche et al. 2014). This means that adjuncts can be repeated to give additional information in a sentence. Examples (8a–b) indicate that we can have more than one *ní*-phrase in a sentence but this not possible with *sí* as (8c) illustrates.

(8) Limit on the number of *ní* and *sí* phrases

- a. *Adé ra iṣu [ní oḍo oṛe rẹ] [ní Ìbàdàn].*
 Ade buy yam NI place friend 3SG.POSS NI Ibadan
 ‘Ade bought yam from his/her friend in Ibadan.’

- b. *Mo ra eja [ní pèlépèlé] [ní oja] [ní àná].*
 I buy fish NI gently NI market NI yesterday
 ‘I bought fish yesterday with ease at the market.’ (Omoḽewu, p.c.)
- c. **Adé ra iṣu [sí ọdọ ọrẹ rẹ] [sí Ìbàdàn].*
 Ade buy yam SI place friend 3SG.POSS SI Ibadan
 Intended: ‘Ade bought yam (and the yam is) at his friend’s place in Ibadan.’

Note that the order of the *sí*-phrases in (8c) does not matter. The important thing is that only one of the *sí*-phrase is licit in the construction, cf. (1b).

2.2. Relative order

When both *ní* and *sí* phrases are present in a sentence, the latter occurs before the former, and an attempt to swap the positions of these phrases results in ungrammaticality (9).

- (9) a. *Adé maa lọ [sí ọjà] [ní àìpẹ].*
 Ade FUT go SI market NI not.long
 ‘Ade will soon go to the market.’
- b. **Adé maa lọ [ní àìpẹ] [sí ọjà].*
 Ade FUT go NI not.long SI market
 Intended: ‘Ade will soon go to the market.’
- c. *Adé ra iṣu [sí Ìbàdàn] [ní àná].*
 Ade buy yam SI Ibadan NI yesterday
 ‘Ade bought yam yesterday (and the yam is) in Ibadan.’
- d. ^{??}*Adé ra iṣu [ní àná] [sí Ìbàdàn].*
 Ade buy yam NI yesterday SI Ibadan
 ‘Ade bought yam yesterday (and the yam is) in Ibadan.’

If both phrases were PP-adjuncts, we would expect that the relative order should be free. But this is not borne out. This suggests that the ‘real’ PP is the *ní*-adjunct which can only occur after the *sí*-phrase,

the canonical position for adjuncts in Yoruba. The data in (10) indicate that the *ní*-adjunct phrases can be re-ordered; cf. (8a).

- (10) *Adé ra iṣu [ní Ìbàdàn] [ní ọdọ ọrẹ rẹ].*
 Ade buy yam NI Ibadan NI place friend 3SG.POSS
 ‘Ade bought yam from his/her friend in Ibadan.’

2.3. Productivity

Compared to *sí*, *ní* is highly productive in forming morphologically complex prepositions. That is, *ní* is combined with full lexical noun phrases to form complex structures. Consider the following example from Awobuluyi (1978: 99). This is expected if *ní* is a “real” preposition. Cross-linguistic data suggest this to be the case; cf. Zwarts (1997).

- (11) a. *nínú ní + inú* ‘inside’
 b. *lóri ní + orí* ‘on top of’
 c. *nípa ní + ipa* ‘about, in connection with’
 d. *lábe ní + abẹ* ‘under’
 e. *nítórí ní + tí + orí* ‘on account of’
 f. *látí ní + à-tí* ‘from’

The data in (11) demonstrate that *ní* can be considered to be the basic (or simplex) preposition in Yoruba from which the complex prepositions are formed.

2.4. Meaning

Although both *ní* and *sí* appear to have a basic spatial and temporal meaning, *ní* additionally has derived causal, manner, quality, circumstantial, instrument, resultative, genitive, etc. uses (Awobuluyi 1978; Lord 1993). These uses are often adverbial notions expressed with the PP. This is in conformity with the traditional criterion of prepositions as words that combine with noun phrases to form an adverbial phrase (Zwarts 1997).

(12) Uses of *ní* (Omoḣewu, p.c.)

- a. *Mo jẹ oúnjẹ mi ní gbígbóná.*
 I eat food my NI hotness
 ‘I ate my food hot.’
- b. *Táyò sá eré ní àná.*
 Tayo run race NI yesterday
 ‘Tayo ran yesterday.’
- c. *Olú mu omi ní wàràwàrà.*
 Olu drink water NI haste.RED
 ‘Olu drank water in haste.’

Note that *sí* cannot be used in all the contexts in (12).

2.5. Asymmetric movement

This section examines the syntactic asymmetries that are observed under movement to a non-argument position in the language. First, we consider preposition stranding or pied-piping under movement, and the second part investigates the morphological reflex of movement that helps to tease apart adjuncts and arguments. Finally, we examine the possibility of forming pseudoclefts.

2.5.1. Preposition stranding versus pied-piping

Recall from §1 that Adesola (2005b) observes that *ní* disallow stranding but *sí* can be stranded; cf. (4) and (5). Consider also the focus-fronting data in (13) and (14) which are based on the baseline declarative sentences in (1).

(13) Preposition stranding

- a. **Ìbàdàn ni Adé (ti) ra iṣu ní.*
 Ibadan FCOP Ade PV buy yam NI
 ‘Ade bought yam in IBADAN.’
- b. *Ìbàdàn ni Adé ra iṣu sí.*
 Ibadan FCOP Ade buy yam SI
 ‘Ade bought yam (and the yam is) in IBADAN.’

The data in (13) could be explained by Huang's (1983) Condition on Extraction Domains (CED) that states that extraction is possible out of a complement but not out of an adjunct. Put differently, adjuncts are islands (Ross 1967).³ We are able to extract from the *sí*-phrase (13b) because we have a complement there but movement from the *ní*-phrase (13a) is blocked because it is an adjunct. For the present study, our account for the data is based on phasehood, that is, preposition is a phase head in Yoruba; see §4.1. This is based on the idea that even in non-preposition-stranding languages, PPs are islands; cf. Abels (2003).

(14) Preposition pied-piping

- a. *Ní Ìbàdàn ní Adé ti ra iṣu.*
 NI Ibadan FCOP Ade PV buy yam
 'Ade bought yam in IBADAN.'
- b. **Sí Ìbàdàn ní Adé (ti) ra iṣu.*
 SI Ibadan FCOP Ade PV buy yam

We posit that the illicit structure in (14b) is as a result of the fact that the fronted constituent *sí Ìbàdàn* is not a PP but rather a VP. Spec-FocP is a position that allows only nominals or nominalized elements like in most West African languages (Childs 2003; Hein 2017; Arokoyo 2018); cf. (15a-c). Note that *sí* in (15d) does not allow for nominalization like the verbs *buy* and *steal*. We assume that *sí* is a defective verb in the language. The copula *ní* (15e) has also been argued to be a defective verb; cf. Adesola (2005a) and references cited therein.

³ The examples (ii) illustrate the adjunct island constraint in Yoruba.

- (ii) a. *Adé fọ abọ [nitori pé Olú sẹ iṣu].*
 Ade wash plate because that Olu cook yam
 'Ade washed the plates because Olu cooked yam.'
- b. **Kíni, Adé fọ abọ [nitori pé Olú sẹ t_i]?*
 what Ade wash plate because that Olu cook
 lit: 'What did Ade wash plates because Olu cooked?'

As defective verbs, they do not have tense or aspectual interpretation but they can bear clitic pronouns like other verbs (Adesola 2005a).⁴

(15) Verb focus

- a. **Rà ni bàbá ra bàtà.*
 Buy FCOP father buy shoe
 Intended: It is buying that father bought shoes.’
- b. *Rirà ni bàbá ra bàtà.*
 buy.NMLZ FCOP father buy shoe
 ‘The fact that father bought shoes.’ (Lit. ‘It is buying that father bought shoes.’ (Bamgboṣe 1990: 207)
- c. *Jíjì ni olè jí iwé ọmọ nàà.*
 steal.NMLZ FCOP thief steal book child DET
 ‘The fact is that the child’s book was stolen.’ (Lit. ‘It is stealing that a thief stole the child’s book.’ (Awobuluyi 1978: 128)
- d. **Sísí ni Adé ra ọ̀ṣu sí Ìbàdàn.*
 SL.NMLZ FCOP Ade buy yam SI Ibadan
- e. **Níní ni Ọlórún ni ọ̀bá.*
 be.NMLZ FCOP God be king

The reader would notice that the constituent that is fronted in (14a) is a PP and not a nominal. As to why this is possible with PPs, we leave for future research. But an idea that comes to mind is that put forward in Johnson & Postal (1980) and Pankau (2013; 2018) that PPs and DPs do not constituent separate categories; and that adpositions and case markers belong to the same functional category with the extended DP-spine (Pankau 2018: 198).⁵

⁴ Adesola (2005a) notes that only nouns and verbs can bear clitics in Yoruba. The ability to take a clitic pronoun (or pronouns in general) is another strong evidence of the verbal status of *sí*. See the discussion in §3, where we investigate the syntactic nature of the different kinds of complement *ní* and *sí* subcategorize for.

⁵ In another view, and one based on the cartography of the structure of prepositions, Aboh (2010) argues that the prepositional domain is parallel to the nominal (and clausal domains).

2.5.2. Adjunct versus argument extraction

When it comes to the distinction between adjuncts and arguments in Yoruba, \bar{A} -extraction can give us some clue. The indications are from morphophonological reflexes of movement dependencies that are attested in the language. For instance, subject \bar{A} -movement exhibits resumptive pronoun in the original subject position, where the subject has moved from (Adesola 2005a). There is also the low tone drop on monosyllabic verbs under direct object extraction, that is, a low tone on the verb changes to a mid tone when the direct object that is an argument is \bar{A} -moved (Bamgboṣe 1967; Awobuluyi 1978; Déchaine 2001). This low tone drop would have been a very good tests to show whether *ní* and *sí* are verbs or not when their complements are moved, but this test is not applicable since both *ní* and *sí* bear high tones and not low tones. But another morphological reflex viz the presence of the preverb *tí* under adjunct extraction helps to distinguish arguments from adjuncts (Carstens 1986; Déchaine 2001); cf. (16). Carstens (1986) argues that the preverb licenses the adjunct gap. The adjunct movement in (16) is exemplified with relativization.

- (16) Adjunct extraction (Déchaine 2001: 100, citing Carstens 1986)
- | | | | | | | |
|------------------------|-----------|--------------|-----------|----------|-------------|----------------------|
| <i>ibi_i</i> | <i>tí</i> | <i>Bòsẹ̀</i> | <i>tí</i> | <i>ń</i> | <i>ṣeré</i> | <i>t_i</i> |
| place | REL | Bose | PV | IPFV | play | |
- ‘the place where Bose is playing...’

The data in (17) show that under extraction from the *ní*-phrase the preverb is present, but the preverb is incompatible with the *sí*-phrase. Note that *ní* is not in (17a) as the preposition cannot be stranded in Yoruba; see the discussion in §2.5.1, and precisely, example (14a).

- (17) Preverb under extraction from *ní* and *sí* phrases
- a. *Ìbàdàn ní Adé *(tí) ra iṣu.*
 Ibadan FCOP Ade PV buy yam
 ‘Ade bought yam in IBADAN.’

- b. *Ìbàdàn ní Adé (*tí) ra iṣu sí.*
 Ibadan FCOP Ade PV buy yam SI
 ‘Ade bought yam (and the yam is) in IBADAN.’

It is important to note that the preverb appears not to be found under *ní* temporal adjuncts like ‘yesterday’, ‘today’, ‘this morning’, etc., as in (18).

- (18) a. *Adé ra iṣu ní ànà / ní ago méta.*
 Ade buy yam NI yesterday NI timepiece three
 ‘Ade bought yam yesterday / at three o’clock.’
 b. *Ànà / ago méta ní Adé (*tí) ra iṣu.*
 yesterday timepiece three FCOP Ade PV buy yam
 ‘Ade bought yam YESTERDAY.’

Awobuluyi (2013: 165) notes that *ní*-phrases that follow the verbs *wà* ‘exist’, *sí* ‘exist’, and *mọ* ‘restrict’; cf. (4) do not require the preverb under extraction of the complement of *ní*.⁶ It is unclear why this is the case with these verbs. Some other intransitive verbs like *dé* ‘arrive’, *sùn* ‘sleep’ can be added to the list. We argue here that even though the preverb is absent under extraction from the *ní*-phrases that occur after these verbs, the *ní*-phrases are adjuncts since they pass the other syntactic tests; for instance, they are optional in the clauses (see footnote 7), and we can have more than one *ní*-phrase following each of the verbs listed.

⁶ We could assume that the *ní*-phrases after the existential verbs *wà* and *sí* might be locative complements, but in Yoruba, existential verbs may be on their own without requiring a locative complement (Olojede 1990), see (iii) and cf. (3b).

- (iii) a. *Omi wà (ní ilé).*
 water exist NI house
 ‘There is water (at home).’
 b. *Omi (k)ò sí (ní ilé).*
 Water NEG exist NI house
 ‘There is no water (at home).’

2.5.3. Pseudocleft test

Another test which can be used to distinguish arguments from adjuncts is the possibility of forming pseudoclefts from them (DeArmond & Hedberg 1998). The test indicates that the formation of a pseudocleft is possible in a DP-focused pseudocleft if the DP is a complement but not when it is an adjunct. Consider the data in (19).

(19) Pseudocleft formation

- a. **Ibi tí Adé ra iṣu ní ni Ìbàdàn*
 place REL Ade buy yam NI FCOP Ibadan
- b. *Ibi tí Adé ra iṣu sí ni Ìbàdàn*
 place REL Ade buy yam SI FCOP Ibadan
 lit.: ‘Where Ade bought yam (and the yam is) is Ibadan.’

In (19a), the adjunct *Ìbàdàn* cannot occur after the focus copula *ní*. In (19b), however, we can have *Ìbàdàn*, which we claim is the complement of *sí* in this position, that is, after the focus copula. Note that both pseudocleft data are formed via relativization in the language.

2.6. Interim summary

To recap, the diagnostics in this section have shown that the syntax of *ní* and *sí* cannot be equated. The results of the various tests point to the fact that the ‘real’ preposition out of the two elements is *ní*, and constitute an adjunct in our baseline sentence in (1). The *ní*-phrase can be repeated, it always occurs after *ní*-phrases, it is very productive in the formation of nominal compounds that serve various adverbial functions, and it exhibits adjunct properties that are observed under extraction. The following table summarizes the differences between *ní* and *sí*.

In the following section we explore the subcategorization of the elements *ní* and *sí* where we see further syntactic asymmetries between the two elements.

Table 1

Some differences between *ní* and *sí*

	<i>ní</i>	<i>sí</i>
iteration	✓	✗
productive in forming complex prepositions	✓	✗
more meaning usage	✓	✗
preverb under extraction	✓	✗
pied-piping	✓	✗
Stranding	✗	✓
pseudocleft formation	✗	✓

3. Subcategorizations

In this section, we point out an interesting fact that strongly suggests that *sí* is verbal, whereas *ní* is not in the baseline sentences we consider in this study. This has to do with the kinds of complement that follow the two elements. It is observed that *ní* can take a full lexical DP (or NP), as well as a clausal complement (CP). Awobuluyi (1978: 99) notes that only nouns and nominalized elements can follow the preposition (20). The clausal CP complement after *ní* in (20b) is nominal. The CP is a free relative clause introduced by the wh-pronoun *bí* (cf. Howell 2013: 281). Free relatives can function as nominals despite their clausal nature (Bresnan & Grimshaw 1978; Šimík 2018).

(20) Complements of *ní* (Awobuluyi 1978: 99)

- a. *Ó dé ní àáɾɔ.*
 3SG arrive NI morning
 ‘S/he arrived in the morning.’
- b. *Máa ɔ ní bí mo ti ń wò ɛ yì.*
 INCEP go NI how I PV IPFV look 2SG this
 ‘Get going right now!’
 (Lit. ‘Start going the way that I am looking at you.’)

Interestingly, even though the preposition *ní* subcategorize for something nominal, it does not allow for a (clitic) pronoun (21); cf. Madugu (1982) and Yusuf (1985) cited in Lord (1993) for arguments based on information structure and discourse on why pronominal clitics are excluded from possible complements of *ní*.⁷ The question arises, why would the preposition ban a pronominal complement?⁸ The answer to this question is still unclear and further research is needed.

(21) No pronoun complements of *ní*

- a. *Olú bu omi sí mi ní ọwọ / *i.*⁹
 Olu scoop water SI me NI hand it
 ‘Olu scooped water unto my hand (*unto it).’
- b. *Ó wà ní inú rẹ / *i.*
 3SG exist NI inside 3SG.POSS it
 ‘It is inside it (*in it).’

The verb *sí*, on the other hand, can take a DP complement (22a), a CP complement (22b) as well as pronominal complements; cf. (21a) and (22c), and the existential predicate exemplified in (3b)

⁷ It is important to note that under the verbal predicative use of *ní* (cf. (3a)), having a (clitic) pronoun as a complement is allowed. Consider the following sentence (iv).

(iv) *O ní mi.*
 2SG have me
 ‘I’ve got your back.’ (lit: ‘You have me.’)

⁸ Note that the ban on pronominal clitics after *ní* also extends to cases of extraction. This means that we cannot have a resumptive pronoun in the extracted complement position of *ní*. Example (v) is an attempt to ameliorate the unacceptable sentence in (13a) by inserting a pronoun in the original base position of the moved constituent, but this does not work.

(v) **Ìbàdàn_i ní Adé (ti) ra iṣu ní i.*
 Ibadan FCOP Ade PV buy yam NI 3SG

⁹ The third person singular object pronoun is usually a copy of the vowel of the preceding verb, if the verb is monosyllabic.

can be followed by a locative *ní*-PP; see (22d). This is not surprising as it is normal for verbs to subcategorize for these different kinds of complement.¹⁰ Also, recall from §2.5 that the ability to take a clitic pronoun is a property of only nouns and verbs in Yoruba (Adesola 2005a). It is important to note that the analysis of phasehood of preposition in Yoruba sketched in §4.1 which is based on Abels (2003) has as one of its generalizations that languages that do not allow preposition stranding do not allow pronominal clitics as the complement of the preposition. This generalization is based on the idea that clitics must undergo syntactic movement that other DPs are exempt from.

(22) Complements of *sí*

- a. *Mo ju bóólù sí òdò Ọjó.*
 I throw ball sí place Ojo
 ‘I threw a ball to Ojo’s side.’
- b. *Ó padà sí bí ó ti wà rí.*
 3SG return sí way 3SG PV be.at look
 ‘It changed back to the way it was before.’ (Dechaine 2001: 99, citing Abraham 1958)
- c. *Wón kọ ìwé sí i.*
 3PL write book sí 3SG
 ‘They wrote to him/her.’
- d. *Kọkọró náà kò sí ní ọwọ mí.*
 key DET NEG exist ní hand my
 ‘The key is not with me.’ (Awobuluyi 2013: 165)

Table 2 provides a synopsis of the findings of the different syntactic categories of complements the elements *ní* and *sí* can combine with.

¹⁰ The verb *believe*, for instance, can take DP, PP, CP and pronominal complements:

(vi) *I believe the boy / him / in him / that he came.*

Table 2

Syntactic subcategorizations for *ní* and *sí*

	<i>ní</i>	<i>sí</i>
lexical DP	✓	✓
CP	✓	✓
PP	X	✓
pronoun	X	✓

The ban on pronouns functioning as complements of *ní* brings to mind the antipronominal contexts, that is, syntactic environments that license lexical DPs (where D° has a complement NP with ‘descriptive’ content) but bar pronouns (Postal 1994; Poole 2018; Pankau 2018). Postal (1994) documented 12 such contexts in English, while Pankau (2018) enumerated seven in German. The examples in (23) to (25) are constructions that exhibit some of these contexts from English and German. The English examples are from Postal (1994) while the German data are from Pankau (2018). The German contexts are particularly interesting as five out of the seven contexts are adverbials that are expressed with PPs; see (25).

(23) Existential constructions

- a. *There is a potato in the pantry.*
 b. **There is it in the pantry.*

(24) Change of colour contexts

- a. *He painted the car green / that colour.*
 b. **He painted the car it.*

(25) Temporal adverbials (German)

- a. *Ich traf ihn ✓in diesem Jahr / *in ihm.*
 I met him in this year in it
 ‘I met him this year (*it).’
- b. *Wir waren ✓zu der Zeit / *zu ihr verabredet.*
 we were to the time to it arranged
 ‘We had an appointment at that time / *at it.’

To sum up, an antipronominal context observed with the preposition *ní* has served as a diagnostic in showing that *ní* and *sí* do not belong to the same syntactic category.

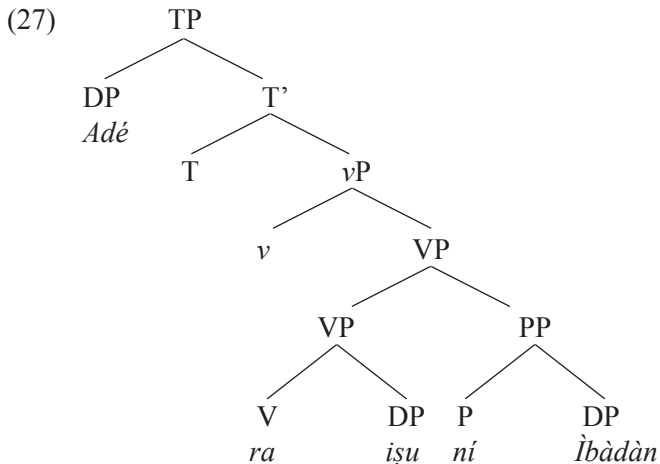
4. Analysis

Given the discussions in the preceding sections, we sketch an analysis where the *ní*-phrase in (1a) is an adjunct PP attached to the VP (§4.1), while the *sí*-phrase in (1b) is a VP with *sí* being the non-initial verb (V2) of a serial verb construction (§4.2).

4.1. *Ní* as a preposition

Most of the tests discussed in §3 indicate that the *ní*-phrase is an adjunct PP. We assume the structure in (27) for the baseline in (1a) repeated here as (26).

- (26) *Adé ra iṣu ní Ìbàdàn.*
 Ade buy yam NI Ibadan
 ‘Ade bought yam in Ibadan.’

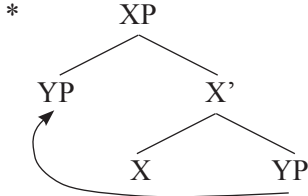


The extraction data in §2.5 show that the preposition *ní* can be pied-piped by its complement but cannot be stranded. We assume that prepositions are phase heads. For arguments that PPs are phases, or at least phases in some languages see Bošković (2004); Kayne (2004) and Abel (2003).¹¹ Phases are incremental chunks built in the syntactic derivation process (Chomsky 2000; 2001). This forces movement to be successive-cyclic, hence movement at one fell swoop is disallowed. The distinction is made between the phase complement, the phase head and the edge of the phase. The Phase Impenetrability Condition (PIC) stipulates that once a phase is completed, the internal domain of the phase, that is, the complement is no longer accessible for operations outside the phase. This means that only the phase head and the phase edge are accessible. But the complement can bypass the PIC effect by moving to the edge of the phase via some EPP feature.

The P(reposition) being a phase head means it has a specifier. Also, the complement of the phase head that will have to move out of it must make a stop-over at the Spec-PP position (28). Abels (2003) argues that this movement of the complement of P to Spec-PP is ruled out by the Last Resort condition. The condition rules out movement of the complement of the phase head to the specifier of the very same head. Abels claims that the reason for this is that the Head-Complement relation is the closest relation in syntax, and all features can be checked in that relation. But if movement needs to give rise to some new feature satisfaction, Abels (2003) argues that there is no reason to move from the complement to the specifier position of the same head. The constraint on moving from the complement to the specifier of the same head is known as the Anti-locality constraint (28).

¹¹ In order to account for P-stranding with some prepositions under focus constructions, Ajayi (2019: 63) partly assumes that Yoruba is a language where P is a phase head.

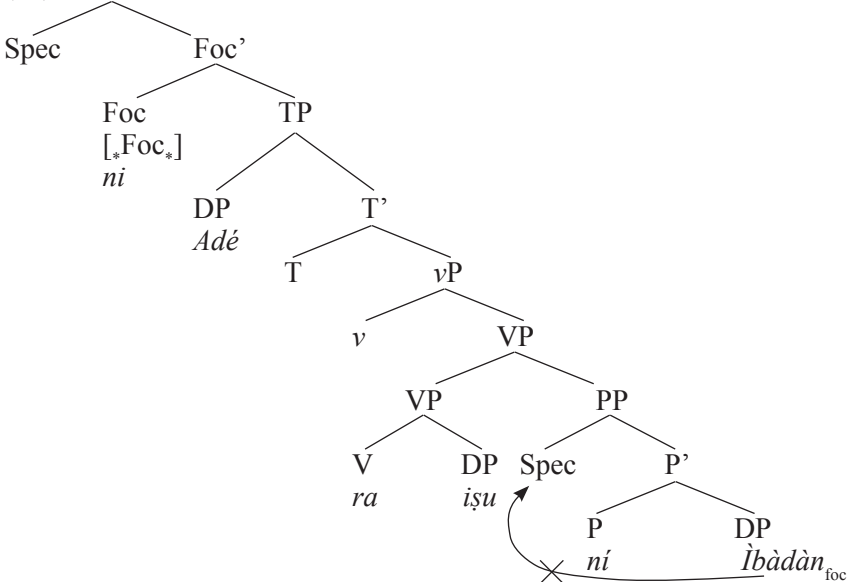
(28) Anti-locality constraint (Abel 2003: 12)



Given the ungrammatical focus-fronting data in (13a), repeated here as (29), where we see the movement of the complement of *ní* and stranding the preposition, we assume that the Anti-locality constraint bans this movement since *Ìbàdàn* which is the complement of *ní* must move to Spec-PP given the phasehood of P (30).

(29) **Ìbàdàn ní Adé (ti) ra işu ní.*
 Ibadan FOCOP Ade PV buy yam NI
 ‘Ade bought yam in IBADAN.’

(30) FocP



For the focus-fronting data, the XP_{foc} , here *Ìbàdàn* which is the complement of the preposition *ní* needs to move to Spec-FocP in order to check the probe feature [$_{*}Foc_{*}$] on the focus head, this feature needs to be discharged to the c-commanded goal XP with the matching feature [Foc]; but the obligatory stop-over movement required at the phase edge of P does not make this movement to Spec-Foc to be a successful one (30).

4.2. *Sí* as V2 in a serial verb construction

We present arguments that indicate that *sí* acts like the V2 in a serial verb construction (SVC); cf. §2. The SVC that will be used to illustrate this is (31). The sentence in (31a) is the baseline; (31b) shows that we cannot focus-front the verb and its complement; put differently, we can focus the VP projection just as PP focus is allowed; see (14a). The example in (31c) indicates that it is possible to extract the complement of V2 and strand the verb. The example also shows that the preverb *tí* found under adjunct extraction is not compatible here. The data in (31d) demonstrate that formation of pseudocleft is possible. Finally, (31e) indicates that the V2 can take a pronominal clitic as complement.¹²

(31) Serial verb constructions

- a. *Adé ra işu fún Olú.*
Ade buy yam give Olu
'Ade bought yam for Olu.' baseline
- b. **fún Olú ni Adé ra işu*
give Olu FCOP Ade buy yam cf. (14b)
- c. *Olú_i ni Adé (*tí) ra işu fún t_i*
Olu FCOP Ade PV buy yam give
'Ade bought yam for OLU.' cf. (17b)
- d. *eni tí Adé ra işu fún ni Olú.*
person REL Ade buy yam give FCOP Olu
'The person that Ade bought yam for is Olu.' cf. (19b)

¹² The verb *fún* 'give' has been argued to be in the process of grammaticalization to a preposition in Yoruba (Lord 1993).

- e. *Adé ra işu fún un.*
 Ade buy yam give 3SG
 ‘Ade bought yam for him/her.’ cf. (22c)

Given all the above similarities between *sí* and the V2 in an SVC, one can posit that *sí* is a verb. But there is an aspect where *sí* appears to behave a bit differently from V2. This is about the independence of the verbs in an SVC. Haspelmath (2016) in his definition of SVCs itemized the independence of the verbs as one of the key components of constructions that count as SVCs. Compared to the V2 in (31a) which can be independent (32a), *sí* is not able to occur on its own in (32b) except in the negative existential construction; cf. (3b) and (22d). The sentence in (32b) is based on the one in (1b).

(32) (In)dependence of V2 and *sí*

- a. *Adé fún Olú.*
 Ade give Olu
 ‘Ade gave Olu.’
- b. **Adé sí Ìbàdàn.*
 Ade sí Ibadan

Related to the fact that *sí* cannot occur on its own as a main predicate, it cannot also be part of a coordinate structure (33). Note that the VP (or clausal) conjunction has a low tone different from the high-toned verbal *sí*.

(33) Coordinate structures

- a. *Adé ra işu ó sì fún Olú.*
 Ade buy yam 3SG CONJ give Olu
 ‘Ade bought yam and gave Olu.’
- b. **Adé ra işu ó sì sí Ìbàdàn.*
 Ade buy yam 3SG CONJ sí Ibadan

Based on the data in (32) and (33) *sí* appears to share the properties of prepositions. The following table presents a summary of the similarities and difference between V2 in an SVC and *sí*.

Table 3

V2 in an SVC and *sí*

	V2	<i>sí</i>
extraction of the complement leaves a gap	✓	✓
extraction of the maximal projection possible	✓	✓
formation of pseudocleft possible	✓	✓
argument may be realized as a clitic	✓	✓
can appear as independent predicate	✓	X?

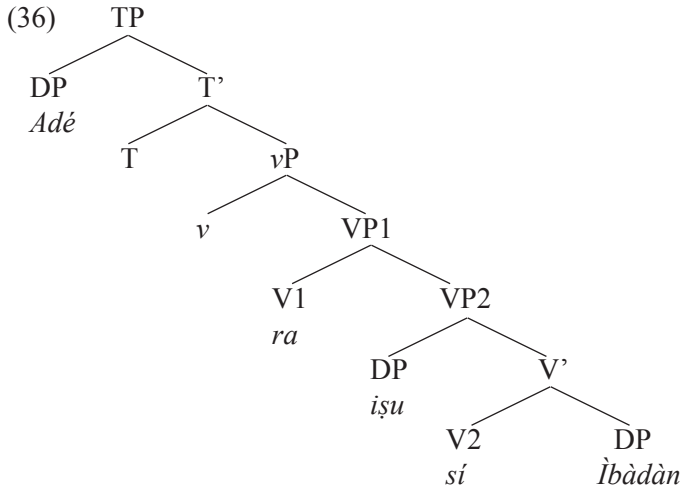
A further piece of data that demonstrate that the *sí*-phrase is not an adjunct is that in an SVC with three verbs, for instance, the VP phrase with *sí* can be ordered freely with respect to VP2 and VP3. The relevant data are in (34).

(34) SVCs with three verbs

- a. *Adé ra işu fún Olú sí Ìbàdàn.*
 Ade buy yam give Olu sí Ibadan
 ‘Ade bought yam for Olu and kept it in Ibadan.’
- b. *Adé ra işu sí Ìbàdàn fún Olú.*
 Ade buy yam sí Ibadan give Olu
 ‘Ade bought yam for Olu and kept it in Ibadan.’

For the structure of the *sí* SVC, the analysis we adopt is that involving VP shells in a VP complementation structure where the second verb phrase is the complement of the first verb (Collins 1997; Cleary-Kemp 2015; Rolle & Degema 2016). We do not assume a (covert) coordination structure since *sí* in SVCs is often not independent and cannot occur in coordinate structures; see (32) and (33). The structure in (36) is for the baseline sentence in (1b) repeated here as (35).

- (35) *Adé ra işu sí Ìbàdàn.*
 Ade buy yam sí Ibadan
 ‘Ade bought yam (and the yam is) in Ibadan.’



Extraction of the complement of *sí* in the structure in (36) is allowed because unlike P, V is not a phase head. Abels (2003) assumes that C, *v* and P in some languages are phases.¹³

5. Summary and conclusion

The purpose of this paper has been to point out the differences between the elements *ní* and *sí* that are considered to be the “real” prepositions in the grammar of Yoruba. We argued that these two elements do not belong to the same syntactic category of preposition in the language. We provided evidence from the different behavior of the two elements. *Ní* exhibits more properties of an adjunct prepositional phrase than *sí*. The idea that prepositions are derived from verbs (via serial verb constructions) have been reported for some (African) languages; cf. Lord (1973; 1993), Heine et al. (1991), Ameka (2003) and Aboh (2010). This also seems to be the case in Yoruba as both *ní* and *sí* can function as verbal predicates. But given the derivation from verb to preposition process, it appears that only *ní* but not *sí* has completed this process.

¹³ Chomsky (2000) suggests that only (transitive) *v*P and CP constitute phases.

This claim about *sí* is similar to that suggested for the Yoruba verb *fún* ‘give to’ by Lord (1993: 37) as ‘an example of a verb which, in the context of a serial verb construction, has taken on prepositional function but has not (yet) become formally defective. However, even in its most verb-like uses, it has special characteristics.’ The paper has shown that in Yoruba *ní* is a preposition, but *sí* is not.

Abbreviations

2SG — second person singular	INCEP — inceptive
3SG — third person singular	NEG — negative marker
3PL — third person plural	NMLZ — nominalization
CONJ — conjunction	POSS — possessive
DET — determiner	PV — preverb
FCOP — focus copula	RED — reduplication
FUT — future	REL — relative complementizer
IPFV — imperfective	

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