Implicit Arguments in English and Rutooro: A Contrastive Study*

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Abstract

The present study is a contrastive analysis of the syntactic behavior of verbs that are ontologically specified for objects but these objects may be left out without rendering sentences ungrammatical. The study unveils asymmetries between English and Rutooro (a Bantu language spoken in Uganda) in the (non-)omissibility of postverbal arguments, stemming from lexico-semantic and morphological factors as well as syntactic and discoursal factors. In light of the asymmetries arising from syntactic and discoursal factors, the study adopts a typology of indefinite implicit arguments that categorizes them into two: general indefinite implicit arguments and discourse-bound indefinite implicit arguments. Denotational nuances between synonyms as well as morphological specifications are also crucial linguistic ingredients that trigger variability in the syntactic behavior of synonymous verbs intralinguistically and cross-linguistically. In order to formalize the syntactic behavior of the verbs involved, the study employs the analytical tools provided by Lexical Functional Grammar (LFG). While Asudeh/Giorgolio (2012) use a combination of LFG and Glue Semantics in order to account for the occurrence of implicit arguments, this study proposes an alternative approach, by using only the LFG functional specifications in the lexical entries of the verbs under consideration without having recourse to an auxiliary framework. Using Bresnan (1978) as a point of departure and informed by proposals advanced by Nordlinger/Sadler (2007), the study posits a non-ambiguous bistructural analysis, with the postverbal argument instantiating the specification ± higher structure – a feature that caters for the (non-)omissibility of the postverbal argument.

1 Introduction

The present study is set out to expatiate on the grammatical phenomenon of implicit arguments, also known in literature as understood, unexpressed, or omitted arguments, or null complements (cf. Fillmore 1986, Németh/Bikok 2010, Pethö/Kardos 2010, Glass 2014). Specifically, it deals with object arguments that are specified in the lexical entries of given verbs but may be left unexpressed in a sentence without rendering it ungrammatical. The study's approach is contrastive in nature and looks at the occurrence of implicit objects in English and Rutooro – a non-tonal E12 Bantu language spoken in Uganda (cf. Guthrie 1967), as shown in the following examples (1) and (2):

* The research leading to these results has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 754340. This was through a fellowship at the Freiburg Institute for Advanced Study (FRIAS), University of Freiburg, Germany.

(1) a. *O-sib-ire?*
You-lock-PERF
'You have locked?'
b. *O-li-ire?*
You-eat-PERF
'You have eaten?'

(2) a. *Did you lock? (Fillmore 1986: 98)
b. Did you eat?

While the Rutooro equivalent of the verb *lock* can be used without its postverbal argument overtly expressed in a sentence (1a), in English *lock* (2a) cannot be used in this way (cf. Fillmore 1986, Iten, Junker, Pyke, Stainton/Wearing 2005). However, the verb *eat* and its Rutooro equivalent *-lya* allow the omission of the postverbal arguments ((1a) and (2b)). Although cross-linguistic studies of implicit arguments have been conducted involving languages such as Hungarian, English, French, and Polish, no study, to my knowledge, has been conducted as regards English and Bantu languages, where the construction under consideration manifests itself asymmetrically in several interesting ways (cf. Németh 2000, Cummins/Roberge 2004, Pethö/Kardos 2010, Ruda 2017). This study examines why, for example, a given verb allows an implicit argument in Rutooro (1a), but its equivalent does not allow it in English (2a), or vice versa. Ultimately, the study sheds more light on the behavior of implicit arguments cross-linguistically, by highlighting factors behind such an asymmetrical behavior and providing more empirical analysis as regards these constructions.

For Rutooro, the study uses sentences gleaned from recordings that lasted 162 minutes and involved 14 native speakers, who formed 4 groups and were asked to talk about ordinary issues affecting them.[1] 101 occurrences of implicit postverbal arguments were identified. In addition, in order to capture certain construction types, I constructed some sentences (as a native speaker of Rutooro) and asked the 14 participants to provide their judgments. Data for English was obtained from repositories such as the BNC, OED, and works that have analyzed implicit arguments. The paper is structured as follows: Section 2 provides the background to the study of implicit arguments, by highlighting what the available relevant literature says about their categorization and factors that license their occurrence, with examples drawn from English. The section also reviews studies that deal with implicit arguments in Bantu languages, by stressing the paucity of literature to this effect, as Bantuists have mainly concentrated on null subjects and constructions whose objects are coded clitically on the verbal complex. In section 3, I provide a contrastive analysis of the occurrence of implicit arguments in the two languages, by examining factors that account for the asymmetries between English and Rutooro, notably lexico-semantic and morphological factors as well as syntactic and discoursal factors. A syntactic formalism is presented in Section 4, where a Lexical Functional Grammar (LFG) approach is used to show the behavior of the verbs under consideration in the two languages. The study finishes with a conclusion in Section 5.

[1] All the participants were adults, aged between 19 and 59 years. The group was composed of both males and females, although gender is orthogonal for the current purpose of the study.

2 Previous studies on implicit arguments in English and Bantu languages

2.1 Implicit arguments in English

Implicit argument constructions have to do with transitivity, an ontological property inherent in verbs that have a subject and an object, e. g. verbs such as *lock, eat, drink, appreciate, reach*, etc. are inherently transitive, i. e. there must be an agent (subject) and a patient/theme (object) whether overtly expressed or lexically unexpressed. As is well known, not all verbs have this ontological property. There are verbs which only require the subject, i. e. intransitive verbs such as *cry, laugh, sneeze, die*. Crucially, among transitive verbs, there are two categories: there are verbs whose postverbal arguments may or may not be overtly expressed and in either case, the sentences are grammatical ((3) and (4)):

(3) a. Jane ate breakfast.
b. Jane ate.
(4) a. Jane followed the explanation.
b. Jane followed.

As can be seen, in both (3) and (4), the two options are grammatical, with (3a) and (4a) having the objects overtly realized, while (3b) and (4b) have no object that is overtly realized. The object in this case is said to be understood (cf. Groefsema 1995). In contrast, some transitive verbs do not allow the kind of grammatical behavior shown by the verbs in (3) and (4) above. According to Fillmore (1986), Iten et al. (2005), Pethö/Kardos (2010), transitive verbs such as *lock, vacate, vow* do not allow their object arguments to be lexically unexpressed ((5) and (6)):

(5) a. Jane vacated the house.
b. *Jane vacated.
(6) a. Jane locked the room.
b. *Jane locked.

A number of accounts have been provided to explicate what licenses the occurrence of implicit arguments in (3) and (4) and what precludes their occurrence in (5) and (6) (see, e. g. Fillmore 1986, Groefsema 1995, Iten et al. 2005, Pethö/Kardos 2010). In sum, the accounts advance grammatical and pragmatic factors as licensors of the occurrence of implicit arguments, with more recent studies (e. g. Németh/Bikok 2010, Pethö/Kardos 2010 and Ruda 2017) emphasizing an eclectic approach, where a constellation of the above factors comes into play in the licensing of implicit arguments. Specifically, the existing literature shows that factors such as selection restrictions, syntactic regularities as well as contextual variables work synergistically to license implicit arguments. For example, on the grammatical plane, given verbs have selectional restrictions inasmuch as some will allow implicit arguments while others will not (cf. (3) and (4) vs. (5) and (6)). Fillmore (1986) schematizes this in the following way (7):

(7) [± omit complement]

Hence, while *eat* and *follow* have the feature [+ omit complement], *lock* and *vacate* are [– omit complement]. The contextual factors include the discoursal context, the physical context as well as encyclopedic information (cf. Németh/Bikok 2010). Once a verb has a grammatical disposition to occur with an implicit argument, the speaker will use such a verb under appropriate pragmatic circumstances in order to facilitate recoverability. Consider (8) and (9):

(8) Paul does not drink.
(9) I suggested a solution to her but she didn't accept.

In (8), the missing object is recovered through enrichment by means of encyclopedic information, while in (9), the referent of the direct object of the verb *accept* is recovered anaphorically (Németh 2000). Fillmore (1986) dubs the verb in (8) as a verb that licenses an Indefinite Null Complement (INC), together with verbs such as *eat, read, sing, cook, bake,* and *sew.* Conversely, the verb in (9) licenses a Definite Null Complement (DNC), together with verbs such as *object, wait* and *win.*

Glass (2014) has postulated that the occurrence and recoverability of implicit arguments is further enhanced by what she calls "the common ground of a particular community of practice", where, for example, *I lifted* will easily be recoverable in a community of athletes as *I lifted weights*, since lifting weights is a routine activity among them. Glass (2014: 122ff.) thus shows that verbs which have been mapped as those that prohibit implicit arguments have actually been used with implicit arguments under such circumstances, as in (10). Similarly, Ruda (2014: 341f.) provides examples of the use of implicit arguments in register-specific situations (11), where implicit arguments are used with verbs that do not allow them in the neutral register (see also Ruppenhofer/Michaelis 2010):

(10) a. For dinner we let our little three year old choose. His request, chips and salsa. So off to Chili's we went. He *devoured*. Then we ordered a molten cake.
b. Divorce raised its (not so) ugly head and they *vacated* at the end of the lease.
c. Because I can't accept myself, I *demand* all the time. In all my relationships I *demand*, and no relationship is ever lasting…
I *attempted* and failed miserably…

(11) a. Slice the mushrooms finely and *put* in a large bowl with the oil.
b. […]then *roll* to ¼"-thick and *spread* with date filling and *turn* over on itself…

Both Glass (2014) and Ruda (2014), therefore, show that the sentences with implicit arguments above are indeed discourse-specific to a given community of practice, but also Glass (2014) adds that some of the sentences may be produced depending on the interlocutor's goal of foregrounding some information so that the object is just left out, since the most important information has already been given (see also Goldberg 2001). Given the above, Glass (2014) suggests some kind of probabilistic grammar involving English implicit arguments, which presupposes that given the right context, the omissibility of direct objects is possible for a wide range of English verbs. Put it differently, as Ruda (2014) observes, there is intralinguistic variation as regards the use of implicit arguments in English, with given registers allowing the use of what appear to be illicit implicit arguments elsewhere. In other words, we can categorize verbs used with implicit arguments into two usage levels: (i) unmarked verbs, i. e. verbs that are used with implicit arguments by every speaker, for instance, those proposed by e. g. Fillmore (1986), notably those that canonically allow implicit arguments; (ii) marked verbs, i. e. those that are used with implicit arguments in a given community of practice, namely those that, according to Fillmore (1986) and Groefsema (1995), do not otherwise allow implicit arguments.

2.2 Implicit arguments in Bantu languages

Research into postverbal implicit arguments in Bantu languages is scanty, to my knowledge. Many studies have instead dealt with Bantu null subjects, since Bantu languages are known as subject pro-drop languages (cf. Carstens et al. 2010, Deen 2002). As regards implicit object arguments, there are a few studies that have dealt with what they call null objects in Bantu languages in terms of omitted object NPs that are coded on the verbal complex as affixes (cf. Deen 2002, Abudonia 2014),[2] as shown in (12):

(12) a. *N-a-**mu**-tuu-z-a* Luganda (Abudonia 2014: 44)
1s-PAST-PRO.3s-sit-CAUS-FV
'I made her sit down'

b. *A-na-**m**-pend-a* Swahili (Deen 2002: 3)
3s-PRES-PRO.3s-like-FV
'He likes her'

Both Abudonia (2014) and Deen (2002) argue that since there are no overt object NPs in the above sentences, this shows object pro-drop and therefore we have cases of null objects in these sentences. As is expected, Abudonia (2014: 44) states that "the omitted null objects are recovered by the object markers…" Many studies have, however, shown that object markers are simply incorporated pronouns, where the affixes fill the argument position (Bresnan/Mchombo 1987, Labelle 2008).[3] In this study, I eschew the types of construction in (12), where there is an object marker (a pronoun) in the verbal complex filling the argument position (but see Section 3 for a brief discussion on reciprocals and reflexives, which are coded on the verbal complex). What I am mainly interested in is the construction type where no object pronoun is coded on the verbal complex so that the argument is fully implicitly expressed as is the case with the English examples (see Section 2.1). Such constructions exist in Rutooro and other Bantu languages, as shown in the example below (13) from Kinande (Authier 1988: 23, Huang 2000: 78), a Bantu language spoken in the Democratic Republic of Congo, close to the western Ugandan border:[4]

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[2] A more recent study by Kaji (2017:189), dealing with Rutooro, looks at a different phenomenon, which he calls "the intransitive usage of transitive verbs" and he compares this usage in Rutooro to the "anti-causative (or ergative) construction and the middle (or active-passive) construction found in English", as in:

(1) a. John opened the door. [transitive]
b. The door opened. [intransitive]
(2) a. John sells the book. [transitive]
b. The book sells well. [intransitive]

While some scholars (e. g. Recanati 2007) have used what Kaji (2017) uses above, i. e. the intransitive usage of transitive verbs, to refer to implicit arguments, Kaji's (2017) study deals with a different topic, as can be seen in the above examples.

[3] In some Bantu languages, the object NPs can co-occur with the object marker, e. g. Swahili, Bemba, Sambaa, while in other Bantu languages, when this happens, the object NP is either left-dislocated or right-dislocated and therefore serves as a topic, e. g. Kinyarwanda (Bresnan/Mchombo 1987, Zeller/Ngoboka 2015). Rutooro belongs to the latter group.

[4] In fact, a dialect of Kinande, Rukonzo, is spoken in Uganda coterminously with Rutooro (cf. Simons and Fenning 2018).

(13) *Arlette a-ka-lengekanay-a ati n-abiri-anz-a*
Arlette 3s-PRES-think-FV that 1s-PERF-love-FV
'Arlette think that I have come to love (her).'

As can be seen, the verb complex in the embedded clause has a transitive verb *-anza* 'love', but there is no object affix to fill the gap of the subcategorized argument. Authier (1988: 23) and Huang (2000: 78) state that in (13) there is neither an object identifying clitic nor a verb-agreement feature on a par with the following example (14) from European Portuguese:

(14) *José sabe que Maria viu*
José knows that Maria saw
'José knows that Maria saw (him)'

Studies on this type of null objects (true implicit object arguments) in Bantu languages are scarce, modulo the notable works of the above authors, especially Authier (1988), since Huang (2000) depends on Authier (1988). Couched within the Binding Theory, Authier's (1988) study focuses on the structural analysis of implicit arguments in Kinande "in terms of S-structure movement of a null topic to the matrix COMP in a successive cyclic fashion" (ibid. 35). Auther (1988) only compared Kinande with European Portuguese. Crucially, it seems right to state that the general licensing factors advanced for English (and other languages such as Hungarian) in the available relevant literature also hold for Bantu languages, namely grammatical and pragmatic factors. Hence, the present study subscribes to these general licensing factors and will now look at how variability in the grammatical, discoursal and lexico-semantic instantiations in the two languages leads to cross-linguistic variation as regards allowing or precluding the occurrence of implicit arguments in the languages under consideration (Rutooro and English).

3 Accounting for asymmetries between English and Rutooro

As mentioned earlier, while there are many cases where English and Rutooro display commonalities (e. g. in both languages, the verb *eat* and its equivalent *-lya* can be used with implicit arguments), there are several instances where the two languages behave asymmetrically. Sometimes, where English precludes implicit arguments, Rutooro allows them and, in other cases, where English allows implicit arguments, Rutooro precludes them. This is indeed predictable, since Pethö/Kardos (2010: 52) observe that the occurrence of implicit arguments is contingent on language-specific grammars (which, of course, interact with pragmatic factors). In order to account for the asymmetries between English and Rutooro, three factors suggest themselves: lexico-semantic, morphological, as well as syntactic and discoursal factors.

3.1 Lexico-semantic factors

When we compare some of the verbs that preclude postverbal implicit arguments in English with their counterparts in Rutooro, we realize that the two sets are simply near-synonyms. From a contrastive perspective, the concept of near-synonymy is very relevant, as it has been demonstrated that in many cases, the correspondence between words in two languages is usually near-synonymic rather than being fully synonymic, i. e. where there are exact synonyms. This, therefore, entails differences in a number of dimensions, which have an effect on the syntactic behaviour of the near-synonyms. An analysis of cross-linguistic near-synonymy is of great significance in the fields of translation and second language acquisition. Specifically, as far as

English is concerned, the emergence of L2 Englishes necessitates teasing out the role of substrate influence in the indexicality that these Englishes present. The asymmetries that Rutooro and English display in this regard may have a bearing on the L2 variety of English spoken by the Rutooro speech community, an outlook that I intend to pursue in a different paper.

In order to illustrate the concept of near-synonymy, Edmonds/Hirst (2002: 111) show that "the German word *Wald* is similar in meaning to English *forest*, but *Wald* can denote a rather smaller and more urban area of trees than *forest* can." In fact, even intralinguistically, exact synonyms are almost unavailable (cf. Edmonds/Hirst 2002). Let us first examine the case of synonyms in English in relation to how they behave towards the use of implicit arguments. We will then extrapolate the analysis to Rutooro vs. English. Fillmore (1986) shows that a number of synonymous verbs in English behave in a diametrically different way with respect to allowing implicit arguments. Some of the examples are given in (15):

(15) a. She promised.
*She pledged.
b. I tried.
*I attempted.
c. They accepted.
*They approved.
*They authorized.

Fillmore (1986) observes that despite their synonymity, they have different argument structures as a lexical property. This is not surprising since the verbs are, of course, not semantically the same, albeit they are semantically similar. While they have the same truth conditions (cf. Pethö/Kardos 2010: 50), their meanings present nuances that have a bearing on their syntactic behaviour. Semantic nuances are indeed crucial in determining the syntactic behaviour of verbs and Fillmore (1986: 99) acknowledges the fact that even the same verb can display different syntactic patterns based on its different senses, as shown in (16):

(16) a. She arrived at the summit.
She arrived.
b. She arrived at the answer.
*She arrived.

Groefsema (1995: 144) faults Fillmore's (1986) analysis, because "he does not show in what way these verbs are semantically related." She goes ahead to state that "superficially semantically related verbs may behave quite differently depending on specific components in their semantic representations." However, Pethö/Kardos (2010: 50) state that Groefsema (1995) herself does not explicitly show how the synonymous verbs display semantic nuances. But Pethö/Kardos (2010: 50) themselves do not provide such an explanation either, because they seem to believe that the semantic differences between synonyms are of little import as they state that after all the verbs "can be freely exchanged within appropriate contexts, contribute the same truth conditions to sentences uttered in the same context, can be paraphrased in roughly the same way, etc." But still, as can be seen in their statement, it is clear that these verbs do not mean or cannot be used to mean the same thing. Crucially, Velasco/Muñoz (2002: 6), citing Fellbaum/Kegl (1989), show that implicit arguments "tend to belong to semantically neutral

verbs (eat, drink, study, speak, etc.), as opposed to those which introduce a manner component in their semantic structure (bite, devour, sip, memorize, utter, etc.)." While the manner component is an important dimension in distinguishing synonyms, there are other dimensions, including non-semantic ones, which distinguish synonyms, as proposed by Edmonds/Hirst (2002), following Cruse (1986). Building on Velasco/Muñoz (2002: 6) and partly based on Edmonds/Hirst (2002), the present study will delineate the relevant parameters that characterize the syntactic behaviour of synonymous verbs in relation to admitting or not admitting implicit arguments. There is evidence in other construction types where synonyms display different patterns in syntactic behaviour. We are, for example, aware that as far as ditransitive verbs are concerned, *give* and *donate* behave differently in their syntax, because they do not exactly mean the same thing: while *give* allows the double object construction (*I gave him money*), *donate* does not allow it (**I donated him money*) (cf. Pinker 1989, Edmonds/Hirst 2002). To capture the dimensions of variation between the synonymous verbs under consideration, let us use matrices (17) containing specifications of what constitutes the lexical information of some of the verbs. The value [+] indicates that the verb has the specification following it, while [–] means the absence of such a specification:[5]

(17) Lexical information for the pairs *eat* vs. *devour*, *promise* vs. *vow* and *try* vs. *attempt*

a. $\left[\text{EAT}\left[\begin{array}{l}\text{+'eat'}\\ \text{–denotational manner}\\ \text{±overt postverbal argument}\end{array}\right]\right]$ vs. $\left[\text{DEVOUR}\left[\begin{array}{l}\text{+'eat'}\\ \text{+denotational manner}\langle\text{quickly}\rangle\\ \text{+overt postverbal argument}\end{array}\right]\right]$

b. $\left[\text{PROMISE}\left[\begin{array}{l}\text{+'promise'}\\ \text{–denotational manner}\\ \text{±overt postverbal argument}\end{array}\right]\right]$ vs. $\left[\text{VOW}\left[\begin{array}{l}\text{+'promise'}\\ \text{+denotational manner}\left\langle\begin{array}{l}\text{formal,}\\ \text{solemn}\end{array}\right\rangle\\ \text{+overt postverbal argument}\end{array}\right]\right]$

c. $\left[\text{TRY}\left[\begin{array}{l}\text{+'try'}\\ \text{–denotational specification}\\ \quad\text{on the patient referent}\\ \text{±overt postverbal argument}\end{array}\right]\right]$ vs. $\left[\text{ATTEMPT}\left[\begin{array}{l}\text{+'try'}\\ \text{+denotational specification}\\ \quad\text{on the patient}\\ \quad\text{referent}\langle\text{difficulty}\rangle\\ \text{+overt postverbal argument}\end{array}\right]\right]$

From the examples of the matrices in (17), we can clearly see that once there are denotational differences between synonyms, either in terms of manner or other specification, the syntactic behaviour is affected. Thus, while, for example, *vow* encodes a denotational manner, i. e. promising in a formal and solemn manner, *promise* lacks this meaning component. Likewise, while *attempt* involves a patient referent which is usually difficult (to try), this element is not present in the verb *try*. Thus, *vow* and *attempt* do not allow implicit arguments, while *promise* and *try* allow them.

Fillmore (1986: 99) lists *seek*, as opposed to its synonym *look*, as a verb that does not allow an implicit argument, as shown in (18). *Seek* and *look* are indeed very close synonyms, in that, in

[5] In the matrices, the entry in lower case and inverted commas represents the shared synonymity between the verbs.

the sense of "try to find something/somebody", they present the same denotational meaning (19):

(18) I sought everywhere.

(19) Lexical information for *seek* vs. *look*

$$\left[\text{LOOK}\left[\begin{array}{l}+\text{'look'}\\ -\text{denotational specification}\\ \pm\text{overt postverbal argument}\end{array}\right]\right] \text{ vs. } \left[\text{SEEK}\left[\begin{array}{l}+\text{'look'}\\ -\text{denotational specification}\\ +\text{overt postverbal argument}\end{array}\right]\right]$$

Despite the fact that the above verbs present the same denotation, they differ by the fact that *look* must be followed by the preposition *for,* while *seek*, as used in (18), is not followed by *for.* This means that *seek* requires a core argument, while *look* requires an oblique. Pethö/Kardos (2010: 52) attribute the difference between *await* and *wait* in terms of allowing or not allowing implicit arguments to this very fact (but see Section 3.2 for additional conditioning). In other words, the presence of the preposition *for* makes the two verbs behave differently. Relevantly, there are instances where *seek* can be followed by *for*, i. e. *seek for* in British English (OALD: 1384), which is why there are also instances where *seek* has been used with implicit arguments, as shown in the examples in (20), a revelation that contrasts with Fillmore's (1986) judgment in relation to (18):

(20) a. Seek, till we find, And when they sought and found… (OED, s. v. *seek*)
b. To seik from Sterling to Stranawer, A mirrear daunce mycht na man see. (OED, s. v. *seek*)
c. Seek and you will find. (Bible: Matthew 7: 7)

Since *seek for* is British, the role of dialectal differences in syntax comes into play. In fact, this role has been attested in many studies. For example, studies have shown significant syntactic variation in the linearization of ditransitive verbs due to dialectal differences (cf. Bresnan and Ford 2010, Isingoma 2018). We are also aware that even within the same regional dialect, there are usually syntactic differences stemming from different communities of practice (cf. Glass 2014, Ruda 2014). Hence, it seems that Fillmore (1986) based himself on one dialect of English in his judgment about (18).

Rutooro has a few synonyms as well, which behave differently syntactically. For example, the verb *-gonza* 'love/like' does not allow implicit arguments (see also Section 3.3), while its synonym *-kwana* 'love' (in the sense of 'be in love') allows an implicit argument. Another pair that behaves like the verbs given above involves *-bona* 'see' and *-rora'* 'see', with the former precluding implicit arguments and the latter allowing them. Likewise, while *-sisana* 'resemble' can be used with an implicit argument, its synonym *-sisa* 'resemble' cannot whatsoever. Let us have the lexical information for two of the above pairs (21):

(21) Lexical information for *-kwana* 'love' vs. *-gonza* 'love' and *-sisana* 'resemble' vs. *-sisa* 'resemble'

a. [-KWANA [+'love' +denotational specification ⟨exclusively romantic⟩ ±overt postverbal argument]] vs. [-GONZA [+'love' −denotational specification +overt postverbal argument]]

b. [-SISANA [+'resemble' −denotational specification +morphological complexity ±overt postverbal argument]] vs. [-SISA [+'resemble' −denotational specification −morphological complexity +overt postverbal argument]]

The verb *-kwana* 'love' and its synonym *-gonza* 'love' have semantic nuances in terms of the former necessarily involving a romantic relationship, while the latter is neutral. As for *-sisana* 'resemble' and *-sisa* 'resemble', the two verbs are denotationally identical, but morphologically different: while *-sisa* 'love' is a simplex verb, its synonym *-sisana* is a complex verb with a reciprocal affix incorporated in it (see Section 3.2). As is the case with the English synonymous verbs discussed above, the Rutooro synonyms also display different syntactic patterns due to these semantic (and morphological) differences.

The picture we get from how synonyms behave intralinguistically has a bearing on cross-linguistic synonyms, thereby partly accounting for the asymmetries between English and Rutooro. For that matter, we will use the lexico-translational approach (cf. Brindle 2015) in order to capture differences in the semantics of equivalent verbs in the two languages. In this approach, "the process of finding meanings relies on corresponding translations" (cf. Brindle 2015: 5). However, since Brindle (2015) sounds a word of caution as regards the efficacy of this approach (see also Mathewson 2004), we will not only rely on translation alone, but will also decompose the synonyms based on their meanings. Crucially, while some equivalent verbs in the two languages may present similar syntactic behaviour, other equivalent verbs may present different syntactic patterns due to the dimensions of variation between synonyms highlighted above. For example, the equivalents of *devour*, *lock* and *attempt* are *-lya, -siba* and *-lengaho* respectively (although usually we need to add a periphrastic adverbial to capture the full spectrum of the meaning, but this does not affect the syntactic behaviour of the synonyms). We should also contrast Rutooro *-gonza* with English *love*, since they behave differently with regard to the (non-)omissibility of their postverbal arguments. Let us look at the lexical information (22) of the above equivalents:

(22) Lexical information for Rutooro *-lya, -siba, -lengaho* and *-gonza* vs. English *devour, lock, attempt* and *love* respectively

a. [-LYA [+'eat' −denotational manner ±overt postverbal argument]] vs. [DEVOUR [+'eat' +denotational manner ⟨quickly⟩ +overt postverbal argument]]

b.

$$\left[\text{-SIBA}\left[\begin{array}{l}\text{+'lock'}\\ \text{–denotational specification}\\ \pm\text{overt postverbal argument}\end{array}\right]\right] \text{ vs. } \left[\text{LOCK}\left[\begin{array}{l}\text{+'lock'}\\ \text{+denotational}\\ \text{specification}\left\langle\begin{array}{l}\text{with a key}\\ \text{or a bolt}\end{array}\right\rangle\\ \text{+overt postverbal argument}\end{array}\right]\right]$$

c.

$$\left[\text{-LENGAHO}\left[\begin{array}{l}\text{+'try'}\\ \text{– denotational}\\ \text{specification}\\ \pm\text{overt postverbal}\\ \text{argument}\end{array}\right]\right] \text{ vs. } \left[\text{ATTEMPT}\left[\begin{array}{l}\text{+'try'}\\ \text{+denotational specification}\\ \text{on the patient}\\ \text{referent}\left\langle\text{difficulty}\right\rangle\\ \text{+overt postverbal argument}\end{array}\right]\right]$$

d.

$$\left[\text{-GONZA}\left[\begin{array}{l}\text{+'love'}\\ \text{+denotational}\\ \text{specification}\left\langle\begin{array}{l}\text{lacks strong}\\ \text{component of}\\ \text{romanticality}\end{array}\right\rangle\\ \text{+overt postverbal}\\ \text{argument}\end{array}\right]\right] \text{ vs. } \left[\text{LOVE}\left[\begin{array}{l}\text{+'love'}\\ \text{–denotational}\\ \text{specification}\\ \pm\text{overt postverbal}\\ \text{argument}\end{array}\right]\right]$$

From the foregoing, we see that the Rutooro verb *-siba* 'lock' does not specify the denotational manner of 'using a key or a bolt', which is necessarily present in its English counterpart. The other Rutooro verbs also present differences from their English counterparts. As mentioned above, for the Rutooro verbs, the extra semantics encoded by their English counterparts is realized periphrastically. For example, if one wants to have the exact equivalent of *lock*, one has to add adjuncts like *n'ekofuru* 'with a lock' or *n'omugomboli* 'with a bolt'. Likewise, for *devour*, one has to add the adjunct *bwangubwangu* 'quickly'. Thus, we can say that compared to the English verbs under consideration, the Rutooro verbs are semantically underspecified, which makes them lack the 'manner' component, which is associated with the feature [+implicit postverbal argument] (cf. Velasco/Muñoz 2002: 6). Although one can add an adjunct in order to get the exact equivalents of the English verbs, the adjunct does not affect the argument structure of the verbs; hence, it has no role in the (non-)omissibility of the postverbal argument. Lastly, we see, in (22d), a case where English allows implicit arguments (although only non-anaphorically, see Section 3.3) and Rutooro does not, because the Rutooro verb has a component that its English counterpart does not have.

The main issue discussed in this section is that synonymy is sometimes a constraint to syntactic behaviour, and this has also been evidenced in other construction types such as ditransitive constructions. Since Rutooro has fewer synonyms for the verbs under consideration here than English, this syntactic behaviour is less pronounced (but nevertheless present), while it is more pronounced in English. Synonymy thus increases the odds of intralinguistic syntactic variation, as well as cross-linguistic syntactic asymmetries. For the latter, for example, if English had only

the verb *eat* and not its synonym *devour* and Rutooro had *-gonza* 'love' without the synonym *-kwana* 'love', the differences between English and Rutooro would have been neutralized.

3.2 Morpholexical factors

In both English and Rutooro, there are two morphological categories of verbs: monomorphemic and multimorphemic verbs. For English, multimorphemicity is achieved via prefixation and suffixation, e. g. *encode* (en-code), *deactivate* (de-activate), *regularize* (regular-ize), *blacken* (black-en). In Rutooro, it is achieved by means of both prefixation and suffixation of the root of the verb.[6] In Bantu linguistics, this phenomenon is known as verbal extension or derivation (cf. Lodhi 2002, Rubongoya 1999). Prefixation in Rutooro leads to reflexivization, while suffixation leads to a number of verbal extensions, namely applicativization, causativization, passivization, reciprocalization, etc. See examples in (23):[7]

(23) Verbal extension in Rutooro

	Basic infinitive	**Derived verb**	**Type of derivation**
(a)	*kutema* 'to cut'	*kw**e**tema* 'to cut oneself'	reflexivization
(b)	*kucumba* 'to cook'	*kucumb**ir**a* 'to cook for'	applicativization
(c)	*kucumba* 'to cook'	*kucumb**is**a* 'to make cook'	causativization
(d)	*kwoleka* 'to show'	*kwolek**w**a* 'to be shown'	passivization
(e)	*kusisa* 'to resemble'	*kusisa**na*** 'to resemble each other'	reciprocalization

In some cases, the suffix is grammaticalized and becomes part of the verb root, and in other cases there is more than one suffix form used depending on the root (e. g. in applicativization, the suffix *-er-* is used when the vowel of the root is /o/ or /e/, while *-ir-* is used elsewhere). Examples of reciprocal and reflexive constructions are given in (24) respectively:

(24) a. *Abaana* *ni-ba-sisan-a*
Children PROG-3p-resemble.REC-FV
'The children resemble (each other).'
b. *Aboojo* *ni-be-e-gonz-a*
Boys PROG-3s-REFL-enjoy-FV
'The boys are enjoying (themselves).'

Many English reciprocals and reflexives are used with implicit reciprocal or reflexive objects. Examples include *divorce, kiss, marry, consult, meet* (for reciprocals) and *cram, dress, shave, hide* (for reflexives). On reciprocals, Haspelmath (2007: 2010) states that such verbs were first used as regular reciprocals but as they continued to be used very frequently, "speakers stored them holistically in their mental lexicons." This thinking can also be extended to the reflexives above. However, note that there are verbs whose reciprocal or reflexive objects must be overtly realized. Huddleston (2002: 302) lists *love* and *resemble* (reciprocals) and *clothe* and *perjure* (reflexives), while Siemund (2014: 52) states that reflexive pronouns cannot be omitted with

[6] But reciprocals behave differently, as the suffix is attached to the entire verb, not just the root (see example in (23e), as opposed to the rest of the cases in (23)). For more about reciprocals in Bantu languages, see Bresnan/Mchombo (1987), Labelle (2008).

[7] Note that here I have included the infinitive marker *ku-* (and its variant), as opposed to what I have done so far, i. e. not including it, as is the practice in Bantu linguistics.

verbs such as *absent, content, ingratiate, pride*, including the semi-reflexive verbs *commit, enjoy* and *manifest*. Hence, the following sentences (25) are illicit in English:

(24) a. *They resemble a lot.
b. *They clothed in white.
c. *He prides on his appearance.
d. *The problem has begun to manifest.

The morphological composition of verbs becomes more significant in this study when we consider affixation as an argument structure changing mechanism in both English and Rutooro. Pethö/ Kardos (2010: 53) have shown that "prefixed verbs in English in general tend to require their direct object to be explicit." Singling out the prefixes *a-, be-* and *en-*, Pethö/Kardos (2010) provide examples of derived verbs in English, namely *belabor, bescribble, besmear, entrust* and the archaic verbs *bepaint* and *berob* as verbs that obligatorily require explicit objects. At the same time, they state that it is this morpholexical condition that accounts for the difference in argument omissibility between *wait* and *await*, despite the fact that the two verbs are synonymous. In fact, we could also add the pair *concur* vs. *acknowledge*, since *acknowledge* comes from the obsolete verb *acknow*, made up of the prefix *ac-*, a variant of *a-* (OED, s. v. *acknowledge*). Evidently, one can also argue that *concur* is multimorphemic since it is made up of the prefix *con-* plus the root. But this is etymological prefixation, as the verb was borrowed when it was morphologically complex from Latin (cf. OED, s. v. *concur*). In light of the above, it might be worthwhile to have matrices showing the lexical information of the verbs *wait* and *await* (26):

(26) Lexical information for the verb *wait* vs. *await*

$$\begin{bmatrix} \text{WAIT} \begin{bmatrix} +\text{'wait'} \\ -\text{denotational specification} \\ -\text{morphological complexity} \\ \pm\text{overt postverbal argument} \end{bmatrix} \end{bmatrix} \text{ vs. } \begin{bmatrix} \text{AWAIT} \begin{bmatrix} +\text{'wait'} \\ -\text{denotational specification} \\ +\text{morphological complexity} \\ +\text{overt postverbal argument} \end{bmatrix} \end{bmatrix}$$

As is clear, the two verbs share the same semantics, but differ as regards their morphological composition, with *wait* being monomorphemic and *await* being multimorphemic. Of course, we are also aware that the two verbs are followed by different types of arguments, namely *wait* takes an oblique argument, while *await* takes a core argument. Both of these features work in favor of a syntactic asymmetry between the two verbs in relation to the (non-)admissibility of implicit arguments in their postverbal position.

Valence changing affixes in Rutooro also condition the non-omissibility of postverbal arguments. In fact, this syntactic behavior is more pronounced in Rutooro than in English, since, as we have seen, only a few verbs in English belong to this category. Pethö/Kardos (2010) observe that the "phenomenon is not productive in English". By contrast, the phenomenon is very productive in Rutooro, as a Bantu language, where valence changing affixation plays a preponderant morphological role. Let us use applicativization to illustrate this morpholexical operation. A well-researched verbal extension in Bantu languages, applicativization adds a participant to the argument structure of a verb (although in some cases it just realigns the arguments). In Rutooro, this is realized by affixing *-ir-* (or *-er-, -r-* as phonologically conditioned variants) to

the root of the verb (see Rubongoya 1999 for details), as in the following sentences ((27) and (28)):

(27) a. *Jeeni* *a-ka-cumb-a* *ebitakuli*
Jane 3s-PAST-cook-FV potatoes
'Jane cooked sweet potatoes.'

b. *Jeeni* *a-ka-cumb-ir-a* *Toomu* *ebitakuli*
Jane 3s-PAST-cook-APPL-FV Tom potatoes
'Jane cooked Tom sweet potatoes.'

(28) a. *Jeeni* *a-ka-leet-a* *ebitakuli*
Jane 3s-PAST-bring-FV potatoes
'Jane brought sweet potatoes.'

b. *Jeeni* *a-ka-leet-er-a* *Toomu* *ebitakuli*
Jane 3s-PAST-bring-APPL-FV Tom potatoes
'Jane brought Tom sweet potatoes.'

There is applicativization in the (b) sentences, where the verbs have been ditransitivized, while the sentences in (a) have monotransitive verbs. Crucially, the beneficiary or recipient arguments that are added by means of applicativization can never be omitted whatsoever (29), that is, not even in what Ruda (2014) refers to as special registers. The omission of such arguments is simply disallowed in Rutooro:

(29) a. **Jeeni* *a-ka-cumb-ir-a* *ebitakuli*
Jane 3s-PAST-cook-APPL-FV potatoes
'Jane cooked sweet potatoes.'

b. **Jeeni* *a-ka-leet-er-a* *ebitakuli*
Jane 3s-PAST-bring-APPL-FV potatoes
'Jane brought sweet potatoes.'

Instead, it is the direct object (patient/theme) that is omissible, as the sentences in (30) show:

(30) a. *Jeeni* *a-ka-cumb-ir-a* *Toomu*
Jane 3s-PAST-cook-APPL-FV Tom
'Jane cooked for Tom.'

b. *Jeeni* *a-ka-leet-er-a* *Toomu*
Jane 3s-PAST-bring-APPL-FV Tom
'Jane brought for Tom.'

It is important to note that (30a) can only be used as an indefinite implicit argument, while (30b) can only be used as a definite implicit argument. The direct object of the above verbs can also be omitted when the verbs are used monotransitively.

English does not have applicativization as a mechanism to ditransitivize its verbs or any other affixation mechanism to do so. Even in a ditransitive verb such as *begrudge*, which is made up of *be-* and *grudge*, the prefix is not valence changing, since *grudge* itself is a ditransitive verb, as shown in (31). Rather, the prefix is an intensive marker that means 'throughout' (cf. OED, s. v. *begrudge*):

(31) You surely don't grudge him his success. (cf. OALD: 688)

Because English does not have a morphological operation that ditransitivizes its verbs, English ditransitive verbs behave differently from their Rutooro counterparts. Huddleston (2002: 245) notes that "characteristically the O^d [direct object: bi] in ditransitives is obligatory while the O^i [indirect object: bi] is omissible." It is, therefore, possible, according to Huddleston (ibd.), to have (32) in English, but not (33):

(32) a. He lent his car.
b. She offered 400 dollars for it.
c. He brought sweet potatoes.

(33) a. *He lent them$_o$*i*.
b. *He offered us$_o$*i*.
c. *He brought him$_o$*i*.

In the above examples, Huddleston (2002) underscores the centrality of the direct object compared to the indirect object, by positing the omissibility of the latter as opposed to the former. However, literature on implicit arguments shows that given the right pragmatic conditions, it is possible to omit the direct object in the ditransitive constructions in (34):

(34) a. Paul gave to Amnesty International. (Groefsema 1995: 153)
b. I contributed to the movement. (Fillmore 1986: 97)

Of course, the type of construction in (34) is different from that in (33), where there is supposed to be a double object construction, while in (34) we have a prepositional phrase construction. This further shows how syntax constrains the occurrence of implicit arguments. The omitted arguments in (34) are indefinite and are recoverable from encyclopedic information at the disposal of the hearer (cf. Section 2). However, sentences of this kind are highly limited, or as, Ruda (2014) and Glass (2014) have shown, they may occur frequently in a given community of practice (but not in the neutral variety of English) or the context in which they are used must be universal and so transparent that filling up the omitted objects is very evident for every speaker.

All in all, in this section, we have seen that, as a rule of thumb, valence changing affixation conditions the non-omissibility of the derived argument in both English and Rutooro, with Rutooro instantiating syntactic ubiquity in this domain due its applicativization mechanism as a tool for ditransitivization. In fact, the same applies to monotransitivized verbs. Substantial asymmetric patterns have been observed between the two languages, not least as regards the (non-)omissibility of the beneficiary/recipient argument.

3.3 Syntactic and discoursal factors

We are now aware that, for example, in both English and Rutooro, the verb *eat* and its equivalent *-lya* can be used with implicit arguments (cf. Section 1). However, Fillmore (1986) shows that *eat* can only be used with an indefinite implicit argument, but not with a definite implicit argument, as shown in the dyad in (35). A referent of an implicit argument is definite if it is a specific discourse referent mentioned earlier, i. e. it has an antecedent with which there is an anaphoric relationship, while it is indefinite if the referent is construed as not referring to anything specific in the discourse or the referent is a matter of indifference (cf. Fillmore 1986, Pethö/Kardos 2010, Glass 2014):

(35) A. Where is my cake?
B. *Jane ate.

According to Fillmore (1986), the answer in B cannot be a reply to A's question, whereby the unexpressed argument referent would be "it". The same situation obtains in Rutooro (36):

(36) A. *Keeki yange e-r-i nkaha?*
Cake my 3s-be.PRES-FV where
'Where is my cake?'
B. **Jeeni a-li-ire*
'Jane ate'

However, in a Rutooro response to a polar question, it is licit to have an implicit argument (37) and the interpretation is definite. This is less emphatic than when the verbal complex contains an object marker, i. e. when there is no implicit argument:

(37) A. *Keeki a-li-ire*
Cake 3s-eat.PRES-FV
'The cake, has she eaten?'
B. *Ego a-li-ire*
'Yes, she has eaten (it)'

In (37), the reply by Speaker B has an implicit object argument, that is, there is no object pronoun coded on the verbal complex. The sentence is felicitous as a reply to Speaker A's question and the missing object in Speaker B's reply is understood to be the cake. The construction is more frequent in Rutooro, as a way of responding to polar questions, whether the response is to a question in which the object NP is fronted, i. e. topicalized, as in (37), or where the NP object is in its canonical position, as in (38).

(38) A. *Jeeni a-in-a abaana?*
Jane 3s-have.PRES-FV children
'Jane has children?'
B. *Ego a-in-a*
Yes 3s-have.PRES-FV
'Yes, she has (them)'

The grammar of Rutooro is different from that of English in this respect, in that lexical verbs are required in responses to polar questions, while this is not the case in English, where it is mainly auxiliary (or dummy auxiliary) verbs that are permitted (39)[8]. If the lexical verb is used in English, then the reply will require the addition of the object if the verb is of the type [–omit postverbal argument], as in (39c):

(39) A. Has Jane got children?
B. a) *Yes, she has got.
b) Yes, she has.
c) Yes, she has got children/them

[8] This generalization does not include the lexical verbs *be* and *have*, although in American English *have* behaves like other lexical verbs.

But we are aware of the fact that sometimes English uses its lexical verbs with implicit arguments in short answers and elliptical forms when making an emphatic affirmation (40):

(40) a) A. Did you have a job before coming to Germany?
B. Yes, I did have.
b) Mary didn't have a job, but Mercy did have.

However, such occurrences seem to be artifacts of given communities of practice, since only 05 hits of constructions with implicit arguments are found in the BNC out of the 800 entries in which *did have* is used. Moreover, there is no hit for *do/does have* used with implicit arguments out of the 1850 entries in the BNC. Of course, English still uses an auxiliary verb in short answers where implicit arguments are permitted, i. e. the (a) reply in (41), while Rutooro still uses its lexical verb, i. e. the (a) reply in (42). In other words, in addition to *yes* (and its social variants) as the shortest way of replying to polar questions, English has three other basic ways of realizing responses to polar questions in relation to this category of verbs (41), while Rutooro has only two ways (42):

(41) A. Has she accepted one thousand shillings?
B. a) Yes, she has.
b) Yes, she has accepted.
c) Yes, she has accepted it.

(42) A. *A-ikiriiz-e* *silingi rukumi?*
3s-accept-PERF shillings one thousand
'Has she accepted one thousand shillings?'
B. a) *Ego* *a-ikiriiz-e*
Yes 3s-accept-PERF
'Yes, she has accepted.'
b) *Ego,* *a-z-ikriiz-e*
Yes 3s-PRO.3p-accept-PERF
'Yes, she has accepted it.'

Observably, for English, in Speaker B's replies in (41), we have a short answer in (a), and (b) has a full answer with an implicit argument, while (c) has a full answer without an implicit argument. On the other hand, for Rutooro, in Speaker B's replies in (42), we have a full answer with an implicit argument in (a) and a full answer without an implicit argument in (b). Note that, for Rutooro, even where it has an auxiliary verb in the question, as in (43), still the reply provided must contain both the auxiliary and the lexical verb, as in Speaker B's answer in (b). Leaving out the lexical verb renders the sentence ungrammatical, as shown in Speaker B's answer in (a).

(43) A. *Jeeni* *a-ka-b-a* *a-in-a* *abaana?*
Jane 3s-PAST-be-FV 3s-have-FV children
Lit. 'Jane was having children?'
'Did Jane have children?'
B. a) **Ego* *a-ka-b-a*
Yes 3s-PAST-be-FV
'Yes she was' = 'Yes, she had'

b) *Ego* *a-ka-b-a* *a-in-a*
Yes 3s-PAST-be-FV 3s-have-FV
'Yes she was having' = 'Yes, she had'

However, not all Rutooro verbs can be used with implicit arguments in replies to polar questions. For example, the verbs *-gonza* 'love/like' and *-bona* 'see' cannot be used without the argument position being filled explicitly (44):

(44) A. *Na-a-gonz-a?* *Ruhanga*
PROG-3s-love-FV God
'Is she loving God?' = 'Does she love God?'
B. **Ego* *na-a-gonz-a*
Yes PROG-3s-love-FV
'Yes she loves'
A. *A-boin-e* *abasuma?*
3s-see-PERF thieves
'Has she seen thieves?'
B. **Ego* *a-boin-e*
Yes 3s-see-PERF
'Yes, she has seen'

Thus, with such verbs, Rutooro behaves like English, i. e. English does not allow the verbs *love/like* and *see* to occur with implicit arguments anaphorically (cf. Cummins/Roberge 2004, Huang 1984), while languages such as Japanese can use these verbs with implicit arguments (cf. Huang 1984). However, unlike Rutooro *-gonza* 'love', English can use the verbs *love* and *like* with implicit arguments with a non-anaphoric interpretation (cf. Cummins/Roberge 2004), as shown in (45) from the OED s. v. *love* as a verb:

(45) a. Sure, you have never loved.
b. I can esteem, I can be a friend, but I don't know whether I can love.

In this context, English patterns with Kinande, since Authier (1988: 23) shows that this is the only way the Kinande verb *-anza* 'love' can be used with an implicit argument, while Rutooro is different from both languages. However, Rutooro has a different lexical item, which can be used with an implicit argument both anaphorically and non-anaphorically in the sense of "be in love", i. e. the verb *-kwana* 'love'.

In addition to the cases seen so far, there are discourse situations in Rutooro where we can have implicit objects whose interpretation is indefinite, i. e. the referent has no specific antecedent mentioned earlier, but rather, its recoverability is contingent on the discourse situation (46):

(46) A. *Motoka* *e-r-i* *nkaha* *eratutwara* *hairwaro?*
Car 3s-be.PRES-FV where which will take us to hospital
'Where is the car to take us to hospital?'
B. a) *O, Jeeni* *a-in-a!*
Jane 3s-have.PRES-FV
'Oh, Jane has (one).'

b) *O, Jeeni* *a-gi-in-a!*
Jane 3s-PRO-have.PRES-FV
'Oh, Jane has it!' = 'Oh, Jane is using it'.

In (46), the two responses by Speaker B depict two different scenarios: the (a) reply has an implicit argument, while the (b) reply has an incorporated pronoun in the verbal complex. As shown in the glosses, the two replies are idiomatically translatable into English as (47):

(47) a. Oh, Jane has one!
b. Oh, Jane is using it!

It is clear in the English rendition in (47) that (47a) is indefinite, while (47b) is definite. English uses the indefinite pronoun *one* in order to achieve the indefinite reading, while Rutooro uses a null element for that purpose. It is not possible to omit the indefinite pronoun in English (48):

(48) A. Where is the car to take us to hospital?
B. *Oh, Jane has!

Let us look at the scenario in which (46), (47) and (48) have been used. Speaker A and Speaker B have a fixed and secure plan for how to reach their destination by car, but it looks as if Speaker A is getting impatient and frustrated, because no such car is in sight. Speaker A's definite description is used descriptively, not referentially, but Speaker B's indefinite phrase *one* means that he/she has already realized that the car which Speaker A has in mind is not coming, so an alternative plan for how to get to the hospital seems to be necessary. One possibility might be to find out if Jane could possibly help out by offering to take them to the hospital in her car, if they ask her. Therefore, to Speaker B, it looks as if a ride in that car is a lost case. Speaker A may not have recognized this as a fact yet. Speaker B, however, realizes that the only realistic thing in the current situation is to give up the original plan and seek out a plan B. Speaker B is expressing the hope that Jane's car might be their rescue, a scenario that may not have been manifest to Speaker A so far. Hence, the car that Speaker A has in mind and the one proposed by Speaker B are not the same car. In other words, the referent of the implicit argument in the (a) reply of (46) and the pronoun *one* in (47) has no specific coreferential antecedent in the discourse, but is simply discoursally bound in terms of the topic under discussion (cf. Huang 1984). It is the discourse context that provides an antecedent for the content of the null element in (46) and the indefinite pronoun *one.* Languages displaying a property where a null element is used in this context have been dubded "discourse-oirented" languages, as opposed to "sentence-oriented" languages such as English (cf. Huang 1984: 550). More examples of the dichotomy "definite vs. indefinite" referents are given in (49) and (50):

(49) A. *Motoka* *yange* *e-r-i* *nkaha?*
Car my 3s-be.PRES-FV where
'Where is my car?'
B. a) **Jeeni* *a-in-a*
Jane 3s-have.PRES-FV
'Jane has (one)'
b) *Jeeni* *a-gi-in-a*
Jane 3s-PRO-have.PRES-FV
'Jane has it.' = 'Jane is using it.'

(50) A. *Kwat-a* *ekitakuli*
Hold.IMP-FV potato
'Have a potato'

B. a) *Ti-n-d-i* *kwenda*
NEG-1s-be.PRES-FV want
'I don't want (one)' = 'I don't want anything like a sweet potato.'

b) **Ti-n-d-i* *kwenda* *baitu* *ni-n-yend-a* *kiri*
NEG-1s-be.PRES-FV want but PROG-1s-want-FV that one
'I don't want (one) but I want that one over there.'

c) *Ti-n-d-i* *ku-k-yend-a* *baitu*
NEG-1s-be.PRES-FV INF-PRO-want-FV but
ninyenda *kiri*
I want that one
'I don't want it but I want that one over there.'

On the one hand, the (a) reply in (49) is illicit as a reply to a question that requires a particular referent to be mentioned. To achieve reference to the particular entity, there is a need to incorporate a pronoun in the verbal complex, as in the (b) reply. Thus, a reply with an indefinite referent is impossible, which makes the (a) reply infelicitous. On the other hand, while the (a) reply in (50) is legitimate with an indefinite interpretation, the (b) reply is not possible, since the responder uses an implicit argument in the first clause of the coordinate sentence (where there is an indefinite referent) and then veers to a clause with a definite interpretation, where he/she mentions a particular referent. Hence, in this context, only (c) is legitimate, since it has no implicit argument and in both clauses there are particular referents.

Following from the above illustrations, we may now need to posit two types of indefinite implicit arguments: (i) general indefinite implicit arguments and (ii) discourse-bound indefinite implicit arguments. The general ones are those advanced by Fillmore (1986), involving verbs such as *cook*, *drink,* and their Rutooro counterparts *-cumba* 'cook' and *-nywa* 'drink', while the discourse-bound indefinite implicit arguments are found in Rutooro with examples such as those given in (46a) and (50a). The general indefinite implicit arguments are recoverable from the wider context, while the discoursal ones are recoverable from the co-text. However, despite the wide range of the occurrence of implicit arguments in Rutooro compared to English, Rutooro still has verbs that cannot be used with implicit arguments whether the referents are definite or indefinite (e. g. *-gonza* 'love/like', *-bona* 'see', *-bungira* 'visit'). Idiosyncratic grammatical properties of languages provide avenues for languages to differ in relation to allowing or disallowing implicit arguments (cf. Németh 2000, Cummins/Roberge 2004).

4 Formalizing the syntax of implicit arguments in English and Rutooro

The study uses the Lexical Functional Grammar (LFG) formalism to analyse the theoretical assumptions governing implicit arguments. Bresnan (1978: 17) advances an approach to implicit object arguments, where she proposes two schemata of the verb *eat* (51):

(51) *eat* v, [--- NP], NP_1 'eat' NP_2
[--------], (∃y) NP_1 'eat' y

What Bresnan (1978: 17) proposes above captures what takes place as regards verbs such *eat*, which subcategorizes for two arguments, but can have the postverbal argument omitted. However, Asudeh/Giorgolo (2012: 67) argue that "this kind of approach is clearly unappealing, because it basically posits an ambiguity for each relevant verb and misses the generalization that, e. g., the 'eating' is the same sort of thing in both cases." They therefore propose an approach that involves both LFG and Glue Semantics (also known as Glue) – a formal logic approach to the syntax-semantics interface and semantic composition, where argument structure and semantic structure are merged (for details on Glue Semantics and its notation, see Dalrymple 2001, Asudeh 2012). Thus, using LFG/Glue, Asudeh/Giorgolo (2012: 73–74) provide the following lexical entries for the verbs *ate* and *devoured* ((52) and (53)):

(52) *ate* V

$(\uparrow PRED) = \text{'}eat\text{'}$
$(\uparrow TENSE) = PAST$
$(\uparrow SUBJ)\sigma = (\uparrow \sigma\text{ARG}_1)$
$(\uparrow \text{ARG}_2)$
$\lambda y \lambda x \lambda e.eat(e) \wedge agent(e) = x \wedge patient(e) = y :$
$(\uparrow \sigma\text{ARG}_2) \multimap (\uparrow \sigma\text{ARG}_1) \multimap (\uparrow \sigma\text{EVENT}) \multimap \uparrow \sigma$
$\left(\begin{array}{l} \lambda P \lambda y \exists x.\left[P(x)(y) \wedge food.for(x,y) \right] : \\ \left[(\uparrow \sigma\text{ARG}_2) \multimap (\uparrow \sigma\text{ARG}_1) \multimap \uparrow \sigma \right] \multimap \left[(\sigma\text{ARG}_1) \multimap \uparrow \sigma \right] \end{array} \right)$

(52) *devoured* V

$(\uparrow \text{PRED}) = \text{'}devour\text{'}$
$(\uparrow \text{TENSE}) = PAST$
$(\uparrow \text{SUBJ})\sigma = (\uparrow \sigma\text{ARG}_1)$
$(\uparrow \text{OBJ})\sigma = (\uparrow \sigma\text{ARG}_2)$
$\lambda y \lambda x \lambda e.devour(e) \wedge agent(e) = x \wedge patient(e) = y :$
$(\uparrow \sigma\text{ARG}_2) \multimap (\uparrow \sigma\text{ARG}_1) \multimap (\uparrow \sigma\text{EVENT}) \multimap \uparrow \sigma$

According to Asudeh/Giorgolo (2012: 73-74), "the resource-sensitive composition ensures that predicates" such as *devour,* in (53), have "an expressed object that contributes the ARG_2 resource", while for the verb *eat* "if the object is expressed and therefore contributes a resource, the optional premise is not selected and the obligatory premise consumes its object as per usual." As can be visualized, *eat,* in (52), has an optional premise, which is selected when the verb is used with an implicit object, and it is not selected when there is an overt direct object. In contrast, *devour*, in (53), does not have the optionality that *eat* has (for more details, see Asudeh/Giorgolo 2012).

However, in this study, I revert to Bresnan's (1978) proposal as a point of departure and augment it with approaches to related syntactic analyses proposed by Dalrymple, Dyvik/King (2004) and Nordlinger/Sadler (2007). Without purporting to supersede Asudeh/Giorgolo's (2012) proposal, the current approach has the overarching advantage of using the resources and tools provided by LFG to account for the syntactic behavior of the verbs under consideration without having recourse to auxiliary frameworks. Moreover, this analysis shows that the 'eating' is actually "the same sort of thing in both cases", despite the fact that there are two different syntactic ways in which the verb *eat* behaves. But, of course, this does not mean that there are

two different verbs, as Németh (2000: 1660) alleges. Németh (2000) observes that LFG regards a verb such as *eat* as both transitive and intransitive. The reasoning should not be that such verbs are both transitive and intransitive nor are they ambiguous; rather, the verbs are strictly transitive, but they have a bistructural representation. Perlmutter (2011: 251) explains bistructurality by stating that this is a situation where "grammatical relations and linear order of constituents are represented in different structures." Hence, the constituent structure (c-structure) of such verbs will present two different structures. A c-structure is the concrete hierarchical exponence of constituents, where there is a linear organization of words into phrases (cf. Darlymple 2001). C-structures are constrained by structural descriptions, namely phrase structure rules, as seen in (55) for the verbs *ate* and *devoured* in the following sentences (54):

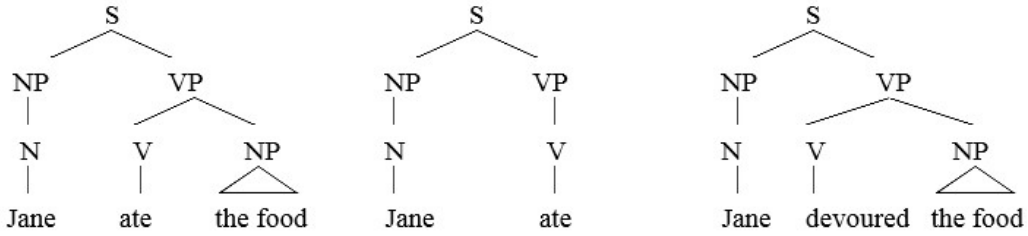
(54) a. Jane ate the food.
b. Jane ate.
c. Jane devoured the food.

(55) a. *ate*
S→NP VP
VP→V {NP|ε}

b. *devoured*
S→NP VP
VP→V NP

While for (55b), the VP branches into V and NP, in (55a), the VP branches into V and a disjunction. This means that the verb may be followed by an NP or a non-overt element. I follow Dalrymple, Dyvik/King (2004) and Attia (2008: 96) in representing the empty string with the symbol "ε". As is the tradition in LFG, this empty string will not appear in the c-structure, since the c-structure is the concrete representation of the constituents. Thus, the c-structures for the two uses of the verb *eat* and the only use of the verb *devour* are presented in (56):

(56) a. c-structure for (54a) b. c-structure for (54b) c. c-structure for (54c)



The above representations satisfy the constraints laid down in the phrase structure rules in (55) and instantiate the actual visible constituents in the sentences. That is why (56b) has no NP after the VP, because that slot belongs to an empty string, which, in LFG, cannot be represented in the c-structure (cf. Toivonen 2000, Sells 2000, Attia 2008). In contradistinction to the c-structure, the functional structure (f-structure), which is the invariant universal representation of grammatical functions in sentences, should be the same for both uses of the verb *eat*. This is because the direct object is a function that the verb *eat* subcategorizes for whether this is overtly expressed or not. Asudeh/Toivonen (2010: 431) state that "grammatical functions are a reflection of predicate-argument relations, and a central purpose of f-structure is to capture these relations." In other words, there is no way we can expunge the grammatical function "object" from the subcategorization frame of the verb *eat*, as Bresnan, Asudeh, Toivonen/Wechsler (2015: 62) stress that an f-structure must be complete, whereby "every function specified by a PRED must be present in the f-structure of that PRED." Despite the two syntactic behaviors that the verb exhibits, it is possible to achieve functional structures with the same grammatical

relations of the verb thanks to a proposal advanced by Nordlinger/Sadler (2007: 141) about what they call "higher-structure" in their analysis of "copula-less" constructions, where the higher-structure represents a non-overt element (see also Attia 2008). According to Nordlinger/Saddler (2007), information about the non-overt element, which is reflected at f-structure, must be contributed to the f-structure via either phrase structure rules or information lexically associated with one of the elements in the clause. Indeed, we have such information in the lexical entries of *eat*, which specify the constraints for f-structure (cf. Asudeh/Toivonen 2010: 438). Below, I provide the lexical entries of the verbs *ate* and *devoured* (57):

(57) a. *ate* V (↑PRED) = 'eat <(↑SUBJ), (↑OBJ)>'
b. *devoured* V (↑PRED) = 'devour <(↑SUBJ), (↑OBJ)>'

Since the verb *eat* subcategorizes for subject and object, these grammatical functions must be included in the lexical entries. But given that there are two instantiations of the postverbal argument (i. e. either overt or non-overt), this postverbal argument has two specifications in the f-structure, namely +H-STR (Higher Structure) and –H-STR. This means that when the object is overt, it has the –H-STR feature and when it is non-overt, it has the +H-STR feature. The f-structures of the sentences in (54) are given in (58):

(58) f-structure for sentence (54a) and (54b)

(a)
$$\begin{bmatrix} PRED\ 'eat\langle (SUBJ),(OBJ)\rangle' \\ TENSE\quad PAST \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NUM\quad SG \\ GEND\quad FEM \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'food' \\ NUM\quad SG \\ H-STR\quad - \\ SPEC\begin{bmatrix} PRED\ 'the' \\ DEF\quad + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

(b)
$$\begin{bmatrix} PRED\ 'eat\langle (SUBJ),(OBJ)\rangle' \\ TENSE\quad PAST \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NUM\quad SG \\ GEND\quad FEM \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'food' \\ NUM\quad SG \\ H-STR\ + \\ SPEC\begin{bmatrix} PRED\ 'the' \\ DEF\quad + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

c. f- structure for sentence (54c): *devour*

$$\begin{bmatrix} PRED\ 'devour\langle (SUBJ),(OBJ)\rangle' \\ TENSE\quad PAST \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NUM\quad SG \\ GEND\quad FEM \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'food' \\ NUM\quad SG \\ SPEC\begin{bmatrix} PRED\ 'the' \\ DEF\quad + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

Observably, the grammatical relations in (58) are exactly the same; this satisfies the completeness constraint on the f-structure of the verb *eat*, which ontologically requires a subject and an object. The only difference is that the object grammatical relation for this verb presents different features, with one being +H-STR and another being –H-STR. Evidently, for the verb *devour*, its object does not present any special features, since the postverbal argument must be

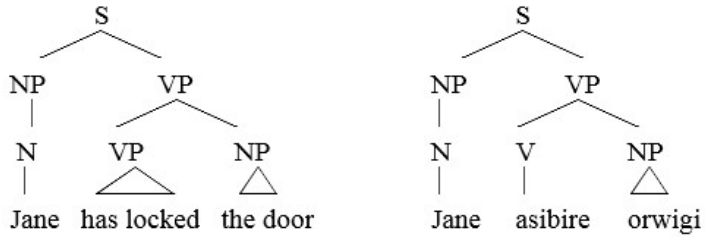
overtly expressed all the time. For that matter, the feature H-STR is redundant and cannot be included in the f-structure.

Having shown what takes place in English, we can now contrast English with Rutooro (59). We have the verb *lock* in English, which is said to preclude postvebal implcit arguments, contrasted with its Rutooro equivalent *-siba*, which allows postverbal implicit arguments. As expected, the verbs have different phrase structure rules (60) and different c-structures (61):

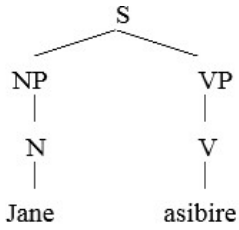
(59) a. Jane has locked the door.
b. *Jeeni* *a-sib-ire* *orwigi*
Jane 3s-lock-PERF door
'Jane has locked the door'
c. *Jeeni* *a-sib-ire*
Jane 3s-lock-PERF
'Jane locked'

(60) phrase structure rules for setences in (59)
a. *lock*
NP→VP
VP→V NP
b. *lock*
NP→VP
VP→V {NP|ε}

(61) a. c-structure for the English sentence in (59a) and the Rutooro sentence in (59b)



c. c-structure for the Rutooro sentence in (59c)



Clearly, in terms of the VP node branching into NP, (61a) and (61b) are identical, since in both cases, there is an overt object, while (61c) is different given that it represents the case where Rutooro leaves out the object of the verb *-siba*. The structure in (61c) does not have a postverbal NP, which in the phrase structure rules is represented by ε – an empty string in the c-structure. Let us now turn to the f-structure (63). But, as is required, we need to present the lexical entries first (62):

(62) lexical entries for *lock* and *-siba*
a. *lock* V (↑PRED) = 'lock <(↑SUBJ), (↑OBJ)>'
b. *siba* V (↑PRED) = 'lock <(↑SUBJ), (↑OBJ)>'

(63) a. f-structure for the English sentence in (59a)

$$\begin{bmatrix} PRED\ 'lock\langle (SUBJ),(OBJ)\rangle' \\ TENSE \quad PRESENT \\ ASPECT \quad PERFECTIVE \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NUM \quad SG \\ GEND \quad FEM \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'door' \\ NUM \quad SG \\ SPEC\begin{bmatrix} PRED\ 'the' \\ DEF \quad + \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

b. and c. f-structures for the Rutooro sentence in (59b) and (59c) respectively

$$\begin{bmatrix} PRED\ 'lock\langle (SUBJ),(OBJ)\rangle' \\ ASPECT \quad PERFECTIVE \\ NOUN\ CLASS\ AGREEMENT \quad 1 \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NOUN\ CLASS \quad 1 \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'door' \\ NOUN\ CLASS \quad 11 \\ H-STR \quad - \end{bmatrix} \end{bmatrix} \qquad \begin{bmatrix} PRED\ 'lock\langle (SUBJ),(OBJ)\rangle' \\ ASPECT \quad PERFECTIVE \\ NOUN\ CLASS\ AGREEMENT \quad 1 \\ SUBJ\begin{bmatrix} PRED\ 'Jane' \\ NOUN\ CLASS \quad 1 \end{bmatrix} \\ OBJ\begin{bmatrix} PRED\ 'door' \\ NOUN\ CLASS \quad 11 \\ H-STR \quad + \end{bmatrix} \end{bmatrix}$$

As expected, the two Rutooro f-structures and the English f-structure are quite similar. Specifically, they are identical in terms of grammatical relations, i. e. with the functions "subject" and "object" reflected in the representations. This is in consonance with the principles of LFG, where it is posited that there must be the same (or similar) f-structures for corresponding predicates cross-linguistically (cf. Dyvik 1999). Similarly, the two f-structures for the Rutooro verb *-siba* are the same as regards their grammatical relations, because they are specified ontologically by the same verb, even though at the level of c-structure, the object can be omitted.

Despite the identity between the f-structures in terms of grammatical relations, there are differences between the two languages. First of all, we realize that under the predicate, Rutooro has only aspect, while English has both aspect and tense. This is due to the fact that, in Rutooro, when the present tense is used co-extensively with aspect, no marker is indicated on the verbal complex for tense. Hence, the feature "tense" is redundant for Rutooro in this context. We have also seen that, unlike for English, the noun class in Rutooro is required as a specification for both the predicate and the NPs in the grammatical relations. This is a requirement in Rutooro (Bantu), since first of all, every noun belongs to a certain class with a given exponent. In addition, the noun class of the subject must be marked on the verb for concordial purposes. Hence, the verb, the subject and the object must have the specification of "noun class", a feature that does not hold for English. In contrast, unlike English where the attribute "gender" is required (for congruence either with possessive specifiers or anaphoric pronominalization), this is not the case for Rutooro, since it does not mark gender on specifiers or pronouns. In a similar vein, number is tangential for Rutooro, since it is subsumed under noun class, e. g. *orwigi* 'door' belongs to class 11 (singular) and its plural form belongs to class 10. Given that Rutooro does

not have articles, the specification of "specifier" and its feature for definiteness are irrelevant. Crucially, the f-structure for the English sentence does not have the feature H-STR, because its direct object is obligatory in all contexts, while Rutooro needs the feature, since the object of its verb *-siba* is omissible. However, despite the observed differences, the f-structures are the same as regards their grammatical functions.

5 Conclusion

The study has added more evidence as regards cross-linguistic asymmetries in the occurrence of implicit arguments (cf. e. g. Németh 2000). The asymmetries between English and Rutooro have been accounted for multifactorially in terms of lexical, semantic, morphological, syntactic and discoursal variables. While Rutooro seems to be freer than English, there are situations where the two share certain preclusions and, moreover, there are situations where Rutooro does not allow implicit arguments, while English allows them. The study has shown that the LFG architecture can be used to formalize this syntactic behaviour in linguistic theory, without incorporating ancillary frameworks. The study is particularly crucial in Bantu linguistics, as it has put a premium on an aspect of Bantu syntax which has received little attention. Significantly, ever since Authier's (1988) seminal study of true implicit arguments in Bantu languages, where the omitted "objects are not locally construed with a clitic or an agreement feature" (cf. 19), there has been a lull in research in relation to this aspect. It is hoped that this study has come to fill this gap and stimulate further research on implicit arguments. In addition, given the position of English in the world and the consequential trends towards its nativization where it is spoken as an L2, it is also hoped that this study will serve as a precursor to an analysis of implicit arguments in L2 varieties, arising from the fact that nativization hinges in the main on substrate influence. The asymmetries observed between Rutooro and English point towards mismatches between L1 and L2 speakers of English in the use of implicit arguments – a frame of reference that I intend to pursue.

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Appendix

Abbreviations used in glosses

1s, 3s	first, third person singular
3p	third person plural
AGR	argument
APPL	applicative
CAUS	causative
FV	final vowel
INF	infinitive marker
IMP	imperative
NEG	negation marker
PERF	perfective
PRES	present
PRO	pronoun
PROG	progressive
REC	reciprocal
REFL	reflexive