Subject Agreement, Object Agreement and Specificity in Swahili

Kamil Ud Deen
University of Hawai`i at Mānoa

1.0 Introduction

Differences between child and adult language are usually explained in one of two ways. The first is to assume that the child's knowledge of a particular area of language is fundamentally different from that of the adult. This position has been articulated from a variety of researchers including nativists (e.g., non-Continuity theorists) and non-nativists alike. The second way to explain child-adult differences (particularly in the acquisition of morphosyntax) is to assume that the child's knowledge is essentially the same as that of the adult, but that the observed difference is attributable to deficiencies in other areas of language, for example, inappropriate knowledge of the discourse or pragmatic conditions in which a particular structure is required.

These two approaches are articulated in the literature with regards to the nominal feature *specificity* in child language. In some languages a noun is overtly marked as specific or non-specific, while in other languages there are other syntactic effects of specificity. For example, in Dutch, specific nouns move leftward (this movement is known as scrambling) while non-specific nouns may not move leftward. Additionally, determiners (which in Dutch mark definiteness) are largely responsible for the specificity of a noun, and thus the presence of a determiner usually signals the specificity of a noun. Schaeffer (1997; 2000) shows that Dutch children fail to scramble objects in obligatory context and omit determiners in obligatory context (see below for details). She argues that the reason that Dutch children neither scramble in obligatory context nor provide determiners in obligatory context is that the nominal feature *specificity* is underspecified in child language (on par with the underspecification of *temporal specificity*, as proposed by Hyams, 1996). Her explanation, therefore, is that child language is different from adult language in that children optionally underspecify the feature *specificity*. Avrutin & Brun (2001), on the other hand, show that Russian children place arguments either preverbally or postverbally appropriately according to their specificity, thus showing intact knowledge of specificity at very early ages. This suggests that the feature *specificity* is not underspecified in all child language. They argue that any errors that arise do so because of unadult-like pragmatic knowledge of what constitutes a specific referent.

In this paper I investigate *specificity* in child Swahili, a Bantu language spoken in Eastern Africa. I show that children reliably use object agreement (which is dependent on specificity in ways that will be described in detail below) in contexts in which object agreement is obligatory. These facts suggest two things: (i) Swahili children acquire object agreement fairly early, and (ii) Swahili children (like their Russian counterparts) show intact knowledge of *specificity*.

The second part of this paper investigates the relative order of acquisition of subject agreement and object agreement in child Swahili. It has been argued for languages such as Basque that subject agreement is acquired before object agreement, which in turn is acquired before indirect object agreement. This suggests a universal order of emergence of agreement types: subject before object before indirect object agreement. In this paper I report on the approximate ages at which subject agreement and object agreement are acquired. I present results showing that, in contrast to the Basque results, object agreement is acquired at least as early as subject agreement, if not earlier.

The remainder of this paper is organized as follows. In section 2 I review the studies on the acquisition of *specificity*: Schaeffer's (2000) investigation of Dutch scrambling and determiners and Avrutin & Brun's (2001) study on the acquisition of argument placement in Russian. In section 3 I present results from a study by Meisel & Ezzeizabarrena (1996) on Basque in which it is shown that subject agreement is acquired before object agreement. Section 4 introduces the relevant portions of adult Swahili morphosyntax, showing the agreement patterns and the structure of the verbal complex. Section 5 presents the methodology and data employed in the study and section 6 presents the results. I discuss these results and conclude in section 7.

2. Specificity in child language

2.1 Schaeffer (2000)

Schaeffer (2000) investigates scrambling and determiners in two Dutch children aged 1;10-5;4. In adult Dutch, nouns that are specific may scramble, while non-specific nouns may not scramble. Because pronouns are inherently specific, they obligatorily scramble. Tables 1 and 2 below are data adapted from Schaeffer (2000) showing the rate of scrambled pronouns in the speech of Niek and Laura. The results are broken into two developmental stages.

	Scrambled	Unscrambled
Stage I (2;7 - 3;5)	71%	29%
Stage II (3;6 - 3;11)	78%	22%

Table 1: Niek, percentage of scrambled/unscrambled pronouns (Schaeffer 2000)

	Scrambled	Unscrambled
Stage I (1;10 - 3;4)	30%	70%
Stage II (3;5 - 5;4)	88%	12%

Table 2: Laura, percentage of scrambled/unscrambled pronouns (Schaeffer 2000)

We see from table 1 that Niek fails to scramble pronouns between 22% and 29% of the time, and in stage I of Laura's data, pronouns fail to scramble 70% of the time. In stage II, while Laura does not show full mastery of pronoun scrambling, she has developed considerably. This shows that in early Dutch (unlike adult Dutch) pronoun scrambling is not obligatory. Schaeffer takes this as evidence that *specificity* in child Dutch may be optionally underspecified.

As additional evidence, Schaeffer points to the omission of determiners in obligatory contexts. She finds that at early stages determiners are omitted at extremely high rates, as shown in tables 3 and 4 below.

	+ Determiner	- Determiner
Stage I (2;7 - 3;5)	6%	94%
Stage II (3;6 - 3;11)	44%	56%

Table 3: Niek, percentage of determinerless objects (From Schaeffer 2000)

	+ Determiner	- Determiner
Stage I (1;10 - 3;4)	31%	69%
Stage II (3;5 - 5;4)	86%	14%

Table 4: Laura, percentage of determinerless objects (From Schaeffer 2000)

Tables 3 and 4 show that in early Dutch, determiners are omitted at relatively high rates in obligatory context. As in the case of scrambling, Laura in stage II shows development. Schaeffer argues that determiner omission occurs because of the underspecification of the feature *specificity*. Thus Schaeffer concludes from both the pronominal scrambling and determiner omission data that in early stages of Dutch, children's nominal expressions can be optionally underspecified with respect to *specificity*.

2.2 Avrutin & Brun (2001)

If it is a characteristic of child language (and not only child Dutch) that *specificity* may be underspecified, then effects of this underspecification should be apparent in other languages in which specificity plays a role. Avrutin & Brun (2001) tested this hypothesis in Russian, where specificity plays a role in argument placement. In adult Russian, all preverbal arguments (irrespective of whether they are the subject or the object) are interpreted as specific and all postverbal arguments (again, irrespective of grammatical role) are interpreted as non-specific. The examples in (1) are taken from Avrutin & Brun (2001, p.71):

(1) a. Mal'čik činit igrušku
(the) boy-NOM is-fixing (a/some) toy-ACC
"The boy is fixing a toy."

b. Igrušku činit mal'čik
(the) toy-ACC is-fixing (a/some) boy-NOM
"A boy is fixing the toy."

The examples in (1) show that specificity correlates with argument placement: if specific, then the argument occurs preverbally, if non-specific the argument occurs postverbally. If it is true that child language allows the feature *specificity* to be optionally underspecified, Russian children should misplace arguments. Avrutin & Brun tested this hypothesis using naturalistic data from four Russian speaking

children aged 1;7 to 2;3. The surrounding context (including parental speech) and the presence of certain markers denoting specificity and non-specificity were used to determine whether the intended interpretation was specific or non-specific. The results of their analysis are presented in table 5 below.

Adult Interpretation	**Preverbal Subject**	**Preverbal Object**
Specific	341/379 (90%)	245/274 (89.4%)
Non-Specific	49/152 (32.2%)	18/186 (9.7%)

Table 5: Distribution and interpretation of preverbal subjects and objects

Table 5 shows that of all the specific subjects, 90% were preverbal, and of all the specific objects, 89.4% were preverbal. Of all the non-specific subjects, 32.2% occurred (incorrectly) preverbally, and of all the non-specific objects, 9.7% occurred (incorrectly) preverbally. Putting aside the elevated rate of preverbal non-specific subjects (32.2%) for the time being, the other results show that Russian children have intact knowledge of specificity since the error rate in all cases is approximately 10% or less. Avrutin & Brun attribute the elevated rate of non-specific preverbal subjects to a topicality effect. They argue that children are more prone to mistakenly assume that subjects are specific because subjects are often weak topics. Thus this amounts to a pragmatic error in that children fail to recognize that the subject is not a known entity.

The conclusion that Avrutin & Brun draw from this data is that Russian children, unlike their Dutch counterparts, show knowledge of the feature *specificity* from as early as 1;7. It is natural to assume that the different properties of Dutch and Russian lead to the differential development of *specificity* in child language. In other words, particular properties of the morphosyntax of Dutch lead to the delay in acquisition of *specificity* in Dutch children, or particular properties of the morphosyntax of Russian lead to the early acquisition of *specificity* in Russian children. What does this tell us about child language in general? Is it a general property of child language that the feature *specificity* may be optionally underspecified? From the evidence presented so far, it is not conclusive. The current study aims to add to this debate by presenting evidence of object agreement in early Swahili. Before presenting the results, I will first review some background for the second research question: the question of whether the acquisition of subject agreement precedes or follows the acquisition of object agreement.

3. The Acquisition of Subject Agreement and Object Agreement

Studies that investigate the developmental order of subject agreement and object agreement are rare in the literature probably because languages that clearly exhibit both subject and object agreement are rare amongst the more well-studied languages. One such language that exhibits both subject agreement (SA) and object agreement (OA) is Basque. In fact, Basque exhibits SA, OA as well as indirect object agreement. I will not discuss the latter in any detail here because it has no relevance to the current study. Meisel & Ezeizabarrena (1996, henceforth M&E)

investigated the acquisition of agreement in the speech of one monolingual Basque child and three bilingual Basque-Spanish children aged 1;6-5;3.

Due to space limitations, the complex agreement system of Basque cannot be fully described here, but see M&E pp. 202-210 for a fuller description. SA is usually marked as a prefix on the verb and OA is usually marked as a suffix on the verb. Agreement marks number (singular and plural) as well as person (1st , 2nd , 3rd). M&E present results of analyses of the agreement forms in the speech of the three bilingual children. They consider the contrastive use of agreement to indicate acquisition. So for example, M&E show that at initial stages, the children only use 3rd person singular SA morphemes. This is not considered sufficient evidence that the children have acquired SA. Only once the children begin to produce other forms of SA (e.g., 1st or 2nd singular) are they credited with having acquired SA.

Using these criteria, M&E chart the development of the various agreement morphemes. The approximate age of acquisition of SA and OA by the three children is presented in table 6 below.

	Approximate Age of Acquisition	
	Subject Agreement	**Object Agreement**
Jurgi (1;10.21 – 5;03.06)	2;08-3;00	3;01-3;02
Mikel (1;06.27–5;00.12)	2;00 – 2;03	2;04 – 2;06
Peru (1;11.00 – 5;03.24)	2;03-2;07	2;09-3;05

Table 6: Age of acquisition (adapted from Meisel & Ezeizabarrena, 1996)

The conclusion from M&E's study of Basque is that in a language in which both SA and OA are manifested, SA is acquired before OA. Turning to the current study, Swahili has both SA and OA, so it is a good language to test the relative emergence of SA and OA. Additionally, as will be made clear shortly, OA is dependent on specificity, making Swahili a good language to test whether children allow the optional underspecification of the feature *specificity*.

4. Swahili verbal complex

Swahili is a Subject-Verb-Object language (example 2) with the verb embedded within a verbal complex that minimally contains Subject Agreement, Tense, the verb root and a final mood vowel (example 3). SA marks number (singular and plural) and person (1st, 2nd, and 3rd), but case is not marked morphologically. The SA paradigm is given in table 7, with some example tense/aspect markers given in table 8.

(2)

Subject	Verbal Complex					Object	
Juma	a	- na -	m	– pend	- a	Mariam	S-V-O
Juma	SA_{3s}	-PRES-	OA_{3s}	- like –	IND	Mariam	

"Juma likes Mariam"

(3) SA – T – (OA) – Verb – FV — Minimal Indicative
a – na – m – pend – a — Verbal Complex

SA prefix	
ni-	1st person singular
u-	2nd person singular
a-	3rd person singular
tu-	1st person plural
mu-	2nd person plural
wa-	3rd person plural

Table 7: SA paradigm

Tense/Aspect Morpheme	Meaning
li	past
na	Present on-going/habitual
ta	future
ka	Narrative, resultative
me	present perfect
sha	present perfect completive
ku	infinitival

Table 8: Some tense/aspect prefixes

OA, like SA, marks person and number (shown in table 9). However, OA is not obligatory in every sentence: OA is dependent on the specificity of the object. If the object is specific, OA is obligatory (see example 4a), and if the object is non-specific, OA is obligatorily absent (see example 4b; Ashton, 1947; Khamisi, 1988).

Person	Object Agreement
1st singular	ni
2nd singular	ku
3rd singular	m
1st plural	tu
2nd plural	mu
3rd plural	wa

Table 9: OA paradigm

(4) a. Juma a – li – mw –on – a m – tu — Specific Reading
Juma SA_{3s}–past–OA_{3s}–see–IND 1–person
"Juma saw the person / *a person"

b. Juma a – li – on – a m – tu — Non-specific Reading
Juma SA_{3s}–past–see–IND 1–person
"Juma saw a person / *the person"

Thus OA is dependent on nominal specificity, making Swahili a good language to investigate the question of whether *specificity* in child language is optionally underspecified. If Swahili children omit OA when the object is specific, this may be evidence that the feature *specificity* is underspecified.[1, 2] However, if Swahili children reliably provide OA in obligatory contexts, then we can conclude that the optional underspecification of *specificity* is not a property of child language in general.

5. Child Data

The data come from biweekly recordings of naturalistic speech in the homes of four children in Nairobi, Kenya. The data were audio recorded and transcribed using CHAT format. The ages, number of recordings, MLUs and Verb ratios (the ratio of verbs to total utterances, Valian, 1991) are given in table 10 below.

Child	**Haw**	**Mus**	**Fau**	**Has**
Age range	2;2 – 2;6	2;0 – 2;11	1;8 – 2;2	2;10 – 3;1
No.of recordings	7	23	10	5
MLU	1.54–2.46	1.52–3.57	2.97–3.93	3.15–4.23
V Ratio	.07-.14	.05-.17	.20-.36	.30-.40

Table 10: Subject information

Each of the children was assigned to a particular stage or stages according to 3 measures of grammatical development: MLU, verbs per utterance (Valian 1991) and proportion of filler syllables / protosyntactic devices (Peters, 2001; Bottari, Cipriani, and Chilosi 1993/1994). I then pooled the data from each stage. According to these measures, the children represent 4 developmental stages with one of the children passing through more than one stage during the time of the study (see fig.1, and see Deen 2001, 2002a for further details).

The transcripts were in CHAT format and were all morphologically coded. All analyses were conducted using CLAN programs (MacWhinney, 2000), followed by various methods of verification by hand. The results will be presented next in section 6. First I discuss the relative emergence of SA and OA in section 6.1, followed by a discussion of the acquisition of specificity and OA.

---

[1] The fact that OA is dependent on specificity creates difficulty in the identification of obligatory context since it is not clear whether a child intended a specific reading or not. The details of this difficulty and the methods to overcome it will be discussed in section 6.3.

[2] Of course, the omission of OA may also be due to some other factor unrelated to specificity. As we will see shortly, Swahili children do not omit OA in obligatory context, rendering this a mute point.

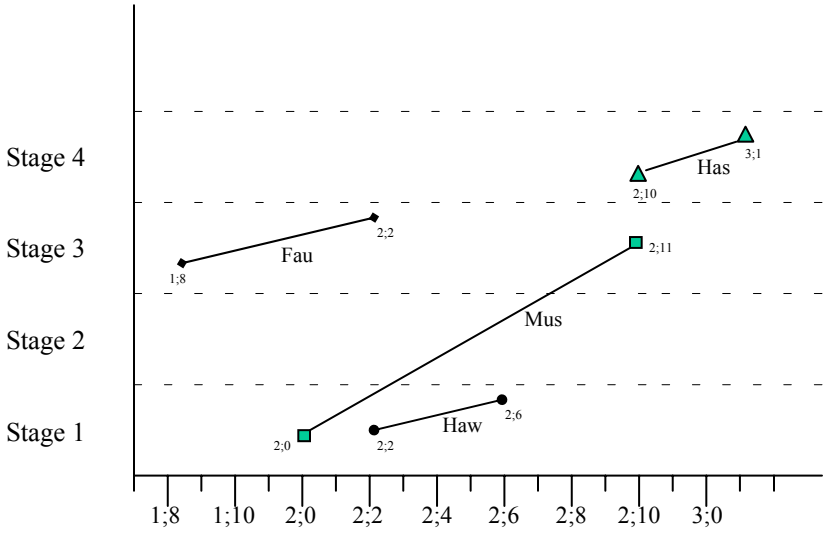

Fig.1 Children by Stage (from Deen & Hyams, 2002)

6.0 Results

6.1 Acquisition of SA

The SA prefix is omitted fairly frequently at early stages. We see from table 11 that in stage 1, over 60% of the children's indicative utterances are missing SA.

	Stage 1	**Stage 2**	**Stage 3**	**Stage 4**
Files From	Hawa 2;2-2;6, Mus 2;0-2;3	Mus 2;4-2;8	Fau 1;8-2;2, Mus 2;9-2;10	Has 2;10-2;11
[+SA]	81 (38.9%)	83 (28.4%)	256 (56.1%)	251 (67.8%)
[-SA]	127 (61.1%)	209 (71.6%)	200 (43.9%)	119 (32.2%)
	208	292	456	370

Table 11: Occurrence and Omission of SA across the four stages

In fact, even at stage 4, more than one third of the utterances in the corpora occur without SA. On the face of it, this would appear to suggest that SA is acquired extremely late by Swahili speaking children.[3]

[3] Although, Deen (2002a,b) argues that SA omission in child Swahili does not occur because of a lack of morphosyntactic knowledge. The omission of SA that occurs at such high rates in child Swahili is an overgeneralization of a phenomenon in adult Swahili in which SA may be omitted under certain topic-like circumstances. Thus the high rates of omission in table 11 may be considered "errors" not in the domain of morphosyntax but rather of the discourse contexts in which SA may be omitted. This analysis is not crucial to the rest of the paper since if we adopt this analysis here then, as we will see, OA appears to be acquired at least as early as SA. If we do not adopt this analysis here, then OA is acquired significantly earlier

6.2 Acquisition of OA

As a first analysis, I present in table 12 below the overall number of tokens of OA in the Swahili corpora by stage. The approximate proportion of verbal utterances marked with OA in this data ranges from 5% (stage 2) to 16% (stage 3).

	Stage 1	**Stage 2**	**Stage 3**	**Stage 4**
Tokens of OA	38	27	102	66
Total Verbs	639	535	638	519

Table 12: OA across the four stages.

These figures are presented simply to provide a overview of how often OA occurs in the speech of children. Oppositions in person in OA occur in stage 1 (1st versus 3rd person), and there are no errors whatsoever in person agreement in OA in stage 1. Thus, by the criterion employed by Meisel & Ezeizabarrena (1996) in their study on Basque, OA is acquired by stage 1. However, it should be noted that the figures in table 12 are not very informative because we do not know how many obligatory contexts there are in this data. In other words, OA may occur 38 times in stage 1 correctly, but how often was it omitted from obligatory context? Without knowing this we cannot answer the question of whether Swahili children obey the specificity condition on OA.

6.3 Specificity and problems with naturalistic data

There are no determiners in Swahili, and thus objects may be either specific or non-specific depending on discourse. The only marker of object specificity is OA. However, it is difficult to determine obligatory contexts for OA in child language because it is not possible to always unambiguously determine a child's intention. For example, if an English speaking child, speaking of her teddy bear that is on the edge of the bed, said *I want bear,* this would probably most naturally be interpreted by an adult as *I want my bear* or *I want that bear.* However, it could also (conceivably) be interpreted as *I want a / any bear* - perhaps the child simply wants a bear without caring which one in particular, and the adult naturally assumes that the child wants the one that is present in the room. Despite context strongly suggesting that the child is omitting a definite determiner or a demonstrative, without knowing what the child's intention is, it is impossible to unambiguously determine that to be the case.

Similarly in adult Swahili, example (5) below can only have a non-specific reading. If this sentence is uttered in a context in which it is clear that the referent is known, already-mentioned and specific, then an adult will consider this ungrammatical. However, we cannot rule out the possibility that the child intends a non-specific reading, i.e., the referent may be known and specific to the adult, but

---

than SA. In either case, the important fact is that OA (and its dependence on nominal specificity) is acquired early by Swahili children.

the child may have forgotten that it was already mentioned in the discourse or that the adult has knowledge of the referent in question.

(5) Juma a – li – on – a m – tu Non-specific reading
Juma sa3s–past–see–ind 1–person
"Juma saw a person / *the person"

The problem is that most nouns can be both specific and non-specific in Swahili since there are no overt markers of nominal specificity. In order to get around this problem, I focus on objects that are person names, which are inherently specific (and can never be non-specific). Thus when the object is a proper name, the object is always (unambiguously) specific, and OA is always (without exception) required. This therefore constitutes an obligatory context for OA.

6.3.1 OA with names

There are a total of 963 names in the corpus, of which 183 are postverbal. Of these 183 names, I excluded vocatives and postverbal subjects (all clearly identifiable from context and intonation), as well as unclear cases. This left 27 cases of unambiguous object proper names. Of these 27 cases, 25 correctly occurred with OA, while 2 occurred without OA.

	Clauses with names as objects
+OA	25 (93%)
–OA	2 (7%)

Table 13: OA with obligatorily specific name-objects

The 25 correct occurrences of OA come from all four stages of the corpus, beginning in late stage 1. We see from table 13 that in obligatory contexts, Swahili children omit OA only 7% of the time. Of these 2 tokens of OA-omission, one occurred in stage 1 and the other in stage 3. The fact that the rate of OA is so high in this particular context suggests that children do have knowledge of the specificity condition on OA[4]. However, this is not enough to tell us that OA is correctly acquired. The children may be overusing OA without knowledge of the conditions under which OA may occur. That is, children may simply be using OA in *all* contexts, making it appear as if they supply OA in obligatory context appropriately. The data in table 12 above suggest otherwise, since the overall rate of OA in the various stages is no higher than 16%. What would be more convincing is evidence that not only do children provide OA in obligatory contexts, but that they *never* provide OA in contexts in which OA is impossible.

[4] The number of tokens here is admittedly small. In Deen (in press) and Deen (in submission) I provide evidence that Swahili children appropriately provide OA in other obligatory contexts, i.e., when the object is topicalized and when the object is a first or second person referent.

6.4 OA in Transitive and Intransitive Clauses

OA obviously can never occur in intransitive clauses because of the logical absence of an object. If children are randomly overusing OA, then we should see some overuse in intransitive contexts. Table 14 below shows the rate of OA in transitive and intransitive contexts. The data show that children very rarely overuse OA in intransitive contexts (0.4% of the time).

	+OA	–OA	Total
Transitive	229(14%)	1377 (86%)	1605
Intransitive	4 (0.4%)	953(99.6%)	957

Table 14: OA in Transitive and Intransitive clauses.

The data presented in table 13 show that children provide OA in obligatory contexts, and the data in table 14 show that children never provide OA in contexts in which OA is not permissible. These two facts hold in all stages of the data, starting in the data of the least mature child at approximately age 1;10. I therefore conclude that OA is acquired by stage 1.

7. Discussion and Conclusion

In this paper I have shown the following two facts:

(i) In contexts in which OA is obligatory, children mark specificity with OA over 90% of the time.

(ii) OA is acquired extremely early (stage 1 in this data, approximately age 1;10).

These results support the Russian results on the placement of arguments since Swahili children show knowledge of specificity from very early on. Therefore the reason for why Dutch children fail to scramble and fail to provide determiners in obligatory contexts must be either because *specificity* is optionally underspecified in Dutch only (due to peculiar properties of Dutch morphosyntax) or else it is due to something other than the underspecification of the feature *specificity*.

Additionally, the fact that OA is acquired so early in Swahili is in contrast to the Basque results where it was shown that SA is acquired before OA. This may be a result of language-specific differences in the positioning of OA, the morphosyntactic complexity of OA, and the semantic function of OA in Swahili and Basque. Agreement in Basque is significantly more complex than it is in Swahili - in Basque agreement morphology is portmanteau morphology in that the morphological form varies by person, number and case. Additionally, there are lexically idiosyncratic forms, as well as processes of transitivizing and detransitivizing that affect the agreement patterns. Thus the difference in acquisition order in Basque and Swahili may very well be attributed to the morphosyntactic differences in the two languages. Whatever the case may be, these results suggest that even if there is a universal order of emergence of agreement types (SA before OA before IndOA), language specific morphology plays an overriding role in determining the expression of those agreement types.

References

Ashton, E.O. (1947) *Swahili Grammar*. London, Longmans, Green and Co.

Avrutin, S., & D. Brun (2001) The Expression of Specificity in a Language without Determiners: Evidence from Child Russian. In A. H-J. Do, L. Domínguez, & A. Johansen (Eds) the *BUCLD 25 Proceedings*,. Somerville, MA: Cascadilla Press. pp. 70-81.

Deen, K.U. (2001) 'The Acquisition of Swahili verbal morphology'. In Costa, J. & M.J. Freitas (Eds), T*he Proceedings the Generative Approaches to Language Acquisition 2001 conference.* . Palmela, Portugal.

Deen, K.U. (2002a) 'The Acquisition of Nairobi Swahili: The Morphosyntax of Inflectional Prefixes and Subjects'. Unpublished Doctoral Dissertation, UCLA.

Deen, K.U. (2002b) Underspecified Verb Forms and Subject Omission in Nairobi Swahili. In Beachley, B., A. Brown & F. Conlin (Eds), *The BUCLD 27 Proceedings*, Somerville, MA: Cascadilla Press. pp.220-231.

Hyams, N. (1996). 'The underspecification of functional categories in early grammar.' In Clahsen, H. (Ed.) *Generative perspectives on first language acquisition*. Amsterdam, The Netherlands: John Benjamins, pp. 91-127.

Khamisi, A. M. (1988) 'A Typology of Gaps in Kiswahili sentences.' In *Kiswahili: Journal of the Institute of Kiswahili Research*, 551: 120-133.

Krifka, M. (1995) 'Swahili. In Syntax: Ein Internationales Handbuch Zeitgenossischer Forschung.' In J. Jacobs, A. von Stechow, W. Sternefeld and T. Vennemann (Eds), *An International Handbook Of Contemporary Research*. Berlin, Walter de Gruyter. 2: 1397-1418.

Meisel, J. & M-J. Ezeizabarrena (1996) ' Subject-Verb and Object-Verb agreement in early Basque.' In Clahsen, H. (Ed) *Generative Perspectives in Language Acquisition*. Amsterdam: John Benjamins, pp. 201-239.

Schaeffer, J. (2000) 'Object Scrambling and Specificity In Dutch Child Language.' In Powers, S. and C. Hamann (Eds) *The acquisition ofscrambling and cliticization*. *Studies in theoretical psycholinguistics 26*. Dordrecht: Kluwer, 2000, pp. 71-93.

Schadeberg, T. (1984) *A Sketch of Swahili Morphology*. Foris Publications.

Seidl, A. & Dimitriadis, A. (1997) 'The Discourse Function of Object Marking in Swahili.' *Papers from the Regional Meetings, Chicago Linguistic Society*, 1997, 331, 373-387.