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MATURATION AND THE ACQUISITION OF THE SESOTHO PASSIVE

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Borer & Wexler 1987 explain the apparent late acquisition of verbal passive in English and Hebrew by hypothesizing that the principle governing A-chain formation matures relatively late in language development. However, in Sesotho, a Bantu language, verbal passives are acquired early, by at least 2;8 years. This suggests either that English- and Hebrew-speaking children actually acquire the ability to form verbal passives early in language development, and that other nonmaturational factors influence its late appearance, or that the acquisition of the verbal passive is not determined by maturation, contrary to the claims of Borer & Wexler.*

1. INTRODUCTION. The acquisition of English passives has long been a topic of great interest (e.g. Bever 1970, Strohner & Nelson 1974, Horgan 1978, Maratsos et al. 1979; see also de Villiers 1985). Many of these studies have found that full comprehension of verbal passives develops relatively late in language acquisition, and that the frequency of spontaneous verbal passives and the use of the by-phrase are low. Similar findings are reported for other languages: verbal passives do not become frequent in German until the age of 5 (Mills 1985), while in Hebrew children apparently avoid verbal passives until the age of 8 and the by-phrase until the age of 10 (Berman 1985).

Borer & Wexler 1987 (henceforth B&W) propose a Maturation Hypothesis to explain the relatively late acquisition of verbal passive. The Maturation Hypothesis states that biological maturation determines the grammatical principles available to the child. To the extent that there is some individual variation in when children begin to teethe and walk, we might also expect some limited variability in the timing of passive acquisition across languages.

B&W acknowledge that some English passive constructions are produced early in language development, but they claim that these early passives are in fact lexical or adjectival rather than verbal or syntactic. They base this claim on the fact that, in Hebrew, adjectival passives are acquired long before verbal passives. In this paper, however, I show that Sesotho-speaking children acquire verbal passive early in the process of language acquisition (by at least 2;8 [year/month] years), indicating that the grammatical principle governing passive formation must mature relatively early, or that we must look elsewhere for an explanation of the late appearance of verbal passives in other languages.

In §2 I describe the Maturation Hypothesis and discuss the formation of

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English verbal and adjectival passives, showing how they differ grammatically. In §3 I present an analysis of the Sesotho verbal passive and show that there is no adjectival passive in Sesotho. In §4 I describe the acquisition of the Sesotho verbal passive and discuss how and why it is similar to, yet also differs from, the spontaneous use of verbal passives in English. I conclude in §5 that the Maturation Hypothesis does not prove that early English passives are adjectival, and that it cannot account for the crosslinguistic variation found in verbal passive acquisition.

2. THE MATURATION HYPOTHESIS. The Maturation Hypothesis claims that principles of grammar mature; the timing and nature of acquisition depend primarily on the maturation of grammatical principles rather than on the frequency of exposure to the construction.[1] To illustrate how the Maturation Hypothesis may apply to an actual acquisition situation, I turn to a discussion of verbal and adjectival passives. The grammatical analysis I provide is drawn from B&W 1987 and is necessarily brief; I refer the reader to B&W 1987, Chomsky 1981, and Jaeggli 1986 for fuller treatments.

English is blessed with homophony between adjectival and verbal passives. Consider the following example:

(1) *The doll was torn (by Mary).*

The verb in 1 is an action verb; with the by-phrase the sentence has a verbal passive reading, but without the by-phrase it can have an adjectival passive reading (i.e., the doll was in a state of having been torn). In English, passives of action verbs are ambiguously adjectival or verbal. English is curious in this regard; languages such as German and Hebrew mark adjectival and verbal passives with different morphemes. In languages where adjectival and verbal passives are morphologically distinct it is easy to observe the developmental acquisition of each construction. However, the homophony in English has contributed to some confusion about which construction(s) young English speakers use.

The question of how and when verbal and adjectival passives are acquired has important theoretical implications. In a Government-Binding analysis (Chomsky 1981, Jaeggli 1986), verbal passives are derived by a means of NP movement (with accompanying theta-role) to subject position and the absorption of accusative case. The passive morpheme then absorbs the external theta-role, which can optionally be assigned to an oblique object. Thus, the formation of verbal passives critically involves movement of the NP from [NP, VP] position (as the object of the verb) to [NP, S] position (as the subject of the sentence), where it then receives nominative case. When movement of the NP occurs, a coindexed trace **e** is left behind, thus constructing an argument-chain (A-chain). This is illustrated in 2.

[1] The Maturation Hypothesis contrasts with the Continuity Hypothesis (Pinker 1984), which argues that grammatical principles are available from the beginning of the acquisition process, and that learning then takes place gradually over time. While a more detailed discussion of the Continuity Hypothesis is beyond the scope of this paper, the difficulties that the Sesotho data pose for the Maturation Hypothesis do not appear to arise with the Continuity Hypothesis.

(2) a. *Mary tore the doll.*
b. *The doll$_i$ was torn* $\mathbf{e}_i$ *(by Mary).*

The generally accepted analysis of adjectival passive (see Wasow 1977, Williams 1981, and Bresnan 1982) is not syntactic, but only lexical: there is no thematic subject (adjectival passives do not generally take by-phrases), accusative case is eliminated (not absorbed), and the theta-role of the NP is externalized (i.e. assumes subject position). Unlike the verbal passive in 2b, the adjectival passive in 3 has no coindexed A-chain (involves no movement) and does not allow a by-phrase. In other words, *torn* functions just like any other adjective.

(3) *The doll was torn/red (*by Mary).*

Formal studies of language acquisition have generally assumed that complex grammatical constructions (e.g. involving movement, embedding, and extraction) will be difficult to acquire, may appear late in language development, and may require access to certain innate mechanisms. The grammatical formulation of verbal passive, which involves movement, should therefore present a more complex problem for the language learner than the acquisition of adjectival passive, which involves only the learning of a lexical item. The reported late acquisition of verbal passives in English, German, and Hebrew has supported this view, and B&W present the Maturation Hypothesis as a potential solution to the problem: there is a grammatical principle of A-chain formation that must mature before verbal passives can be acquired. Prior to the maturation of this principle, only adjectival passives (which do not involve A-chain formation) are available to the child. The early use of adjectival passive and the acquisition of verbal passive in Hebrew are consistent with such a hypothesis. B&W then claim that the same scenario must hold for English.

One of the implicit assumptions of the Maturation Hypothesis is that the activation of a given grammatical principle should exhibit approximately the same timing across languages. Thus, we would predict that the principle for A-chain formation matures at approximately the same time for all children, at which point they should all (in theory, if not in practice) be able to acquire constructions involving A-chain formation. This paper evaluates these claims with regard to early verbal passive acquisition in Sesotho, a southern Bantu language which has no adjectival passive. I will now present a syntactic analysis of the Sesotho verbal passive and then examine the acquisition data.

3. THE SYNTACTIC ANALYSIS OF THE SESOTHO PASSIVE. Sesotho is a pro-drop language with SVO as its basic word order. The verbal complex is composed of several component parts, as shown in 4.

(4) (S) sm-(tense/aspect)-(obj)-Verb-(prf)-mood (O)[2]

[2] Gloss abbreviations used in this paper are as follows: agr = agreement marker, apl = applicative (also benefactive or instrumental), caus = causative, cont = continuous, cop = copula, dem = demonstrative pronoun, fut = future marker, inf = infinitive, loc = locative, m = mood, obj = object clitic, PASS = passive, pn = independent pronoun, pos = possessive, pot = potential, pr = preposition, prf = perfective, pst = past tenses, rel = relative marker, sm = subject marker (subject-verb agreement), wh = question word, 8 = noun class #8, (×4) = uttered 4 times.

Both the subject-verb agreement marker (sm) and the object pronominal (obj) agree in noun class with their coreferent lexical items:

(5) (*Thabo*) *o-pheh-il-e* *lijo*.
(1.T) 1.sm-cook-prf-m 8.food
(Thabo) cooked some/the food.

(6) (*Thabo*) *o-li-pheh-il-e*.
(1.T) 1.sm-8.obj-cook-prf-m
(Thabo) cooked it.

Passives are formed in the same way as in English: following Chomsky 1981 and Jaeggli 1986 again, the GB analysis of Sesotho passive involves NP movement to subject position and the absorption of accusative case. The passive morpheme *-o-* or *-uo-* (phonetically [w] or [uw]) absorbs the external theta-role, which can optionally be assigned to an oblique object marked by the by-phrase marker *ke*.[3] Thus, as in English, the formation of verbal passive involves movement of the NP from [NP, VP] position (as the object of the verb) to [NP, S] position (as the subject of the sentence), where it then receives nominative case.[4] As in English, a coindexed trace **e** is left behind after NP movement, forming an A-chain, as shown in 7.

(7) *Lijo*$_i$ *li-pheh-il-o-e* $\mathbf{e}_i$ (*ke Thabo*)
food sm-cook-prf-PASS-m (by T)
The food was cooked (by Thabo).

Further evidence that Sesotho derives verbal passives through the process of A-chain formation comes from Sesotho impersonal passive (or 'there'-insertion) constructions. These constructions are similar, in some respects, to those described for German and Dutch (Perlmutter 1978); an expletive (dummy subject) *ho* fills the subject position, and the verb takes passive morphology (see Jaeggli 1986, Machobane 1987).

(8) *Ho-pheh-il-o-e* *lijo*.
ho-cook-prf-PASS-m food
There has been cooked food.

The simplest, most unified analysis would be that *lijo* 'food', the argument of the verb, is base-generated at D-structure for both the passive and the impersonal passive (Chomsky 1981). In the impersonal passive in 8, no movement takes place, while in the passive in 7 movement must take place.

A major grammatical difference between Sesotho and English that has critical implications for the Maturation Hypothesis is that SESOTHO DOES NOT HAVE ADJECTIVAL PASSIVES. It has predicate adjectives, but they are morphologically distinct from passives.

Adjectives are morphologically marked by an agreement particle which is prefixed to the adjective, as in 9.

[3] The reader will note that the by-phrase marker *ke* is homophonous with the copula *ke*. These forms carry high tone, thereby contrasting with low-toned *ke-*, the 1st person singular subject marker.

[4] While Sesotho does not overtly mark case, nominative case assignment is assumed when the NP in subject position agrees in noun class with the subject-verb agreement marker.

(9) *lijo tse-tala ...*
food agr-green
green-colored food ...

As a predicate adjective construction formed with a copular agreement marker in 10, *tala* 'raw, uncooked' is still morphologically distinct from the verbal passive; it cannot inflect for tense/aspect, as shown in 11, nor can it take passive morphology, as shown in 11b.

(10) *Lijo li-tala.*
food cop/agr-raw
The food is raw (uncooked).

(11) a. **Lijo li-tal-etse.*
food sm-raw-prf
The food was raw (uncooked).

b. **Lijo li-tal-o-a.*
food sm-raw-PASS-m
The food is raw (uncooked).

Some passives, when used with perfective tense/aspect, may ambiguously indicate either a completed action or a resultant state, as in 12.

(12) *Lijo li-pheh-il-o-e.*
food sm-cook-prf-PASS-m
The food has been/(is in a state of having been) cooked.

However, while some passives in the perfective tense/aspect may SEMANTICALLY resemble English adjectival passives, SYNTACTICALLY they are verbal passives.

In this section I have shown that the Sesotho verbal passive and impersonal passive are derived by the same A-chain formation process as that found in English, and that Sesotho has no adjectival passive. On strictly grammatical grounds we would expect the acquisition of verbal passive in English and Sesotho to be quite similar: if both Sesotho and English use A-chains in the formation of verbal passives, and if the ability to form A-chains is maturationally triggered, we should expect children acquiring each language to develop the ability to form verbal passives at approximately the same age. I now move to a discussion of Sesotho passive acquisition.

4. THE ACQUISITION OF SESOTHO VERBAL PASSIVE. The data for this study were compiled over a two-year period of research in rural Lesotho (see Demuth 1984) and constitute approximately 84 hours of spontaneous child interactions with adults, peers, and older siblings. Speech samples were recorded and transcribed with the assistance of the children's mothers and grandmothers. Four children were recorded at monthly intervals over a one-year period. The data consulted for this study include 10 sessions each for Hlobohang (2;1–3;0 yrs.) and Litlhare (2;1–3;2 yrs.), 3 for Keneuoe (2;6–2;9 yrs.), and 4 for Tsebo (3;9–4;1 yrs.). A sample of caregiver speech was taken from four adults interacting with Hlobohang at 2;1 years. Each session consisted of three to four hours of audio taping. (See the Appendix for a complete listing of the data analyzed for this study.)

While the total number of children's passive tokens is small (139) and exhibits intra- and interspeaker variation, both of which are common artifacts of spontaneous speech sampling, I present the data as suggestive of the children's grammatical abilities regarding verbal passives. Plans for further experimental investigation are currently in progress, but the present corpus provides evidence of the children's developing ability to use verbal passive constructions.

The spontaneous data were arbitrarily pooled into six 2–4 month intervals. It was hoped that such groupings would show either that there was a gradual but steady increase in the use of verbal passives over time—perhaps supporting a Continuity Hypothesis (Pinker 1984)—or, alternatively, that passives would appear suddenly, perhaps providing support for the Maturation Hypothesis. In Table 1 the percentage of passives is calculated on the total number of utterances[5] per interval.

INTERVAL	1	2	3	4	5	6	Adult
AGE (y;m)	2;1–2;3	2;4–2;.6	2;7–2;9	2;10–3;2	3;9–3;10	4;0–4;1	caregivers
N OF UTTERANCES	1704	2925	3307	3159	1520	1603	386
N/% OF PASSIVES	6/.4	11/.4	33/1.0	27/.9	32/2.1	30/1.9	23/6.0

TABLE 1. Total number and percent of Sesotho passives.

While the data from the first four intervals represent the mean normalized over two or three children, and the data from the last two intervals come from only one child, they nevertheless point to certain developmental trends. The percentage of passives produced in the first two intervals is small (both .4% of total verbal utterances) and may reflect some rote-learned forms. By intervals 3 and 4 the percentage of passives has increased to 1% and .9%. The diversity of verbs used with the passive at this point has increased and the grammatical constructions with which they are found have diversified, reflecting the fact that passives are becoming more integrated into the grammar as a whole.[6] Spurts in the percentage of verbal passives are found at 2;8 years for Keneuoe, at 2;8 years and 3 years for Hlobohang, and at 3;2 years for Litlhare. The percentage of passives at intervals 5 and 6 has increased to 2.1% and 1.9%, showing a still greater diversity of verbs and further integration into the grammar.

However, frequency counts alone do not shed much light on the question of when the grammatical principle governing A-chain formation might mature. A closer look at the types of verbal passives that Sesotho-speaking children use tells us more about how verbal passive is acquired. Table 2 gives a breakdown (as a proportion of total passives) of the types of passives produced at each interval.

While the use of short (agentless) passives is relatively consistent across all

[5] By number of utterances I mean the total number of clauses that contained a true verb. This total includes imperatives but excludes the copula *ke*.

[6] By 'integrated into the grammar' I mean that they are used in embedded constructions such as relative clauses or with complex tense/aspect forms, all of which are less likely to be rote-learned forms.

INTERVAL	1	2	3	4	5	6	Adult
AGE (y;m)	2;1–2;3	2;4–2;6	2;7–2;9	2;10–3;2	3;9–3;10	4;0–4;1	caregivers
N OF PASSIVES	6	11	33	27	32	30	23
FULL	2/33.3	5/45.5	8/24.2	7/25.9	5/15.6	4/13.3	13/56.5
SHORT	4/66.7	6/54.5	14/42.4	17/63.0	17/53.1	17/56.7	7/30.4
IMPERSONAL	0	0	11/33.3	3/11.1	10/31.3	9/30.0	3/13.0

TABLE 2. Types of passives (n/proportion of total passives).

intervals, the use of full (by-phrase) passives is highest at intervals 1–2, drops at intervals 3–4, and is lower still at intervals 5–6. Interestingly, there are no cases of impersonal passives during intervals 1–2, but they appear suddenly at interval 3.

In the rest of §4 I take a closer look at Sesotho-speaking children's use of verbal passive constructions and discuss the implications of their acquisition patterns for theories of the acquisition of English. I will refer to intervals 1–2 as Stage I (2;1–2;6 yrs.; n = 17), intervals 3–4 as Stage II (2;7–3;2 yrs; n = 60), and intervals 5–6 as Stage III (3;9–4;1 yrs.; n = 62).

4.1. THE BY-PHRASE. Drawing on evidence from acquisition and universals (languages with full passives will also have short passives; see Keenan 1985), Romaine 1984 claims that short passives are more 'basic' than full passives. Horgan 1978 reports that English full passives are rare in children's speech, becoming more productive around the age of 10. As adjectival passives generally do not take a by-phrase, B&W use this finding to support their claim that early English passives are actually adjectival rather than verbal. The Sesotho findings are interesting in this regard: by-phrases were used in 39% of all passives at Stage I, 25% at Stage II, and 15% at Stage III. If there is any trend it is toward a decrease in the use of by-phrases over time.[7] Thus, Sesotho provides no evidence to support the claim that full passives are inherently (grammatically) more difficult to learn than short passives.

The prevalence of shifts between full and short passives in consecutive utterances provides additional evidence that both short and full passives (including full reversible passives [Slobin 1966]) are accessible to the Sesotho-speaking child. In ex. 13 Keneuoe (2;8 yrs.) and her friends are playing dolls with a plastic lotion bottle. After referring to the doll's long, beautiful neck, she says, in the doll's own words:

(13) a. *'Na ke-kut-uo-e.*
pn sm-cut.hair/prf-PASS-m
As for me, I've been given a hair-cut.

b. *'Na ke-kut-uo-e ke nkhono oaka.*
pn sm-cut.hair/prf-PASS-m by grandmother my
As for me, I've been given a hair-cut by my grandmother.

Verbal passives with by-phrases, then, apparently pose neither a comprehension nor a production problem for Sesotho learners. The fact that low frequency

[7] In contrast, the proportion of short passives remains fairly constant: Stage I = 61%, Stage II = 53%, and Stage III = 55%.

of occurrence and late comprehension of by-phrases is reported for English learners is probably less an acquisition problem than it is a reflection of the discourse purposes for which verbal passives were being used and/or tested (see Pinker et al. 1987). Indeed, some experimental studies indicate that preschoolers understand both short and full English passives well (Maratsos & Abramovitch 1975), though these findings remain controversial (see de Villiers 1985).

4.2. VERBAL SEMANTICS. Maratsos et al. 1979 and Maratsos et al. 1985 have noted that there are semantic constraints on the types of verbs speakers tend to passivize most readily. In particular, English-speaking children find the passive of activity or change of state verbs easiest to understand and produce. Pinker et al. 1987 also predict that learning of the passive with action verbs should occur early and with few problems.

B&W claim that English adjectival passives are derived only from action (not nonaction) verbs, and that the preference for early passivization of action verbs shows that early English passives are actually adjectival rather than verbal. Firstly, the claim about English adjectival passives is false: many adjectival passives are formed from nonaction verbs (e.g. *a justified argument, a wanted child*).[8] Secondly, even if it were true, the Sesotho data provide independent evidence against their acquisition proposal. All of the Sesotho verbs passivized in this corpus—with the one exception of *feta* 'surpass' in *ke fetoa ke Nkeletseng* 'I am surpassed by Nkeletseng' (Tsebo at 3;10; see Demuth 1985)—were action verbs.[9] But since the adjectival passive analysis is not available for Sesotho, the Sesotho data make the adjectival analysis look less attractive for the English data, and we must look elsewhere for an explanation of the relatively early emergence of action-verb passives. I suspect that the use of passive with nonaction verbs, in both English and Sesotho (and perhaps in most languages), is more frequently found in specific types of spoken and written genres than in daily discourse, so that nonaction-verb passives may be less frequently used—and maybe also harder to understand—than action-verb passives. In any case, the fact that English-speaking children's early passives are primarily formed from action verbs does not provide support for the claim that they are adjectival rather than verbal passives.

4.3. PASSIVE/ACTIVE SHIFTS. Additional evidence that young Sesotho-speaking children control A-chain formation comes from their ability to use passive and active constructions in consecutive utterances. Ex. 14 demonstrates Keneuoe's successful use of passive/active shift at 2;8 years. Keneuoe has run off to report to her aunt that older cousin Tsebo (4 yrs.) has been up to no good. Keneuoe runs back to say that punishment is coming, hoping to evoke a round of protest from Tsebo.

[8] I thank an anonymous reviewer for these examples.

[9] Approximately one fifth of Hlobohang's verbal corpus at 2;1 years includes nonaction verbs such as *batla* 'want', *bona* 'see', *esta* 'do', *hana* 'refuse', *kula* 'be sick', *lekana* 'be all right, fit (i.e. shoes)', *phela* 'live', *qala* 'begin', *qeta* 'finish', *rata* 'like/love', *seba* 'be naughty', *thaba* 'be happy', *tseba* 'know'.

(14) a. *Ho-thoe o-tla-shap-uo-a!*
ho-said sm-fut-lash-PASS-m
It is said that you will be lashed! (x4)
(No response from Tsebo)
b. *Ke 'me o re o-tla-o-shapa*
(*Ke 'me ea re-ng o-tla-o-shapa*)
cop mother rel say-rel sm-fut-obj-lash
It's mother who says she will lash you. (x3)

After four attempts to elicit a response from Tsebo with passives (14a), Keneuoue shifts to the active (14b). In so doing she shows that she is capable of alternating between passive and active forms of the same verb. The use of these constructions provides further evidence that Sesotho-speaking children control the grammatical principle needed for creating verbal passive by at least Stage II.

4.4. IMPERSONAL PASSIVES. Since impersonal passives are a type of passive, we would expect the acquisition of both types to occur at approximately the same time. While the verbal argument of impersonal passives does not undergo movement itself, as shown in §3, I have argued elsewhere (Demuth 1987) that the acquisition of impersonal passives does require access to the grammatical principles involved in verbal passive formation.[10] In the preceding sections I have shown that Sesotho-speaking children appear to control the grammatical principle governing verbal passive formation by at least 2;8 years. It is not surprising, then, to find that, for all three of the younger Sesotho-speaking children studied, impersonal passives first appear at 2;8–2;9 yrs. (interval 3). While the active form of the verb *shapa* 'lash' is common in Sesotho-speaking children's speech and Keneuoe first uses it in the passive at 2;6 years, she does not use *shapa* in the impersonal passive until 2;8 years, as illustrated in 15.

(15) *ho-tla-shap-uo-a Lineo enoa*
ho-fut-lash-PASS-m L dem
There will be lashed Lineo, this one.

The appearance of impersonal passives provides independent confirmation for the observation that Sesotho-speaking children have access to A-chain formation by at least 2;8 years.

If we accept the Maturation Hypothesis, then, the grammatical principle governing verbal passive formation must have matured for Sesotho-speaking children by at least 2;8 years. Thus, in principle, we would have to argue that the same grammatical principle could have matured for English-speaking children about this time. Since there is no adjectival passive in Sesotho, and verbal passives are acquired early, then it is possible that early English passives are also verbal.

[10] See Demuth 1987 for a fuller discussion of the grammatical knowledge required for impersonal passive formation. In particular, it appears that knowledge about the pro-drop setting is a prerequisite for the acquisition of Sesotho verbal impersonal/expletive constructions. If this is so, it would contradict Hyams' 1986 proposal that the acquisition of lexical expletives provides the trigger for setting the pro-drop parameter.

4.5. INPUT. There remains one other possible explanation for the early use of Sesotho passive: perhaps early Sesotho passives are rote-learned forms, and not verbal or syntactic passives at all. While it is difficult to test this hypothesis, I will attempt to address the issue by considering the passive input that Sesotho-speaking children receive. If it is the case that children's early Sesotho passives are identical to the input they receive, we might be tempted to conclude that their passives are rote learned and that they do not have access to A-chain formation. On the other hand, if their passives show evidence of creativity, we might be tempted to revise our initial projection and claim that they have access to A-chain formation as early as Stage I. As a background upon which to test these hypotheses I consider the characteristics of adult speech directed toward young Sesotho-speaking children.

While adult caregiver speech is not necessarily representative of adult Sesotho discourse in general (it is exceptionally high in imperatives and questions), it nevertheless provides some insight into the types of verbal passives that young Sesotho-speaking children typically hear. During a four-hour sample of conversation with 2;1-year-old Hlobohang, adult caregivers used passives in approximately 6% of their utterances (see Table 1). Adult caregiver speech was especially rich in full passives (57%; see Table 2). This may account, in part, for the high proportion of full passives found at Stage I (39%). Note that the Sesotho-speaking caregivers' spontaneous use of full passives (13 per 386 utterances) contrasts sharply with that of English-speaking caregivers (0 per 713 utterances: Brown 1973:358).

Interestingly, approximately 73% of the adult passives in this sample were questions. However, only a few of the children's passives were answers to passive questions (Stages I & II: 2 = 2.6%; Stage III: 4 = 6.6%); most passive questions can be answered with a copula: *Ke X* 'It's X'. Thus, even at Stage I, Sesotho-speaking children's passives are not a direct reflection of the passives they hear. It is possible that they may have access to the principle governing A-chain formation even at Stage I.

Some of the children's own passives were questions, though this was more frequent at Stage III (15 = 24%) than at Stages I & II (2 = 2.6%), reflecting the increase in use of questions with age. Some of the verbs used in children's passives were modeled in the preceding discourse, either in statements or in nonpassive questions. However, verbs modeled in the immediately preceding discourse account for only 3 (= 18%) of passives at Stage I, 6 (= 10%) at Stage II, and none at Stage III. While immediate modeling of a verb in either the passive or the active is not a prerequisite for the use of passives at Stage I, the verbs *fa* 'give', *rekela* 'buy for someone', and *shapa* 'lash' are commonly passivized in every-day discourse and constitute a large proportion of the passives used at Stage I (7 = 41%). They comprise a smaller proportion at Stage II (15 = 25%), and there are only 4 (=7%) of them at Stage III. As noted above, passives are used with an increasing diversity of verbs over time. However, the diversity of verbs used in the active also increases over time; for Hlobohang this increase is from 69 different verbs at 2;1 (305 utterances) to 148 different verbs at 2;6 (509 utterances). Thus the increase in the number of

verbs used in the passive is, in part, a reflection of the child's developing vocabulary.

The input also includes passive idioms such as *ho thoe/ho itsoe* 'it is/has been said' and *ke-tsoeroe ke boroko/mosese/matlapa/hloho* 'I'm sleepy/have to urinate/have to defecate/have a headache' (lit. 'I am taken by sleep/urine/bowels/head'). While both verbs, *re* 'say' and *tsoara* 'grab, take', are also used in the active, their frequent appearance as lexicalized passive idioms suggests that the child initially uses them as lexical items, only later analyzing them as verbal passives with active alternates. These passive idioms were therefore not included in this study in the counts of verbal passives.

If Sesotho-speaking children's use of verbal passives at Stage I were a close reflection of the input they receive, we would have to say that passivization is not productive at this point, and that A-chain formation has not yet matured. However, even though only a few verbs were used in the passive, and some were modeled, Sesotho-speaking children's use of passives shows important originality: unlike adults, they use no impersonal passives, few passive questions, and few passives in answers to questions. I therefore conclude that, while the use of Sesotho passives at Stage I is somewhat infrequent and is restricted to a small group of verbs, it is not a direct reflection of the input. I suggest that Sesotho-speaking children's ability to form verbal passives may be developing even during Stage I.

4.6. The acquisition of Sesotho verbal passives is summarized in 16:

(16) Stage I, before 2;7 years: infrequent use of verbal passives. Many are verbs commonly heard in the passive and others may be rote-learned or modeled forms. However, some passives appear to be productive (creative verbal passives), and comprehension, even of full and reversible passives, seems to be good.

Stage II, 2;8–3;2 years: the use of verbal passives has increased. More verbs are used in the passive, and there is evidence of an ability to manipulate passive and active constructions. Impersonal passives appear for the first time (2;8–2;9 yrs.) for all three children studied at this age.

Stage III, 3;9–4.1 years: verbal passives represent an increasingly large percentage of total verbal utterances, and the diversity of verbs used in the passive continues to increase. Impersonal passives constitute a consistently large proportion of all passives used.

The Sesotho data indicate that the ability to use verbal passives is productive (creative) by Stage II. It would thus appear that Sesotho-speaking children have the ability to form A-chains by at least 2;8 years.

5. DISCUSSION. In this paper I have argued that the Sesotho verbal passive can be derived by the same A-chain formation process as that generally ac-

cepted for English, and that Sesotho has no adjectival passive. I then demonstrated that Sesotho verbal passives become productive (are used creatively) by at least 2;8 years.

This finding poses several problems for the Maturation Hypothesis. First, there is no longer any evidence to support the claim that early English passives must be adjectival. If the ability to form A-chains matures by 2;8 years or earlier for Sesotho-speaking children, then the Maturation Hypothesis predicts that the same ability, in principle, should be available to children learning other languages. Pinker et al. 1987 suggest that this is the case, citing a few examples of English passives between 1;7 and 3;3 years. Thus, passives used by English-speaking children of 2;8 years could, in theory, be verbal and not adjectival. If further research shows that they are in fact adjectival, as they are in Hebrew, the explanation for the later acquisition of English verbal passives would have to appeal to factors other than maturational ones.

Second, while I have tried to apply the Maturation Hypothesis to the acquisition of Sesotho verbal passives, and to determine when the principle governing A-chain formation matures, it is difficult to specify exactly when maturation occurs. The Sesotho data indicate that knowledge of A-chain formation must be present by at least 2;8 years, but it might also be present earlier; few passives are found earlier, but comprehension in spontaneous speech is good, and several of the early passives are creative forms.

Third, the Maturation Hypothesis does not account for the great variability found in the acquisition of verbal passives across languages. The hypothetical maturation of A-chain formation at approximately 2;8 years for Sesotho and 3;3 years for English (Pinker et al. 1987) might well be in keeping with maturational variation. However, the extension of a maturational explanation to the late acquisition of the verbal passive in German and Hebrew is highly questionable. That grammatical constructions which employ A-chain formation appear much later in Hebrew and German indicates either that A-chain formation is actually available but not activated (perhaps due to a lack of input or morphophonological opacity), or that A-chain formation is not a grammatical principle that matures, but rather a grammatical phenomenon that is learned on a language-specific basis. In either case, the child's growing awareness of language-specific typological properties appears to be critical to the development of verbal passives.

A closer examination of verbal passives suggests that acquisition patterns are in part a reflection of the role that passive constructions play in the grammar of different languages. Sotho languages (Sesotho, Setswana, and Sepedi) have a constraint on subjects which restricts them to being highly topical, old, given information (Demuth 1985, Louwrens 1981). This means that question words in Sesotho are not allowed in subject position, as shown by the ungrammaticality of 17.

(17) **Mang o-pheh-ile lijo?*
who sm-cook-prf food
Who cooked the food?

Because of this topical subject constraint, passives play a very important role in Sesotho grammar: to question subjects or answer subject questions, one must use a passive construction, as in 18.

(18) a. *Lijo li-pheh-il-o-e ke mang?*
food sm-cook-prf-PASS-m by who
The food was cooked by who?
b. *Li-pheh-il-o-e ke Thabo.*
sm-cook-prf-PASS-m by T
It was cooked by Thabo.

Children appear to be sensitive to this topical subject constraint from an early age; there is little overgeneralization of question words to subject position, and new nominal referents appear in object or oblique positions (Demuth 1985). One might therefore propose that Sesotho-speaking children acquire passives early for purely functional reasons.

I suspect, however, that the functional argument is not entirely sufficient. Because passives play an important functional role in the grammar of Sesotho, they are used frequently in adult conversation and in adult speech to children; approximately 6% of adult caregivers' verbal utterances directed toward 2;1-year-old Hlobohang during a four-hour period were passive constructions (Demuth 1985). Sesotho-speaking children therefore have ample opportunity for comprehension practice with verbal passives. Studies by Whitehurst et al. (1974) have shown that English-speaking children's comprehension of passives improves with modeling practice. I suggest that, because of the high functional load of passive constructions in Sesotho, young Sesotho-speaking children have the practice they need to understand, and subsequently to produce, passives in spontaneous speech. Thus it is the role that passives play in the grammar of a language, and their consequent frequency of use, that together provide a diagnostic for predicting when passives will be acquired in a given language. Note that this view is not entirely inconsistent with the Maturation Hypothesis: one could still say that passives are acquired only after the maturation of the relevant grammatical principles, but that the exact timing of acquisition would be further influenced by typological and frequency factors.

The typological/frequency arguments help account for the later acquisition of passives in Hebrew and English. Verbal passives play a very minor role in the grammar of Hebrew; adjectival passives and middle constructions are used much more frequently for similar discourse functions. Even Hebrew-speaking adults, whose A-chain principles have presumably matured, rarely use verbal passives and frequently make morphophonological errors (Berman 1985). Hebrew passives are more frequently found in written genres than in spoken discourse; topicalization and impersonal subjects fill the roles that verbal passives fill in other languages. This suggests that the late acquisition of Hebrew verbal passives may be attributed to the nature of Hebrew grammar and the consequent low frequency of verbal passives, rather than to the maturation of grammatical principles. Given these typological properties and the consequent lack of input, we should therefore predict the late acquisition and infrequent use of Hebrew verbal passives.

While verbal passives may serve a more important grammatical function in English than they do in Hebrew, they still have a relatively low functional load in caregivers' discourse (Brown 1973:409). We would therefore expect verbal passives in English to appear earlier and with greater frequency than in Hebrew, but neither as early nor as robustly as in Bantu or Malayo-Polynesian languages, where passives play an important role in the grammar (Keenan 1975, 1985). Similarly, we would expect the acquisition of verbal passives in Zulu, which has the same constraint on topical subjects that Sesotho has, to pattern closely with the Sesotho findings—and so it does, according to Suzman 1985.

This paper has shown that Sesotho speakers have acquired the grammatical knowledge needed to produce verbal passive constructions by at least 2;8 years; future study of verbal passive acquisition in other Bantu languages or in Malayo-Polynesian (or other) languages may reveal even earlier acquisition than that found for Sesotho. The Maturation Hypothesis makes a strong statement about the maturation of specific linguistic principles, but it does not help explain the significant crosslinguistic variation in how and when verbal passives are acquired. When applied by itself it is likely to prove misleading, as with the claim that early English passives must be adjectival (Borer & Wexler 1987). I suggest that, even if the Maturation Hypothesis can be proven to be valid, it will have to be employed with much greater awareness of both language typology and acquisition phenomena if it is to provide useful insights into how language is acquired.

APPENDIX*: SESOTHO VERBAL PASSIVES

A. Hlobohang

(1) 2;1 years

a. *m-pe e nts-uo-e:*
(*m-phe e nts-uo-e-ng*)
obj-give rel take.out-PASS-m-rel
'give me the one that has been taken out' (x4)

b. *tsokole e:ntsiy-e e eena*
(*tsoekere e-nts-its-o-e ke uena*)
sugar sm-take.out-apl/prf-PASS-m by you
'he sugar has been taken out by you' (M)

c. *a-b-uo-a*
(*oa-f-uo-a*)
sm-give-PASS-m
'you are given' (x4)

d. *a-b-uo-a*
(*oa-f-uo-a*)
sm-give-PASS-m
'you are given' (x2)

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* (M) = verb modeled in preceding discourse; * = ill-formed reversible passive (see Demuth 1985 for discussion); x2 = two identical consecutive utterances. Such cases were counted only as 1 token for Tables 1 and 2. See note 2 for gloss conventions. This corpus includes verbal passives only: lexical passives *ho thoe, ho itsoe,* and *tsoeroe ke* 'it is said', 'it was said', and '... taken by ...' are not included. Parentheses indicate sounds that have been omitted in the child's utterance.

(2) 2;4 years
a. *a-rek-el-a e mang?*
(*o-e-rek-ets-o-e ke mang?*)
sm-obj-buy-apl/prf-PASS-m by who
'you were bought it by who?' (x3)

(3) 2;6 years
a. *ka koana ka moo e-ek-uo-a-ng*
(*ka koana ka moo e-rek-uo-a-ng*)
pr there pr rel obj-buy-PASS-m-rel
'over there where it is bought'
b. *pompom e sa-bul-o-a-ng ke ela*
sweet rel neg-open-PASS-m-rel by dem
'the sweet that isn't opened is that one'

(4) 2;8 years
a. *a-rek-etsh-o-e*
(*a-rek-ets-o-e*)
sm-buy-apl/prf-PASS-m
'they have been bought' (x3)
b. *ho-ets-o-a teraka*
ho-make-PASS-m truck
'there is a truck being made'
c. *mona ho-ets-o-a literata*
here *ho*-make-PASS-m trucks
'there are trucks being made here'
d. *fetere ha-e-tšoar-e*
(*festere ha e-tšoar-o-e*)
window neg sm-grab-PASS-m
'the window isn't being grabbed'
e. *e-ntš-uo-e fe(s)tere*
sm-take.out-PASS/prf-m window
'it has been taken out, the window'
f. *tsi-tsup-uo-e*
(*ke-tsip-uo-e*)
sm-pinch/prf-PASS-m
'I've been pinched' (x2)
g. *o-koets-e moo*
(*ke-qhoets-o-e moo*)
sm-choke/prf-PASS-m here
'I've been choked here'
h. *o-tla-ba-shap-a bo-ntate*
(*o-tla-ba-shap-uo-a ke bo-ntate*)
sm-fut-be-lash-PASS-m by pl-father
'he will be lashed by the fathers'

(5) 2;9 years
a. *o-le-f-uo-e lena ke nkono 'Mamokoena*
sm-obj-give/prf-PASS-m dem by grandmother M
'you were given it by grandmother M'

(6) 3;0 years
a. *ke-o-f-uo-e ke ausi Linaese*
sm-obj-give-PASS-m by sister L
'I was given it by sister L' (M)
b. *ntho tse bilik-is-o-a-ng*
thing rel turn-caus-PASS-m-rel
'things that are being turned'

c. *e'ngoe ea-bilik-is-o-a*
another sm-turn-caus-PASS-m
'another one is being turned'

d. *ke ntho tse koael-o-a-ng*
cop thing(s) rel cover-PASS-m-rel
'it's things that are being covered' (x2)

e. *Ntšelleng o-tla-shap-uo-a*
N sm-fut-lash-PASS-m
'N, you will be lashed'

f. *sheba ho-lili-o-e le mona fatše*
(*sheb-a ho-lits-o-e le mona fatše*)
look-m *ho*-plaster/prf-PASS-m and here ground
'look, there has been plastered even here on the ground' (x3)

g. *kannte ho-lilioe*
(*kannete ho-lits-o-e*)
really *ho*-plaster/prf-PASS-m
'there really has been plastered' (x4)

h. *Bololo o-kut-uo-e*
Mololo sm-cut/prf-PASS-m
'M has been trimmed (given a haircut)'

i. *ke ana a-fef-uo-a*
it's dem sm-blow-PASS-m
'they're over here being blown about'

j. *likoloi li-tantelits-o-e*
cars sm-twist/prf-PASS-m
'the cars have been twisted' (x2)

k. *ea-phush-o-a*
sm-push-PASS-m
'it's being pushed' (x2)

l. *ona o lahl-uo-a-ng*
dem rel throw.away-PASS-m-rel
'this one that is being thrown away'

m. *e-fel-ets-o-e ke peterone*
sm-finish-apl/prf-PASS-m by petrol
'it has been finished by petrol' (i.e., it's out of gas)

n. *oa-phuny-uo-a moqomo ona*
sm-puncture-PASS-m oil-tin dem
'it's being punctured, this oil tin'

o. *o-tla-shap-uo-a*
sm-fut-lash-PASS-m
'you will be lashed'

p. *e-tlango-e*
sm-tie.up/prf/PASS-m
'it has been tied-up'

q. *koloi e-fell-o-a ke peterol*
car sm-finish/apl-PASS-m by petrol
'the car is being finished by petrol' (i.e. out of gas)

r. *ha e-na-thib-uo-a*
neg sm-be-impede-PASS-m
'it won't be impeded'

s. *ha e-na-thib-uo-a ke lieta*
neg sm-be-impede-PASS-m by shoes
'it won't be impeded by the shoes'

B. Litlhare

(1) 2;2 years
   a. *f-uo-e e ntate inkele*
      (*ke-e-f-uo-e ke ntate Mikaele*)
      sm-obj-give-PASS-m by father M
      'I was given it by father M' (M)
   b. *e-ten-e*
      (*ke-tenn-o-e*)
      sm-tire/prf-PASS-m
      'I have become tired'

(2) 2;4 years
   a. *a-f-uo-a apole*
      (*ke-f-uo-e apole*)
      sm-give-PASS-m apple
      'I was given an apple'
   b. *a-ha:m-a uena*
      (*o-tla-khango-a uena*)
      sm-fut-choke/PASS-m you
      'you will be choked, you' (M)
   c. *a-f-uo-e lekenya*
      (*ke-f-uo-e lekoenya*)
      sm-give-PASS-m doughnut
      'I was given a doughnut'

(3) 2;6 years
   a. *e nokue e tsetsere*
      (*e-nok-uo-e ke tsoekere*)
      sm-season/prf-PASS-m by sugar
      'it has been seasoned by/with sugar'

(4) 2;8 years
   a. *ea-hlab-uo-a*
      sm-stab-PASS-m
      'it is being slaughtered'
   b. *e-hlab-uo-e*
      sm-stab/prf-PASS-m
      'it has been slaughtered'

(5) 2;9 years
   a. *a hlekuoa*
      (*ha hoa-hlek-uo-a*)
      neg *ho*-clean.up/prf-PASS-m
      'there hasn't been cleaned up'
   b. *o-sheluoa oala*
      (*ho-tsel-o-a joala*)
      ho-pour-PASS-m beer
      'there is beer being poured'
   c. *(h)o-ets-uo-a ntlo*
      ho-do/make-PASS-m house
      'there is a house being made'

(6) 2;10 years
   a. *ke-she-uo-e*
      (*ke-se-uo-e*)
      sm-cut/prf-PASS-m
      'I have been cut' (x2)

(7) 3;2 years
   a. *ha lona ke-reke-tj-e lieta?*
      (*ha lona ke-reke-ts-o-e lieta*)

at your(pl).place sm-buy-apl/prf-PASS-m shoes
'at your place, was I bought shoes?'

b. *o-ka-shap-uo-a*
(*o-tla-shap-uo-a*)
sm-fut-lash-PASS-m
'you will be lashed'

c. *ke-tla-be ke-tlo-rut-o-a ke 'Me Mamojela*
sm-fut-be sm-fut-teach-PASS-m by Mrs. M
'I'm going to be taught by Mrs. M'

d. *'na ke-rut-(o)-a ke 'Me Manyili*
pn sm-teach-PASS-m by mother M
'I am taught by Mrs. M'

e. *ho-s'o-u-o-a k(l)in(i)ki-ng?*
ho-already-go-PASS-m clinic-loc
'are people already going to the clinic?'

f. *tents-a ke mang?*
(*ke-tla-tents-o-a ke mang?*)
sm-fut-put.on.clothes/caus-PASS-m by who
'I will be dressed by who?'

g. *ba-lumela ho-roma*
(*ba-lumela ho-rongo-a*)
sm-agree inf-send/PASS-m
'they agree to being sent'

C. Keneuoe

(1) 2;6 years

a. *se-khann-o-a ke 'na*
sm-drive-PASS-m by me
'it is driven by me' (M)

b. *ke 'la shatjo-a ke 'na*
(*ke-ile ka-shatjo-a ke 'na*)
sm-pst sm-lash/PASS-m by me
'I was lashed by me' (M)

c. *ka-ba shatjuo-a ke Nkeletseng*
(*ke-ile ka-shatjo-a ke N*)
sm-pst sm-lash/PASS-m by N.
'I was lashed by N' (M)

d. *o-batl-a ho-shatjo-a*
sm-want-m inf-lash/PASS-m
'she wants to be lashed'

(2) 2;8 years

a. *'na ke-hlatsu-o-e*
dem sm-wash/prf-PASS-m
'as for me, I've been washed'

b. *o-tla-hlajuo-a ke litšehlo*
sm-fut-stab/PASS-m by thorns
'you'll be stabbed by the thorns'

c. *o-tla-hlajuo-a ke tšehlo*
sm-fut-stab/PASS-m by thorn
'you'll be stabbed by a thorn'

d. *ke-ta-ea kliniki-ng ha ke-hlats-uo-e*
sm-fut-go clinic-loc when sm-wash-PASS-m
'I'll go to the clinic when I have been washed'

e. *o-tla-shap-uo-a*
sm-fut-lash-PASS-m
'you will be lashed' (x3)

f. *ho-tla-shap-uo-a Lineo enoa*
ho-fut-lash-PASS-m L *dem*
'there will be lashed, Lineo, this one' (x2)

g. *ho-th-o-e o-tla-shap-uo-a ha-bohloko*
ho-say-PASS-m sm-fut-lash-PASS-m severely
'(it) is said that you will be lashed severely'

h. *ebe ho-tla-phe-o-a hape*
then *ho*-fut-cook-PASS-m again
'then there will be cooked again'

i. *o-tla-shap-uo-a*
sm-fut-lash-PASS-m
'you will be lashed' (x4)

j. *mona ha hoa-hililitsoa*
(*mona ha hoa-helets-o-a*)
dem neg ho-break.down/prf-PASS-m
'here there has not been broken down'

k. *re-tl'o-tla-shap-uo-a*
sm-fut-fut-lash-PASS-a
'we will be lashed'

l. *hoa-tsama-uo-a*
ho-leave-PASS-m
'there is leaving'

m. *hulo bin-o-a*
(*ho-il'o-bin-o-a*)
ho-fut-sing-PASS-m
'there will be singing' (x2)

n. *'na ke-kut-uo-e*
pn sm-cut/prf-PASS-m
'as for me, I've been given a haircut'

o. *'na ke-kut-uo-e ke nkhono oa-ka*
pn sm-cut/prf-PASS-m by grandmother pos-my
'as for me, I have been given a haircut by my grandmother'

p. *ha ho-hat-o-e ka nkena* (*nqena*)
neg *ho*-step.on-PASS-m pr this.side
'there isn't stepped on on this side'

(3) 2;9 years

a. *eena o-ne a-pep-uo-a ke ausi*
pn sm-pst sm-carry.on.back-PASS-m by sister
'that one, he was carried by sister' (M)

b. *eena o-ne a-pep-uo-a ke nkhono*
pn sm-pst sm-carry.on.back-PASS-m by grandmother
'that one, he was carried by grandmother' (M)

c. *moriri oa-ka ke-kut-uo-e, skere*
(*moriri oa-ka o-kut-uo-e ke sekere*)
hair pos-my sm-cut/prf-PASS-m by scissors
'my hair was cut by scissors'

D. Tsebo

(1) 3;9 years

a. *ho-ket-uo-e ho-ebol-o-a*
ho-finish/prf-PASS-m inf-peel-PASS-m
'there has been finished being peeled'

b. ... *litlhapa lia-j-uo-a*
insults sm-eat-PASS-m
'... insults are eaten'

c. *monana ho-lits-o-e*
here *ho*-plaster/prf-PASS-m
'there has been plastered here' (x2)

d. ... *ho-sa-ets-o-a*
ho-not-do-PASS-m
'without there being done'

e. ... *moo ho-tlosits-o-e-ng mobu*
rel *ho*-remove/prf-PASS-m-rel dirt
'here where there has been removed soil'

f. *ho-s'o-est-uo-a ka mona*
ho-already-do-PASS-m pr here
'there has already been done in here'

g. *ho-... ho-... li-be-uo-a ka tlung*
ho- ho- sm-put-PASS-m pr house/loc
'there ... there ... they should be put in the house'

h. *lieta tsa Tšenatu ... li-be-uo-a ka tlung*
shoes pos T ... sm-put-PASS-m pr house/loc
'T's shoes should be put in the house'

i. *ho-apar-uo-a kanque?*
ho-put.on-PASS-m this.side
'should there be put on (worn) like this?'

(2) 3;10 years

a. *tsela tse phe-uo-e-ng?*
dem rel cook/prf-PASS-m-rel
'those which have been cooked?'

b. *khale koana ho-u-o-a kliniki-ng*
long.ago over.there *ho*-go-PASS-m clinic-loc
'long ago when there was going to the clinic'

c. *hoseng maobane ha (h)o-u-o-a klin- kereke-ng*
morning yesterday when *ho*-go-PASS-m clin- church-loc
'yesterday morning when there was going to the clin- church'

d. *ke-ne (ke)*-ntse *ke-f-uo-a liperekisi*
sm-pst sm-cont sm-give-PASS-m peaches
'I was being given some peaches'

e. *ntho tsee li-tl'o-phe-uo-a?*
thing dem sm-fut-cook-PASS-m
'these things, will they be cooked?' (x2)

f. *le lintho tsee lia-lahl-uo-a?*
and things dem sm-throw.away-PASS-m
'are these things to be thrown away too?'

g. *e-kheth-uo-e*
sm-pick.out/prf-PASS-m
'it has been picked out'

h. *makhapetla a-linamune a-j-uo-a?*
peels pos.oranges sm-eat-PASS-m
'can orange peels be eaten? (x2)

i. *ntho ee ea-Tšenetu e-ile ea-liel-o-a ke'ng?*
thing dem pos.T sm-pst sm-fell-PASS-m by.what
'this thing of T's was felled by what?'

j. *ho-tlos-o-a le ntho tsee?*
ho-draw-out-PASS-m also thing dem
'should there be drawn out these things too?'

k. **ke-fet-o-a ke Nkeletseng*
sm-surpass-PASS-m by N
'*I am surpassed by N'

l. *Nkeletseng o-fet-o-a ke 'na*
N sm-surpass-PASS-m by pn
'N is surpassed by me'

m. **ke-fet-o-a ke Nkeletseng*
sm-surpass-PASS-m by N
'*I am surpassed by N'

n. *Nkeletseng o-fet-o-a ke 'na*
N sm-surpass-PASS-m by pn
'N is surpassed by me'

o. *eno e-kheth-uo-e*
dem it-pick.out/prf-PASS-m
'that one has been picked out'

p. *a-sk'a-thul-o-a*
sm-neg-knock.out-PASS-m
'he shouldn't get knocked out'

q. *tse tjee ha-li-j-uo-e?*
agr thus neg-sm-eat-PASS-m
'this kind, can't they be eaten?'

r. *ho-j-uo-a tse tjee feela?*
ho-eat-PASS-m agr thus only
'there is eaten this kind only?'

s. *ha-li-sa-phe-o-a?*
neg-sm-yet-cook-PASS-m
'haven't they been cooked yet?'

t. *'me uena oa-e-j-a ha e-sa-phe-uo-a?*
mother pn sm-obj-eat-m when sm-not.yet-cook-PASS-m
'mother, do you eat it when it hasn't yet been cooked?'

u. *ke-e-tsela ka monana e-kheth-uo-e-ng*
sm-obj-put in here/rel sm-pick.out/prf-PASS-m-rel
'I'm pouring it in here where it has been picked out'

v. *ke-tla-ets-o-a khoeli-ng e-tla-ng*
sm-fut-do-PASS-m month-loc rel-come-rel
'I will have it done (to me) next month'

(3) 4;0 years

a. *ea-be-uo-a*
sm-put-PASS-sm
'it is being put'

b. *e bes-uo-e-ng*
rel roast/prf-PASS-m-dem/rel
'the one that has been roasted'

c. *ha ho-ka-lahl-uo-a*
if *ho*-pot-throw.away-PASS-m
'if there can be thrown away' (x2)

d. *e-t(l)a-lahl-uo-a*
sm-fut-throw.away-PASS-m
'it will be thrown away' (x2)

e. *ho-koets-o-e-ng ka ntho (e)a-pompo*
ho-close/prf-PASS-m-rel pr thing pos-pump
'there has been closed-off with the thing from the pump'

f. *o-tla-tla-shap-uo-a*
sm-fut-fut-lash-PASS-m
'you will come to be beaten'

g. *ha ho-lahl-uo-e hona*
neg *ho*-throw.away-PASS-m dem
'it hasn't been thrown away here'

h. *ha (h)o-ka-lahl-uo-a hona hoo*
if *ho*-pot-throw.away-PASS-m dem dem
'if there can be thrown away here'

i. *ntho ena e-leṭs-o-e*
thing dem sm-turn.on/prf-PASS-m
'this thing has been turned on'

j. *ha ho-il'o-bin-o-a*
neg *ho*-fut-sing-PASS-m
'there won't be singing' (x2)

k. *hoa-robal-o-a*
ho-sleep-PASS-m
'there is sleeping'

l. *ke-batl-a o-lef-uo-e*
sm-want-m sm-pay-PASS-m
'I want you to be paid'

(4) 4;1 years

a. *ha-o-tseb-e na se-be-uo-a kae?*
neg-sm-know-m Q it-put-PASS-m where
'don't you know where it is supposed to be put?'

b. *li-be-uo-a kae?*
sm-put-PASS-m where
'where should they be put?'

c. *se-ne se-fas-uo-e*
sm-pst sm-fasten/prf-PASS-m
'it was fastened'

d. *ke-ne ke-sa-nk-uo-a*
sm-pst sm-neg-take-PASS-m
'I was not taken (with anyone)'

e. *moo ho-rek-uo-a-ng liapole*
rel *ho*-buy-PASS-m-rel apples
'there where there are bought apples'

f. *re-sa li-f-uo-e ke 'mangoane*
sm-neg obj-give/prf-PASS-m by aunt
'we weren't given them by our aunt'

g. *ba-rongo-e sakeng*
sm-send/prf-PASS-m kraal/loc
'they have been sent to the kraal'

h. *ntho ena e-ngots-o-e*
thing dem sm-write/prf-PASS-m
'this thing has been written on'

i. *li-tla-thuntšets-o-a haholo*
sm-fut-dusty/caus/apl-PASS-m very
'they will get very dusty' (x2)

j. *ha-ke-tseb-e na o-tla-hlatsoets-o-a ke mang*
neg-sm-know-m Q sm-fut-wash/apl-PASS-m by who
'I don't know who you will be washed by'

k. *lijana lia-hlek-o-a mona ha-ka*
dishes sm-wash-PASS-m here place-my
'the dishes are being cleaned up here at my place'

l. *sheba ... kobo ea-hau e-menn-o-e joang*
look ... blanket pos-you sm-fold/prf-PASS-m how
'look how your blanket has been folded'

m. *n-ka-phoq-o-a ke lejoe*
sm-pot-mock-PASS-m by stone
'I can be mocked by the stone'

n. *o-pitl-uo-e ke lejoe*
sm-hit/prf-PASS-m by stone
'she has been hit by a rock'

o. *akere Hleso ho-n'o-ents-uo-e tjee ...?*
not.so H *ho*-pst/*ho*-do/prf-PASS-m thus
'isn't it true, H, that there was done like this ...?'

p. *ka mokhoro-ng ha ho-s'o-bes-uo-e*
pr hearth-loc when *ho*-already-kindle/prf-PASS-m
'in the cooking hut when there has been kindled (a fire has been lit)' (x2)

q. *e-kenyo-a ka ntho-ng ee?*
sm-enter/PASS-m pr thing-loc dem
'is it entered into with this thing?'

r. *ntho ee e-tla-kenyo-a ka moo?*
thing dem sm-fut-enter/PASS-m pr dem
'this thing, will it be entered/introduced through here?'

E. Sample Adult Input (4 speakers) to Hlobohang at 2;1 years

(1) a. *o-fu-o-a-ng?*
sm-give-PASS-m-wh
'you were given what?'

b. *tsam'o nk-a poone e'ngoe o-tseb-e ho-bes-ets-o-a sehole*
go take-m corn another sm-know-m inf-roast-apl-PASS-m fool
'go take another ear of corn so that you know how it is roasted, you fool'

c. *kobo eo e-rek-ets-o-e ke mang?*
blanket dem sm-buy-apl/prf-PASS-m by who
'the blanket was bought for you by who?'

d. *o-e-rek-ets-o-e ke mang kobo?*
sm-obj-buy-apl/prf-PASS-m by who blanket
'you were bought the blanket by who?'

e. *oa-bits-o-a*
sm-call-PASS-m
'she is being called'

f. *o-bits-o-a ke mang?*
sm-call-PASS-m by who
'she is being called by who?'

g. *na o-qabo-ts-o-e ke eng?*
Q sm-quarrel-prf-PASS-m by what
'you were made to quarrel by what?'

h. *o-le-fu-o-e ke mang?*
sm-obj-give/prf-PASS-m by who
'you were given it by who?'

i. *o-le-ebol-ets-o-e ke mang?*
sm-obj-peel-apl-PASS-m by who
'you were peeled it by who?'

j. *o-tla-shap-uo-a*
sm-fut-lash-PASS-m
'he will be lashed'

k. *Mololo o-tla-shap-uo-a*
M sm-fut-lash-PASS-m
'Mololo will be lashed'

l. *Mololo o-re poone o-n'o-e-f-uo-a ke mang?*
M sm-say corn sm-pst/sm-obj-give-PASS-m by who
'Mololo says you were given the corn by who?'

m. *o'la-f-uo-a ke mang?*
sm/pst-give-PASS-m by who
'you were given it by who?'

n. *o'la-f-uo-a ke mang motoho?*
sm/pst-give-PASS-m by who porridge
'you were given the porridge by who?'

o. *ho-n'o-ets-uo-a-ng thapelo-ng?*
ho-pst/*ho*-do-PASS-m-wh prayer-loc
'what was done at the prayer meeting?'

p. *hoa-bin-o-a?*
ho-sing-PASS-m
'was there singing?'

q. *tsoekere e-nts-uo-e ke uena?*
sugar sm-take.out/prf-PASS-m by you?
'was the sugar taken out by you?'

r. *o-qalil-o-e ke mang?*
sm-attack/prf-PASS-m by who
'you were attacked by who'

s. *tsoekere e-nts-uo-e ke uena?*
sugar sm-take.out/prf-PASS-m by you?
'was the sugar taken out by you?'

t. *o-nk-uo-e ke mang?*
sm-take/prf-PASS-m by who
'you were taken by who?'

u. *uena oa-rat-uo-a*
pn sm-love-PASS-m
'as for you, you are loved'

v. *ho-hang-o-a likhomo kantle ka koana*
ho-milk-PASS-m cattle outside pr over.there
'there are milked cows outside over there'

w. *motho o-n'a-hang-o-e?*
person sm-pst/sm-milk/prf-PASS-m
'a person was milked?'

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