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ABSTRACT

The absolutive voice is a fact of life for Guatemalan children who speak the Mayan language K'iche' and one that enters their verbal lexicon fairly early. Data suggest that by the time the children are 3-year-olds they have encountered several instances of verbs that alternate between active and absolutive forms, which may supply the evidence needed to formulate a general rule. Lack of errors in children's language production indicates that the children were extremely sensitive to the formal properties of the absolutive antipassive. They do not simply assume that every verb they meet in a transitive context is transitive. Yet, to acquire the absolutive antipassive, K'iche' children face three major hurdles. The first is learning that root transitive verbs can have intransitive forms, i.e., the absolutive alternation. The second is learning which verbs do not undergo the absolutive alternation. And the third is learning which intransitive verbs are root or derived. The last two problems cannot be solved from positive evidence alone. Nor are conservative acquisition procedures likely to be the explanation, given the propensity of children learning English to generalize beyond verb forms they have already heard. While this report does not explain how K'iche' children formulate a properly restricted rule for the absolutive antipassive, it does show that the absolutive raises learnability problems of the same level as the English dative or causative. (RH)

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Distinguishing Active and Antipassive Verbs in Quiche Mayan

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Establishing the transitivity of verbs is a basic order of business for children learning any language. A verb's transitivity determines its subcategorization frame as well as the syntactic operations in which it may participate--the passive, causative, dative, locative, etc. Thus, the acquisition of transitivity is a crucial step towards adult fluency.

The key question is how do children learn about verb transitivity? Verb meaning might be one answer. In the best of all possible worlds transitive verbs would be used in prototypical manipulative or causal action scenes. With some innate knowledge of what constitutes a causal action scene, children could conclude that any verb referring to such a scene would be transitive, whether or not it appeared with an overt object. Since there is a fair range of agreement across languages on which verbs are transitive or intransitive, this semantically-based strategy would take children a fair way in their acquisition of any language.

One problem is that even though particular verbs may be inherently transitive or intransitive most languages have some syntactic means of altering a verb's transitivity. For example, the English passive rule provides a syntactic means for converting transitive verbs to intransitive verbs. Causative rules have the opposite effect--converting intransitive verbs into transitive verbs. It is by no means unusual for such rules to interact, so that it is possible to passivize a transitive verb derived through the application of a causative rule, while it may not be possible to causativize an intransitive verb derived through the application of a passive rule. Hence, it is essential for children to not only differentiate between transitive and intransitive verbs, but also between root transitive and derived transitive verbs. Any child who failed to make these distinctions would produce a set of highly visible errors, e.g. use a derived transitive verb without a direct object or causativize a passivized verb.

This situation raises a basic learnability problem of deciding which verbs are root transitives or intransitives for any given language. A particularly nasty instance of such a delimma occurs in regard to the absolutive antipassive in the Mayan language K'iche'. Speakers of this language live in the western highland region of Guatemala. The absolutive antipassive provides a means of focusing on the agent by deleting the object of a transitive verb. Examples of active transitive and intransitive verbs as well as the absolutive antipassive form are shown in (1).

(1) k-0-u:-suti:-j le: ak'al le: alih — Transitive
INCOMP-3A-3E-spin-DER the child the girl
'The girl is spinning the child.'

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le: alih k-0-suti:-n-ik (che: le: ak'al) Absolutive
the girl INCOMP-3A-spin-ABS-TIV (at the child) Antipassive
'The girl is spinning (at the child).'

le: ak'al k-0-oq'-ik Intransitive
the child INCOMP-3A-cry-TIV
'The child is crying.'

INCOMP - incompletive aspect
3A - absolutive 3rd person
3E - ergative 3rd person
ABS - absolutive antipassive
DER - derived transitive suffix
TIV - intransitive termination

Note that the absolutive verb form is an intransitive verb in every respect. It uses an absolutive subject marker and the intransitive verb termination appears when the verb is in clause-final position. The original object phrase may appear in an optional oblique phrase headed by the relational noun <u>che:</u>. Mondloch (1981) notes three functions of the absolutive antipassive, shown in (2).

(2) Functions of the absolutive antipassive (Mondloch 1981)

a. the indefinite function - 'A speaker at times probably chooses to use the absolutive rather than the active voice because he does not consider the direct object as important as the action and the subject/agent who performs it ...'
b. the hierarchy-linked function - A hierarchy of features such as person and animacy for subjects and objects may trigger the antipassive.
c. the disambiguating function - The active transitive sentence may be ambiguous.

The absolutive voice is a fact of life for K'iche' children and one that enters their verbal lexicon fairly early. Table 1 presents the absolutive verbs that my three main subjects produced in transcriptions of their conversations. I have included the session number beside the verb form to indicate when it first appeared. I have also included any active forms of the same verb and the time when they first appeared. The data in Table 1 suggests that by the time the children are three years old they have encountered several instances of verbs that alternate between active and absolutive forms, and which may supply the evidence needed to formulate a general rule.

Table 1. First appearances of the absolutive antipassive

Al Tiya:n			Al Cha:y			A Carlos		
ABS		TV	ABS		TV	ABS		TV
tze7-n 'laugh'	4	4	suti-n 'spin'	1	22	chak-un 'work'	3	
ti'-on 'bite'	6		chak-un 'work'	2		tze7-n 'laugh'	3	
toq'-on 'sustain'	7		tz'ib'a-n 'write'	2	9	tz'ib'a-n 'write'	4	9
xet'o-n	8		qupi-n 'cut'	9	7	suti-n 'spin'	5	15
suti-n 'spin'	9		chap-an 'grab'	10	6	xib'i-n 'scare'	8	
tzijo-n 'talk'	12		yaj-an 'scold'	10		yaj-an 'scold'	9	
toqopi-n 'break (thread)'	13		yoq'-on 'mock'	11		tzijo-n 'talk'	14	
q'upi-n 'break (stick)'	13	15	tzijo-n 'talk'	12				
paq'i-n 'break (bone)'	14		ch'ak-an 'win'	12	13			
t'ub'i-n 'tear (clothing)'	14		choji-n 'fire (pottery)'	20				
yaj-an 'scold'	15		toqopi-n 'break (thread)'	21	21			
ch'ay-an 'hit'	15	15	ch'ay-an 'hit'	21	6			
			ti'-on 'bite'	22				
			raqi-n 'break open'	22				

When K'iche' children first encounter the absolutive antipassive forms of transitive verbs they might fail to realize that the derived verb form was intransitive. Such an error would be evident in several ways:

1. The children might use an ergative rather than an absolutive subject marker.
2. The children might use a transitive rather than intransitive termination.
3. The children might use a noun phrase in direct object position rather than in an oblique position.

I have addressed the frequency of all three types of errors in previous papers (Pye 1985, in press). In short, this evidence indicates that K'iche' children make very few mistakes in using either the subject markers or the verb terminations. Table 2 shows the number of times the children used subject markers and the number of·

errors I found. None of these errors was produced with a verb in the absolutive voice.

Table 2. Overextensions of subject markers

	Al Tiya:n		Al Cha:y		A Carlos	
Session	Used	Errors	Used	Errors	Used	Errors
1-3	15	-	3	-	36	-
4-6	8	-	19	3	83	-
7-9	10	-	17	-	160	5
10-12	25	-	51	2	169	1
13-15	29	1	53	-	161	1
16-18			90	2	173	3
19-21			83	-	110	-

There is one example of a child using a direct object with a verb in the absolutive voice. This example is shown in context in (3). I had asked about a dog standing outside Al Tiya:n's house. Adult 1 commented that it was the sort of dog that bites. This is the sort of context that is appropriate for the use of the absolutive voice since the focus centers on the dog's action, not the effect of the action. Al Tiya:n, though, was worried about the dog biting her. She copied Adult 1's verb form and added an emphatic object pronoun, producing an error of the third type. Adult 2 mocks Al Tiya:n's inappropriate use of an object pronoun with the absolutive form, using the quotative verb chi'. Al Tiya:n seems to react to this mocking in her next two utterances, by asserting that she does not bite--this time using the absolutive form correctly.

(3) Al Tiya:n comments on a dog that bites (Session 6)

C jas ku'an le tz'i.		What does the dog do?
T m.		
Adult1 katiyonik kacha'.	(k-0-ti'-on-ik)	'It bites' say.
T tiyonik in.	(= x-in-u-ti' in.)	It bit me.
Adult1 katiyonik e: tz'i.		The dog bites.
Adult2 kintiyon in chi'.	(k-in-ti'-on)	'I bite' she said.
C kawarik le tz'i.		The dog is sleeping.
T tiyon ta in	(= k-in-ti'-on)	I do not bite.
tiyon ta in.		I do not bite.
Adult3 kintiyon ta in chi'.		'I do not bite' she said.
Adult1 je' chi.		'Yes' she said.

If absolutive forms had caused serious problems for the children I would expect to see many more errors such as Al Tiya:n's. The lack of such errors indicates that the children were extremely sensitive to the formal properties of the absolutive antipassive. They do not simply assume that every verb they meet in a transitive context is transitive. It is possible that the children first learn active and absolutive forms of verbs as independent lexical items before formulating a rule for the absolutive alternation. This would mean

that they may not have established a productive rule to generate the absolutive verb forms.

However, it is in children's nature to construct such rules when presented with the evidence of a transitivity alternation. Thus, children learning English may form novel causative verbs such as 'she fell down the block' (Bowerman 1974). Pinker, Lebeaux & Frost (1987) have also demonstrated that children will passivize verbs that they have only previously encountered in the active voice. It is thus possible that K'iche' children will formulate a general rule for the absolutive at a later point in their development.

One difficulty they face is that while the absolutive alternation is fairly productive, it is not completely productive. Some K'iche' transitive verbs do not have absolutive forms. Some of these verbs are shown in (4).

(4)	* k-in-ya'-n-ik	'I give'
	* x-uj-b'i:-n-ik	'we said'
	* k-ix-qumu-n-ik	'you drink'
	* x-at-k'is-on-ik	'you finished'
	* x-e:-ch'a:b'e-n-ik	'they talked'
	* k-e:-oq'e-n-ik	'they cry over'
	* k-in-il-on-ik	'I see'
	* x-at-esa-n-ik	'you took out'

Such exceptions raise one of the most difficult learnability problems a child can face. As noted by Braine (1971) and Baker (1979) such exceptions can potentially only be learned from negative evidence. I say potentially because Pinker (1989) raises the possibility that children may use a combination of broad and narrow constraints to solve the problem. For example, Pinker suggests that children will initially generate a rule for the causative in English which limits it to verbs denoting actions that have an effect on the object. Children later restrict this rule so that it does not apply to verbs like <u>cut</u> which denote actions with both an effect and a means. In order to apply this explanation to the K'iche' absolutive alternation one would need to demonstrate that the verbs in (4) belong to some semantic group or groups. I've been studying this problem for some time and have yet to find any semantic basis on which to separate the verbs in (4) from semantically similar verbs which do undergo the absolutive alternation, such as those in (5).

(5)	k-in-k'ay-in-ik	'I am selling'
	x-uj-k'ut-un-ik	'we showed'
	x-uj-tzij-on-ik	'we talked'
	k-ix-tij-on-ik	'you eat people'

The last example, involving the verb <u>eat</u> also shows that some transitive verbs take on ideosyncratic meanings in the absolutive. Further examples of such verbs are shown in (6).

(6)	k'am	'carry'	k'am-an	'receive'
	riq	'find'	riq-on	'catch up'
	tzaq	'drop'	tzaq-an	'abort'

Ideally, Pinker's semantic restrictions would account for the verbs in (6) as well as the verbs in (5). That is, one might assume that verbs in the eat, drink class would not undergo an alternation like the absolutive. The exceptional meaning of the absolutive antipassive could then be explained as the sort of thing which might happen to verbs that are forced to undergo such alternations against their will. Similar examples occur in English with respect to the causative alternation. Verbs of motion would not be expected to causativize. However, we can use walk and jump in limited contexts as transitive verbs. This is less possible for the verbs run and wade.

This line of argument misses the differences in the way English and K'iche' treat the verbs eat and drink. In English these verbs may appear with or without a direct object. In other words, they seem to belong to the class of verbs in English which do undergo an absolutive type of alternation. While the English verb drink becomes semantically restricted in its intransitive form, there is no such restriction on the verb eat. So Pinker's semantic restriction hypothesis results in different treatments of the verbs eat and drink in English and K'iche'.

There is no evidence in my transcriptions that the children were tempted to use one of the forbidden verbs in (4) in the absolutive voice. This is despite the fact that several of the verbs in (4) were among the most frequently used verbs in the transcript. There are on the order of three hundred separate tokens of the verbs il, b'i:, esa: and ya' in the transcripts--all used in their correct transitive form. There are even a few occasions on which the children produced passive forms for these verbs, but there is not a single instance of an absolutive form among the lot.

Even if we had an account of how K'iche' children formulate a properly restricted rule of absolutive formation we would still not be out of the woods. Once children had formulated such a rule, they might still extend it to polysyllabic intransitive verbs which appear to have an absolutive suffix. The list of verbs shown in (7) will provide some idea of this difficulty.

(7)

Inherently Intransitive Verbs		Transitive Verbs in the Absolutive Voice	
atin	bathe	ch'aj-an	wash
etz'an	play	tze'-n	laugh
aq'an	climb	pa'i-n	split up
k'ulan	marry	yaj-an	scold
kowin	can	b'ix-an	sing

To use these verbs appropriately, children would have to make very subtle distinctions between contexts for intransitive and absolutive verbs. By putting the intransitive verb for bathe in opposition to the transitive verb for wash I am expressing my doubts that reliable semantic distinctions can be found. Phonology actually offers more evidence for the distinction since the vowels of most monosyllabic transitive verbs are echoed in the absolutive affix whereas there is no restriction on the vowels in the intransitive

verbs. However, polysyllabic transitive verbs do not show vowel assimilation either, so phonology will not provide a perfect distinction.

Mondloch (1981) bases the distinction on whether or not the intransitive verb can be inflected for other voices. For example, if the verb meaning bathe in (7) really was an absolutive form then it should have the regular active form shown in (8). Instead, the causative affix has to be added in order to make it transitive.

(8) * k-0-in-ati:-j I am bathing someone
k-0-in-atin-is-a:j I am bathing someone

Children could use evidence from the causative alternation to decide whether the verb was a root intransitive or absolutive. Unfortunately, the causative is another fact of life that K'iche' children have to struggle with. The error shown in (8) could occur before K'iche' children had figured out the connection between the causative and antipassive. So such errors are worth looking for in the acquisition data for K'iche'.

Once again there is no indication from the children's production data that they had any particular trouble in using these intransitive verbs. Table 3 shows the intransitive verb types that the children did use and which ended in /n/. These verb types are fairly frequent in the transcripts, and yet there is not a single instance where the children used a transitive ending on the verbs. All three children, however, did produce transitive versions of one or two of these verbs. In every instance they used either a causative or instrumental suffix to change the intransitive root into a derived transitive verb. There is also apparently one instance in which Al Cha:y then used the causativized verb form in the absolutive voice.

Table 3. First appearances of intransitive verbs ending in /n/

Al Tiya:n		Al Cha:y		A Carlos	
kowin 'able'	3	kowin 'able'	4	kowin 'able'	3
etz'an 'play'	4	muxan 'swim'	4	opan 'arrive there'	7
opan 'arrive there'	7	etz'an 'play'	7	aq'an 'climb'	14
aq'an 'climb'	10	aq'an 'climb'	11	tajin 'progressive'	14
		q'at-an 'pass by'	24	etz'an 'play'	15

In sum, to acquire the absolutive antipassive K'iche' children face three major hurdles:

1. Learning that root transitive verbs can have intransitive forms, i.e. the absolutive alternation.
2. Learning which verbs do not undergo the absolutive alternation.

3. Learning which intransitive verbs are root or derived.

There are other puzzles involved in learning the absolutive, but I don't have time to go into them[1]. The last two problems I mentioned cannot be solved from positive evidence alone. Nor are conservative acquisition procedures likely to be the explanation given the propensity of children learning English to generalize beyond verb forms they have already heard. I hope to collect experimental evidence from K'iche' children in the near future in order to verify the productivity of the absolutive alternation in their speech.

While I cannot explain how K'iche' children formulate a properly restricted rule for the absolutive antipassive, I think I have succeeded in showing that the absolutive raises learnability problems of the same level as the English dative or causative. This shows at least that English is not the only language that is hard to learn. Even if we had an account of how children learn the dative and causative rules in English we would not have a complete account of how children acquire any human language. For this, we must look to other languages, hopefully while there are still children acquiring them.

[1] The absolutive forms of some verbs have a passive rather than an active interpretation.

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