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The Acquisition of Passives*

Mari Sakaguchi

0. Introduction

The goal of this paper is to provide an account for the developmental data on passives in the framework of Chomsky's Government and Binding Theory (1981). The central problem in the acquisition of passives is that children's comprehension of passives seems to be limited to a certain subclass of verbs (e.e. 'actional' verbs) at one stage of development.

We will propose a possible analysis to the question of why they acquire passives of 'actional' verbs earlier than those of 'non-actional' verbs.

In the first section, we will introduce the principles of Universal Grammar (UG) which we assume to be part of the child's a priori knowledge and see how these principles interact in the case of passives in the adult grammar. Then, we will propose analyses of passives in children's grammars divided into three stages. Special attention is paid to how children acquire subcategorization properties and θ -marking properties of the verbs. The asymmetry between actional passives and non-actional passives may arise when children regard non-actional verbs as distinct from actional verbs in their θ -marking properties. We will claim that for children non-actional verbs may behave like raising verbs in that their subject position is not a θ -position but an "adjunct" θ -position, as it is for semi-auxiliaries and modals. In other words, for children the subject position of the non-actional verbs do have some semantic content, but "less than" that of actional verbs.

1. Principles of UG and passives in the adult grammar

Let us have a brief look at how the passive in the adult grammar is accounted for in the GB framework. It is accounted for in terms of interaction among various components in the modular theory of the grammar such as the X-bar theory, case theory, θ -theory and the Projection Principle.

The GB theory claims that the distribution of thematic roles that predicates require must satisfy at least two criteria. One is called the Projection Principle and another is called the θ -Criterion.

The first condition, the Projection Principle, which was proposed as a restriction on UG, is stated as follows:

- (1) Representations at each syntactic level (i.e. LF, D and S-Structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items. (Chomsky (1981) p.129)

This principle ensures that the θ -marking properties of each lexical item may not be changed by movement rules. At least two significant consequences of this principle are as follows:

- A) It also prohibits the application of a movement rule which results in change of θ -structures: therefore, a rule can never apply in such a manner that an element in a θ -position (a position in a syntactic structure to which a specific θ -role is assigned) moves to another θ -position. A movement should be always from a θ -position to a non- θ -position as we will see below.
- B) By virtue of this principle, children's learning burden is reduced to individual lexical items, which in turn determines the θ -structure as part of their semantic properties.

We assume that the Projection Principle together with the θ -criterion is part of UG and hence need not be learned. Thus it will significantly facilitate children's language learning.

The second principle of UG, the θ -criterion, is stated as follows:

- (2) Every NP in a string must receive one and only one thematic role and each thematic role can be only assigned once.

This condition is important in at least two respects: First, it requires that θ -roles are mapped one-to-one onto the arguments. Thus, the semantic relationship between active and passive sentences is ensured. In other words, thematic roles assigned to the NPs in the passive and active remains unchanged.

- (3) a. John [_{VP} kissed Mary]
 b. Mary [was kissed] t [by John].

Unlike the classical transformational theory, in the GB theory, where the underlying structures of passive differ from those of actives, this is the only way the invariability of the thematic relations are maintained. In (3) the verb *kiss* which is subcategorized for an direct object NP argument assigns the θ -role *theme* or *patient* to the direct object NP. The verb phrase *kissed Mary* 'indirectly' assigns the *agent* role to the subject *John*. This θ -role is determined compositionally by the elements in the VP. In the passive sentence (3b), the θ -marking properties of *kiss* remain unchanged, i.e. it still assigns *theme* to *Mary* in the D-Structure. The thematic roles are not changed after the application of the movement rules.

Second, by the interaction of the θ -Criterion and Projection Principle, we derive the essential effects of the 'trace theory of the movement'.

- | | | |
|-----|--|----------------------------|
| (4) | a. [_{NP} e] was kissed John. | D-Structure |
| | b. John was kissed t. | S-Structure |
| | c. *John was kissed. | Ruled out as a S-Structure |

The verb *kiss* subcategorizes (and hence θ -marks) the direct object position in the D-Structure. By the Projection Principle, this direct object position must also be present at the S-Structure. Therefore a trace must be left in this position by a movement rule.

In terms of the θ -criterion, we can see that the 'indirect' θ -marking to the subject position does not apply in case of passives since the θ -role of the subject NP is transmitted or inherited from the NP in the direct object position. In other words, the subject position of the passive is de-thematized, i.e. passive VPs do not assign θ -roles to the NPs in the subject position. This is attributed to the passive morphology. The 'direct' θ -marking to the direct object position differs from the 'indirect' θ -marking to the subject position in that the former is θ -marking by government. Government is a structural relation between a head and the elements within another maximal projection of that head. Roughly, a head (V, N, P, A etc.) governs all the elements within its maximal projection. 'Direct' θ -marking is the assignment of a θ -role by a head to its subcatego-

rized complements, which is exactly the domain of government. In the following analysis of the developmental data, we will claim that the 'indirect' θ -marking might be optional, while θ -marking by government is always obligatory. (This idea was also brought up in Nishigauchi (1982)).

To sum up, we have seen that the θ -criterion requires that an element be moved from a θ -position to a non- θ -position.

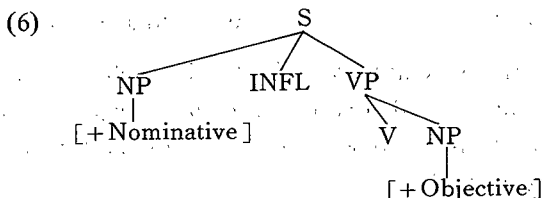
Lastly, we will discuss a principle in Case theory, closely related to the θ -criterion, that determines the distribution of NPs at S-Structure; namely the Case Filter:

(5) *The Case Filter*

*NP if NP has phonetic content and no Case

(Chomsky (1981) p.49)

It requires that all lexical NPs must receive (abstract) Case in the surface structure. An NP is assigned case just in case it is governed by a Case-assigning category.



The subject NP is assigned [+nominative] by the inflectional element INFL (the tense or agreement marker) and the postverbal NP is assigned [+objective] by the head of the VP, i.e. the verb.

In many languages case assignment to NPs is more morphologically marked on the surface (as in Japanese), but it is assumed that this principle holds at a more abstract level in languages like English where only limited lexical items such as pronouns etc. show explicit case-marking. The presence of an abstract Case system in all languages is revealed when we look at its interaction with other rules.

Passive participles have quasi-adjectival characters.

First, they can occur in prenominal position.

- (7) a. the beautiful girl
 b. the recommended book
 c. *the recommend book

Second, they can take affixes or modifiers that adjectives take.

- (8) a. an unreliable person
 b. an uninhabited island
 c. *an uninhabit island

These quasi-adjectival characters can be captured if we assume that the passive morphology does not assign Case to the direct object position, i.e. the passive morphology absorbs Case.

- (9) [_{NP} e] was kissed John

At D-Structure of a passive sentence, the direct object position does not receive Case by the passivized verb. In order to satisfy the Case filter, the NP in the direct object position is moved to the subject position where it receives the nominative case.

In Chomsky (1981), it is suggested that the Case-absorption of the direct object is closely related to the dethematization of the subject position. This suggestion is originally from Burzio (1981) and is called "Burzio's generalization".

- (10) A verbal element assigns Case to an NP that it governs if and only it assigns a θ -role to its subject. (p.113 Chomsky (1981))

If this claim is correct, the Case-assignment can be redefined in terms of the θ -marking properties.

2. The Developmental data and the analysis

2.0 Data of passives

In Maratsos et al. (1984), it is reported that children begin to understand passives at about ages 4–5, but only for a semantically limited subclass of the verbs. More specifically, there is a stage where children only comprehend the passives of the "actional" predicates. So, for instance, a

child at this stage would understand (11a) but not (11b):

- (11) a. John was kicked by Mary.
b. John was hated by Mary.

The "actional" predicates used in the experiments in Maratsos et al. (1984) are *push, wash, kick, tickle, hold, and find*. "Non-actional" predicates used in the experiments are *see, remember, miss, hate, hear, forget* and *love*. The result of the second experiment (which is far more refined than the first one) in Maratsos et al. (1984) clearly shows that there exists such a stage where children understand "actional" passives, but not "non-actional" passives as in (12):

	Actionals		Non-actionals	
	Actives	Passives	Actives	Passives
4-year-olds	.87	.65	.85	.27
5-year-olds	.86	.68	.94	.38

Assuming that the essential result of the experiment is correct, the questions to be answered are the following:

- A) Why is this stage observed?
B) What triggers the child to move to the steady state where the rule Move NP applies to the entire class of verbs (with a few lexically marked exceptions)?

2.1. Stage I: children understand actives but *no* passives

Even in this stage, we assume that children are observing the θ -criterion. Children understand the lexical properties of the predicates. They understand that a verb like *kick* assigns two different θ -roles to the argument positions (one directly by government and the other by compositionality). We would like to claim that at this stage children do not understand that the subject position in passives is dethematized, i.e. a non- θ -position. They understand the subject position as a θ -position in passives, just like in the case of actives, ignoring or selectively not attending to the passive morphology. In other words, they comprehend passive sentences as structures where no movement rule has applied, i.e.

active sentences. In fact, in Maratsos & Abramovich (1975) report that many children do give an active-like interpretation for passive sentences.

- (13) a. John kissed Mary.
b. John was kissed by Mary.

The subject positions in both (13a) and (13b) are regarded as the θ -position at this stage of the child's grammar. At this earlier stage, *by*-phrases do not signal or act as a trigger for understanding the correct structure, but are either discounted or misanalyzed as prepositions. It could be argued that *by*-phrases will serve as a trigger once the appropriate landing site for the movement, i.e. the non- θ -position, is recognized by children.

2.2. Stage II: children understand 'actional' passives but not 'non-actional' passives

Let us discuss how the θ -marking properties of the predicates are acquired before we propose the analysis of this stage. According to Zubizarreta (1982), predicates can be classified into the following three classes in terms of their θ -marking properties.

- A) Predicates which are lexically specified as selecting a thematic subject, such as *kick*, *eat*, *love* etc.
- B) Predicates which are called 'adjunct predicates'. These are modals and aspectuals (semi-auxiliaries) such as *can*, *must*, *may*, *have to*, *going to*, etc.
- C) Predicates which assign no θ -role to the subject position such as the raising verbs *seem* and *appear* etc.

Predicates in A) are argument-taking predicates. True argument θ -roles are assigned to the θ -positions of these predicates. The assignment of argument θ -roles conforms to the θ -criterion in (2).

On the other hand, an adjunct θ -role is assigned to the subject position of the predicates in B). Adjunct θ -roles differ from true argument θ -roles in that they are invisible to the θ -criterion for arguments but obey the following condition at LF (cf. p.45 Zubizarreta (1982)).

- (14) An adjunct θ -role must be combined with an argument θ -role.

The distinction between adjunct θ -roles and argument θ -roles are necessary since adjunct predicates in B) differ from the raising verbs in C) in that the subject position of the former does have semantic content. This can be shown by the fact that expletives such as *it* do not occupy the subject position of the modals and aspectuals.

(15) a. *It may that John is crazy.

b. John may be crazy.

(16) a. It seems that John is crazy.

b. John seems to be crazy.

(The ungrammaticality of (15a) also shows that the modal is not a main verb.)

(15b) is ambiguous between the following two readings.

(17) a. John is allowed PRO to be crazy. (root reading)

b. It is possible that John is crazy. (epistemic reading)

Zubizarreta (1981) assumes two different D-Structures for (17a) and (17b); the D-Structure of control verbs for (17a) where the subject position is a θ -position and the D-Structure of raising verbs for (17b) where the subject position is a non- θ -position. Note that the subject in (15a) obviously has semantic content. An agent θ -role is assigned to *John* in (15a). In this case, following Zubizarreta's condition in (14), 'an adjunct θ -role' is assigned to *John* in (15a), in combination with the argument θ -role (i.e. *agent*).

In her analysis, the adjunct predicates in B) optionally assign an adjunct θ -role to the subject position. When the adjunct θ -role is assigned, the sentence has the 'root' reading (obligation, ability, intention) as opposed to the 'epistemic' reading (probability, certainty, possibility, etc.)

In terms of acquisition (cf. pp.211–221 Hyams (1983)), we may say that the child first acquires the predicates in the first class. It is well known that children acquire 'actional' predicates (e.g. *jump*, *run*, *throw*) or predicates that refer to changes in the state of objects (e.g. *break*, *fall*, *open*). Then they learn the semi-auxiliaries corresponding to Bellugi (1967)'s Stage B. The modals are delayed, and finally at a much later point, the child learns 'non-argument-taking predicates' such as *seem*,

appear etc.

Chomsky (1981) suggests that 'passive morphology can only appear with verbs that assign a θ -role to the subject in the active form (i.e. not raising verbs such as *seem*). p.126'. If the subject position of the active sentence is already a non- θ -position, the passive morphology can never appear, i.e. there is no θ -role for the passive morphology to absorb.

- (18) a. It seems that John is sick.
b. *It is seemed that John is sick.

What the predicates in B) have in common with the raising predicates in C) is that they cannot appear with passive morphology, either.

- (19) *John_i was had to love e_i by Mary.

The subject position of non-actional verbs at this stage is not a θ -position, but it does have semantic content unlike the subject position of raising verbs. Thus we claim that the subject position of non-actional verbs at this stage may be recognized as similar to the subject position of semi-auxiliaries and modals.

The consequence of this claim is that the asymmetry between actional and non-actional passives should appear at the same stage in which children acquire semi-auxiliaries and modals. It may be interesting to look for evidence that supports this claim. Our analysis proposed for this stage seems promising in that it has interesting consequences and testifiability, relating passives with other structures.

2.3. Stage III: the adult stage

In the analysis of the previous stage, we argued that children regard the non-actional verbs as adjunct predicates similar to modals and semi-auxiliaries. The syntactic difference between non-actional verbs and semi-auxiliaries is that non-actional verbs are main verbs, whereas semi-auxiliaries are not. Moreover, sentences containing semi-auxiliaries are potentially ambiguous, whereas those containing non-actionals are not.

When the child realizes the structural differences between non-actionals and semi-auxiliaries, he or she would come to know that non-actionals

verbs do not assign an adjunct θ -role but assign only the true argument θ -role to the subject position.

At this stage, children will also recognize that semi-auxiliaries are ambiguous, but non-actionals are not. This difference also triggers them to move to the adult stage.

Once the subject position of the non-actional verbs is recognized as a θ -position passivization is possible just as in case of actional verbs.

3. Concluding Remarks

In this paper, we have proposed an acquisitional account of the passives, which relies on the interaction of the various modules of the grammar. At Stage II, the asymmetry between 'actional' and 'non-actional' passives exists because children may not be assigning θ -roles to the 'non-actional' actives.

An important issue to explore is the question of how children come to understand the subject-predicate relation in the sentences and how they determine the θ or non θ -position at the D-Structure.

From the developmental facts about learning verbs, we know that the acquisition of non-actional verbs is later than actional ones. This means that the θ -marking properties of non-actional predicates might be less fixed than the actional ones.

The fact that many non-actional verbs used in the experiments have multiple subcategorization properties might also cause the delay of fixing the θ -marking properties of these verbs on the part of the children. For instance, verbs like *hate*, *like*, *forget*, *see* are subcategorized for complements (either infinitives or tensed clauses) as well as NPs.

We have seen from the above discussion, evidence that children's recognition of θ - or non- θ -position may be quite different from that of adults although children clearly observe the basic principles of UG such as the Projection Principle and the θ -criterion. If this line of analysis is correct, we can regard these principles as essential not only for linguistic theory but also the language acquisition.

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References

- Bellugi, U. (1967) *The Acquisition of Negation*. Ph. D. Dissertation. Harvard U.
- Burzio, L. (1981) *Intransitive Verbs and Italian Auxiliaries*. Ph. D. Dissertation. MIT.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Foris Publications. Dordrecht.
- Hyams, N. (1983) *Acquisition of Parameterized Grammars*. Ph. D. Dissertation. CUNY.
- Maratsos, M. & R. Abramovitch (1975) "How children understand full, truncated, and anomalous passives", *Journal of Verbal learning and Verbal Behaviour* 14.
- Maratsos, M., Kuczaj, S.A., Fox, D.E.C. & M.A. Chalkley (1979) "Some Empirical Studies in the Acquisition of Transformational Relations: Passives, Negatives, and the Past Tense", in W. Andrew Collins (ed.): *Children's Language and Communication: The Minnesota Symposia on Child Psychology Vol. 12*. Lawrence Erlbaum Associates, Publishers.
- Nishigauchi, T. (1982) "Funny NP Movement", unpublished m.s., U. Mass.
- Zubizarreta, M L. (1982) *On the Relationship of the Lexicon to Syntax*. Ph. D. Dissertation. MIT.