

ON THE SUBJECT OF SUBJECTS

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0. It will not be possible here to discuss in full the pros and cons of the large number of definitions that have been proposed for the term subject.¹

Rather I shall in the following discussion assume the subject to be that NP which governs the verb concord.² This definition will also, at least for the time being, allow for the definition suggested in Chomsky's proposal (Chomsky 1965) as far as the surface subject is concerned.

1. In recent generative theories, subjects too are generated, either implicitly or explicitly. There is thus at least a tacit assumption of some rule or process which "creates subjects."

In transformational grammar where the functional notions are introduced in an implicit way, the subject comes into being by virtue of its particular position within the phrase-marker. Why it occupies this position to all intents and purposes is left unanswered.

In the only reference to this, Chomsky states more or less that the basic form is the simple active sentence.³ From there the subject is defined. In a footnote he suggests, somewhat more explicitly: "Topic-Comment [might be] the basic grammatical relation of surface structure corresponding (roughly) to the Subject-Predicate relation of deep structure. Often ... Topic and Subject will coincide but not [always]." ⁴ However, he then concludes by saying: "... other elaborations also come to mind, but I shall not go into the question any more fully here."

Thus finally Chomsky does not elaborate a rule or principle responsible for creating subjects.

Fillmore (1968), while going along with the definition of the function of subject as proposed by Chomsky (1965), nevertheless observes: "... no semantically constant value is associated with the notion 'subject of' [and] no semantically relevant relations reside in the surface structure relations which are not somewhere also expressible by 'labelled' relations. [This leads] to the addition ... of a rule, or system of rules, for creating 'subjects.' The

relation 'subject' ... is now seen as exclusively a surface-structure phenomenon."⁵

As to the type of rule, or rules, Fillmore mentions that "every sentence has a surface subject, if only formally so. For most combinations of cases there is a 'preferred' or 'unmarked' subject choice; for some there is no actual choice... In general:

If there is an A, it becomes the subject; otherwise,
if there is an I, it becomes the subject; otherwise,
the subject is the O."⁶

In Chapter 4 finally we find in Fillmore's discussion of topicalization processes reference being made to the link which exists between topicalization and "subjectivalization," i.e. the choice of a subject.⁷ In the same section Fillmore distinguishes between topicalization as a process of creating a subject and a mere emphasizing which corresponds to what elsewhere has been called focussing.⁸ While all languages presumably provide for focussing, "it may be the case," thus Fillmore, "that some lack the process of 'primary topicalization' ('subjectivalization')... The notion "subjectivalization" is useful only if there are sentences in a language which offer a choice of subject. Languages described as not having passives, or languages described as only capable of expressing transitive sentences passively, apparently lack the grammatical process of topicalization."⁹

Thus Fillmore appears to conceive of two ways of subjectivalization, an automatic (normal) one, based on a rule of precedence within the semantic cases or roles, the other a deliberate (non-normal) one, motivated by topicalization.

2. What is the principle underlying the deliberate choice of a subject and is the principle also implicit in the automatic subjectivalization?

Generally speaking two cases can be distinguished. Firstly the one where the choice of a subject appears to be fully determined by grammatical factors. This is the case for the impersonal verbs and also that for monovalent (one-place) verbs. The second is that of a sentence allowing for the choice of a subject from several NPs.

In the latter case, involving polyvalent verbs, a certain order of priority with regard to potential subjects can be established.

Thus the subject of an active sentence generally appears to be the Agent-NP if there is one; that of a passive, most regularly the Object-NP if there is one.

Sometimes semantically equivalent verbs allow for a different NP to become the subject without the voice of the verb being affected, e.g.

[1] John (E) liked the picture (O)

[2] The picture (O) was liked by John (E)

[3] The picture (O) pleased John (E)

The question to be answered now is what establishes the order of priority with regard to potential subjects and what motivates any choice deviating from that order of priority.

That this involves some focussing or topicalization process has already been noted both by Chomsky and by Fillmore.

One factor which retarded the full recognition of this fact was probably the complexity of the phenomenon, and often the failure to clearly distinguish, at least, between what Fillmore calls primary and secondary topicalization. It would lead too far to go into the details of this here.¹⁰

Halliday (1968) establishes a case, in English, for the existence, side by side, of "four components ... representing four functions that the language as a communicative system is required to carry out: the experiential, the logical, the discoursal and the speech-functional or interpersonal."¹¹ He further notes that "a constituent may have value in many systems simultaneously."

The processes of topicalization belong to the "discoursal" component. The two major processes are those of thematization and information focus.

The former is seen as dividing the clause into theme (the topic of the context) and rheme (the comment on that topic). Thematization is thus basically linked with the discoursal context of the clause.

Information focus on the other hand allows the speaker to focus on that part of the clause which he intends to present as new information, though it need not be factually new information at all.

It will now be seen that when some new information, in the sense just defined, is introduced, that may be done either in reference to some previously mentioned or merely assumed topic (recoverable from the situational context), or it may be done without assuming anything as given.

In the latter case often the action/state, rather than any kāraka¹², i.e. any relation between the action/state and one of the participants, is highlighted by deleting all NPs, thus leaving the kārakas of the verb unexpressed.

This process, however, is generally subject to severe restraints.

Thus English can only highlight an action/state without mentioning a subject or any other NP on condition that it nominalizes the verb.

[4] They dance (in the streets)

[5] There is dancing (in the streets)

[6] Someone knocked (at the door)

[7] There was a knock (at the door)

Here [4] and [6] are transformed into [5] and [7].

In other languages, for instance German or Latin, it is possible to delete all NPs without being obliged to introduce new participants. German, for purely grammatical reasons, introduces a dummy subject es, e.g.

[8] Es wird getanzt

[9] Es hat geklopft

In a language like Latin, not even the dummy subject is needed, as the verb incorporates its own grammatical subject, e.g.

[10] Saltatur

[11] Itum est

[12] (Nunc) est bibendum

Lastly, in this context mention may be made of the use of the infinitive as a neutralized imperative where all the reference to a subject and/or any other NP has been deleted:

[13] Aussteigen!

[14] Ouvrir!

However, apart from the fact that the processes which allow highlighting of the action are rather limited and only available in some languages, they are by no means frequently used, the more common case being that of retaining full reference to the subject, if not to all the other NPs.

Nevertheless, some NPs are more readily chosen as the subject than others. Nor need the only NP be the subject; the topicalization process just outlined makes it possible, in what admittedly is very much a marked choice, to highlight the action/state while retaining at the same time an overt reference to one of the *karakas*, e.g. in English

[15] Some student-groups protested

[16] There were protests by some student-groups

Finally, where more than one NP is linked with the verb, the principle of topicalization comes into full play. Here, in particular the potential divergence between the influence of the context and that of the sentence structure itself must be taken into consideration. If we consider a sentence free of context and assume that none of the potential *kâarakas* remain unexpressed we find that, linked with the preference for the active sentence type in the Indo-European languages, there is a normal way of topicalization inasmuch as the most normal choice of subject for the active sentence is the agent or any other role from which the action emanates, viz. instrument, cause, etc. :

[17] The boy smashed the window

[18] The car knocked over the garden-wall

[19] The mistake held up the conclusion of the project

If on the other hand one of the other *kâarakas* is to be highlighted the attention must of necessity be shifted away from the origin of the action. While this can be done by local emphasis or focussing, such a procedure would be marked as it contradicts the thematic indications of the sentence as a whole.

[20] What happened?

[21] Who stole the apples?

[22] What happened to the apples?

[23] A little boy stole the apples.

Here [20] asks for a neutral account of an action without specific concern as to the part any participants (including things etc.) might have played. The action being reported in the active, the agent occupies a neutral subject position as in [23]. In the case of [21], again [23] is a possible answer. However, as the main concern this time is the person responsible for the action, the subject receives a special focus, expressed in English by emphatic stress, to mark that this time the subject coincides with the "new" information, viz.

[23'] A little boy stole the apples

If [22] had been asked [23] would still be a possible answer. However, this time, with focussing on the action, the subject does not coincide with the "given" part of the sentence nor with the theme.

[23"] A little boy stole the apples

Now, we have seen that to answer [22] with an active sentence, special focussing had to be introduced to contradict the normal thematic structure of the sentence. This structure could however have been preserved if subject and theme had been made to coincide. This in fact is possible if the passive is chosen, where the attention is moved away from the origin of the action and towards its goal, here expressed by the objective the apples. Thus [24] now answers [22] in an unmarked way:

[24] The apples were stolen, by a little boy

Similarly for the answer to [21]:

[25] The apples were stolen by a little boy

where in [25] the balance is restored by making subject, theme, as well as part of "given," coincide.

3. These various tendencies may be seen as a system closely linked with various topicalization processes. In their operation two types of sentences must be distinguished: those that are context-free and those that are context-conditioned.

Among the former, a hierarchy in the roles represented within such a sentence determines which NP is to be the subject. This hierarchy is not so much one of grammatical necessity but rather one determined by the traditional way of envisaging experience within a given language.¹³

[26] The men felled the tree with an axe

[27] An axe finally felled the giant tree

[28] The wind felled the tree

In a less actor-oriented language it may conceivably be the goal of the action that takes precedence over such roles as Agent, Instrument, Cause, etc.

In the case of context-conditioned sentences the choice of a subject is governed by the general tendency of having theme and subject coincide as well as to situate them in the "non-new" ("given") part of the sentence :

[/29/ The tree (T = S) / was felled by the new farmer

[/30/ The new farmer (T = S) / felled the tree

Here, languages with free word-order allow for the "favourite" sentence type to be chosen, i.e. where for instance the active sentence type is the preferred pattern, free word-order allows a high degree of freedom in (secondary) topicalization to have the theme coincide with the non-new part of the sentence even where it is not the subject :

[/31/ Der Nachbar (T = S) / fällte den Baum

[/32/ Den Baum (T ≠ S) / fällte der Nachbar (=S)

But also

[/33/ Der Baum (T = S) / wurde vom Nachbarn gefällt

In the case of languages with restricted word order this may only be possible if the theme is made to coincide with the subject as well, thus generally necessitating passivization in the case of an active sentence.

Finally, for particular emphasis or some other special effect, it is generally possible to mark out an element as something presented as new.¹⁴ This process may occasionally affect the status of the subject as theme of the sentence. Thus in reply to [/34/ below, [/35/ presents as new information that constituent which also represents both the subject and the theme, and which in fact further represents the agent :

[/34/ Who felled the tree?

[/35/ The neighbour did. The neighbour felled the tree.

4. It is now suggested that the deep structure be based on the type of unordered set of roles in a relation with a verbal as suggested by Fillmore (1968)¹⁵ and which was already formulated in the notion of *kāraḥas* by Pāṇini. Subsequently, with the actualization of a given sentence the processes of topicalization will introduce the type of ordered deep structure which is assumed as the input to the various transformations.

In particular, this means the initial assumption of an "action/state conceived of," as well as a certain number of "factors/objects" directly involved with this action/state. Each of these factors is seen as occupying a definite role in relation to the action/state and defines, by interselection, not only the initial set of *kâra*kas, but also the actual lexeme chosen to express the action/state. For while the verb defines its verbal frame in terms of *kâra*kas admissible, the number and types of factors conceived of as being related to the action influence the selection of a particular formal expression of the action/state conceived of.

Thus it is not uncommon to find two verbs having for all intents and purposes the same meaning, yet differing by their verbal frame, so that one of them demands a certain role to be made explicit which the other leaves completely out of consideration or at least allows to remain unconsidered:

[36] He spoke (about something, to somebody)

[37] He told him (something)

[38] He said something (to somebody)

[39] *He said

[40] *He told

[41] He spoke

Of course where a given verbal frame allows for the deletion of a certain *kâra*ka, this might in the first place be expressed by a dummy. In other words interselection would permit a verbal with a verbal frame, specifying roles A, B and optional C to interselect with a set of factors specified as fulfilling roles A and B by augmenting it by a zero-factor (dummy factor) for role C. On the other hand, interselection between a verbal frame $V_b [+A, +B]$ and a set {A, B, C} would not be possible, and a different lexical item to express the reference to the action/state under consideration would have to be selected.

Having interselected a verbal and a set of factors fulfilling certain roles in relation to that verbal we now have an unordered set of *kâra*kas involving a verbal and a number of NPs. The effect of the actualization of this set of *kâra*kas into a sentence is to impose an order in terms of the various topicalization processes referred to earlier. Where no motivated choice is made in the order of *kâra*kas, a generalized rule applies, resulting in the order underlying the "favourite" sentence type for the given language; in English the active sentence.

The application of the topicalization processes or the application of the generalized rule just referred to, determines in fact which kâraka will be raised to the function of subject-predicate relation.

The effect of this is then to create a structure for the basic set of kârakas. This, however, does not yet result in a bracketed string of the type assumed for deep structure but rather in a "stratified set" of the type suggested by Staal (1967).¹⁶

- (a) Initial set:
 - (i) $\{Vb \{A, B, C\}\}$
- (b) Stratified set resulting from primary topicalization:
 - (ii) $\{B, \{Vb, \{A, C\}\}\}$
- (c) Bracketed set resulting from ordering of the stratified set (only after secondary topicalization has applied where this is appropriate)
 - (iii) $B + (Vb + (A + C))$
 or $B + (Vb + (C + A))$
 or $((A + C) + Vb) + B$
 etc.

Which alternatives are possible under (iii) depends of course on the particular language in question. However, that (ii) must precede (iii) is seen by the fact that topicalization affects not only the creation of subjects but also the ordering of the other kârakas. Embedding presupposes that both primary and secondary topicalization has been completed:

- [42] Den Wagen, den der Mann gekauft hat, kenne ich
- [43] (i) $\{\text{kaufen } [A, +0], \{A, 0\}\}$
 (ii) $\{\text{kennen } [E, +0], \{E, 0\}\}$
 (iii) $\{A, \{\text{kaufen}, 0\}\}$
 $((0 + \text{kaufen}) A)$
 (iv) $\{E, \{\text{kennen}, 0\}\}$
 $((0 + \text{kennen}) E)$
 (v) $((0_1 + ((0_1 + \text{kaufen}) A)) + \text{kennen}) E$

Thus the deep structure assumed for Base Phrase Markers serving as input to transformations is the result of the application of stratification and ordering by different

topicalization rules to a set of *kāra*kas seen as underlying, at an even deeper level. One very important implication of this is that no arbitrary primacy needs to be postulated between different types of certain basic word order patterns, nor between certain related sentence types such as active and passive.

By accounting for the different topicalization processes a greater degree of explicitness can now be achieved. As topicalization is closely linked to, but not identical with, the creation of subjects and thus with the choice between the active and the passive sentence form, it appears more economical to deal with these phenomena together.

FOOTNOTES

1. This paper was originally presented at the 1973 meeting of the Linguistic Society of Australia, Brisbane 16-18 May.
2. I am neglecting here the case of those languages where more than NP is accounted for by noun-verb concord, as well as that of those where there is none. The former appears to be the case in Chinook (Cp. Sapir (1921), p.63) and also in Mohawk (Cp. Chomsky (1965), p.126), where he quotes Postal), the latter in some of the S.E. Asian languages.
3. Chomsky (1965), p.69/71 *passim*.
4. N32, p.220
5. Fillmore (1968), p.16f.
6. *op.cit.*, p.33
7. *op.cit.*, §4.4
8. Halliday (1967)
9. *op.cit.*, p.58. In a footnote Walbiri (a Northern Territory language) is quoted as a possible example for the latter group.
10. See Daneš (1964), Firbas (1966), Halliday (1967) & (1968).
11. *op.cit.*, p.207/209
12. This term goes back to the *Aśṭādhyāyī* of Pāṇini: I.iv.23. Note that although only "action" is mentioned, the following *sūtras* (paragraphs) make it clear that "state" is implied as well. More recently the term *kāra*ka has been used by Staal (1967).
13. It may in fact be debated whether a context-free sentence exists, other than an abstraction. For, in absence of any situational or discoursal context, the claim could probably be made that the speaker would subconsciously choose his own context in which to place the sentence.
14. Cf. p.5 above. Also Halliday (1967), p.206.

15. op.cit., p.24. Verbal is to be understood here in a rather general sense: verb, predicative adjective, predicative nominal etc. Nor is this to be seen as necessarily the same as predication with multiple arguments as found in logic. To discuss here the difference between this and the linguistic "predication" envisaged here, would go beyond the scope of this paper.
16. op.cit. Ch.IV.

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