

**LINGUISTIC STRUCTURES AND COMMUNICATION
-A FUNCTIONAL-TYPOLOGICAL PERSPECTIVE-**

Masayoshi Shibatani

Kobe University

Abstract: On the basis of a typological investigation of voice constructions, this paper argues for a functional-typological framework. Specifically, it is shown that the forms of voice constructions and their distribution as well as their diachronic developments are governed by a functional principle and by the requirements of human communication.

Keywords: typology, passive, middle, reflexive, impersonal

1. INTRODUCTION

Whereas traditional typology has mainly concentrated on typologizing linguistic structures on formal grounds and on drawing implicational statements based on the distributional dependency displayed by typological objects, recent typological work has gradually been shifting its goal toward the functional interpretation of typological facts (e.g. Comrie, 1974; DeLancey, 1981; Givón, 1984, 1990). Functional typology provides a promising avenue to the question of the relationship between linguistic structures and communication, as the field seeks functional understandings of, or explanations for, the form of the linguistic structures under investigation and their synchronic distributional patterns as well as the pattern of historical developments.

This paper, on the basis of a typological investigation of voice constructions, offers a concrete case study of functional typology with the expressed goal of showing that linguistic structures are a manifestation of cognitive and social skills adapted for human communication. Specifically, it is demonstrated that (i) the form of voice constructions, (ii) the distributional pattern of personal and impersonal passives, (iii) the historical development of passives from

middle forms, and (iv) the rise and the nature of the agentive phrase in the passive are all motivated by the requirements of human communication.

2. PERSONAL AND IMPERSONAL PASSIVES

In the study of passive constructions, so-called impersonal passives have been given short shrift perhaps because they are not found in English and because they do not fit the traditional definition of passive voice, which is based on personal passives. However, distributionally impersonal passives are widely attested and they are indeed seen in all branches of the Indo-European family. Moreover, impersonal passives show a high degree of structural resemblance to personal passives, as evidenced not only by the forms in Indo-European languages but also by the forms from unrelated languages; e.g.

(1) German

- a. *Der Löwe wurde von uns getötet.* (Personal passive)
the lion became by us kill.PP
'The lion was killed by us.'
- b. *Es wurde von uns getanzt.* (Impersonal passive)
it became by us dance.PP
'There was dancing by us.'

(2) Yaqui (Langacker 1976:32)

- a. *hu kucu b"a?a-wa-k Pim ?usi-m-me a* (Personal passive)
that fish east-PASS-PAST my child-PL-with
'That fish was eaten by my children.'
- b. *tuisi yi?i-wa-k* (Impersonal passive)
much dance-PASS-PAST
'There was much dancing.'

On the other hand, impersonal passives do not seem to be nearly as prevalent as personal passives. Langacker's (1976) survey of the Uto-Aztecán family indicates that of the eighteen languages studied closely, twelve have both personal and impersonal passives, six have only personal passives, while none has only impersonal passives. Dayley's (1983) survey of the voice systems of Mayan languages shows no trace of impersonal passives despite the fact that most of these languages have rich voice systems, each exhibiting two or more passive constructions in addition to antipassives. Thus the structural and distributional facts present a dilemma for us. On the one hand, the structural resemblance demands that personal passives and impersonal passives be both treated as passive proper; and on the other hand, the distributional facts indicate that personal passives have a privileged status between the two. We solve this dilemma by recognizing a fundamental meaning opposition between active and passive and by considering a personal passive to be a prototypical manifestation of the passive meaning.

The treatment of impersonal passives as passive proper requires broadening of the English-based traditional characterization of the grammatical meanings of voice, which runs something like: 'The active is the verbal form whereby the grammatical subject is represented as exercising the activity...The passive lets the grammatical subject appear as undergoing the activity.' (Maetzner, 1874:319) Agreeing with the traditional understanding that voice pertains

to the relationship between the grammatical subject and the action, we offer the following as the fundamental meaning opposition obtaining among the three major voice categories of active, passive, and middle:

(3) Fundamental meaning opposition

Active category: Action occurs under the subject's control.

Passive category: Action occurs not under the subject's control but under that of another entity apart from the subject.

Middle category: Action occurs under the subject's control and its development is confined within the sphere of the subject.

The fundamental meaning opposition between active and passive is realized by active sentences on the one hand and by both personal and impersonal passive sentences on the other. Impersonal passives, understood as those passive constructions containing no referential subject, express the passive meaning proposed above as straightforwardly as personal passives.

We consider the privileged status of personal passives as an indication that they are prototypical manifestations of the passive category in opposition to the prototypical manifestation of the active category in terms of a transitive form of a special type. Namely, we propose the following to be prototypical manifestations of the fundamental opposition.

(4) Prototypical manifestations of the fundamental opposition

Active form: The subject, as an agent, instigates an action that extends to an independent entity, patient, affecting it in such a way that it results in an altered state; e.g. *Bill killed John*.

Middle form: The subject instigates an action that affects itself in such a way that it undergoes a change of state; e.g. the equivalents in languages with a clear middle of *Bill killed himself*, *Bill combed his hair*, *Bill sat (seated himself)*, *Bill turned*.

Passive form: The subject, a patient, is in an altered state from undergoing a change of state caused by the action instigated by an independently functioning agent; e.g. *Bill was killed (by John)*.

Notice that between the prototypical active form and the prototypical passive form the meaning contrast is maximized, for in the former the action emanates within the subject and develops outwardly and reaches the patient, while in the latter the action emanates in another entity apart from the subject, which functions as a receiver. Consider the case of an impersonal passive. Here the construction lacks a subject functioning as the receiving end of the action and thus the meaning contrast between the subject acting upon another and the subject being acted upon by another does not obtain. We propose to interpret the structure of the personal passive construction and its prototypical status as reflections of the following functional principle.

(5) Principle of Maximization of Contrast

Maximize the contrast in grammatical meaning as much as possible.

The Principle of Maximization of Contrast not only motivates the form of the passive prototype but also dictates the distribution of impersonal passives, to which we now turn.

3. DISTRIBUTION OF IMPERSONAL PASSIVES

There are certain languages, e.g. Ute (Givón, 1988) and Central Pomo (Mithun, 1988), that have impersonal passives in the absence of personal passives, but such a situation is much rarer than the opposite situation of having personal passives in the absence of impersonals. Impersonal passives are closely, but by no means exclusively, associated with intransitive verbs, whereas personal passives are closely associated with transitive verbs, whose objects correspond to the passive subjects. Occasionally, however, we find impersonal constructions with transitive verbs, where the direct object retains its grammatical object function. The following examples, involving the Norwegian periphrastic passive and the Seri (Hokan family) morphological passive illustrate the impersonal constructions under discussion, where their similarities to personal passives can be easily recognized.

(6) Norwegian (Åfarli, 1992:25)

- a. *Det vart slått eit esel.* (Impersonal passive)
it became beaten a donkey
'There was beaten a donkey.'
- b. *Eit esel vart slått.* (Personal passive)
a donkey became beaten
'A donkey was beaten.'

(7) Seri (Marlet, 1984:229)

- a. *maši-y-a:2-kašxa* (Impersonal passive)
2PL.OBJ-MOOD-PASS-bite.SG.MULT
'You (pl.) were bitten.'
- b. *i?p-y-a:1-kašni* (Personal passive)
1SG.SUB-MOOD-PASS-bite.SG.
'I was bitten.'

There is a great deal of controversy whether these impersonal constructions should be analyzed as passive. Because of the retained object in these transitive-based impersonals, many consider them to be active rather than passive, but such a view is motivated only if passives are understood narrowly as those having a referential subject, i.e. personal passives. The impersonals under consideration share both morphological and semantic properties with personal passives, and as such they should be treated as passives. (After all, a passive clause may contain an object, as in *Mary was given a book*.) Morphological identity between impersonals and passives is clear in the examples above, and both constructions share the grammatical meaning that the action emanates in an entity apart from the subject (see Section 2). This grammatical meaning trivially obtains in impersonal passives, as these constructions, by definition, do not have a referential subject nominal.

The above discussion on the form of passives lays a foundation for the survey of the distribution of impersonal passives across languages, which is summarized in the following table:

(8) Distribution of impersonal passives

	<u>Intransitive</u>	<u>Transitive</u>
English, Japanese	No	No
Kannada, Marathi	No	Yes
German, Turkish	Yes	Yes
Norwegian, Ute	Yes	Yes

Whereas all the possible combinations are attested, the distributional pattern is skewed, indicating that there is an order dictating the choice of preferred types, with the English-type and the Kannada-type being the most and least favored, respectively. In order to understand the distributional pattern of impersonal passives and to understand why certain types are preferred over others, it is necessary to identify the parameters according to which impersonal passives are formed. We offer the following two parameters pertaining to the treatment of a patient nominal.

(9) Patient parameters

a. A patient must be involved in passive formation?

YES: Kannada, Marathi (no intransitive-based impersonals permitted)

NO: German, Norwegian (intransitive-based impersonals permitted)

b. A patient, if present, must be aligned with subject position in passive?

YES: German, Turkish (no transitive-based impersonals permitted)

NO: Norwegian, Ute (transitive-based impersonals permitted)

The combination of “(a) YES” and “(b) YES” yields the English-type, in which no impersonal passive is permitted; answering “YES” to (a) prevents the language from having intransitive-based passives, while answering “YES” to (b) allows only personal passives of primarily transitive verbs. We may now rearrange the distributional pattern of (8) into the following table:

(10) Parametric tabulation of the distribution of impersonals

		(a) A Patient must be involved?	
		YES	NO
(b) A Patient must be aligned with subject position?	YES	English, Japanese	German, Turkish
	NO	Kannada, Marathi	Norwegian, Ute

Preference of the types in the order of English-type>German-type>Norwegian-type>Kannada-type is motivated again by the Principle of Maximization of Contrast. The English-type in which only personal passives occur permits only those passives (with patient subjects) that show a maximal meaning contrast vis-à-vis actives (with agentive subjects). The German-type, which permits intransitive-based impersonals but no transitive-based impersonals, maximizes the contrast when possible, i.e. when the transitive object is available for personal passivization. The Norwegian-type, which permits impersonals of both transitive and intransitive verbs, is less favored because it does not maximize the contrast even when the chance is given (with the transitive object). Finally, the least popular Kannada-type, which allows transitive-based impersonals, while barring intransitive-based impersonals, is an oddball, as it strives toward maximization of contrast by barring intransitive-based impersonals, but it fails to consistently maximize the contrast when the chance exists with the transitive object; i.e. it permits non-promotional impersonals when the objects could be made passive subjects.

4. MIDDLE-TO-PASSIVE DEVELOPMENT

We now turn to certain diachronic aspects of voice constructions. A major historical source of passive constructions is middle voice forms, which may function as passive when passives are not fully established in the language, as in Classical Greek. In many modern Indo-European languages reflexive constructions have given rise to a constellation of related constructions which can be considered to collectively form a middle category. In such a situation, one of these reflexive constructions, the decausative middle, gives rise to a passive construction. The pattern of development can be discerned in the following Spanish data displaying a wide range of reflexive-based constructions.

(10) Spanish (Maldonado, 1992)

- a. *Verónica se miró en el espejo.* (Reflexive)
‘Veronica looked at herself in the mirror.’
- b. *Tachita se peinó.* (Body-care middle)
‘Tachita combed herself.’
- c. *Tachita se sentó.* (Body-posture middle)
‘Tachita sat down.’
- d. *Las gafas se quebraron.* (Decausative middle)
‘The glasses broke.’
- e. *El edificio se construyó en 1982.* (Passive)
‘The building was constructed in 1982.’
- f. *Esos problemas se resuelven por autoridades competentes.* (Passive)
‘Those problems are solved by competent authorities.’

The development of passives from middles seems to involve the step direct-reflexive > Decausative > Passive (also cf. Geniušienė, 1987), and we claim that each step is motivated by the Principle of Maximization of Contrast. The direct-reflexive middle, which we assume to be a prototypical middle form (see (4)), is truly middle in the system of voice opposition in that its subject is semantically both agent and patient. We attribute the instability of the middle category to this property. The change from direct-reflexives to decausatives increases the contrast in relation to the active form in that the decausative form now involves a uniquely patientive subject in opposition to the uniquely agentive subject of an active form. However, the decausative form does not maximally oppose the prototypical active form in that, while the latter expresses the extension of action toward another entity, the former does not say that an action is caused by another entity. It is only when the decausative form gives rise to a passive form that this maximal meaning opposition is achieved. Our claim, then, is that the extension of decausatives to passives is made in response to the Principle of Maximization of Contrast, just as the expansion of direct-reflexives to decausatives is. The involvement of the decausative stage in the change from the middle to the passive seems also to be motivated by the requirements of communication, namely avoiding abrupt meaning change. Our final topic is concerned with another case of the constraint of linguistic structures by the avoidance of abrupt meaning shift.

5. THE NATURE OF THE ‘AGENTIVE’ PHRASE IN PASSIVES

In past discussion of the typology of passive constructions, the question of whether or not passives permit overt expression of an agent has received some attention with the general conclusion that languages generally avoid an overt expression of an agent in passives. Thus,

there are languages such as Nahuatl (cf. Sullivan, 1988) and specific constructions such as the Arizona Tewa suffixal passive (cf. Krokskrity, 1985) that do not permit the overt expression of an agent, and those like English that optionally express an agent, but there seems to be no language that requires an obligatory expression of an agent in its passive constructions.

What has not attracted much attention at the general level is the restriction on the agentive phrases that are permitted to occur in passive construction. There are, however, language-specific studies that include relevant discussions. For example, Maldonado (1992) recognizes the difference in the acceptability of Mexican Spanish reflexive passives depending on the nature of the agent (and the tense), illustrating his point with the examples below:

(11) Spanish (Maldonado, 1992)

- a. *La puerta se cerró con/por viento /*por Juan.*
'The door was closed with/by the wind/ by John.'
- b. *La taza se rompió con/por/la pelota/*por Juan.*
'The cup was broken with/by the ball/ by John.'
- c. *Esos problemas se resuelven por autoridades competentes.*
'Those problems are solved by competent authorities.'
- d. *??Esos problemas se resolvieron por autoridades competentes.*
'Those problems were solved by competent authorities.'
- e. **Esos problemas se resolvieron por Juan.*
'Those problems were solved by John.'

The Arizona Tewa suffixal passive, which is said to prohibit the overt expression of an agent, permits an instrumental or non-human "agent," as seen below:

(12) Arizona Tewa suffixal passive (Krokskrity, 1985)

- a. **hē'i sen-di hē'i tú na-c'á:la-tí:*
that man-OBL that meat 3SG.STA-CUT-PASS
'The meat was cut by that man.'
- b. *na:bí ciyó-dí hē'i tú na-c'á:la-tí:*
I-GEN knife-OBL that meant 3SG.STA-CUT-PASS
'The meat {was/has been} cut with my knife.'
- c. *nan-di p'hé-mele na-k'á:be-n*
sand-OBL stick-vessel 3SG.ST-break-PASS
'The crate was crushed by sand.'

A similar observation can be made with regard to the reflexive-passives in Modern Greek (Warburton 1970: 70), Russian, Italian and perhaps in other languages in which passives have developed out of reflexive constructions. Southern Tiwa, as described by Allen and Franz (1983), allows in its passive clauses only a third person pronominal agent to the exclusion of the speech act participants, as is the case with certain passive forms in Mayan languages (cf. Dayley 1983 and England 1985). These observations suggest the following hierarchy, which reverses the well-known empathy hierarchy (cf. Silverstein 1976), governing the occurrence of overt "agents" in passives.

(13) **Reverse Empathy Hierarchy**

natural force>instrument>institution>generic human>specific human>
3rd person pronoun>SAPs.

The fact that the English *get*-passive also follows the hierarchy and tends to avoid overt expression of specific human agents indicates that the restriction holds not only for passives of reflexive origin but also for other types of development. Furthermore, there seems to be a diachronic correlation between the hierarchy and the development of the passive in such a way that the older the passive form is, the easier it is to overtly express an agent, i.e. those toward the right in the hierarchy can be overtly expressed. Comparison of the 'be'-passive and the reflexive passive in Romance languages and Russian attests this tendency in that the older 'be'-passives do not place a restriction on the type of overt agent, while the newer reflexive passives do, as we saw in (11). A similar observation can be made between the English *be*-passive and the *get*-passive. Indeed, these observations lead to an interesting predication on the relative maturity of co-existing passive constructions within a single language. Namely, the construction that permits those agents low in the hierarchy is the older one.

Now, coupled with the observation that one of the popular sources of passives is a spontaneous construction, including the decausative middle exemplified by (10d), the Reverse Empathy Hierarchy offers an insight as to how communicative needs constrain linguistic structures. That is, the hierarchy guarantees minimal meaning disruption along the path of development from the spontaneous construction to the passive. The spontaneous construction expresses the meaning that a certain event takes place independently of any external force. At the initial stage of change toward the passive, the involvement of natural force is more consonant with such a meaning than the involvement of other artificial forces. (After all, we always suspect that there is some natural cause for a spontaneous event.) The Reverse Empathy Hierarchy, as reflected in the preference for natural forces, general or collective agency, and for routinized activities in the generic tense, insures this kind of gradual meaning expansion starting with the involvement of an external force easier to construe as something that naturally brings about a change and ending up with the most salient external force, namely the speech act participants. (Cf. (11c) and (11d) for the relevance of tense.)

We have seen that in the evolution of passive constructions two opposing communicative demands are at work. On the one hand, the Principle of Maximization of Contrast forces development toward the form that maximally contrasts in meaning with the active form. This forces the passive to strive toward the form of personal passive with an explicit agent low in the Reverse Empathy Hierarchy. On the other hand, minimization of the disruption in communication due to abrupt meaning shift requires the passive to avoid the expression of an overt agent of high salience. The passive structure thus typically manifests itself in the form that meets these two communicative demands, namely in the form of personal passive without an agentive phrase.

REFERENCES

Allen, B.J. and D.G. Franz. (1983). Advancements and verb agreement in Southern Tiwa. In: *Studies in Relational Grammar 1* (D. Perlmutter, (ed.)), 303-314. Chicago University Press, Chicago.

Comrie, B. (1974). Ergativity. In: *Syntactic Typology* (W. P. Lehmann, (ed.)), 329-364. University of Texas Press, Austin.

Dayley, J.P. (1983). Voice and ergativity in Mayan languages. In: *Studies in Mesoamerican Linguistics* (Schlieter, A., W. Chafe, and L. Hinton (eds.)), 5-119. Survey of California and Other Indian Languages Report No. 4, Survey of California and Other Indian Languages, Berkeley.

DeLancey, S. (1981). An interpretation of split ergativity and related patterns. *Language* **57**, 626-657.

England, N.C. (1988). Mam voice. In: *Passive and Voice* (M. Shibatani (Ed.)), 525-546. John Benjamins, Amsterdam.

Givón, T. (1984). *Syntax: A Functional-Typological Introduction Vol. 1*. John Benjamins, Amsterdam.

Givón, T. (1988). Tale of two passives in Ute. In: *Passive and Voice* (M. Shibatani (Ed.)), 417-440. John Benjamins, Amsterdam.

Givón, T. (1990). *Syntax: A Functional-Typological Introduction Vol. 2*. John Benjamins, Amsterdam.

Geniušienė, E. (1987). *The Typology of Reflexives*. Mouton de Gruyter, Berlin.

Kroskrity, P.V. (1985). A holistic understanding of Arizona Tewa passives. *Language* **61**, 306-328.

Langacker, R. W. (1976). *Non-distinct Arguments in Uto-Aztecian (UCPL 82)*. University of California Press, Berkeley.

Maetzner, E. (1874). *An English Grammar: Methodical Analytical, and Historical* (Tr. by C.J. Greece). John Murray, London.

Maldonado, R. (1992). *Middle Voice: The Case of Spanish* se. Unpublished Ph.D. Thesis. University of California, San Diego.

Marlett, S.A. (1984). Personal and impersonal passives in Seri. In: *Studies in Relational Grammar 2* (D. Perlmutter and C. Rosen (Eds.)), 217-239. Chicago University Press, Chicago.

Mithun, M. (1988). The 'passive' in an active language. In: *Papers from the 1987 Hokan-Pemutian Languages Workshop and Friends of Uto-Aztecian Workshop* (J.E. Redden (ed.)), 39-45. Department of Linguistics, Southern Illinois University, Carbondale.

Pandharipande, R.V. (1981). *Syntax and Semantics of the Passive Construction in Selected South Asian Languages*. Unpublished Ph.D. Thesis. University of Illinois, Urbana-Champaign.

Perlmutter, D.M. (Ed.) (1983) *Studies in Relational Grammar 1*. University of Chicago Press, Chicago.

Perlmutter, D.M. and C. G. Rosen (Eds.) (1984). *Studies in Relational Grammar 2*. University of Chicago Press, Chicago.

Silverstein, M. (1976). Hierarchy of features and ergativity. In: *Grammatical Categories in Australian Languages* (R.M.W. Dixon (Ed.)), 112-172. Australian Institute of Aboriginal Studies, Canberra.

Shibatani, M. (Ed.) (1988). *Passive and Voice*. John Benjamins, Amsterdam.

Sullivan, T.D. (1988). *Compendium of Nahuatl Grammar*. University of Utah Press, Salt Lake City.

Warburton, I.P. (1970). *On the Verb in Modern Greek*. Indiana University, Bloomington.

Åfarli, T.A. (1992). *The Syntax of Norwegian Passive Constructions*. John Benjamins, Amsterdam.