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THE GRAMMATICIZATION OF PASSIVE MORPHOLOGY

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1. Introduction

The passive construction has played a very prominent role in syntactic studies of the last thirty years. To this almost excessive attention from the point of view of syntax corresponds a relative negligence of the morphological aspects of passive constructions, most importantly the passive marker on the verb (other morphological devices used in passive constructions, such as instrumental or locative markers of agent phrases, are normally not specific to passive constructions and are not considered "passive morphology" here). This lack of interest in passive morphology is, of course, only a particular manifestation of the general lack of interest in morphological questions on the part of much of post-1957 linguistics. However, the 1980s have seen a revival of interest in morphology and its interaction with syntax, and there seems to be general agreement now that morphology is neither devoid of inherent interest nor irrelevant for the study of syntax (or, for that matter, the study of semantics).

The two main claims of this paper are: (1) The verbal morphology associated with a passive construction is an essential part of the construction whose properties are worthy of study in their own right. Indeed, the passive can be regarded as first and foremost a verbal morphological category whose meaning implies certain changes in the clause structure. (2) The properties of this morphological category can be best understood by looking at its diachronic origin. Like many other morphological categories, passive morphology commonly arises via the grammaticization (cf., e.g., Lehmann 1982) of lexical items that are reduced formally and generalized semantically and finally become grammatical morphemes with a general, "grammatical" meaning.

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This paper will be organized as follows: Sections 2 and 3 present the results of a survey of passive morphology in 79 languages of the Gramcats sample, a random sample free of genetic bias that is used by the Gramcats (short for "grammatical categories") research group at SUNY Buffalo (cf. Bybee et al. in prep.). Section 2 presents a typology of passive morphology based on formal characteristics, and section 3 is concerned with other meanings that passive markers typically have. In section 4 each of the four main lexical sources of passive markers is discussed in turn. Section 5 presents a general picture of the formal and semantic grammaticization, deals with the question of the unidirectionality of the changes and concludes with the proposal that inactivation of the verbal situation, not participant backgrounding or foregrounding is generally the original (and in this sense basic) function of the passive.

2. Types of passive morphology

2.1 *Passives without passive morphology?*

This section examines different expression types of passive morphology, such as periphrastic vs. inflectional, etc. But first we must ask whether passives are possible without any particular morphological marking. If the passive were basically a syntactic phenomenon, a relation-changing rule analogous to object raising or possessor raising, or a pragmatically-motivated rule like topic fronting or interrogative phrase fronting ("wh-movement"), it would not be unexpected to find passive constructions without special morphology on the verb.

Dryer 1982, defending the view that the universal and essential part of the passive is its syntactic properties, observes that passive morphology can be of different types (not only auxiliary + participle, but also suffix on the verb, etc.) or even be completely lacking. He concludes that passive morphology is just an accidental fact about individual languages.

If, on the other hand, the passive is fundamentally a verbal category like aspect, tense, etc. (as I contend), we would expect it to be marked morphologically in some way. It is well known, of course, that most passives involve some marking on the verb, but a number of cases have been mentioned in the literature that appear to be passives without special verbal morphology.

Given the following definition of passive constructions:

A construction is called passive if:

- (i) the active subject corresponds either to a non-obligatory oblique phrase or to nothing;¹ and
- (ii) the active direct object (if any) corresponds to the subject of the passive; and
- (iii) the construction is somehow restricted vis-à-vis another unrestricted construction (the active), e.g. less frequent, functionally specialized, not fully productive.

I claim that in general passive constructions without passive morphology do not exist. On closer inspection it turns out that the alleged cases of such passives should be analyzed differently. The following are some of the best known cases:

a. The so-called passive without passive morphology in Acehnese (Lawler 1977) has been shown by Durie 1988 not to be a passive.

b. The so-called passive in Palauan (Josephs 1975:19.7., Siewierska 1984:35f.) has recently been discussed by De Wolf (1988:167ff.), who shows that the phenomenon in question is rather a special topic construction.

c. The Kinyarwanda construction mentioned by Keenan 1985:255 does not qualify as a passive because the postverbal agent cannot be omitted and the preposed patient exhibits almost no subject properties. Kimenyi 1980:141ff. (Keenan's source) is careful not to call this construction "passive," but "object-subject reversal."

d. The word *bèi* in Mandarin Chinese passive constructions is not a preposition that marks the agent (as implied in Postal 1977, Dryer 1982:56, *inter alia*) but an auxiliary verb that takes a sort of complement clause (see Hashimoto 1988) and can be regarded as a passive marker.

e. In ergative constructions, the ergative NP is sometimes freely omissible (e.g. in Daghestanian and Polynesian languages). Such constructions are called passive by Khrakovsky 1973, who notes that in these cases no morphology on the verb is involved. However, the omissibility of the ergative NP only shows that it does not have all typical subject properties (cf. Comrie 1988).

f. Alternations in the syntax of English action nominals of the type *the enemy's destruction of the city/the city's destruction by the enemy* show some similarity to the active/passive alternation without showing passive morphology. But in English this similarity is largely due to the existence of two genitive word order patterns, which is a very unusual situation cross-linguistically. The above two constructions represent the double possessive and

the possessive-ergative type of action nominal constructions, respectively (see Koptjevskaja-Tamm 1988:122ff., 145ff., who argues at length against the passive character of possessive-ergative action nominal constructions).

2.2 Morphological expression types.

To determine the global distribution of types of passive morphology, I looked at 80 languages of the Gramcats sample, a genetically stratified random sample. For more details on the selection of this sample as well as references to the descriptive material, see Bybee et al. (In preparation). The 80 languages are listed in the Appendix.

Of these 80 languages, only 31 were found to have a passive. This result is in itself not uninteresting, because it is apparently still widely believed that the unmarked case is for a language to have a passive. Gabelentz 1861:§5 lists a number of languages that he found lacking a passive, but so does Siewierska 1984:23,27. To the extent that the Gramcats sample reflects the languages of the world, one can say that it is more likely for a language to lack a passive than to have one. Of the 31 languages, four have two passive morphemes and two have three passive morphemes. (See the Appendix, where the number of passive morphemes is given for each language.)

Table 1 shows the distribution of the 39 grammatical morphemes among the six expression types described below.²

Table 1. Expression types of passive morphemes in the Gramcats sample

(1) additional stem affix	25
(2) auxiliary verb (+participle)	6
(3) particle	1
(4) extrainflectional affix	3
(5) differential subject person markers	2
(6) alternate stem affix	1

(1) Additional stem affix. "Stem affix" means that the affix is attached directly to the verb stem, inside aspect, tense, and person markers. This is by far the most common way of expressing the passive. In the sample 21 passives are of this type. Of these, 14 are suffixes, 6 are prefixes, and the

Kanuri affix occurs in both positions, according to the verb class. The forms in the sample are:

Inuit (-*niqar*, -*tit*, -*saa*), Tuareg (*mə-*, *tu-*), Tigre (*tə-*) Black Carib (-*ua*), Gugu-Yalanji (-*ji*), Worora (-*ieŋu*), Koho (*go-*), Car Nicobarese (-*a*), Tahitian (-*hia*), Motu (*he-*), Halia (-*iy*), Rukai (*ki-*), Modern Greek (-*θ*), Nimboran (-*da*), Kadugli (-*adene*), Mwera (-*w*), Kanuri (*tə-/tə-*), Tojoloabal (-*h*), Udmurt (-*šk*), Uigur (-*il*), Buriat (-*gda*).

(2) Auxiliary verb. This expression type is found in the present sample only in the Indo-European languages Latin (*esse* 'be'), Baluchi (*bu-* 'be'), Danish (*blive* 'become,' *være* 'be') and Maithili (*jā-* 'go,' *par-* 'fall'). In each case the auxiliary is combined with a passive participle of some sort. Although this expression type is certainly not confined to Indo-European, the distribution in the Gramcats sample confirms Dryer's (1982:55) observation that "the use of a copula plus an adjectival in passive clauses is rare outside Indo-European. In most languages, the passive is formed by adding a passive affix to the verb."

(3) Particle. This refers to a non-bound element that is not identifiable as anything else (e.g. a verb or a pronoun). In Margi, a postverbal particle can have passive meaning, e.g. *ŋábá* 'understand,' *ŋábá kár* 'be understood' (by internal reconstruction, *kár* can be identified as a reduced variant of the reflexive noun *kár-* (originally 'head,' cf. 4.2.).).

(4) Extra-inflectional affix. (= "extrafix")³ This is an affix whose position is outside all other derivational and inflectional affixes, in particular outside person markers. The Danish suffix -*s* and the Shuswap -*t/-m* are of this type. Thus, in Danish *elske* is 'to love,' *elske-s* 'to be loved,' *elske-de* 'loved (past),' *elske-de-s* 'was loved.' Since Danish has lost its person-number affixes, the fact that the suffix occurs after them is better illustrated with the closely related Icelandic, where we find forms like the following:

(1)	<i>ég kalla</i>	'I call'	<i>ég kalla-st</i>	'I am called'
	<i>við köllum</i>	'we call'	<i>við köllum-st</i>	'we are called'
	<i>þið kallið</i>	'you guys call'	<i>þið kalli-zt⁴</i>	'you guys are called'

This -*s/-st* represents an earlier reflexive pronoun that has become attached to the verb. Notice that this pronoun does not vary in person or number any longer. In some languages reflexive pronouns are different for different persons, e.g. in Spanish: *me llamo* 'I call myself,' *te llamas* 'you call yourself,' *se llama* 'it calls itself.' When such a variable reflexive pro-

noun becomes attached to the verb stem, it would be something like a variable extrafix. The 'O'odham reflexive prefixes (which also express the passive) are of this type:

- (2)
- | | | |
|----------|------------------|-------------------------------|
| 1sg | <i>n̄-wakon</i> | 'wash myself' |
| 2sg, 3sg | <i>'e-wakon</i> | 'wash yourself, itself' |
| 1pl | <i>t-wapkon</i> | 'wash ourselves' |
| 2pl, 3pl | <i>'e-wapkon</i> | 'wash yourselves, themselves' |

These prefixes are clearly pronominal in origin (cf. Langacker 1976:27,63). This is not so clear in the case of Shuswap, but the fact that the extrafix has two different shapes according to the person/number it is used in might indicate that it is of pronominal origin too.⁵

(5) **Differential subject person markers.** This expression type is found in the sample only in the conservative Indo-European languages Latin and Modern Greek. Both languages have different sets of subject person markers for active and passive verbs, cf. Table 2.

Table 2. Latin and Modern Greek subject person markers

	Latin		Modern Greek	
	Active	Passive	Active	Middle
1sg	<i>-o/-m</i>	<i>-(o)r</i>	<i>-o</i>	<i>-ome</i>
2sg	<i>-s</i>	<i>-ris</i>	<i>-is</i>	<i>-ese</i>
3sg	<i>-t</i>	<i>-tur</i>	<i>-i</i>	<i>-ete</i>
1pl	<i>-mus</i>	<i>-mur</i>	<i>-ume</i>	<i>-omaste</i>
2pl	<i>-tis</i>	<i>-mini</i>	<i>-ete</i>	<i>-osaste</i>
3pl	<i>-nt</i>	<i>-ntur</i>	<i>-un</i>	<i>-onte</i>

For instance, Greek *ksiríz-o* is 'I shave,' and *ksiríz-ome* is 'I shave (myself)/I am shaved.' The Passive/Middle person markers are puzzling in both languages because they are clearly related to the Active markers in some way. In Latin, a postfix *-(u)r* could be isolated in the first and third persons, but the 2sg form has the *r* before the Active suffix, and the 2pl is completely different. Similarly, the Greek Middle endings are sometimes reconstructed as involving a characteristic vowel following the Active endings, but even for the oldest stage of Ancient Greek this explains only some of the forms (cf. Szemerényi 1989 on the Indo-European prehistory of these endings).

There is a certain irony in the fact that Latin and Greek, the two most important languages for pre-20th century Western linguistics, are typologically so unusual in this respect.

(6) **Alternate stem affix.** Whereas in type (1) an affix is added to the non-passive verb stem, in this type an affix on a non-passive verb stem is replaced by a passive affix. The Kefa passive, in which a transitive suffix *-i* is replaced by a passive suffix *-e*, is of this type. For instance, *čučč-i-* means 'tie,' and *čučč-e-* is 'be tied'; *qod-i-* is 'divide,' and *qod-e-* 'be divided.' Note that in cases like this it is not clear that the passive is derived from the active rather than vice versa.⁶ In fact, Cerulli 1951 also mentions a Causative, which is formed by replacing *-e* by *-i*, as in *all-e-* 'perish,' *all-i-* 'make perish, lose.' Thus, this particular case might not be a passive at all. However, there could be evidence of various sorts that one of the alternate affixes is non-basic and the form is derived by replacing the basic affix with the non-basic one.

These are the expression types that are represented in the sample. There is at least one further expression type that occurs, and this is:

(7) **Sound replacement.** An example comes from Sinhalese. Here the passive is formed by fronting the vowels of the active (Matzel 1966:74):

- (3)
- | | | | |
|--------------|-------------|--------------|-------------------------|
| <i>bala-</i> | 'see' | <i>bāle-</i> | 'be seen' |
| <i>hūra-</i> | 'scratch' | <i>hīre-</i> | 'be scratched' |
| <i>sōda-</i> | 'wash' | <i>sēde-</i> | 'be washed' |
| <i>vēla-</i> | 'dry (tr.)' | <i>vēle-</i> | 'be dried, dry (intr.)' |

Two subtypes of (1) that are not represented in the sample are (a) a passive **infix**, as illustrated by *-h-* in some Mayan languages, and (b) a passive **circumfix**, which may be illustrated by Georgian *i...-eb*.

It is interesting that tone change and reduplication have not been observed among the expression types of the passive (as noted by Keenan 1985:251). However, there is no reason to believe that they could not express the passive. Tones often develop from the loss of (a) segment(s), and it is entirely conceivable that a tone change would be the only relic of an earlier passive affix. And reduplication is sometimes a way to form passive participles, as for instance in Hausa (Kraft & Kirk-Greene 1973:178):

- (4)
- | | | | |
|---------------|------------|------------------|--------------------|
| <i>cíkàa</i> | 'fill' | <i>cikákkée</i> | 'filled, complete' |
| <i>dáfàa</i> | 'cook' | <i>dáfáffée</i> | 'cooked' |
| <i>nèemáa</i> | 'look for' | <i>nèemámmée</i> | 'sought' |

Since passive participles are often used in periphrastic passives (see below, 4.1.1.), it is probably only an accidental gap in our knowledge that no clear examples of finite passives marked primarily by reduplication are known, rather than a "substantive constraint on the form of passives in languages" (Keenan 1985:253).

Although there are a fair number of different morphological expression types, the distribution in the worldwide sample indicates that type (1), stem affixes, is by far the most frequent type in the languages of the world. This is predicted by Bybee's 1985:13 relevance principle, which says that the more relevant a meaning element is to another one, the more likely it is that it will be expressed inflectionally or lexically, and the closer to it it will occur if it is expressed as an affix. The meaning of passive affixes is very relevant to the verb's meaning, because (as will be discussed in more detail below, 5.4.) it expresses the inactivization of the situation denoted by the verb. This is a greater change of meaning than e.g. aspect (which modifies only the internal temporal structure of the situation and does not affect its participants) or tense (which only places the situation in time). The question of how the other expression types relate to the most frequent type and how they can be explained with reference to their diachronic development will be taken up in section 5.1.

3. The uses of passive markers

In many languages, the grammatical morphemes that mark the passive are not restricted to this function but can have other uses, such as reflexive, reciprocal, anticausative and potential passive (cf. Langacker and Munro 1975, Shibatani 1985, among many others). This polysemy might be surprising for a syntactic approach, especially one that sharply separates syntactic rules like passive and more lexical phenomena like anticausative, but it is expected under the perspective taken in this paper, where passive is regarded basically as a verbal category. Just as many other verbal categories have several different but related uses, so passive morphemes are expected to show some uses in addition to the passive use. In the Gramcats sample, 25 passive morphemes have other uses, and for only 14 morphemes were no other uses found. Before I present the uses that passive morphemes have in the languages of the sample, I will describe and exemplify the labels used for these uses.

Reflexive: agent performs action on him/herself, e.g. Udmurt *mišta-ny* 'to wash,' *mišta-šk-yny* 'to wash (oneself)'; *diša-ny* 'to dress,' *diša-šk-yny* 'to dress (oneself).'

Reciprocal: plural agents perform the action on each other, e.g. Tigre *tə-salāmu* 'they greeted each other,' *tə-batäku* 'they quarreled.'

A use that is clearly related is **collective**, i.e. plural agents perform the action together, e.g. Tigre *tə-balä^cu* 'they ate together.' Reciprocal action can be viewed as a special case of collective action that is possible only with transitive verbs. The similarity is clearest with semi-transitive verbs like 'talk': 'talk together' and 'talk to each other' are not different in most circumstances.

Resultative: state resulting from a preceding action; with transitive verbs, the patient is the subject of the resultative, just as in the passive, but with intransitive verbs whose subject is affected by the action, the subject remains unchanged. For instance, Danish *Byen er erobret* 'The city is (=has been) conquered,' *Skibet er løbet af stabelen* 'The ship has been launched (lit. is run from the stocks).'

Anticausative: denotes a spontaneous process without an implied agent, while the basic verb denotes a transitive action. The main difference with respect to the passive is that in the passive an agent is implied (and can often be expressed in an oblique phrase), whereas in anticausatives there is no such implication.

(5)	Greek	<i>pníγ-o</i>	'I drown (tr.)'	<i>pníγ-ome</i>	'I drown(intr.)'
	Mwera	<i>tem-a</i>	'break (tr.)'	<i>tem-ek-a</i>	'break(intr.)'
	Danish	<i>miste</i>	'lose'	<i>miste-s</i>	'get lost'
	Udmurt	<i>vošt-yny</i>	'change (tr.)'	<i>vošt-išk-yny</i>	'change(intr.)'

The anticausative use is sometimes called "mediopassive," "pseudo-passive," "inchoative," etc. For more details on anticausatives, see Haspelmath 1987.

Potential passive: the subject is capable of undergoing an action. E.g.

(6)	Kanuri	<i>hām-ñin</i>	'I lift up'	<i>háp-tè-skin</i>	'I am liftable'
	Mwera	<i>com-a</i>	'read'	<i>com-ek-a</i>	'be readable'
	Danish	<i>få</i>	'get'	<i>få-s</i>	'be obtainable'

Shibatani 1985 calls this use merely "potential." However, of the six languages he uses as illustrative five show passive orientation in addition to having a potential sense (Japanese being the only exception). I assume that general (non-passive) root possibility will not normally have the same

expression as passive, and that this use is therefore correctly identified as "potential passive." In some recent syntactic works, this use is sometimes called "middle."

Fientive: derives a process of becoming from stative expressions, especially adjectives, e.g.

- (7) Nimboran *búen* 'meager' *búen-datu* 'I become meager'
 Mwera *-tali* 'long' *tali-ka* 'become long'

This is also often called "inchoative." To avoid confusion with anticausatives and inceptives (cf. *inchoate* 'beginning'), I use "fientive" (from Latin *fieri* 'become').

Reflexive-causative: the agent causes an action to be performed on her-/himself. E.g. Greek *ksirtzome* 'I have myself shaved' (also 'I shave (myself)/I am shaved').

Deobjective: unspecified object, e.g. Udmurt *vur-yny* 'sew (sth.),' *vuri-šk-yny* 'sew, be engaged in the activity of sewing'; *leka-ny* 'sting (sth.),' *leka-šk-yny* 'be in the habit of stinging.' This use is sometimes called "antipassive," or "absolut(iv)e" (cf. Geniušienė 1987:83).

Desubjective: unspecified subject, often called "impersonal" or "impersonal passive." This use does not occur in the sample, and is mentioned here because it will be discussed later (4.4, 5.3.). An example comes from Finnish. In (8)-(9), the (b) cases are desubjective constructions (Comrie 1977:49f.).

- (8) a. *Maija söi sen.*
 Maija:NOM eat:3SG it:ACC
 "Maija ate it."
 b. *Syö-ttiin sen.*
 eat-DESUBJ:PAST it:ACC
 "It was eaten."
- (9) a. *Me elä-mme hauskasti täällä.*
 we:NOM live-PRES:1PL pleasantly here
 "We live pleasantly here."
 b. *Täällä ele-tään hauskasti.*
 here live-DESUBJ(PRES) pleasantly
 "One lives pleasantly here."

The crucial difference vis-à-vis the passive is that the patient is not a subject. Desubjective constructions are subjectless, but they should not be

confused with subjectless passives of intransitive verbs like German *Es wurde getanzt* 'There was dancing.' These are often called "impersonal passives," but they are not really different from canonical passives. Since there is no direct object in the active, there can be no subject in the passive. But intransitive desubjectives are indistinguishable from passives of intransitive verbs, so transitive desubjectives are the crucial case.

These are the most important uses that passive morphemes commonly have (habitual, repetitive and unintentional were each found once in the sample, but I will have nothing further to say about these uses). Finer distinctions can be made in some cases (cf. Geniušienė 1987 for an especially detailed taxonomy of uses in the passive/reflexive area), but the information found in descriptive grammars is often not detailed enough.

Table 3 shows the other uses of the passive markers of the Gramcats languages.

The passives in the following languages were not reported to have any other uses: Black Carib, Halia, Shuswap, Mwera (-w), Buriat, Inuit (-*niqar*), Gugu-Yalanji, Tojolabal, Kadugli, Car, Danish (*blive*), Kafa, Maithili (*par-*), Tuareg (*tu-*), Car Nicobarese.

The question now is whether any pattern can be discerned in the distribution of these uses. Shibatani 1985 seems to assume that there is no such structure. He observes that each of the other uses is semantically related to the prototypical passive in some way or other, but he does not go beyond that. Incidentally, his prototype view has the problem that it is not clear why the passive should be in the center of the prototypically organized category, rather than, say, the reflexive, with the passive as a marginal category (cf. Geniušienė 1987, whose approach comes close to this latter position).

It would be interesting if we were able to say something more about the relationships among these uses. In Haspelmath 1987:30 I proposed the generalization that if a verbal morpheme has both the reflexive and the passive use, then it will also have the anticausative use, because the anticausative is intermediate semantically between reflexive and passive. In the present sample this is true for 9 morphemes. However, for four languages (Slave, Rukai, Tuareg, Worora) no anticausative use was found in the reference material. If they did not have this use, these cases would falsify my 1987 claim. However, my information on these languages might simply be incomplete. Often grammars fail to mention the anticausative use because in traditional grammar it is not recognized as a separate entity and there is

Table 3. Other uses of passive morphemes in the Gramcats sample*

	RECIP- ROCAL	REFLEXIVE	ANTICAU- SATIVE	PASSIVE	POTENTIAL PASSIVE	FIENTIVE	OTHERS
Tigre	(x)	x	x	x			collective
Motu	(x)	(x)	x	x			
'O'odham	x	x	x	x			
Mod. Greek	x	x	x	x	x		reflexive-causative
Kanuri		x	x	x	x		
Margi		x	x	x	x		
Uigur			x	x	?x	?(x)	
Tuareg (<i>mə-</i>)	x			x			collective, repetitive
Worora	x	x		x			
Udmurt	x	x	x	x			deobjective
Nimboran			x	x		x	
Danish (<i>-s</i>)			x	x	x		
Latin (<i>r</i>)		x	x	x		(x)	
Latin (<i>esse</i>)		x	x	x			resultative
Slave		x		x			habitual
Rukai		x		x			
Baluchi				x	x		
Maithili (<i>jā-</i>)				x	x		
Mwera (<i>-k</i>)			x		x	x	
Inuit (<i>-tit</i>)				x			reflexive-causative
Koho				x			unintentional
Danish (<i>være</i>)					x		resultative
Inuit (<i>-saa</i>)							resultative
Tahitian				x		?x	

* An x in parentheses means that the passive morpheme does not express this use alone but in conjunction with some other morpheme. For instance, in Latin many fientives show passive morphology (they are "Deponents"), e.g. *maturari* 'become ripe', *albicari* 'become white', but in addition they have the general verbalizing suffix *-a*.

no widely accepted term. Perhaps more importantly, the anticausative sense is lexically restricted — only transitive verbs of a certain type allow anticausative derivations (basically: verbs that denote an unspecific change of state; for details see Haspelmath 1987:13-22). So with more data one could perhaps find evidence that confirms the strongest formulation of the constraint. It should be mentioned here that Geniušienė 1987 (esp. 343-351) also posits implicational relationships among uses of grammatical morphemes in the passive/reflexive area, and she also finds that the anticausative use comes between the reflexive and the passive use.

But at this point we have to go beyond the purely synchronic point of view. Such implicational hierarchies arise diachronically when a morpheme is extended to another, semantically similar use. The reflexive-anticausative-passive implication, for instance, finds its explanation in the grammaticization of NP-reflexives that are first extended to the anticausative use and only in a second step to the passive use (cf. 4.2.). For this reason the diachronic point of view is indispensable for finding relationships among the uses that grammatical categories can have.

4. Diachronic sources and evolution of passive markers

This section attempts to answer the question about the origins of what later appears as passive morphology. I will show that passive morphology, just like other verbal categories, most often originates in lexical items that are grammaticized. And again, as with other verbal categories, there are certain universal paths of grammaticization. Lexical items of the same type are found to grammaticize into grammatical morphemes expressing the passive in language after language.

By identifying lexical items as the source of passive markers, we can be fairly sure that the hypothesized direction of the change is correct. Croft et al. 1987 discuss diachronic semantic processes involving reflexive, passive, etc. ("the middle voice"), and they suggest that both reflexive and passive are source uses that can be extended to other uses. This is very plausible in the case of reflexive, because reflexive lexical items can be identified: reflexive pronouns and even reflexive nouns which are clearly non-grammatical in origin (see below, 4.2.). However, the passive cannot be an ultimate source use like reflexive, because there are no passive lexical items. Even if the passive is an intermediate source, ultimately it must come from somewhere else. Only the identification of lexical items, or at least of gram-

matical elements from a different domain, ensures against circularity.

I divide the sources for passive morphemes into four major classes, each of which is treated in one subsection below: 4.1. inactive auxiliaries; 4.2. NP-reflexives; 4.3. causatives; 4.4. generalized-subject constructions.

4.1 *Passives from inactive auxiliaries.*

By **inactive** I mean the opposite of **active** in the sense 'agentive, actional,' i.e. 'non-agentive.' Sometimes **stative** is used in this sense, but this term should be reserved for states. All states are inactive (because all actions are dynamic), but not all inactive situations are states. Thus, 'be' and 'sit' are both inactive and stative, but 'become' and 'fall' are inactive and dynamic. Sometimes (e.g. Givón 1981) the passive is said to involve stativization. If "stative" here is used in the sense of "inactive," this is correct. But there is no direct relation between passives and states. Passive sentences such as *María was kissed by Juan* are as dynamic as the corresponding actives. There is at most an indirect relationship between passives and states via resultatives (cf. the discussion of resultative participles in 4.1.1.).

Most inactive verbs are intransitive, but a few are transitive, such as 'undergo,' 'suffer,' 'receive.' I will first discuss passives from intransitive auxiliaries, and then passives from transitive auxiliaries.

4.1.1 *Intransitive inactive auxiliaries.*

The lexical origin of the passive marker is easiest to see in periphrastic passives, because very often the passive auxiliary has other uses as an auxiliary or a main verb. Periphrastic passives with auxiliaries such as 'be,' 'become,' 'stay,' 'come,' 'go' are well-known from Indo-European languages of Europe.⁷ Siewierska 1984:Ch.4 presents a useful summary of previous research. She discusses the issue of the proper analysis of elements like 'be,' 'become,' etc. as either purely grammatical markers, as auxiliary verbs, or as main verbs in a biclausal construction. This problem largely disappears if the grammaticization perspective is adopted. Initially these elements are main verbs, but as they enter into a specific construction which gradually grammaticizes they become grammatical verbs (= auxiliaries). Later they may become affixed to the verb stem and lose their verbal status, thus turning into purely grammatical affixes.

Here are some examples of passive affixes that derive from inactive auxiliaries:

–One Korean passive is formed by a suffix *-ji*, e.g. *ggeg-* 'break,' *ggegge-ji-* 'be broken.' This is derived from the verb *ji-*, which means 'fall.' Another passive is formed by *-doj*, which means 'become' as an independent verb. (Cheong Youn, p.c.)

–Tamil has a passive suffix *-paṭ* (e.g. *Maṇ veṭṭaṇaal kollap-paṭṭatu*. 'The deer was killed by the hunter.') that derives from the verb *paṭu* 'fall, happen' (Asher 1985:151; similar passives exist in other Dravidian languages).

–Equadorian Quechua has a passive suffix *-ri*, e.g. *riku-ri-n* 'it is seen.' Muysken 1977:113ff. suggests that this suffix is derived from the verb *ri-* 'go.' In Peruvian Quechua, *-ka* is a passive suffix, apparently related to the Common Quechua *ka-* 'be.'

–The suffix *-w-* is a passive marker in many Bantu languages, among them Mwera in the Gramcats sample (see above, Table 3). Givón 1971 argues that in general the Bantu verb suffixes derive from older verbs, but he does not make any specific proposals. Torrend 1891:272, 275 observes that in a few languages an apparently older form *-igu* (Tonga) or *-igw* (Boondei) appears, and conjectures that it originated in the verb *gua* (or *bua*) 'fall.' Similarly, the suffix *-ika*, which has anticausative and potential passive uses in Mwera (cf. Table 3) and which is also widespread in Bantu languages, sometimes appears as *-ikala* and looks suspiciously similar to the main verb *kala* 'sit.'

–Hetzron 1976:377 observes that the Common Turkic passive suffix *-il/-il* exhibits a striking similarity to the verb *ol-* 'be,' and that the Hungarian suffix *-ül/-ul* (with basically anticausative function) is reminiscent of the Finno-Ugric root for 'be,' *ol-* (*ol-* in Finnish, *vol-/val/vagy-* in Hungarian).

–Sansom 1931:160 proposes that the Japanese passive suffix *-ar(e)* is derived from the verb *aru* 'be.'

–The Greenlandic Inuit passive suffix *-saa* consists of the passive participle suffix *-saq* plus the copula *u*, and another passive suffix *-niqar* is made up of the abstract nominalizer *-niq* plus a suffix meaning 'have,' *-qar* (Fortescue 1984:265f.).

–According to Langacker 1976:152-55, the Proto-Uto-Aztecan (PUA) passive suffix **-ti-wa* contains the pre-PUA **ti* 'be.' And in the Uto-Aztecan language Cupeño, the passive suffix is *-yax*, from *yax* 'be' (1976:171).

For many of the periphrastic passives with intransitive inactive auxiliaries, it seems misleading to attribute the passive function to the auxiliary, because the verb form with which it is combined is already passive, a “passive participle.” Very little is known about the origin of participial morphology, but note the following: In many languages the participle that is used in periphrastic passives can also be formed from telic intransitive (=unaccusative) verbs, and then with active orientation, e.g. *the fallen capital, an escaped prisoner* (cf. Jespersen 1940:419ff.). What is common to the passive adjectival use and the unaccusative adjectival use is that the adjective refers to the state of the verb’s patient that results from its undergoing the complete verbal action. Therefore such participles should be called **resultative participles**, rather than “passive participles.” As adjectives, participles are used to characterize nouns by means of verbal actions, and resultative participles characterize by means of the results of verbal actions. But only the patient can be characterized by means of the result of an action, because in general only the patient is affected by an action. This explains why resultative participles show passive orientation with transitive verbs, but the diachronic origin of participial affixes remains unclear (grammaticization does not seem to be involved).⁸ See Haspelmath 1990.

The history of the periphrastic participial passive in English is described in Lightfoot 1979. He observes that during the history of English the passive was extended to more syntactic environments. Since he assumes a strict division of passives into lexical and syntactic (“transformational”) passives, he concludes that the Old and Middle English passive was lexical, while the modern English passive is syntactic. The direction of this change is predicted by the grammaticization approach: As an item is grammaticized, it is extended to more and more contexts. However, since grammaticization changes are generally gradual, the boundary between lexical and syntactic passives would not be assumed to be as clear-cut as Lightfoot implies.

4.1.2 Transitive inactive auxiliaries.

In some languages, a transitive auxiliary with a meaning similar to ‘undergo’ or ‘receive’ is used for passive constructions. “Transitive” is of course to be taken in a purely syntactic sense, as ‘having a direct object.’ Such transitive verbs with inactive or affected subjects are obviously rather remote from the transitive prototype. Passives with auxiliaries of this type are best known from a number of isolating languages of South East Asia.

Siewierska 1984:149-159 discusses the passives of Thai, Vietnamese, Mandarin Chinese and Burmese. In Vietnamese, *bị* and *đủ’q’c* are ‘suffer’ and ‘receive,’ in Thai *thùuk* is ‘touch,’ in Burmese there is *thyyk* and in Mandarin *bèi* (on the history of the *bèi*-passive in Chinese, see Bennett 1981). An example from Chinese is (Hashimoto 1988:330,334):

- (10) *Ta bèi (tàitai) kànjiàn.*
 he PASS wife see
 ‘He is seen (by [his] wife).’

Siewierska again devotes much discussion to the question of a monoclausal or biclausal analysis, and for the latter case, whether we are dealing with a passive at all. She questions this for Vietnamese because of the high paradigmatic and syntagmatic variability of the alleged passive markers. But from the point of view of grammaticization the issue disappears, or rather reduces to degrees of grammaticization: the Vietnamese passive is simply at a very early stage of this diachronic process.

That such ‘undergo’-passives can eventually be attached to the verb and become ordinary passive stem affixes is shown by the case of Kharia and Juang, two Munda languages (Pinnow 1966:112), which have the passive suffixes *-jom* and *-jim*, respectively. But Kharia *jom* and Juang *jim* are also main verbs and mean ‘eat.’⁹

This is actually a typical case where the type of the language determines the expression type of the category. Chinese and Vietnamese are isolating languages, and for some reason auxiliaries do not get attached to the main verb easily in such languages. On the other hand, Korean is an example of a highly agglutinating language in which many elements can occur together in a single word. In addition to the more usual passives in *-ki/-hi/-i* and *-ji* (the latter from ‘fall,’ cf. 4.1.1.), Korean uses the verbs *dangha-* ‘suffer,’ *meg-* ‘eat,’ and *bad-* ‘receive’ to form passives with adversative and beneficial flavors: (Cheong Youn, p.c.)

- (11) *I dosi-uy sijung-i simin-dul-eygey*
 this city-GEN mayor-NOM citizen-PL-by
yog-meg-ess-da.
 criticize-PASS-PAST-DECLAR
 ‘The mayor of this city was criticized by the citizens.’

Passives with transitive auxiliaries like ‘undergo’ and ‘receive’ seem to be most common in South East Asia and vicinity, but they are also found

elsewhere. Corne 1977:159ff. cites examples from Seychelles Creole (French-based), where *gaŷ* (cf. French *gagner*) is 'get,' e.g.

- (12) *Zot pa ti gaŷ ěvite dā sa festē.*
 they not PAST PASS invite in that party
 'They did not get invited to that party.'

And a well-known case in Europe is of course Welsh. Sentence (13) (Awbery 1976:47ff.) literally means 'The boy got his warning by the man.'

- (13) *Cafodd y bachgen ei rybuddio gan y dyn.*
 got the boy his warning by the man
 'The boy was warned by the man.'

The English *get*-passive could also be mentioned in this connection, but since *get* is combined with a participle that has passive orientation (rather than a verbal noun of some sort as in Welsh), it is probably not the 'obtain' reading, but the 'become' reading of *get* in which it is used for the passive construction. In any case, it is certainly no accident that *get* has both these readings ('become' and 'obtain'), because they are the inceptive counterparts of 'be' and 'have' respectively, which are also often expressed by the same verb. Such cases show that we can confidently subsume all passives discussed in this subsection under the class of "inactive auxiliaries." The syntactic differences — intransitive vs. transitive — are of secondary importance.

4.2 Passives from NP-reflexives.

It is well-known that passives sometimes arise from reflexives (cf. Lehmann 1982:III.2.1.3.). In this section I discuss reflexive nouns and pronouns ("NP-reflexives" in Faltz's 1985 terminology) which grammaticize and attach to verbs and whose uses generalize to cover anticausative, passive and others (for general information on reflexives, see Faltz 1985, Geniušienė 1987 and Siewierska 1984:Ch.5). This process is well-known from the Indo-European languages of Europe, in particular Romance, Slavic, Baltic and Scandinavian Germanic languages (and apparently also Albanian). In all these languages, a reflexive pronoun that can be traced to PIE **s(w)e-* is involved. Several degrees of grammaticization are represented by different languages:

a. German has a free form *sich* which is used for non-typical reflexive actions, but which can also express the anticausative and the potential pas-

sive. It can receive stress only when it expresses semantic reflexivity, otherwise it is a clitic.

b. Polish has a free form *się* which is always an unstressed clitic, and which is used mainly for typical reflexive actions and anticausatives/ potential passives etc. For non-typical reflexive actions the stressed reflexive pronoun *się* is used.

c. French has a free clitic form *se* which has a somewhat broader range of uses than German *sich*. Unlike Polish *się*, its position with respect to the verb is fixed. It is clearly part of the verb, because *se*-verbs count as intransitives for a number of syntactic rules.

d. Lithuanian has an affix *s(i)* which in most contexts is a postfix, e.g. *mylėti* 'love,' *mylėti-s* 'love each other'; but when the verb has a prefix, it stands between the prefix and the verb stem, e.g. *at-kelti* 'raise,' *at-si-kelti* 'rise.'

e. Russian has a postfix *-sja* (reduced to *-s'* after vowels) which invariably comes after all other verbal suffixes. This affix is regularly used to express the passive in the imperfective aspect.

f. Danish has a postfix *-s* which appears even more grammaticized than Russian *-sja*. In the Present Tense, it does not follow the tense marker (the earlier person marker), but replaces it, e.g. *jeg elsker* 'I love,' *jeg elses* 'I am loved.' In Icelandic, the cognate morpheme still follows the person marker in some cases, cf. (1) in 2.2. above.

Thus, the fact that reflexive pronouns were grammaticized in these Indo-European languages to become affixes with non-reflexive uses seems fairly clear. However, verbal reflexives that come from reflexive pronouns are not very common outside of Europe. Indeed, Faltz 1985:116 notes that reflexive pronouns are not common outside of Indo-European. But there are at least two cases of verbal reflexives of pronominal origin. One is the 'O'odham case that we have seen above (2.2.(4)). The pronominal nature of these prefixes is clear because they vary for person, much like the Romance clitics. The other one is Nivkh (Paleo-Siberian, Nedjalkov and Otaina 1981). Nivkh has a reflexive pronoun *p^hi* which is phonologically and syntactically similar to *nⁱ* 'I,' *čⁱ* 'you.' It can be prefixed to verbs and can sometimes have anticausative meaning, though not (yet) passive meaning, e.g. *p^h-lyvd* 'hide oneself,' *p^h-seud* 'dry (intr).'

Most commonly reflexivity is expressed by reflexive nouns originally meaning 'head,' 'soul' or 'body.' Such reflexive nouns can also be grammaticized to verbal reflexives. Faltz (1985:220ff.) gives two examples from

Yuman and Abkhaz. Four more examples come from Cahuilla (Uto-Aztecan), Mordvinian (Finno-Ugric), and Margi and Bura (both Chadic).

According to Langacker 1976:21ff., reflexives in Cahuilla are marked by the verbal prefix *tax-*, e.g. *tax-tiŋʔay-qal* (REFL-treat-DUR) 'He treats himself.' In the closely related Cupeño, reflexives are still formed with the reflexive noun *tax*, preceded by a possessor prefix and followed by a possessed suffix *-wi*, e.g. *čə=pə čəm-tax-wi təw* (WE-UNREAL OUR-SELF-POSSD SEE) 'We shall see ourselves/one another.' The lexical sense of *tax* is 'person, body.'

In Mordvinian (Geniušienė 1987:303ff.), *prä* 'head' is the reflexive noun, and it expresses not only true reflexives like *läcems prä* 'shoot oneself,' but also anticausatives like *kepsems prä* 'rise' (from *kepsems* 'raise').

In Bura (Hoffmann 1963:157), a suffix *-dzí* expresses reflexive, reciprocal and anticausative, e.g. *kəldzí* 'marry(each other),' *šínàr-dzí* 'turn (intr.) round, over.' Hoffmann relates it to Bura *dzá* 'body,' but he notes that it must be considered a true suffix, although there are some indications that it developed into one more recently than the other verbal derivational suffixes in Bura: it always comes last and can be separated from the stem by the plural imperative suffix.

In the related Margi, the reflexive noun *údzú* ('body') has not yet become a suffix: cf. *šári* 'help,' *šár* *údzú* 'help each other'; *šálhári* 'break (tr.),' *šálhər* *údzú* 'break (intr.).' Notice that it can express the anticausative, which means that it has generalized semantically although it has not yet become phonologically fused. Margi has another similar reflexive noun, *kár*, which has already been mentioned (2.2.(3)). It expresses the passive and the potential passive as well as the anticausative and thus appears to be even more grammaticized semantically. Thus, although Margi (and Mordvinian) does not yet have reflexive affixes from reflexive nouns, their semantic grammaticization leads us to expect that they will be grammaticized formally, too, and end up as affixes (as in Bura).

We can therefore say with some confidence that the grammaticization of reflexive nouns and reflexive pronouns is a common evolutionary path that leads to grammatical morphemes that express the passive.

The semantic mechanism of the transition from reflexive to passive via anticausative seems well-understood and is clearly an instance of semantic bleaching. The main difference between reflexive and anticausative is that the latter is mostly non-agentive. Dropping the agency restriction on reflexives automatically leads to anticausative uses. As R. Lakoff 1971:158 observes, *John hurt himself* is ambiguous: With 'John' taken as a willful

agent, it is an ordinary reflexive; when no agency is implied, we get the anticausative sense of spontaneous occurrence. When the English reflexive is used with inanimate subjects, the ambiguity disappears and only the anticausative reading is possible, as in *An idea suggested itself to me; The sentences shaped themselves slowly on his lips* (Geniušienė 1987:200ff.). English is not a good language to illustrate the anticausative sense, because it uses orientation-neutral verbs (like *open*, *bend*, *turn*, etc.) in the cases that are most typically expressed as anticausatives. In German, for instance, many such verbs are anticausatives:

- | | | | | |
|---------|---------------|--------------|--------------------|----------------|
| (14) a. | <i>öffnen</i> | 'open (tr.)' | <i>sich öffnen</i> | 'open (intr.)' |
| b. | <i>biegen</i> | 'bend (tr.)' | <i>sich biegen</i> | 'bend (intr.)' |
| c. | <i>drehen</i> | 'turn (tr.)' | <i>sich drehen</i> | 'turn (intr.)' |

The anticausative use is more general than the reflexive use in that it is not restricted to clauses with an agentive subject, and it is bleached in that the element of self-affecting action is absent, while the affectedness is still present. But the anticausative sense of spontaneous occurrence is semantically restricted in another way: it is possible only with actions that can be conceptualized as lacking an agent. Thus, (15) (again from German) makes perfect sense without an agent (even if there is presumably some external cause in the real world).

- | | | |
|---------|------------------------------|---------------------------|
| (15) a. | <i>Die Erde dreht sich.</i> | 'The earth turns around.' |
| b. | <i>Die Tür öffnete sich.</i> | 'The door opened.' |

But other actions cannot be conceptualized as lacking an agent. Sentences (16)(a-b) are out because German *sich* expresses the anticausative use and has not yet been generalized to the passive use.

- | | | |
|---------|----------------------------------|---|
| (16) a. | <i>*Der Brief schreibt sich.</i> | 'The letter is writing itself.' |
| b. | <i>*Das Heu mäht sich.</i> | 'The hay is mowing itself.' ¹⁰ |

The passive constitutes a further generalization of the anticausative in that it is not restricted to spontaneously occurring processes. In Russian, for instance, the reflexive postfix *-sja* can indicate passive in addition to reflexive and anticausative:

- | | | |
|---------|--------------------------|----------------------------------|
| (17) a. | <i>Pis'mo pišet-sja.</i> | 'The letter is (being) written.' |
| b. | <i>Seno kosit-sja.</i> | 'The hay is (being) mowed.' |

The agent can be expressed in the Instrumental case (*Pis'mo pišetsja Oneginym* 'The letter is written by Onegin'), and the existence of an agent

is implied even when it is not expressed. Note that this additional implication is not an addition of meaning. Rather, it is an automatic consequence of the extension of the reflexive/anticausative marker to these new non-spontaneous contexts. The diachronic perspective thus helps us to understand the relationship between reflexive and passive, which is not easy to explain synchronically. As Shibatani 1985:840 notes, the reflexive implies the non-existence of an external agent, but the passive implies such an existence. With the anticausative as a diachronically intermediate use, this disparity is resolved.

4.3 *Passives from causatives.*

That causatives can be a source for passives is less well-known, although it was observed as early as 1861 by Gabelentz (§14-15). Keenan 1985:262f. sketches an explanation for this change (see also Kormušin 1976). The intermediate use here is apparently the reflexive-causative. Example (18) illustrates the transition with English examples.

- (18) a. *I have the barber shave me.* (causative)
 b. *I have myself shaved by the barber.* (reflexive-causative)
 c. *I am shaved by the barber.* (passive)

This sequence makes the change from causative to passive plausible. Sometimes it is said that the dual role of grammatical morphemes expressing both the passive and the causative follows from their similarity of function. However, since their functions are similar mainly in that they are almost opposite,¹¹ one would like to know how one could get from one to the other. The sequence in (18) seems to provide a believable scenario. The development is thus similar to the evolution of passives from NP-reflexives (4.2.) in that it involves the loss of the agency condition on causatives: (18b) differs from (18c) mainly in that the subject in (18c) is non-agentive. As with the anticausative from NP-reflexives, a non-agentive sense arises automatically when the subject is inanimate. This can be exemplified from German, where the causative-reflexive has been extended to the potential passive sense (though not (yet?) the canonical passive). The causative auxiliary in German is *lassen* 'let, make.'

- (19) *Nesrin lässt sich fotografieren.*
 'Nesrin has herself photographed.'

When the same construction is used with an inanimate subject, it has a potential passive reading:

- (20) *Das Fahrrad lässt sich reparieren.*
 'The bike can be repaired/is repairable.'

An important similarity between causative and passive constructions is the backgrounding of the agent. In causative constructions the higher agent (the causer) and the patient of the caused action are often the most important elements, while the lower agent (the causee) is either omitted entirely or expressed in the dative or instrumental case (see Comrie 1976). Thus, many languages have only causative constructions corresponding to (21) from French, where the lower patient is the direct object, but none corresponding to (22), where the lower (transitive) agent is the direct object.

- (21) *Marie fait manger la soupe à Mahmoud/par Mahmoud.*
 'Marie has Mahmoud eat the soup/has the soup eaten by Mahmoud.'

- (22) *Marie makes Mahmoud read the book.*

When the causee is marked as instrumental and thereby highly backgrounded, (21) implies that the most important thing is that something happen to the soup, rather than that Mahmoud do something. This causative construction therefore implies that the patient is affected, and a sentence like (23) is rather odd, because it would mean that Marie wants someone who happens to be Mahmoud to affect the book by reading it.

- (23) ?*Marie fait lire le livre par Mahmoud.*
 'Marie has the book read by Mahmoud.'

The affectedness of the patient in causatives is another important similarity to the passive, where affectedness of the patient is often implied.

Some syntacticians have proposed to capture the obvious similarity to the passive in such cases by positing that the embedded clause actually undergoes the passive rule (cf. Comrie 1976:271ff.). But since there is no passive morphology on the embedded verb,¹² such an approach is open only to theories that treat the relationship between morphology and syntax as arbitrary.

In the examples of causative-reflexives given above (18b, 19), the direct object of the causative is a reflexive pronoun. Sentence (20) is therefore not a clear example of a potential passive from a causative, but rather from a combination of causative and reflexive. Some other passives from

similar combinations are attested. In older Hungarian, a passive could be formed by using special intransitive person markers (also used in reflexive verbs) after the causative suffix *-(t)et/-(t)at* (cf. Hetzron 1976).

- (24) *tanít-ok* 'I teach' *tanít-tat-om* 'I am taught'
tanít-asz 'you teach' *tanít-tat-ol* 'you are taught'
tanít-Ø 'it teaches' *tanít-tat-ik* 'it is taught'

In Greenlandic Inuit (Fortescue 1984:265), there is an analogous construction: the causative suffix *-tit* combined with intransitive person markers expresses the reflexive-causative (cf. 25) or the passive (cf. 26).

- (25) *Nanuq-Ø* *taku-tip-puq.*
 polar.bear-ABS see-CAUS-3SG.INDIC
 'The polar bear let itself be seen.'
- (26) *Qimmi-mut* *kii-sip-puq.*
 dog-ALLATIVE bite-CAUS-3SG.INDIC
 'He got bitten by a dog.'

But sometimes a passive from a causative shows no signs of reflexive or intransitive morphology being involved. Such is the case in Chinese, where *jiào* 'allow,' *gěi* 'give,' and *ràng* 'let' are more colloquial or dialectal variants of *bèi*, e.g.

- (27) *Lìsì gěi Zhāngsān kànjiàn-le.*
 Lisi give Zhangsan see-PERF
 'Lisi was seen by Zhangsan.' (Lit. 'Lisi gave Zhangsan see (him).')

In Gujarati, the passive suffix is *-aa*. This is identical to the causative suffix in Hindi-Urdu (Masica 1976:65).

In a number of Turkic languages (e.g. Tuvinian, Altai, Karakalpak), the Common Turkic causative suffix *-tir* sometimes has passive function (Kormušin 1976).

The passive in some Tungusic languages is derived from the causative. In Manchu, the suffix *-bu* serves both as a causative and a passive marker. The similarity of this suffix to the Common Tungusic verb *bu-* 'give' (observed by Gabelentz 1861:518) is striking. In other Tungusic languages, *-bu* is only a passive suffix, e.g. in Udehe, where the shape is *-u* (*-mu* after nasals), e.g. *ana-* 'push,' *ana-u-* 'be pushed,' *gun-* 'say,' *gu-mu-* 'be said' (Benzing 1955:1070). The agent phrase is typically expressed in the dative case in these languages (cf. also the allative case in Inuit above, and the dative in

Buriat discussed in Comrie 1976:275f.), which is of course a relic of the older causative construction, where the causee is often in the dative case, in particular when the causative auxiliary is 'give.'

Although passives from causatives do not seem to be as frequent as the passives from active auxiliaries and passives from NP-reflexives, they occur in different parts of the world and are well-motivated semantically. Essentially the same notion of loss of semantic specificity, in particular loss of agency, that has been used before can be invoked in this case. And note that there is again unidirectionality: a causative can become a passive, but to my knowledge there is no evidence for a case of a passive becoming a causative (this observation also dates back to Gabelentz 1861:§15).

4.4 *Passives from generalized-subject constructions.*

The fourth major source of passives are what I would like to call **generalized-subject constructions**. An example from Modern Greek is

- (28) *Su* *telefoni-s-an.*
 YOU.DAT phone-AOR-3PL
 'Someone called you.'

Such constructions are usually called "impersonal" or "pro_{arb}." Their subject is pronominal and has arbitrary ('anyone'), indefinite ('someone') or generic ('people in general') reference. Most often a 3pl pronoun is used, but sometimes a special "impersonal pronoun" like German *man* is used. Such impersonal pronouns are commonly derived from general person nouns like 'person.' Notionally, generalized-subject constructions are close to the passive, especially in that the agent is backgrounded. Khrakovsky 1973 includes these constructions in his definition of the passive, but in the present context they are regarded as rather different from it because (1) the patient is not a subject and (2) the agent is backgrounded only insofar as it is semantically generalized and may involve special pronouns, but grammatically it is still a subject.

However, these two properties may change. The subject marker on the verb can lose its participant status and be interpreted as a desubjective (= "impersonal") marker. I assume that this can happen both with plural pronouns and with general person nouns, although only the former is attested. The case of Kimbundu is well-known through Givón's writings (e.g. 1979:188,211). The point of departure would be a generalized-subject construction with an object-topic, as in (29):

- (29) *Nzua, a-mu-mono.*
 Nzua 3PL.SUBJ-3SG.OBJ-see
 'Nzua, they saw him.'

Now two changes take place, according to Givón: (1) The 3pl generalized subject, already semantically very weak, loses its participant status and an agent phrase can be added. (2) The direct object in preverbal topic position is reanalyzed as the subject:

- (30) *Nzua a-mu-mono kwa meme.*
 Nzua PASS-3SG.SUBJ-see by me
 'Nzua was seen by me.'

A consequence of the syntactic reanalysis is the morphological reanalysis of the erstwhile 3pl subject marker as a passive marker and of the erstwhile object agreement marker as a subject agreement marker. Heine & Reh 1984:99 mention two more cases from the African languages Luba (also Bantu) and Nuer (Western Nilotic).

Passives of this type seem to be particularly common in African languages, but they occur elsewhere as well. Jacobs 1976 mentions a very similar development in Micronesian languages, and Shibatani 1985:823f. reports a case from Ainu. Here the 1pl inclusive affixes *-an* and *a-* are extended to impersonal and passive uses. The choice of the 1pl inclusive pronoun is interesting because it has a parallel in French, where conversely the impersonal pronoun *on* (from Latin *homo* 'human being') shows a tendency to be used in the 1pl sense.

Statha-Halikas 1977 shows that the passive *r*-endings in Celtic and Italic languages are best explained if a change from impersonal to passive is assumed. In the Brittonic languages (Breton, Cornish, Welsh) and in Oscoumbrian, there is only one *r*-form, which is a desubjective marker, e.g. Middle Welsh *fe'm cerir* 'One loves me.' In Old Irish, the *r*-forms are passive in the third person, and a 3pl form has been created to agree with plural subjects, e.g. *m-berir* 'one loves me,' *t-berir* 'one loves you,' but *berir* 'it is loved,' *bertair* 'they are loved.' In Latin, a complete paradigm of passive *r*-endings exists, see 2.2.(5), Table 2. The *r*-suffix of the original desubjective seems to go back to the Indo-European 3pl suffix *-r* (cf. Szemerényi 1989:257f. for different views).

4.5 Passives that do not arise via grammaticization.

Although the grammaticization of previously independent lexical items is clearly the main source of passive markers across languages and is therefore the main focus of this paper, it should be noted, for completeness, that some passive morphemes seem to have a different origin.

It appears that the next most important source for general grammatical morphemes (after grammaticization) is the lexical expansion of initially idiosyncratic derivational morphemes. This can be exemplified by a scenario for the rise of the Ancient Greek passive in *-thē* (cf. the Modern Greek passive in *-θ* in 2.2.(1)). Besides *-thē*, there is also the affix *-ē*, which is used with some verbs and has the same meanings, e.g.

- (31) anticausative *kai-ō* 'I burn (tr.)' *e-ká-ē-n* 'I burnt (intr.)'
 (typical) reflexive *trép-ō* 'I turn (tr.)' *e-tráp-ē-n* 'I turned (intr.)'
 passive *gráph-ō* 'I write' *e-gráph-ē-n* 'it was written'

But sometimes this suffix *-ē* occurs on intransitive stems and does not change the meaning of the stem at all, e.g.

- (32) *khaír-ō* 'I am glad' *e-khár-ē-n* 'I was glad'
rheí 'it flows' *e-rrhú-ē* 'it flowed'

In this function of redundantly marking inactive intransitive stems, the suffix *-ē* has parallels in related languages, e.g. Latin *sed-ē-re* 'sit,' Old Church Slavonic *bŭd-ě-ti* 'be awake,' Old Saxon *thag-ē-n* 'be silent.' The transfer to transitive stems (as in (31)) is apparently a Greek innovation. Later the longer form *-thē* became more frequent, where the *th* probably also originates in a derivational stem extension. Pernée 1984:95 puts it this way:

Le sens propre des aoristes en *-ēn* est intransitif, et non passif... Quant aux aoristes en *-thēn*, comme *epoiēthen* ['I was made,' M.H.], ils sont constitués à l'aide d'un élargissement en *-th-*: *emígēn* 'j'ai été mêlé' → *emíkhthēn* (= *emíg-th-ēn*)... L'aoriste en *-thēn* s'apparente, entre autres, au présent en *-thō*: à *phlégō*, transitif 'j'enflamme (qqch.)', s'oppose *phlegéthō*, intransitif, qui envisage l'aboutissement de l'action, 'je flamboie' (= 'je suis en flammes').

This explanation is far from certain (cf. Schwyzer 1939:762f. for different views), but there are clear indications that a diachronic development of this type is possible. In Haspelmath 1987:40f., the cases of the Old Indic passive in *-yá* (cf. also Burrow 1959:353) and of the Armenian passive in *-v*

(cf. Karst 1901:297) are cited. Petráček 1963 hypothesizes a similar development for the Arabic passive.

What should be noted at this point is the semantic origin of these passive affixes: Originally they serve to mark the inactive meaning of a verb stem. After their expansion they can be more or less freely affixed to non-inactive stems and thus serve to **inactivize** these stems. It is this meaning that makes them suitable for use in passive constructions.

5. The grammaticization of passive morphology

5.1 *The formal grammaticization.*

Above in section 2 I observed that the distribution of the morphological expression types as seen in the languages of the Gramcats sample can be explained with reference to Bybee's (1985) concept of semantic relevance. But Bybee herself goes beyond the synchronic distribution and looks for a diachronic explanation, stating that "the proposed explanation — that some categories are semantically more relevant to verbs than others — is viable only to the extent that mechanisms can be proposed that suggest how relevance may influence the evolution of inflectional categories." (1985:38) This subsection relates formal properties of the source words to formal properties of the types of grammatical morphemes.

In the case of inactive auxiliaries (4.1.), the formal development is clear: The auxiliary loses more and more of its autonomy and finally ends up as a short, unstressed affix on the main verb. Because of the correlation between prefixing and head-dependent order on the one hand and suffixing and dependent-head order on the other, the stem of an auxiliary (which is a head) generally comes to stand between the stem of the dependent verb and its own aspect/tense/mood affixes; i.e. it becomes a stem affix on its host verb. Since periphrastic passives with inactive auxiliaries are common, the grammaticization hypothesis explains why expression type (1) (stem affix) is so much more frequent in the sample than the other strictly morphological expression types, (4)-(6).¹³ The grammaticization of causative auxiliaries and verbal affixes (4.3.) also contributes to expression type (1). Type (7) (sound replacement) often arises from (1) (stem affix) as an even later stage of grammaticization. For instance, the vowel change in the Sinhalese passive (cf. ex. (3)) is ultimately due to the Old Indic passive suffix *-yá*.

The existence of expression types (3) (particle) and (4) (extrafix) is accounted for by the grammaticization of NP-reflexives, which starts with the NP losing its NP-properties and becoming a "particle." Margi is a good example for this loss of NP-properties. When *kár* 'head' is used in the reflexive sense, it is followed by possessive suffixes, but when used in the anticausative, potential passive or passive senses, it stands alone, behaving like a particle. The next step is cliticization and attachment to the verb. Since the particle attaches to a finite verb and does not itself bear any verbal inflections, it becomes an extrafix.¹⁴ This affix position is rather undesirable for affixes with a valence-changing function, because it runs counter to the relevance principle of Bybee 1985. Valence-changing affixes have a meaning that is highly relevant to the verb stem and should therefore occur close to it. It may be that the relative rarity of extrafixes in the sample (only 3 out of 39 passive morphemes) is due to this undesirable position.¹⁵ The relevance principle of Bybee 1985 is psychologically real and could lead speakers to radically restructure the affix order (cf. the example in Bybee 1985:40). Some passive stem affixes may have arisen in this way, but since I have no documented case, this remains speculation.

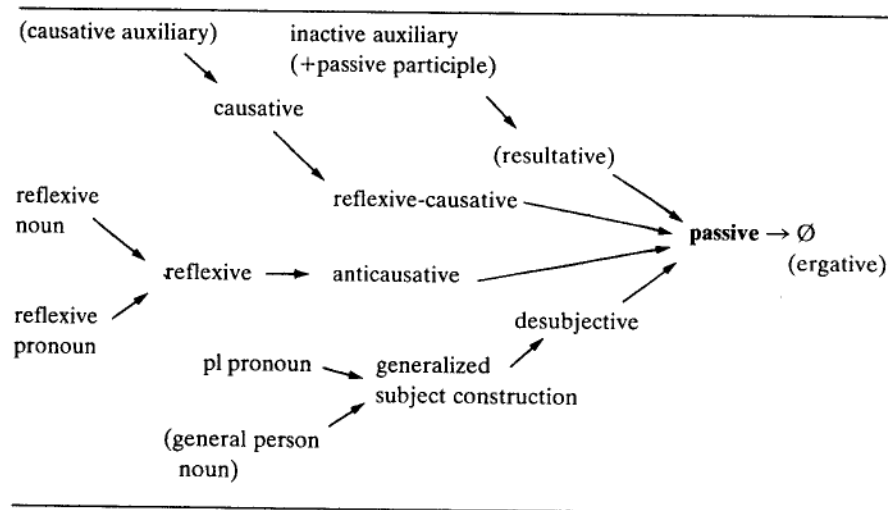
What sources expression type (5) (differential subject person markers) can have, is unclear. If the interpretation of the Italo-Celtic situation offered in 4.4. is correct, then generalized-subject constructions can become passives of this type.

5.2 *The semantic grammaticization.*

The semantic diachronic developments that we have seen in the preceding sections can be summed up as in Diagram 1.

As the diagram shows, there is a general direction in which the change takes place, starting from the lexical items to the left on the diagram, moving toward the passive and ending as an ergative construction (see below for the development from passive to ergative). This is completely in line with other grammaticization processes, which generally show unidirectionality (cf. the Unidirectional Development Hypothesis of Bybee et al. (in prep.)). Another striking feature of Diagram 1 is the convergence of the four major paths on one point. As a grammatical morpheme moves gradually toward the passive, it becomes more and more general and loses its specific features, so that in the end passives from different sources become indistinguishable.¹⁶ This convergence of different lexical sources to the same gram-

Diagram 1. Sources of passive morphemes and their convergence



grammatical function is also characteristic of grammaticization changes in general (see again Bybee et al. (in prep.), and C. Lehmann 1982, where more diagrams of this form can be found).

We have seen quite a number of examples of the general tendency for the source items to be grammaticized formally — they lose their syntactic scope, are reduced phonologically and are finally attached to the verb. The semantic development can also be understood in terms of the familiar parameters of grammaticization: desemantization, or semantic generalization and loss of specificity. This is especially clear in the early stages: inactive auxiliaries like 'go,' 'suffer,' causative auxiliaries like 'give,' 'put,' reflexive nouns like 'head,' 'soul,' and general person nouns like 'human being' all become more general as they enter the grammatical constructions. In later stages the loss of the semantic element of agentivity is important. As we have seen, this is how a reflexive becomes an anticausative and a reflexive-causative becomes a passive. The same loss of agentivity is observed in the change of 'go' and 'come' to 'become' (where in addition the sense of spatial movement is lost), and in the change of 'eat' to 'receive.' Loss of agentivity is an important ingredient of grammaticization in other domains as well. For example, the verb 'want' can become a future only if it first loses its agentivity; a verb denoting physical power of an agent

comes to mean root possibility after generalizing to non-agentive subjects (as happened with English *may*); and agent noun suffixes may be extended to express instruments. One could also interpret this general tendency for the loss of agentivity as metaphor from PERSON to OBJECT (for such a view of grammaticization, see Claudi and Heine 1986).

The grammaticization view contrasts with Shibatani's (1985) approach. He also observes that often the same grammatical morpheme expresses several different functions that are semantically/pragmatically related and proposes a prototype definition of the passive to capture this relationship. But his perspective is purely synchronic, and there is no assumption of directionality. For Shibatani, it would apparently not be surprising if a passive marker became a 3pl pronoun or a reflexive pronoun, because they are semantically/pragmatically related and an item can presumably change into anything that is related to it. The grammaticization approach thus makes stronger claims concerning possible changes and at the same time gives a more precise account of the relationship of the different uses to each other.

Unfortunately, Diagram 1 is deficient in that not all uses related to the passive show up on it. The fientive use would appear to be related to inactive auxiliaries, esp. 'become,' but I know of no cases of such a development. I do not know how the deobjective function relates to the other uses. The deobjective and similar verbal categories (antipassive, deaccusative (cf. Geniušienė 1987)) are often related to the imperfective aspect. This connection could also account for the deobjective use of the Udmurt passive morpheme *-šk*, which looks as if it had originally been an iterative aspect marker (cf. Serebrennikov 1963:336). But it remains a puzzle why affixes derived from reflexive pronouns should take on the deobjective use.¹⁷

The potential passive also does not show up in Diagram 1. It is not clear that the potential passive is on any particular path. The potential element here represents a new dimension, that of irrealis modality, which is not relevant in the other uses. Sometimes the potential passive is associated with the imperfective aspect, e.g. in Hausa (Jaggar 1988). Example (33a) shows a perfective passive with a completive flavor, while (33b) shows an imperfective passive with a potential passive interpretation. Relevant here is the habitual/generic part of imperfective, not the progressive/continuous part.

- (33) a. *Dà gídáa yá gyàarú...*
 when house it.PERF repair:PASS
 'When the house was completely repaired...'
- b. *Wánnàn móotàr tá-nàa gyàarúwáa.*
 this car it-IMPF repair:PASS
 'This car can be repaired/is repairable.'

It is not clear to me how the potential sense arises. See Davison 1980 for the suggestion that Gricean implicature may be involved here.

The passive is not the absolute endpoint of the evolutionary paths that converge on it. When the passive is generalized and is used in more and more contexts, it may eventually become the unmarked clause construction. Such active constructions that come from earlier passives will very likely show traces of their origin, in particular an ergative case-marking pattern, with the direct object in the basic (absolutive) case and the transitive subject in the ergative case, which continues the older passive agent phrase. This development has been extensively dealt with in the literature on ergativity; see especially Trask 1979 and Estival and Myhill 1988, among many others. Note that the passive-to-ergative change is also unidirectional. As Estival and Myhill (1988:445) observe, "there are no passive constructions which have been shown to have developed from ergative constructions."

The most important aspect of this change is the upgrading of the agent phrase to a central constituent of the clause. And there seems to be a general correlation between the degree of grammaticization of a passive and its ability to cooccur with an agent phrase. At the pre-passive anticausative stage, an agent is not even implied. Passives that are lexically restricted or passives that are rarely used seldom allow the expression of an agent, whereas very general and very frequent passives, as in English and in some Bantu languages, freely allow the expression of the agent. The agent phrase may become more and more integrated into clause syntax (cf. Comrie 1988:2.2.), gradually picking up subject properties and eventually becoming the subject. In many ergative languages the ergative subject is just as obligatory as the nominative subject is in most accusative languages.

Thus, the observed endpoint of the grammaticization changes discussed here coincides with its logical endpoint: zero; i.e., no meaning is left, the ergative construction is the unmarked clause construction with maximal generality.

5.3 Directionality.

Unidirectionality is an important general characteristic of grammaticization changes. Dik 1983 challenges the claim that the development from reflexive (via anticausative) to passive is unidirectional and does not occur in the reverse way. He doubts Faltz's (1985:53) claim that "it is almost certainly the case that all verbal reflexives have their origin in NP-reflexives which have undergone this process [i.e. drifting towards the verb and attaching themselves onto it]," and cites a counterexample: Langacker 1976 claims that in the Uto-Aztecan language Tarahumara a passive suffix *-ru/-tu* (originally 'become') has been extended to the reflexive use, e.g. *muhe pago-ru* 'You wash yourself.' This immediately reminds one of the English *get*-passive, which also sometimes expresses reflexives, as in *get dressed*, *get washed*.

But these are very special types of reflexives, in particular reflexive actions which occur typically as reflexives (few people have to be washed and dressed by someone else) and can therefore be conceptualized as not involving two identical participants, but only one participant. Talmy 1985:93ff. discusses such typical reflexive actions as *shave*, *dress*, *wash*, *button up*, and observes that while many languages lexicalize these actions in what he calls the "dyadic personation type", i.e. like reflexives (e.g. French *se raser*, *s'habiller*, *se laver*, *se boutonner*), they may also be lexicalized in the "monadic personation type", i.e. like ordinary intransitives. It is, then, not surprising that they can be treated linguistically just like spontaneously occurring intransitive processes which are expressed as anticausatives. Both Tarahumara *-ru/-tu* and English *get* originally meant 'become' which has this meaning of spontaneous occurrence. What one would have to show to counterexemplify grammaticization is that the passive morpheme loses its passive uses and is also used freely in untypical reflexives like 'kill oneself', 'see oneself'. But this is not the case in English and in Tarahumara.

A clear case where the change can occur in both directions is between desubjective and passive. As we saw in 4.4., generalized-subject constructions can change into passives via the desubjective construction. But the desubjective can also arise from the passive. For instance, in Polish desubjective constructions are formed with the neuter singular form of the "passive" participle, e.g.

- (34) *Zbudowa-n-o dom-Ø.*
 build-PTCP-N.NOM.SG house(M)-ACC
 'One built a house./A house was built.'

The intermediate case would seem to be intransitive desubjectives from intransitive verbs, like (35):

- (35) *Milcza-n-o.*
 be.silent-PTCP-N.NOM.SG
 'One didn't speak./There was silence.'

Example (35) could also be a subjectless passive (cf. German *Es wurde geschwiegen.*), and such cases appear to have served as the point of departure for the syntactic reanalysis.

Like passives from "passive" participles, passives from NP-reflexives can also be reanalyzed as desubjectives. Naro 1976 describes this change in Portuguese. In pre-16th century Portuguese, passives were possible with the reflexive clitic *se*, but not desubjectives:

- (36) *Vendem-se estas casas.*
 'These houses are being sold.'

Here the agreement of the NP with the verb shows that it is the subject. In Modern Portuguese, however, the NP in such constructions has been reinterpreted as the direct object. No agreement occurs (cf. 37), and desubjectives ("impersonals") can even be formed from periphrastic passives (cf. 38).

- (37) *Vende-se estas casas.*
 'They are selling these houses.'
- (38) *É-se tentado pelo diabo.*
 'People are tempted by the devil.'

Although in this case it is clear that the development can be in both directions, this is not an instance of degrammaticization either. The difference between passive and desubjective is of a syntactic rather than a semantic nature. Desubjectives are not more or less grammaticized than passives, and they are to the left of the passive in Diagram 1 only because they are logically intermediate between generalized-subject constructions and passives.

5.4 *The basic function of the passive.*

It has long been recognized that the two main functions of the passive are the foregrounding (or topicalization) of the patient and the backgrounding of the agent (e.g. Gabelentz 1861:§2, with references to earlier work). And just as old is probably the question of which of these two functions is the dominating one. Among recent functionalist studies, Givón 1979 emphasizes the topicalizing function, whereas Shibatani 1985 takes "agent defocusing" as the main function of the passive. In the relational syntactic debates of the 70s, Perlmutter and Postal 1977 analyzed passive as advancement of the initial direct object to subject, whereas Comrie 1977 favored an analysis where the initial subject is demoted spontaneously. And going back to the earlier part of this century, Brugmann took topicalization as the main function of the passive, whereas Meillet considered the agent backgrounding function more important (cf. Schiefer 1983:103).

It may not be possible to resolve the question of the **main** function of the passive cross-linguistically. However, the advantage of the diachronic study of passive morphology is that it tells us what the **original** functions of the passive markers were. As the construction becomes more and more grammaticized it also becomes more widespread and may be put to use for various pragmatic functions that differ widely across languages. In this way a function may come to dominate that is quite different from the original function.

Among the sources of passive morphology, the generalized-subject source initially serves the function of backgrounding the agent. This would thus favor the backgrounding view, and it is not surprising that Shibatani stresses the relationship between plural subjects and the passive.

However, none of the other sources favor either the backgrounding or the foregrounding view. They have in common that they express on the verb the inactive nature of the situation denoted by the verb stem. This is most obvious in the case of inactive auxiliaries, probably the most important source of passive morphology. In the case of NP-reflexives and the causative, an important part of the semantic grammaticization is the loss of the agentive meaning. In addition, the NP-reflexive initially expresses the affectedness of the subject, and a situation with an affected subject is usually inactive. Most¹⁸ sources of verbal passive morphology therefore initially express a third function: **inactivization** of the situation. This is of course completely in line with the traditional view of the passive as expres-

sing "suffering," which is reflected in the very term "passive."¹⁹ Indeed, if this term did not have clear grammatical connotations, the statement "passivization (originally) expresses inactivization" would be tautological.

The two functions of agent backgrounding and patient foregrounding follow automatically from inactivization. Since the situation expressed by the passive verb is inactive, it is clear that it cannot have an agent, at least not expressed directly in the subject position (it can often be expressed as an oblique phrase). Since the subject position is unoccupied, the patient can be "promoted" to become the subject of the passive verb.²⁰ This is completely analogous to the situation with inactive intransitive (=unaccusative) verbs. Here the single participant is also generally the subject of the unaccusative verb, although it is semantically a patient (cf. the concept of "unaccusative advancement"²¹ in Relational Grammar, Perlmutter 1978). This is probably because of a strong general tendency favoring clauses with subjects over subjectless clauses. Note the logical structure of the implication: inactivization of the situation → backgrounding of the agent → foregrounding of the patient. From this perspective, the findings of the study of passive morphology confirm Shibatani's, Comrie's and Meillet's views concerning the primacy of the backgrounding function. But inactivization is even more basic, in that it is the precondition for backgrounding.

That the basic function of the passive is to modify the situation expressed by the verb rather than to alter the prominence relations among the verb's participants should also be clear from the fact that the passive is a verbal category, not a category expressed on NPs. Prominence relations are often expressed on NPs, like the Japanese topic marker *wa*. Harris 1988 provides an example of the grammaticization of such a topic marker in Laz (Kartvelian). It is a change that has nothing in common with the passive. Likewise, the backgrounding of the agent could be expressed on the NP. For instance, in Korean the subject marker *-i/-ga* can be replaced by *-ggeyse* (originally a dative/ablative marker) if the subject is honored:

- (39) *Abenim-ggeyse say jadongca-lul sa-si-ess-da.*
 Father-to/from new car-ACC buy-HONOR-PAST-DECLAR
 'Father bought a new car.'

Shibatani 1985 observes that agent backgrounding is a way to express a honorific relation. He also mentions that constructions analogous to (39) are possible in Japanese. However, (39) is not a passive in any sense, because the verb is not inactivated. Backgrounding of the agent follows from the inactivization of the verb, but it can occur also independently of it.

If topicalization were the basic function of the passive and could be a source use for it, we would expect passives to arise in ways similar to Parker's 1976 proposal. According to Parker, the passive in ancient Indo-European arose by reanalysis of NP-V clauses whose NP was ambiguous with respect to the nominative/accusative distinction. Thus a sentence like Old Indic *amṛtam cakr-e* (potion(N) make:PERF-3SG) which originally meant 'He made the potion of immortality' could be reanalyzed as 'The potion of immortality was made.' This view of the origin of passive constructions cannot explain why the passive is virtually always associated with verbal morphology.²²

Another piece of evidence against topicalization as the *raison d'être* of passives comes from the correlation of basic clause-level word order and the existence of a passive. According to W.P. Lehmann 1978:22, "passivization is prominent in SVO languages, but not at all in OV languages; it is essentially a tool for achieving topicalization for the object, and such a tool is unnecessary in OV languages." This statement can apparently be taken as a prediction that among SVO languages there will be a significantly larger percentage of languages having a passive than among OV languages, which will conversely show a greater tendency to lack a passive. This prediction is not borne out in the sample; cf. Table 4.

Table 4. Basic clause-level word order and the existence of a passive

	SOV	SVO	V-1	unknown/ none	total
having a passive	13 (35%)	8 (27%)	7	2	30 (38%)
lacking a passive	24 (65%)	22 (73%)	2	2	50 (62%)
total	37 (100%)	30 (100%)	9	4	80 (100%)

If the passive is not "essentially a tool for achieving topicalization", the absence of such a correlation would be explained.

With inactivization as the basic function of the passive, we can easily explain why most languages do not allow the formation of passives from inactive verbs. Shibatani 1985:831-32 tries to account for this restriction in terms of his main function, agent defocusing: "...passives center around agents, and their fundamental function has to do with the defocusing of agents... A clause without an agent...does not permit a passive, since there

is no agent to defocus." If this were correct, one would have to ask why it is agents rather than subjects that are defocused by the passive. After all, defocusing seems to be more a pragmatic function than a semantic one, and should therefore affect the pragmatically-based category subject rather than the semantically-based category agent. Shibatani (p.844) also has a hard time explaining the frequent connotations of affectedness of passive subjects. Again, these follow naturally from inactivization, because the subject of an inactive dynamic situation is very likely to be affected by it. (In some cases, of course, the affectedness meaning follows directly from the historical source of the passive, as with inactive auxiliaries like 'suffer').

5.5 Summary.

I hope that it has been shown that the passive can usefully be regarded as being primarily a morphological verbal category. Passive constructions without morphology on the verb are rare or non-existent. A world-wide sample shows that one morphological expression type, the stem affix, is by far the most frequent. The most typical other uses of passive markers are reflexive, reciprocal, anticausative, and potential passive. Both the formal and the semantic properties of passives can best be explained by looking at the diachronic sources of passive markers.

Four main sources have been identified: inactive auxiliaries (which are often combined with "passive" or resultative participles), NP-reflexives, causatives, and generalized-subject constructions. All these sources converge on the passive use as they are grammaticized. Passives may be even further grammaticized into ergative constructions, thus turning into active constructions.

By identifying inactivization as the chief original function of passive grammatical morphemes, the most important properties of passive constructions can be derived, including the two secondary functions of agent backgrounding and patient foregrounding.

By emphasizing the diachronic and morphological aspects of the passive, I do not want to imply that there are no synchronic or syntactic principles involved. However, neither syntax and morphology nor synchrony and diachrony are completely separate from each other, and since the synchronic syntactic properties of passives have been so intensively studied over the last 30 years, the focus on morphology and diachrony in this paper seems well-motivated.

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NOTES

1. These criteria should not be taken as too strict. In general, linguistic categories are not defined by all-or-nothing criteria, and I agree in principle with Shibatani's 1985 prototype approach. However, Shibatani's prototype definition of passive is deliberately so vague as to include various related constructions. Narrower definitions of these individual constructions allow a more precise understanding of the relations between the passive and the related non-passive constructions.
2. The numbers in Table 1 do not total up to 39 because the Slave passive (about which information was insufficient) has not been included.
3. The term "post-inflectional affix" (=postfix) is commonly used, especially for the Russian *-sja*, which is very similar to the Danish *-s* that is mentioned in the text. However, it refers only to suffixes with such properties, whereas prefixes can have the same properties, as for instance Yuman *mat-* (cf. Faltz 1985:220f.), and cf. also the 'O'odham case mentioned just below in the text (these could be called "antefixes"). "Extrafix" is the more general term, comprising both postfixes and antefixes.
4. <z> here is [s], but the spelling reflects the earlier pronunciation [ts] from [ðs] (**kallið-st*).
5. In Old Icelandic, there was still some variation according to person: in the second and third persons, the affix was *-sk* (cf. *sik* 'itself'), but in the first person it was *-mk* (cf. *mik* 'me, myself').
6. The same could be said of type (5), differential person markers; however, in both Latin and Greek the passive suffixes are longer and at least in this sense more marked or non-basic.

7. It might be objected that 'come' and 'go' are not inactive because they involve a volitional agent. This is true to some extent, but 'come' and 'go' are typically very general in meaning (in contrast to, say, 'walk'), and conceptually the elements of direction and movement seem to clearly outweigh the volitional element. One could say that even the main verbs 'go' and 'come' are more grammaticized than verbs like 'walk.' In general, 'go' seems to come from 'walk,' e.g. Italian *andare* 'go' from Latin *ambulare* 'walk.'
8. In this connection the Hausa passive should be mentioned (cf. Jaggar 1988). It is formed with a suffix *-u* ("Grade 7"), which is most often a passive with a completive flavor ('thoroughly'), but can sometimes follow stems of intransitive verbs, where it is only completive. Jaggar suggests that this suffix goes back to a Chadic suffix that has completive/perfective function in related languages. It appears that its original function was completive-resultative, and that this function resulted in a completive-passive in Hausa and in a completive-perfective in the other languages. The apparent development from resultative to passive reminds one of the use of resultative participles in passive constructions.
9. This example also shows that the verb 'eat' can indeed generalize to become a general passive marker. Keenan 1985:259 cites an example from Sinhalese, but in this language the use of 'eat' seems to be lexically highly restricted. Matzel 1966:125 cites only *paraha kanava* 'be hit (=eat hitting),' *mārum kanavā* 'be killed (=eat death),' *bānum kanavā* 'be scolded (=eat scolding),' *tālum kanavā* 'be beaten (=eat beating).' This use of 'eat' is not as exotic as it might appear: in Modern Greek, for instance, there is *tróo ksíla* 'I eat wood = I am beaten,' *tróo kritikí* 'I eat criticism = I am criticized,' *tróo yuxáisma* 'I eat jeering = I am jeered' (Soteria Svorou, p.c.). On 'eat'-passives, cf. also Gabelentz 1861: §8.
10. These German sentences are grammatical in the potential passive reading, but for that reading some adverb etc. is needed (*Der Brief schreibt sich leicht*. 'The letter writes easily/ The letter is easily written.') They are also possibly acceptable in the very marked metaphorical sense 'without any difficulty(=as if without an external agent),' like the English translations.
11. i.e., in the causative an agent is added, while in the passive an agent is removed.
12. At least not in the French example and in many other languages that are like French in this respect; the nearest English equivalent (18b) does show passive morphology (at least a "passive participle") and therefore can be argued to involve a passive construction.
13. Type (3) (particle) is often indistinguishable from (2) (auxiliary) in languages with little or no inflection.
14. However, it can become a stem affix immediately if it attaches itself on the opposite side of the finite inflections, i.e. if it becomes a prefix in a mostly suffixing language or a suffix in a mostly prefixing language. This possibility may contribute to the relative rarity of extrafixes.
15. It is not possible to quantify the frequency with which, e.g., inactive auxiliaries and NP-reflexives are grammaticized into passives across languages. But impressionistically the grammaticization of NP-reflexives appears to be more frequent than passive extrafixes.

16. The fact that such a convergence can be observed is a strong argument in favor of considering the passive a unitary phenomenon (cf. Andersen 1988 and Government-Binding theory for the opposing view). It is true that passives show some differences across languages and that they sometimes show features that point to their non-passive origin (as with other morphological categories), but this does not mean that they should not be treated together. Note also that both the Latin and the English passive are of a somewhat unusual type, so that linguistic ethnocentrism cannot be the reason for the cross-linguistic identification of passives.
17. The deobjective use is accounted for by an analysis like that of Dik 1983, who claims that the "reduction of valence by one" is the basic function of such passive/reflexive affixes. The omission of the object would simply be one possible instantiation of this valence reduction. But this analysis still does not explain why reflexive markers should come to have this valence-reducing function. And Croft et al. 1987:184-85 object that "middle" morphology sometimes **increases** the valence.
18. This is also true for the non-grammaticized passives of 4.5.
19. Latin *passivum* is derived from *pati* 'suffer.'
20. Of course, from the diachronic point of view, the reason why the patient is in subject position is that it corresponds to the earlier subject of an inactive (auxiliary) verb, or even to the agent in reflexive constructions and the causer in causative constructions. But abstract synchronic considerations lead to the same result.
21. This notion has been accepted by Government-Binding (GB) theory and has been built into the GB system, although under a different name (Burzio 1986). In GB theory, the movement of the direct object into subject position in the passive is an instance of the more general unaccusative advancement. In this respect, my view is closer to GB theory than to Relational Grammar, where passive advancement and unaccusative advancement are two different rules.
22. It is true that topicalization appears to be important in the change from a generalized-subject construction to a passive, for instance in the Kimbundu example (29-30). But here, too, topicalization presupposes agent backgrounding (i.e., a generalized subject), which then becomes the passive morphology.

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Appendix: The languages of the Gramcats sample

(Numbers in parentheses after the name of a language indicate the number of passive morphemes that were found in the language. For each language, the basic word order (if any) is given)	034	Pangasinan	V-1
	035	Rukai (1)	VSO
	037	Buli	?
	VIII. Aztec-Tanoan		
	038	'O'odham (Papago)(1)	VSO
	IX. Caucasian		
	039	Abkhaz	SOV
	X. Macro-Chibchan		
	040	Guaymi	SOV
	XI. Dravidian		
	042	Kui	SOV
	XII. Ge-Pano-Carib		
	043	Abipon	SVO
	XIII. Hokan		
	046	Karok	SOV
	XIV. Indo-European		
	047	Latin (2)	none
	048	Maithili Bihari (2)	SOV
	049	Baluchi (1)	SOV
	050	Modern Greek (2)	SVO
	051	Danish (3)	SVO
	XV. Indo-Pacific		
	052	Yagaria	SOV
	053	Magori	SOV
	054	Marind	SOV
	055	Monumbo	SOV
	056	Ono	SOV
	058	Nimboran (1)	?
	059	Bongu	SOV
	060	Yessan-Mayo	SOV
	063	Baining	SVO
	XVI. Khoisan		
	067	!Kung	SVO
	XVII. Na-dene		
	068	Slave (1)	SOV
	XVIII. Niger-Kordofanian		
	069	Kadugli (1)	SVO
	071	Temne	SVO
	072	Mwera (1)	SVO
	073	Tem	SVO
	074	Engenni	SVO
	075	Mano	SOV
I. Unaffiliated			
001	Inuit (3)	SOV	
002	Basque	none	
II. Afro-Asiatic			
003	Margi (1)	SVO	
004	Kanakuru	SVO	
005	Southern Agaw (1)	SOV	
006	Tuareg (2)	VSO	
007	Kefa (1)	?	
008	Tigre (1)	SOV	
III. Macro-Algonquin			
009	Cheyenne	SVO	
IV. Andean-Equatorial			
010	Black Carib (1)	VSO	
011	Cocama	SVO	
012	Chacobo	SOV	
013	Jivaro	SOV	
014	Tucano	SOV	
V. Australian			
015	Gugada	SOV	
016	Gugu Yalanji (1)	SOV	
017	Alyawarra	SOV	
018	Maung	SVO	
019	Worora (1)	SOV	
020	Alawa	SOV	
VI. Austroasiatic			
022	Koho (1)	SVO	
023	Palauung	SVO	
024	Car Nicobarese (1)	SVO	
VII. Austronesian			
025	Tahitian (1)	VSO	
026	Motu (1)	SOV	
027	Atchin	SVO	
028	Halia (1)	SVO	
030	Tanga	SVO	
032	Nakanai	SVO	
033	Trukese	SVO	

XIX. Nilo-Saharan		085	Chepang	SOV	
076	Bari	SVO	086	Haka	SOV
077	Mbai	SVO	087	Lahu	SOV
078	Kanuri (1)	SOV	088	Rawang	SOV
XX. Oto-Manguean			089	Cantonese	SVO
079	Palantla Chinantec	VSO	XXIV. Macro-Siouan		
XXI. Penutian			090	Dakota	SOV
080	Tojolabal (1)	VOS	XXV. Ural-Altai		
081	Zuni	SOV	091	Udmurt (1)	SOV
082	Maidu	SOV	092	Uigur (1)	SOV
XXII. Salish			093	Buriat (1)	SOV
083	Shuswap (1)	?	XXVI. Creoles		
XXIII. Sino-Tibetan			094	Tok Pisin	SVO
084	Laotian	SVO			

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