

## DIACHRONY AND EVOLUTION

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### 1. Introduction\*

In biology, one takes it for granted that the way extant organisms are today, and the current distribution of their staggering cross-species variety, is explained most coherently by the two developmental processes that brought extant organisms up to this point—*phylogenesis* (evolution) and *ontogenesis* (embryology). This is how Darwinian evolutionary theory interprets the cumulative descriptive and classificatory data gleaned during the preceding 2000-odd years of systematic study of living organisms, from Aristotle to Linnaeus.

In linguistics, in a rather striking analogy, three major developmental trends have jointly fashioned the way language—and languages—are now:

- **Evolution:** The descent of the language capacity of the human species
- **Ontogenesis:** The emergence of language in children
- **Diachrony:** The *historical* development of particular languages

Of these three, diachrony is a uniquely human phenomenon, a cumulative historical accretion through cultural transmission. What is more, diachrony has the most direct causal bearing on the shape of any particular language, and thus on the diversity of human languages.

While seemingly unprecedented in biology, language diachrony nonetheless recapitulates many of the general features of biological evolution. This may be summed up in the following observations:

- Today's micro-variation within the species/language engenders, at least potentially, tomorrow's macro-variation across species/languages.
- Conversely, today's starkly diverse extant species, genera, families, and phyla in biology, or starkly diverse languages, dialects and families, can be traced back to earlier variation at lower taxonomic levels (sub-species, sub-dialects).
- Consequently, gradual step-by-step *micro-variation* can yield, over time, stark and seemingly unbridgeable gaps of *macro-variation* among extant

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species or languages.

- The process of change itself, the invisible teleological hand that guides the ever-shifting but still roughly-isomorphic matching of structures and functions, is driven by adaptive selection, i.e. by functional-adaptive pressures
- The overlaying of adaptively-driven changes in temporal order can lead, over time, to considerable restructuring and arbitrary structure-function mapping, thus to seemingly non-adaptive *relic features* ('excess structure', 'spandrels').
- Universal principles do not control observed surface features directly, but rather control the developmental processes that, in turn, give rise to observed surface features.

As for development, six general principles seem to exert control on both language diachrony and biological evolution:

- Graduality of change
- Adaptive-selectional motivation
- Functional change and ambiguity before structural change and specialization
- Terminal addition of new structures to older ones
- Local causation (but global consequences).
- Uni-directionality of change

In one major respect, diachrony and evolution part ways—on the issue of **genetic coding**. The cumulative adaptive-behavioral experimentation of organisms over time does not directly cumulate in their surface structural features (phenotype); it does so only when adaptive behavior meets random **mutation** and **recombination** during the process of selection. The useful lessons of behavior thus cumulate in a hard-wired fashion in the DNA (genotype), insuring that future generations may benefit from the adaptive experience of past generations; and that new generations won't have to start every time from the amoeba. Put another way, **innateness** is but the salutary consequence of, and testimony to, adaptively-driven evolution.

In contrast, the everyday adaptive communicative experimentation of adult speakers cumulates in the linguistic structures they engender and constantly tamper with, but without any genetic coding. Rather, **cultural transmission** is the main instrument of passing on adaptively-driven language change to future generations. This means that the process of **attrition**—erosion, elimination, simplification and loss—in language diachrony is starkly different from the corresponding process of simplification and restructuring in biological evolution.

In biology, due to genetic coding, evolutionary changes are neigh irreversible. Organs may be simplified, reduced or altogether eliminated in extant adult structures. But the process of both their innovation and elimination is still coded, in that order, in both the genome and, consequently, in ontogenesis (Gould, 1977).<sup>1</sup> Whales do not skip their terrestrial-mammalian genes and embryology because they are now back to the water with the fish. Both their genome and their embryology bear testimony to, first, their emergence from the water and, later, their subsequent return.

In contrast, the adaptive-communicative experimentation of adult speakers lasts

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<sup>1</sup> To a large extent, the genome in biology codes the developmental sequence, i.e. ontogeny, and only through it the ensuing mature structure.

only as long as culturally-transmitted structures persist. Some fossil structures, in particularly morphology (Givón, 1971; 1979), may persist for millennia and serve, if judiciously used, for the reconstruction of earlier stages of syntactic structure (Givón, 2000). But in the absence of hard-wired genetic and ontogenetic coding, the **attrition** of linguistic structures may proceed to its ultimate, eroding first morphology and then syntactic constructions to the point of utter functional inefficacy. This leads, in due course, to the eventual **renovation** of morpho-syntactic structure. New structures are recruited to pick up the slack and the **grammaticalization cycle** starts over again (Givón, 1979). But the diachronic cycle is not a reversal of directionality, but only the termination of one uni-directional process and the re-starting of another from scratch in the same general direction. At that point of re-starting, speakers—thus 'the language'—may choose to pursue other structural options for performing the same communicative function(s). This is where a language, or a functional domain within a language, may change its structural phenotype.

Since we have virtually no direct fossil evidence of prior stages of hominid communication, the topic of language evolution remains controversial. Yet true understanding of human language will never be possible without an evolutionary account. To some extent, and with a measure of caution, the two well-documented developmental trends that are accessible to us—language diachrony and language ontogeny—can furnish us with coherent clues about possible evolutionary scenarios. As could the study of second language acquisition and pidginization (Givón, 1979; 2002; 2005; Bickerton, 1981; 1990; Heine and Kuteva, 2007).

## 2. Diachronic Change, Typological Diversity and Language Universals

To the naked eye, both the linguist's and the lay person's, the diversity of human languages seem immense and unconstrained, at first glance defying any attempt to posit meaningful universals. As noted in chapter 2, the argument about whether features of human language are universal, and thus by implication **motivated**, genetically transmitted, biologically evolved and **innate**; or idiosyncratic, and thus by implication **arbitrary**, non-evolved or genetically coded and only **culturally transmitted**, harkens back to both Plato (*Cratylus*, *Meno*, *Phaedo*) and Aristotle (*De Interpretatione*, *The Categories*).

Many fine linguists, especially those who followed the structuralist dogma of arbitrariness (Saussure, Bloomfield), expressed strong doubts about language universals, believing in unconstrained cross-language diversity. Thus, consider what Bloomfield (1933) had to say on the subject:

"...North of Mexico alone there are dozens of totally unrelated groups of languages, presenting the most varied types of structures. In the stress of recording utterly strange forms of speech, one soon learns that philosophical presuppositions were only an hindrance... The only useful generalizations about language are inductive generalizations..." (1933, pp. 19-20)

Other structuralists, like Chomsky, have opted for an extreme version of universality and innateness, by extracting from the vast and varied phenomenology of language a few features that are sufficiently abstract, so that one could say they

are shared by all human languages. This gambit echoes both Plato's *eidon* ('essence') and Saussure's *langue* ('system').<sup>2</sup>

A more balanced empirical approach to language universals, perhaps best exemplified in the works of Hermann Paul (1890) and Joseph Greenberg (1969; 1978; 1979), adopts a middle-ground biological perspective, whereby both variation and universals are acknowledged. Indeed, the two are closely intertwined, and the balance between them is mediated by developmental processes, most conspicuously diachrony. Thus, specific features of both phonology and grammar may vary considerably across languages, and the accretion of such variation may lead to a seemingly staggering cross-language diversity. But within each functional domain, the structural-typological variation is severely constrained—say up to 5–7 major types of structure that may code the same communicative function in most languages.

Structural-typological cross-language diversity within each functional domain is thus mediated by general adaptive principles, which in turn manifest themselves through the three relevant developmental trends—language evolution, child language acquisition and, most germane to our discussion here, diachronic change. As in biology, language universals are not just a set of observable traits attested in all languages (say, constructions, morphemes). Rather, they are a set of general *principles* that control development and thus the genesis of extant structural traits.

### 3. Case Study: The Diachronic Typology of Passive Clauses

#### 3.1. Preliminaries

I have chosen to illustrate the role of diachrony in mediating the balance between syntactic-typological universality and diversity with a case study on the diachronic typology of passive clauses. For one thing, many passive constructions arise diachronically as complex constructions. For another, the passive (de-transitive) functional domain is rich and complex, illustrating the interplay between adaptive motivation, synchronic micro- and macro-variation, and diachronic change. I will begin by posing a question that is reasonably concrete and construction-specific: Are the relational properties (GRs) of passive clauses predictable, and if so on what grounds?

One answer, following Comrie (2004/2008), is *yes*—but a *yes* that leaves one somewhat perplexed, since it is done a by preemptive fiat. That is, if one defines the passive clause by purely structural means as "that type of construction, as in Latin or English, where the agent is marked as *oblique* and the patient/topic as *nominative*", then the question I have just posed becomes moot or even silly. However, as Keenan (1975) has noted, the display of nominative properties by the patient/topic of the passive may be a matter of degree even in Latin. What is more, as I have pointed out elsewhere (Givón, 1981; ed. 1994a; 1995; 2001 ch. 13; 2002, ch. 6), there are good reasons for suggesting that the purely structural definition of syntactic constructions *in general* is untenable. Rather, a typology of any syntactic construction, including the passive, requires a functional definition of syntactically-coded domains.

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<sup>2</sup> Chomsky's (1992) *Minimalist Program* is perhaps the epitome of such an approach.

A necessary corollary to the functional-domain approach to syntactic typology, in this case of passive clauses, is that a diachronic account best predicts the structural properties of such clauses. This is so because by and large such properties follow, at least initially, from the structural properties of the diachronic source construction from which a construction arises. From a functional-adaptive perspective, the diachronic underpinnings of syntactic typology closely parallel the evolutionary underpinnings of extant biological diversity.

### 3.2. The Typology of Passive Constructions

One can define a passive clause functionally as "the clause-type whereby the agent of the corresponding active is radically de-topicalized, and the patient becomes, by default, the topical argument". If one subscribes to such a definition, then a theoretically revealing cross-linguistic typology of passive clauses should be, ideally, the list of the most common major clause-types that conform to this functional definition. For the purpose of the discussion here, I will consider the following six major types from this list (Givón ed., 1994a; 1995; 2001; 2002)<sup>3</sup>:

#### (A) *The adjectival-stative passive*

In some languages, as in the English BE-passive, a passive clause arises diachronically from, and still resembles structurally, a predicate-adjective construction, as in:

- (1) *a. Passive:* It was broken (by someone)  
*b. Perfect-resultative:* It has been broken  
*c. Adjectival-stative:* It is broken  
*d. Predicate-adjective:* It is big

#### (B) *The reflexive passive*

In some languages, as exemplified in the English GET-passive, a passive clause arises diachronically from, and still resembles structurally, a reflexive middle-voice construction, as in (Givón and Yang, 1994):

- (2) *a. Causative:*  
 Mary got them to fire John  
*b. Causative with passive complement:*  
 Mary got John (to be) fired  
*c. Reflexive-causative (passive complement):*  
 Mary got herself fired  
*d. GET-passive:*  
 Mary got fired

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<sup>3</sup> Many other types can be found in Haspelmath (1990). The question of what constitutes a 'major' type is not uncontroversial, not only here but in taxonomy in general. As Aristotle noted long ago, and as Ernst Mayr reaffirmed more recently, all taxonomies of natural phenomena are logically arbitrary but pragmatically motivated, depending as they do on the purpose or perspective of the taxonomist (Givón, 2005, ch. 1).

**(C) The serial-verb adversive passives**

In some languages, the passive clause arises diachronically from, and still resembles structurally, an adversive serial-verb construction. In the process of grammaticalization, an adversive serial verb such as 'suffer' first becomes the grammaticalized marker of an adversive passive, as in Mandarin Chinese, Japanese, Thai or Vietnamese. Such a construction may later expand its functional scope to become a generalized passive, as in Mandarin (Li and Thompson, 1981):

**(3) a. Adversive passive (older):**

*Ta bei (gongsi) chezi-le*  
 s/he **suffer** (company) fire-PERF  
 'S/he was fired (by the company)'  
 (lit.: 'S/he suffered (when) the company fired her')

**b. Generalized passive (newer):**

*sheng-cheng bei jiefang-le*  
 province-capital **PASS** liberate-PERF  
 'the provincial capital was liberated'  
 (lit.: 'the provincial capital suffered (when someone) liberated it')

**(D) The VP-nominalization passive**

In some languages, such as Ute, a passive clause may arise diachronically from, and still resembles structurally, a nominalized verb phrase construction, as in Ute (Givón, 1980a):<sup>4</sup>

**(4) a. Passive:**

*múusa-chi paxá-ta-p#ga*  
 cat-OBJ kill-PASS-REM  
 'The cat was killed'

**b. Verb-phrase nominalization:**

*múusa-paxá-ta ka-'áy-wa-t 'ura-'ay*  
 cat-kill-NOM NEG-good-NEG-NOM be-IMM  
 'Cat-killing is not good'

**(E) The Left-dislocation-cum-impersonal-subject passive:**

In some languages, such as Kimbundu, a passive construction may arise diachronically from, and still resembles structurally, a blend of L-dislocation with the impersonal subject construction with the pronoun 'they', as in:

**(5) a. Passive:**

*Nzua a-mu-mono (kwa meme)*  
 John **they-him**-saw by me  
 'John was seen by me'  
 (lit.: 'John, they saw him by me')

<sup>4</sup> A similar development of a nominalization into an agent-suppressing passive may be seen in modern Dutch (Kirsner, 1976), where it involves an existential-presentative construction.

**b. L-dislocation with full-NP subject:**

*Nzua, aana -mu-mono*  
 John children **they-him**-saw  
 'John, the children saw him'

**c. L-dislocation with pronominal subject:**

*Nzua, a-mu-mono*  
 John **they-him**-saw  
 (i) **Anaphoric active:** 'John, they saw him'  
 (ii) **Impersonal passive:** 'John, he was seen'

**(F) The zero-anaphora passive**

Finally, in many languages the passive clause arises from, and still structurally resembles, the active clause with a highly-topical, referring, anaphoric agent; that is, from a clause with a *zero anaphoric* agent. Thus in Sherpa:

**(6) a. Non-anaphoric agent of active:**

*Ti mi-ti-gi chenyi chaq-sung*  
 DEF man-DEF-ERG cup/ABS break-PAST/EVID  
 'The man broke the cup'

**b. Anaphoric agent:**

*chenyi chaq-sung*  
 cup/ABS break-PAST/EVID  
 (i) **Active interpretation:** 'S/he broke the cup'  
 (ii) **Passive interpretation:** 'The cup was broken', 'Someone broke the cup'

What gave rise to such typological diversity of passive constructions is the fact that each passive type A through F arises diachronically from a different source construction. But this is only possible because each source construction shares some functional features with the passive as defined above. In other words, all these source construction exhibit a partial *functional similarity*—or *functional overlap*—with the passive clause. This functional similarity is summarized below for each of the six passive types.

**Type A:**

The adjectival-resultative construction in English, like a typical passive, is agentless, and its subject is thus, by default, the topicalized patient.

**Type B:**

The GET-causative-reflexive in English, much like the passive, has a non-distinct agent-patient single argument that is, by default, also its topicalized patient.

**Type C:**

The Mandarin adversive serial-verb clause has a topicalized patient and, most commonly, also a de-topicalized or altogether missing agent.

**Type D:**

The Ute VP nominalization, like a typical passive, is agentless and (by default) topicalizes the surviving non-agent argument.

**Type E:**

The Kimbundu L-dislocation clause, much like the passive, has a topicalized patient; and the impersonal 'they' construction has a de-topicalized non-referring agent.

**Type F:**

Somewhat more difficult to press into this explanatory mold is the zero-anaphoric passive of Sherpa. This is because the anaphoric zero agent of its source construction is highly referring and topical, while the zero agent of the structurally-identical passive is neither referring nor topical. However, one may as well note, first, that the very same is also true for *antipassives*, where a zero-coded object may be either the anaphoric topical patient of the active, or a non-referring, non-topical patient of the antipassive. For both the passive and antipassive, thus, there is a functional similarity between the two seemingly-disparate uses of zero arguments: Unexpressed information in general is prompted by two major cognitive-functional factors: (a) predictability; and (b) irrelevance (Givón, 1983a; 1988a).

Functional similarity—or partial functional overlap—is one crucial precondition for the diachronic extension from a source domain into a target domain. And it is the functional definition of *both* source and target domains that makes grammaticalization pathways as predictable as they are.

In the early stage of grammaticalization, the same structure performs two similar but non-identical functions, the old and the new. Here again, diachronic change in language closely parallels biological evolution, where early-stage functional re-analysis of organs is considered a major component of the evolutionary mechanism. In this connection, Ernst Mayr cites no less an authority than Darwin:

"...By far the most important principle in the interpretation of the origin of new structures is that of the "change of function"...Darwin recognized quite clearly that the possibility for a change of function usually depends on two prerequisites. The first of these is that a structure or an organ can *simultaneously perform two functions*: "Numerous cases could be given amongst the lower animals of the same organ performing at the same time wholly distinct functions"...The other is the principle of *duplication*: "Again, two distinct organs, or the same organ under two different forms, may simultaneously perform in the same individual the same function, and this is an extremely important means of transition"..." (Mayr, 1976, pp. 97-98; italics added)

**3.3. Early vs. Late Stages of Grammaticalization**

The early stages of grammaticalization are characterized by *functional ambiguity*. This is because functional re-analysis is the first step in diachronic change, be it syntactic or lexical. Functional re-analysis takes place instantaneously, as a spontaneous adaptive experimentation by individual speakers during communication, when speakers extend the use of old constructions (and words) to novel contexts. Structural re-adjustment, re-analysis and simplification eventually follows, giving rise to more precise ('iconic') coding of the newer vs. older functions as two distinct constructions. Such re-analysis often occurs much later in the diachronic



cycle, and is subject to different constraints (Givón, 1971; 1975a, ed.1997a; Heine *et al.*, 1991; Traugott and Heine *eds*, 1991; Hopper and Traugott, 1993; Bybee *et al.*, 1994; *inter alia*). In this respect too, there is a strong similarity between diachronic change and biological evolution (see quote from Mayr, 1976, above). This similarity can also be extended, with obvious caveats, to early vs. late ontogeny and neuro-cognitive development, as summarized in (7) below:

**(7) Time-course of functional vs. structural change:**

Time course		
Parameter	early	late
<b>evolution:</b>	adaptive behavior	genetic change
<b>diachrony:</b>	functional extension	structural change
<b>ontogenesis:</b>	plasticity	rigidification
<b>attention:</b>	conscious	automated
<b>processor:</b>	soft-wired	hard-wired

The six passive constructions discussed above are diachronically relatively young.<sup>5</sup> In five out of the six types, the very same basic construction still performs both the pre-passive (source) and the passive (target) function, although one can see some optional added or subtracted elements (boldfaced below). And it is often the surrounding context, marked below in parentheses, that facilitates the old vs. new interpretation. Thus, respectively:

**(8) English adjectival passive (A):**

**a. Resultative-adjectival:**

(When we looked last night) the window was (already) broken.

**b. Passive:**

The window was broken (by a burglar late last night).

**(9) English GET-passive (B):**

**a. Reflexive:**

(She didn't like Phoenix, so) she got herself transferred to Atlanta.

**b. Adversive-passive:**

She got fired (by her boss for insubordination)

**(10) Ute VP-nominalization passive (D):**

**a. Nominalization:**

<i>múusachi paqxa-ta-'u ka-'ay-wa-t</i>	<i>'ura-puga</i>
cat/OBJ	kill-3 NOM/POSS NEG-good-NEG-NOM be-REM
'His/her killing (of) the cat was bad'	

<sup>5</sup> 'Early' is of course a relative matter in diachrony. Given the notorious conservatism of morpho-syntactic structure (except intonation!), functionally ambiguous structures and their attendant non-iconicity may persist for centuries with little re-structuring (Givón, 1979, ch. 6).

**b. Passive:**

*múusachi paqxa-ta-pugay-'u* (k-aw)  
 cat/OBJ kill-PASS-REM-3/OBJ (yesterday)  
 'The cat was killed'

**(11) Kimbundu L-dislocation/impersonal passive (E):****a. Active, anaphoric agent:**

*Nzua, (aana) a-mu-mono*  
 John (children) **they-him**-saw  
 'As for John, the children saw him'

**b. Passive, impersonal agent:**

*Nzua a-mu-mona (kwa-mene)*  
 John **they-him**-saw by-1sg  
 'John was seen (by me)'

**(12) Sherpa zero-anaphora passive (F):****a. Active, anaphoric agent:**

*chenyi chaqx-sung* (, ti miti-gi)  
 cup/ABS break-PAST/EVID DEF-man-ERG  
 'he broke the cup (, the man did)'

**b. Passive, impersonal agent:**

*chenyi chaqx-sung*  
 cup break-PAST/EVID  
 'The cup was broken', 'Someone broke the cup'

The lone exception here is the serial-verb passive of Mandarin Chinese (type C; (3) above). The initial functional ambiguity here was between a clause-chain (source) and a single event (goal) interpretation. The diachronic change involved here is a type of *clause union*, whereby the erstwhile two chained single-event clauses are re-interpreted as a single-event serial-verb clause (see ch. 4, below). The earliest re-structuring step here is intonational, the subtle but ubiquitous merger of two intonation contours into one (see ch. 4).

**3.4. Grammatical Relations in the Passive Clause**

Let us turn now to the structural aspects of the diachronic rise of passive constructions, focusing on the relational properties (GRs) in the various passive clause-types A-F above. We have already noted that while their synchronic functions as passives are similar, those diverse structures still reflect—most conspicuously when they are diachronically young—the structural design features of their respective diachronic sources. This is a direct consequence of what was noted above—that in diachronic change, much like in biological evolution, structural re-adjustment invariably lags behind functional innovation.

The most general typological features of the passives discussed above is the distinction between promotional and non-promotional passives. That is, whether the non-agent topic of the passive clause is or is not its **grammatical subject**. But this feature is entirely predictable from the relational properties of the source construction: The passive types A, B, C above are all **promotional** passives—

because their topical patient was already the grammatical subject in the respective source construction. Types D, E, F, on the other hand, are all **non-promotional** passives—because their topical patient was coded as the grammatical object in the respective source construction. Structural re-analysis has not yet tampered with the structural features of these relatively-young passive constructions. Their grammatical relations are still marked as in the source construction. In the next section we will look at the structural re-analysis of the relational properties of more mature—diachronically older—passive clauses.

The fact that the relational properties of passive constructions, at least at the early stages of grammaticalization, reflect faithfully the relational properties of their source constructions, is as vivid a demonstration as one could offer of why a purely structural definition of syntactic constructions, *a la* Comrie (2004/2008), is untenable. For it will lead us to consider three of the six passive types discussed above as "true passives", the other three as "not really passives". What is more, since the other structural properties of the six passive clauses also reflect, rather faithfully, their source construction, classifying the six constructions by structural similarity would mean that they are all more similar to their source constructions than to any "real passive". In other words, defining syntactic domain by purely-structural means is a rather hopeless enterprise.

### **3.5. Structural Re-analysis: Early vs. Late-stage Grammaticalization**

Once structural re-analysis begins, the diachronic predictability of the structural properties of passive clauses can, of course, be offset and gradually obliterated. Constructions sooner or later enter their more mature, mid-life phase in the cycle of grammaticalization. In this section I will illustrate this with three examples. Two involve a late-stage change from non-promotional to promotional passive. The third involves change in the opposite direction.

#### **3.5.1. Reversion to nominative subject in the Lunda passive**

As noted above, the Kimbundu passive (type E, see (5) above) arises from the conflation of two de-transitive constructions both of which leave the patient coded in a non-nominative case, the same as in the corresponding active. This remains, presumably, the relational situation in the resulting non-promotional passive of Kimbundu. In a closely related language, Lunda-Ndembu, the very same passive construction also exists. However, a more detailed analysis of the relational properties of this passive, particularly the behavior-and-control ('governed') properties of the two main arguments (agent and patient), reveals a gradual if so far only partial shift of subject properties to the patient-topic of the passive (Givón and Kawasha, 2001). These facts conform to Haspelmath's (1999) observation that in diachronic change, behavior-and-control properties are much less conservative than morphological properties ('overt-coding' properties; Keenan, 1975, 1976). Similar observations were also made in Givón (1995, ch. 6).

#### **3.5.2. Reversion to nominative in the Guarijío and Tarahumara passive**

Félix-Armendáriz (2004) reports a promotional passive in Guarijío, i.e. one in which the non-agent topic of the passive clause is its grammatical subject. The passive suffix *-tu* in Guarijío is most likely a cognate of the Ute passive suffix *-ta*,

and most likely an old nominalization marker (Medina-Murillo, 2004). What is more, the promotional passive in Guarijío allows an overt oblique agent, something that is not possible in the Ute passive, and indeed is atypical in non-promotional passives. Thus:

- (13)a. *Owéru wicho-ré wakirá*  
 Women wash-PFV clothes  
 'The women washed the clothes'  
 b. *wicho-ré-tu wakirá (owéru-e)*  
 wash-PFV-PASS clothes women-INSTR  
 'The clothes were washed (by the women)'

A similar situation is reported in Tarahumara (Valdez-Jara, 2004), a closely related language with the related passive suffix *-ru*. In Tarahumara, however, the agent is inadmissible in the passive clause, making the Tarahumara passive more conservative; that is, more like the Ute impersonal, non-promotional passive. Thus:

- (14)a. *mué-ka nech choná-re*  
 you-ENF me/OBJ hit-PERF  
 'You hit me'  
 b. *né-ka choná-ru-re*  
 I-ENF hit-PASS-PERF  
 'I was hit (\*by you)'

While absolute proof is not available, the most likely interpretation of the Guarijío-Tarahumara data is that the *-tu/-ru*-marked passive arose from a nominalized clause as, to begin with, a *non-promotional* agent-suppressing passive, as in Ute. In both languages, the passive was later restructured as promotional. But only in Guarijío did the change move further, allowing the overt appearance of an oblique agent. The late acquisition of an oblique agent by a promotional passive is well documented in English and elsewhere (see also Chamoreau, 2004).

### 3.5.3. Retreat from nominative in the Spanish reflexive-passive

As noted in the discussion of the English GET-passive (type B), one would predict from general considerations that a reflexive-derived passive would be *promotional*, given the universal trend to preserve the subject and delete the object in reflexive clauses. This is indeed true in other reflexive-derived passives, as in Semitic, Modern Greek (Manney, 1998; 2000), Russian, Polish, etc. The Spanish *se*-marked impersonal passive is thus an anomaly, in that its most common current form is *non-promotional*. But this is a relatively late development in Spanish.

The marker *se-* was originally the reflexive —then also reciprocal —pronoun, going back to the Latin *sui*. Thus (Monje, 1955, citing from the *Quixote*):

- (15)a. *Reflexive:*  
*se armó de todas sus armas*  
**REF** arm/3s with all his weapons  
 'he armed himself with all his weapons'

**b. Reciprocal:**

*donde se combatían*  
 where **RECIP** fight/IMPF/3p  
 'where they fought each other'

Four important features of Spanish syntax conspired in the eventual re-analysis of the *se*-marked reflexive into a non-promotional passive. First, the existence of an impersonal-subject construction, with neutral 3rd person plural agreement, roughly like the still extant:

- (16) *le-vieron en la calle*  
 3s/OBJ-saw/3p in the street  
 'They saw him in the street' (anaphoric)  
 'He was seen in the street' (impersonal-passive)

Second, the *se*-marked reflexive also evolved into a middle-voice construction, as in:

- (17)a. **Active:**  
*quebraron las ventanas*  
 broke/3p the windows  
 'they broke the windows'
- b. **Middle-voice or impersonal passive:**  
*se-quebraron las ventanas*  
**REFL**-broke/3p the windows  
 'the windows were broken' (passive)  
 'the windows broke' (middle)

Third, word-order flexibility in Spanish allows placing the subject after the verb. In a VO language, the word-order difference between subject and object is thus neutralized:

- (18)a. **VO order, active:**  
*Curaron los caballos*  
 cure/PAST/3p the horses  
 'They cured the horses'
- b. **VS order, middle:**  
*se-curaron los caballos*  
**REF**-cure/PAST/3p the horses  
 'The horses got well'

Fourth, in earlier times, human objects in Spanish did not require the dative preposition *a*-, nowadays an obligatory human direct-object marker. Thus (Marín, 1989a; 1989b; cited from *El Poema de Mio Cid*):

(19)a. *veremos vuestra mugier*  
 see/FUT/1p your woman  
 'We will see your wife'

b. *veré a la mugier*  
 see/FUT/1s **DAT** the woman  
 'I will see (my) wife'

The difference between subject and object was thus neutralized in early Spanish in terms of both word-order and case-marking.

These four factors conspired to neutralize the reflexive, middle-voice and impersonal-passive interpretation of the *se*-marked clause in a period prior to the obligatory *a*- marking of human objects. Thus:

(20) *se-cur-aron los brujos*  
**REF-cure/PAST-3p** the sorcerers  
 a. **Reflexive:** 'The sorcerers cured themselves'  
 b. **Middle:** 'The sorcerers got well'  
 c. **Passive:** 'The sorcerer were cured'

Eventually, a non-promotional impersonal-passive construction evolved, with the topic-of-passive marked as *object*, and a neutral 3rd-person singular verb agreement, as in (21a) below. But a promotional variant of the *se*-marked passive survives to this day with plural subjects, as in (21b):

(21)a. **Impersonal non-promotional passive:**  
*se-curó a los brujos*  
**REF-cure/3s DAT** the sorcerer  
 'Someone cured the sorcerers'  
 b. **Promotional passive or middle:**  
*se-venden bien los apartamentos*  
**REF-sell/3p well** the apartments  
 'Apartments sell well' (middle)  
 'Apartments are sold well' (passive)

The use of an oblique agent in the *se*-marked passive in Spanish is odd to this day, although the beginning of such a pattern can be seen in both the promotional and the impersonal passive, respectively (De Mello, 1978):

(22)a. **Promotional se-passive:**  
*las pirámides se-construyeron por esclavos*  
 the pyramids **REF-constructed/3p** by/with slaves  
 'The pyramids were constructed by/with slaves'  
 b. **Non-promotional ('impersonal') se-passive:**  
*se-destruyó a la nación por los malos gobernantes*  
**REF-destroyed/3s DAT** the nation by the bad rulers  
 'The nation was destroyed by the bad rulers'

The ambiguity of *por*, either 'because' or 'by', no doubt facilitated this development.

### 3.4. Syntactic change and the genesis of grammatical morphology

The intimate connection between syntactic change and **morphogenesis** is often ignored or under-emphasized in diachronic studies. Both grammatical and derivational morphemes arise from the re-analysis of **lexical words**. The resulting grammatical morphemes are both part of the marking system of syntactic constructions (see ch. 2 above) and the product of particular syntactic configuration during their genesis. Broadly, thus, syntactic structure gives rise to morphological structures, and syntactic complexity can eventually engender morphological complexity. This topic is treated extensively in the next two chapters, as well as in ch. 12, below. At this juncture, I will illustrate the rise of grammatical morphology with a few simple examples.

Notice first that four of the passive constructions whose diachronic genesis was discussed above, types A, B, C, D, arose from syntactically-complex source configurations. In the process, the condensation of the complex construction gave rise to grammatical morphology that then became part of the marking system of the resulting passive clause. Thus (schematically):

(23) a. *'be'-passive (English):*

The glass **was** [broken] >

The glass **was**-broken (by someone)

b. *Reflexive-passive (English):*

Mary **got** herself [fired] >

Mary **got**-fired (by her boss)

c. *Serial-adversive passive (Mandarin):*

She **suffered** (when) [(someone) fired her] >

She **suffered**-firing (by someone)

d. *Nominalization passive (Ute):*

[The cat killing] **was** >

The cat kill-**was**

In all four cases, a syntactically complex two-predicate precursor yields a morphologically complex passive clause, where one of the erstwhile predicates has **grammaticalized** to become the morpheme marking the passive construction, most commonly affixed to the passive verb.

Consider next the rise of a causative construction in English, in the course of which the erstwhile main verb becomes the causative suffix, now marking the verb of the new causative construction:

(24) *She let him [go] >*

She **let**-go of him

Consider, lastly, the use of locative head nouns in English to renovate locative prepositions:

**(25) *The top [of the house] is crumbling* >**

She threw it **on-top-of**-the house

In sum:

!grammatical morphemes are an integral part of syntactic constructions;

!the diachronic genesis of these two aspects of grammar is intertwined (Givón, 1971; 1979);

!syntactic complexity is often the precursor of morphological complexity;

!the two types of grammatical complexity often counterbalance each other in sharing the cognitive-communicative processing load of language.

#### 4. Methodological Aspects of Diachronic Reconstruction

A note is perhaps in order concerning the methods most commonly used in the reconstruction of diachronic morpho-syntactic change. There are three useful methods for reconstructing historical morpho-syntactic development:

(i) The study of **historical records** of contiguous developmental stages;

(ii) The study of **synchronic variation**, i.e. of co-existing related constructions;

(iii) The study of surviving 'relic' clues for the purpose of **internal reconstruction**.

While method (i) is considered the most reliable, it is not without problems. To begin with, the historical records often skip crucial intermediate stages and variants. Further, they are typically edited written records, while diachronic change takes place, overwhelmingly, in the spoken language. More to the point, in most languages of the world written historical records do not exist, or they don't cover particular syntactic developments.

Method (ii) is the sweetest for elucidating the detailed mechanisms of change, and sweeter yet when combined with method (i) (see e.g. Hilpert and Koops, 2006; Koops and Hilpert, 2008). But you have to catch the language at the right developmental stage, which is largely a game of chance.

Method (iii) is bold, speculative and theory dependent (Givón, 2000). It must be practiced with care but should not be shunned, for often it is the only one available. In the present study (chs. 4, 5), I have attempted to avail myself of all three, relying more heavily—of necessity—on a mix of (ii) and (iii).

One may as well note that these three methods have close analogs in evolutionary biology. Method (i) is reminiscent of the paleontologist's study of contiguous geological strata. Method (ii) resembles the study of the synchronic distribution of closely-related extant sub-species and variants. And method (iii) is reminiscent of the detailed anatomical analysis of a single organism for the purpose of trying to understand its evolutionary history.

One traditional method is least useful in reconstructing the detailed mechanisms of diachronic morpho-syntactic change—the **comparative method**. Unless applied to closely-related dialects or variants, it is better suited for reconstructing proto-forms, rather than the detailed mechanism of gradual change. It is thus primarily a method applied to macro-variation, whereas to understand the process of change one must study micro-variation.



## 5. Conclusion

### 5.1. Diachronic Determination of Synchronic Traits

The relational properties of passive clauses seem to reflect faithfully, at least in the early stages of grammaticalization, the relational properties of their source constructions. There is nothing surprising about this observation, nor anything particularly unique to the passive. Structural similarity—and functional overlap—between source and target constructions is standard fare in early-stage diachronic change, as it is in the early stages of bio-evolution.

Late-stage restructuring is not only possible but often inevitable. This is the way two related but distinct functions conspire, gradually, to also be coded by *syntactically* distinct structures. The acquisition of oblique agent-of-passive in many erstwhile agent-suppressing passive constructions, whether promotional or non-promotional to begin with, is one such late change. But functionally such agented passives are probably *inverse* rather than passive constructions (Shibatani, 1988a; Hidalgo, 1994; Givón ed., 1994a). Late changes in the relational properties of the passive clause are instances of restructuring.

There remains an intriguing fact that, in a way, redeems Comrie's (2004/2008) contention that the Latin-type promotional passive—with a nominative non-agent topic though *not* with an overt agent—<sup>6</sup> is in some sense the idealized syntactic prototype of the passive clause. But the reasons for this are functional rather than structural. The nominative subject of simple clauses is most commonly their *topical* argument. While this generalization is not absolute, it is statistically powerful (Givón ed., 1994a, ed. 1997a). The eventual—and often gradual—acquisition of subject properties by the non-agent topic of erstwhile non-promotional passives is an expression of this generalization, perhaps driven by the most powerful hand-maiden analogy can marshal—the power of high usage frequency.

### 5.2. Change, Variation and Adaptive Selection

In biological evolution, behavioral and eventually genetic micro-variation at the individual and sub-species level, mediated by adaptive selection, eventually engenders macro-variation at higher taxonomic levels. In diachronic change, communicative -behavioral micro-variation at the individual and social level, mediated by adaptive-communicative selection, eventually engenders typological macro-variation at the dialect, language, or family levels. In both developmental trends, variation is both the mother and the daughter of change. In both, functional-adaptive selection is the ubiquitous midwife.

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<sup>6</sup> As noted by Shibatani (1988a), the functional prototype of the passive is agent-suppressing. A clause with an oblique agent is thus more likely to function as an inverse (Hidalgo, 1994).

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