

Argument Structure and the Syntax-Lexicon Interface

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My research addresses two questions:

- a) How do we explain the limited set of argument structure types?
- b) How do lexical structures relate to sentential syntactic structures?

1. An Observation About Verbs

Verbs can present variability in the number of arguments that they instantiate syntactically
--

1. The window broke
2. The rock broke the window
3. The children laughed
4. *The clown laughed the children

5. Grandma baked (us) a cake
6. Gene danced (in the rain)
7. Maria pushed the cart (to the garage)
8. Laura smiled (the most charming smile I ever saw)
9. I watered the tulips (flat)

10. L'avia **ens** va cuinar un pastís
The grandma **us** past baked a cake
11. El Gene **hi** va ballar
The Gene **there** past danced
12. La Maria **hi** va empènyer el carret
The Mary **there** past pushed the cart
13. En Jordi **la** va viure a fons
The George **it** past to deep
“George lived an intense live”

But the number of arguments possibly linked to a(n unmodified) predicate is limited to two (excluding the external argument), crosslinguistically.

- 14. Peter gave Mary a book
- 15. * Peter gave Martha a book his hands
- 16. Peter gave Martha a book with his own hands

- Now, what's wrong with our standard theory of argument structure?

- 17. ?? Break <(Agent), Theme>
- 18. Laugh <Agent>
- 19. Bake <Agent, Theme, (Beneficiary?)>

- It does not explain why adicity alternations are possible in certain cases but not in others.
- It does not explain why there is a limited inventory of thematic roles that show up as arguments, or why there is a restriction of a maximum of two arguments per predicate

- 20. Give <Agent, Theme, Goal>
- 21. Give* <Agent, Theme, Goal, Instrument>

- A set of “correspondence rules” between these representations and syntactic structures (e.g., “canonical realization rules”, Rappaport and Levin 1998) is needed.

- 22. Template Augmentation (Rappaport Hovav & Levin 1998)
Event structure templates may be freely augmented up to other possible templates in the basic inventory of event structure templates

[x ACT <sweep> y] : Phil swept the floor
Phil swept

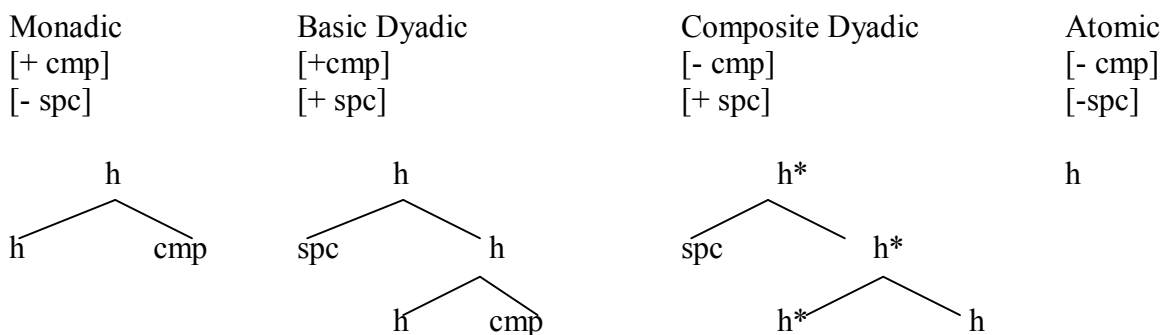
[[x ACT <sweep> y] CAUSE [BECOME [y <state>]]] : Phil swept the floor clean

[[x ACT<sweep> y]CAUSE[BECOME[z<place>]]]: Phil swept the crumbs onto the floor
* Phil swept onto the floor

Is there an alternative theory?
Does the alternative theory do any better w.r.t. our questions?

2. Hale and Keyser's (2002) Approach (H&K)

- What if the above restrictions were due to structural properties constraining the building of lexical items (of argument structures)?¹
- H&K question the tradition/assumption that the syntactic properties of lexical items are in large measure predictable from their meaning.
- In their view, UG specifies not word meanings themselves (including theta roles or any other features used by lexical semanticists), but rather principles constraining the construction of those meanings.
- Their point of departure is that those principles are the same principles that constrain syntactic derivations (for example, incorporation, the HMC, or binding).
- The lexical categories are defined according to two primitive structural relations: complement and specifier [sisterhood and adjunction]



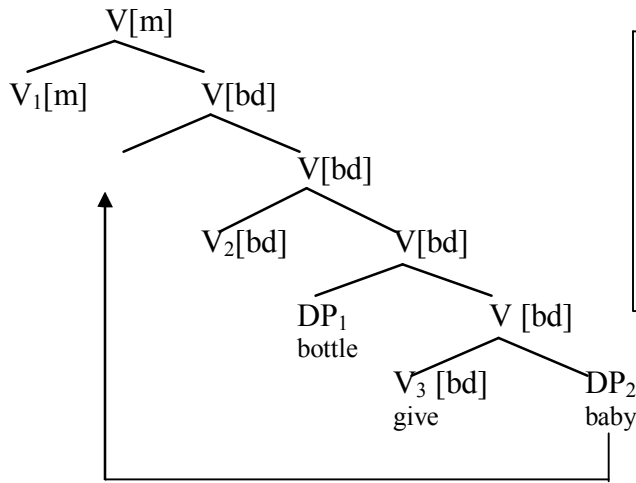
- All the possible argument structures are formed by combinatorial merging of these primitive structural lexical categories.

3. My Work Within H&K's Program: the Limited Set of Argument Structures

- H&K allow for unrestricted merging of the lexical categories to form predicates with more than one segment. I argue that by doing so, the restrictive power of the theory is undermined. Specifically, if we allow recursive combination, there seems to be no limit in the number of possible argument structures.

¹ The goal is that of “ascertaining the extent to which the observed behavior of lexical items is due to structural relations, rather than to the interaction of structure and some other component” (Hale and Keyser 2002: 1). “There is more to the grammar of verbs than structure, to be sure (...) we take some such non-structural factors to be matters that can be understood only in terms of one or the other interface” (p. 3)

23. I gave the baby the bottle (H&K 2002:163)

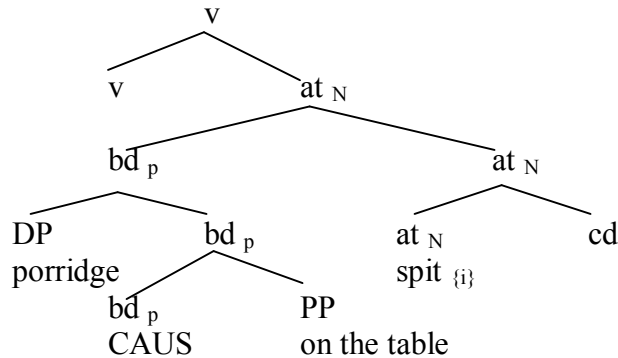


“The verb *give* is intransitive; that is, it does not assign Case to its complement. This is the essential feature of the double object construction. As a consequence, DP₂ (*baby*) must raise [...] to the specifier of V₂. That verb must be present to permit this and appears there for this reason alone” (p.164).

“The structure would consist of a recursive [basic dyadic] type structure embedded in a [monadic] type structure” (*ibidem*, p.163).

- However, in natural language we observe a restricted number of arguments allowed to be linked to a predicate. In other words, a limited size of possible argument structures. Also, a limited number of patterns.
- So how restricting argument structures? I argue that by eliminating recursion, we restrict a) the number of argument structures, and b) the possible shape of argument structures.
- Recursion is eliminated by a simple principle:
Uniqueness of Selection Hypothesis (US)
 An argument structure can contain two lexical categories x, y, only if $x \neq y$
- The challenge: does the US allow for all possible types of argument structures? The methodological strategy: if we can account for the most complicated case, the other cases might be trivial.

24. The baby spat porridge on the table



- Spit starts out as at = N
- at projects a specifier by its association with cd
- The PP argument is in specifier position
- The upper v head is necessary because otherwise the structure would be a N

a. Consequences of the US: the number of possible argument structures

- The combinatorial possibilities allowed by the US amount to a total of 27 structures. This means, 27 lexical structures that should account for all of the possible argument structures of lexical items

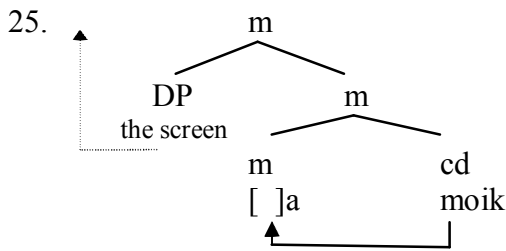
4. My Work within H&K’s Program: the Lexicon/Syntax Interface

Q2: How do the structures in H&K “connect” with sentential syntactic structures?

- I argue that transitivization and detransitivization, two lexical processes attested in a variety of languages, shed light into this question.
- H&K sketched an account of these processes based on the merging of a *special monadic category of verbal nature* that is possible for certain structures, and not others.
- They even support their theory claiming that certain morphological affixes reflect the lexical structures that they propose

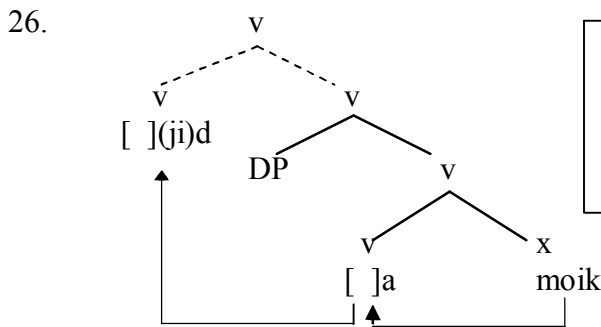
a. Crosslinguistic evidence for transitivization: O’Odham (H&K 2002)

<i>Adjective</i>	<i>Inchoative verb</i>	<i>Transitive verb</i>	<i>Meaning</i>
(s-)moik	moik-a	moik-a-(ji)d	“soft”
(s-)'oam	'oam-a	'oam-a-(ji)d	“yellow”



The head of the lexical type “composite dyadic” (cd) does not take a complement, but claims a specifier. It merges with the monadic category m, which takes a complement, and would not project a specifier on its own. In this case, however, m can project a specifier by virtue of its association with cd.

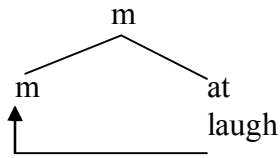
DP raises to subject position to fulfill EPP, creating intransitive *moika*, “soften”.



An optional monadic element (of verbal character) can be merged with the structure, introducing an argument (the Agent) and preventing the DP to raise to subject position. This DP will therefore remain as the object. We have the transitive form.

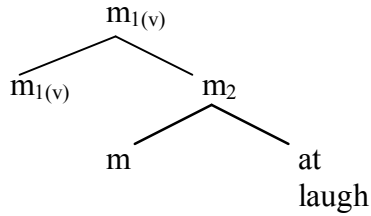
27. The children laughed
 28. * The clown laughed the children

29.



The monadic head *m* takes a complement and does not project a specifier. The head *m* has no phonological content, and requires immediate incorporation of its complement, which is the morphological constant (the p(honetic)-matrix) hence creating the verb *laugh*.

30. *



Nothing prevents the merging of an additional monadic category of verbal character, but that does not bring an internal argument to the structure, so transitivity is not possible by lexical means.

b. Crosslinguistic evidence for detransitivization: O’Odham (*ibidem*)

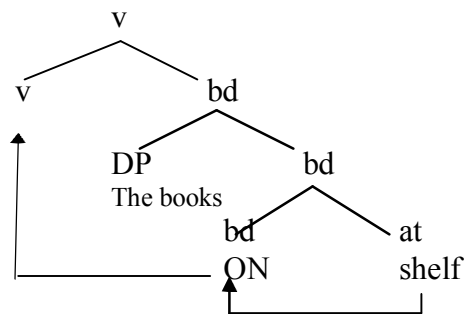
<i>Transitive</i>	<i>Detransitive</i>	<i>Meaning</i>
mulin	‘e-mulin	“break”
hain	‘e-hain	“shatter”
kuup	‘e-kuup	“close”
kuupi’ok	‘e-kuupi’ok	“open”

31. Kawyu’at mul g n-nowi
 Horse AUX3 break:PERF ART 1s-arm
 “The horse broke my arm”

32. N-nowi’at ‘e-mul
 1s-arm AUX3 REFL-break:PERF
 “My arm broke”

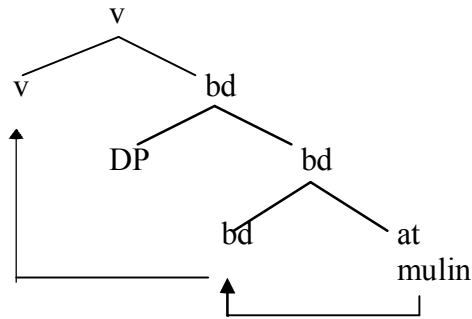
- Transitive structure assigned to locatum/locatio verbs in English:

33.



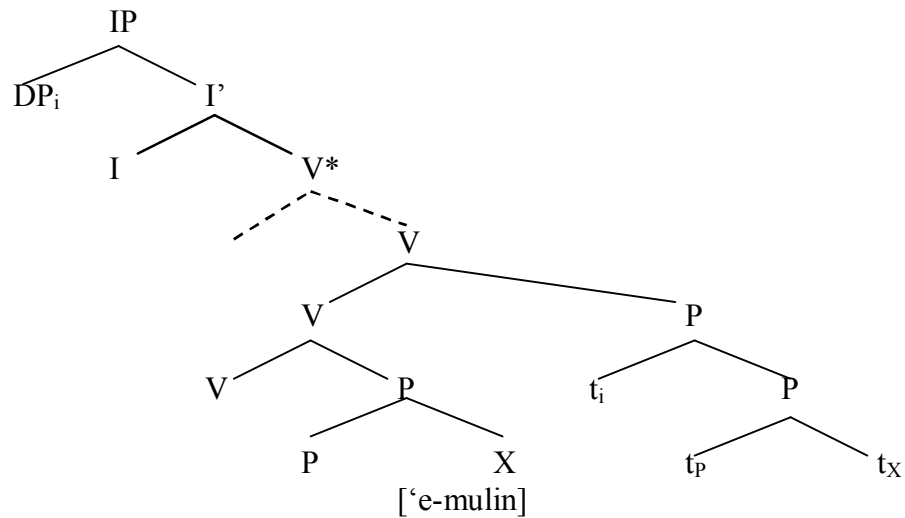
34. Mary shelved the books
 35. * The books shelved

36.



- H&K’s proposal is that the intransitive alternate is derived through a process that they call “detransitivisation” (which is not available in English)

37.



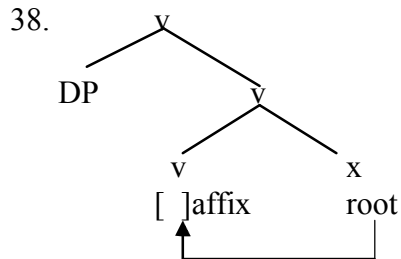
- There are some problems with the structure in (37): a) the exact structural nature of the node V*; b) it is not clear whether the structure in (37) reflects a lexical or a syntactic process.

c. My work on this area: Insight from Romance (Catalan and Spanish)

- I claim that in Romance we find evidence for the existence of **two different types of derivational affixes**. The first type includes affixes that do not affect the argument structure of the verb, but refer instead to the aspectual properties of the predicate. The second type includes affixes that affect the argument structure of the lexical entry, in the sense that they may introduce an additional argument.
- Affixes of the first type are exemplified by the suffixes *-ec(e)-*, *-e(a)-*, in Spanish, and the prefixes *en-* and *a-* in Catalan. Affixes of the second type are equivalent to transitivizer *v* and detransitivizer *V**, among others, and are exemplified by Japanese *sase* and Catalan *es* (Spanish *se*), respectively.

4.3.1. Affixes of the First Type: Proposal

- The first type of affixes is characterized by not changing the valency of the predicate. They are truly derivational affixes in that they define the category of the word they form by attaching to a (category-neutral) base. Their contribution is also to define the aspectual properties of the predicate.



Examples of this kind of affix in English are the verbalizing affixes *-ify* and *-ize*. (Ritter and Thomas Rosen (1998), after unpublished work by Sawai (1996)):

39. a. The cold solidified the paint
 b. The paint solidified
40. a. The pressure crystalized the carbon into diamonds
 b. The carbon crystalized
41. We motored down the highway for days/* in days
 42. We motorized the wheelchair in an hour/* for an hour
43. a. The ornate furnishings fancied *(up) the room
 b. The ornate furnishings fancified (*up) the room

- However, the majority of affixes of type 1 in English is phonologically null.

4.3.1.1. Spanish Suffixes of the First Type²

A) -e(a)

Noun/Adjective

mariposa, “butterfly”
 bruja, “witch”
 capitán, “captain”
 broma, “joke”
 martillo, “hammer”
 campana, “bell”
 amarillo, “yellow”
 redondo/a, “round”

Verb

maripos^{ear}, “move like a butterfly (without purpose)”
 bruje^{ar}, “act like a witch”
 capitane^{ar}, “to command”
 brom^{ear}, “to joke”
 martille^{ar}, “to hammer down”
 campan^{ear}, “to ring a bell”
 amarille^{ar}, “to turn yellow”
 redonde^{ar}, “to round”

² See also Rifón (1997) for a detailed descriptive study of these affixes.

- The most usual meanings of these derived verbs fall into several templates: “act as x” (as in *mariposear*, *brujear*, *capitanear*), “make x” (as in *bromear*), “use x” (as in *martillear*, *campanear*), “make something x/turn x” (as in *amarillear*, *redondear*).
- Crucially for our argument of *-e(a)* being a suffix of type 1 is that the affix does not determine whether the derived verb is transitive or intransitive.
 - always intransitive (*culebrear*, “move like a snake”, *mariposear*, “move around”, *cojear*, “limp”, *bromear*, “joke”, etc);
 - always transitive (*martillear*, “hammer”, *apalear*, “hit with a stick”, etc);
 - either a transitive or an intransitive with *se* (see below) forms (*azulear*, “make/turn blue”, *afear* “make/turn ugly”, *redondear* “make/turn round”, etc.).
- The atelicity of these verbs can be shown with durational phrases (Dowty 1979):

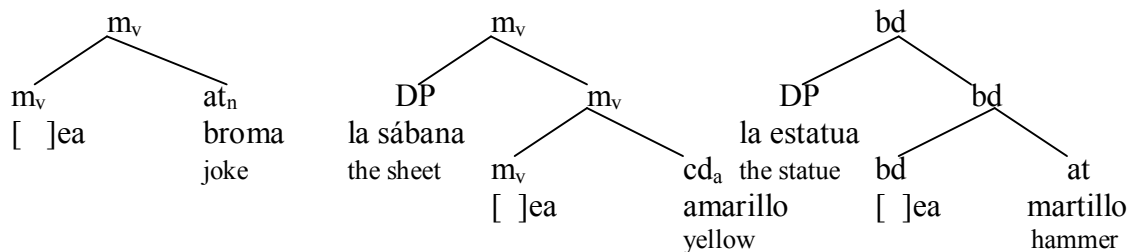
44. Guillermo mariposeó por la oficina durante toda la tarde/*en una tarde
 Guillermm butterfly-**ea**-PST around the office for all the afternoon/*in an afternoon

45. Sira martilleó la estatua durante dos horas/*en dos horas
 Sira hammered-**ea**-PST the statue for two hours/in two hours

- Most of these verbs have iterative aspect (which by definition is atelic):

46. a. Sira martilleó la estatua. No, sólo le dió un golpe de martillo.
 Sira hammered the statue. No, only it.dative gave one hit of hammer
 “Sira hammered the statue. No, she only hit it once with the hammer”

b. Sira martilleó la estatua. # No, le dió varios golpes de martillo.
 Sira hammered the statue. No, it.dative gave several hits of hammer
 “Sira hammered the statue. No, she hit it several times with the hammer”



B) *-ec(e)*

- Not determined in their valency, but they all present a unified aspectual value: they are all telic

Noun/Adjective

furia, “anger”
 flor, “flower”
 tarde, “afternoon”
 duro, hard
 húmedo, humid
 robusto, “robust”

Verb

enfurecer, “to anger”
 florecer, “to flourish”
 atardecer, “to become afternoon”
 endurecer, “to harden”
 humedecer, “to become humid”
 robustecer, “to make robust”

- Either transitive or intransitive; a number of them present an alternation with *se* (*enfurecer/se*, *entristecer/se*, and some others don't. Since the affix does not determine the valency of the predicate, we conclude that *-ec(e)* is an affix of type 1, according to our classification.
- The atelicity of these verbs can once more be tested using a durational phrase:

47. Amelia enfureció a Carmen en dos minutos/*durante dos minutos³

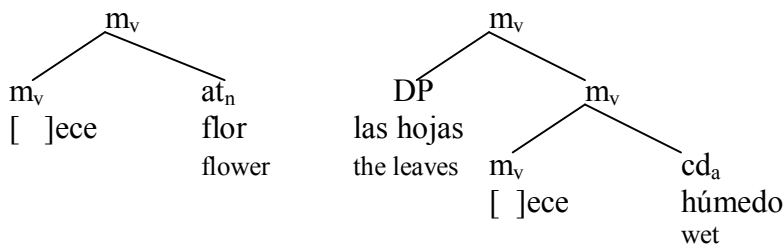
Amelia angered to Carmen in two minutes/for two minutes

“Amelia angered Carmen in two minutes/for two minutes”

Other diagnostics: the *almost* test and the progressive implication test (Dowty 1979):

48. El pan casi se endurece

The bread almost hardens



³ The sentence *Amelia enfureció a Carmen durante una hora*, “Amelia angered Carmen during an hour”, is acceptable with a meaning in which Carmen turns angry at some point and remains angry during an hour, not with the relevant meaning that Amelia kept making Carmen turn angry for an hour.

4.3.1.2. Catalan prefixes of the first type: *en-* and *a-*

- One first group is formed by verbs that are necessarily transitive

49. L'oficinista va arxivar els documents (cf. *arxiu*, “file”)

The teller past file the documents
“The teller filed the documents”

50. El pescador va salar el bacallà (cf. *sal*, “salt”)

The fisherman past salt the codfish
“The fisherman salted the codfish”

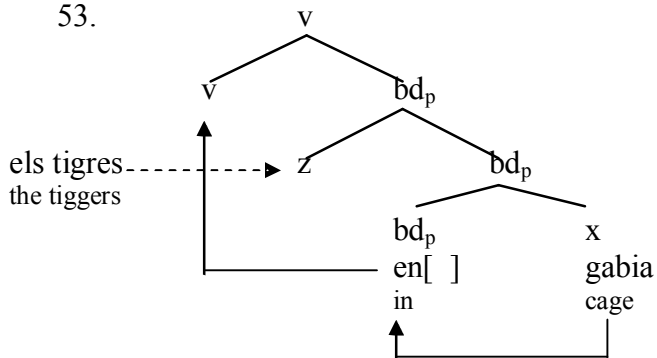
51. El domador va engabiar els tigrès (cf. *gàbia*, “cage”)

The trainer past en-cage the tigers
“The trainer caged the tigers”

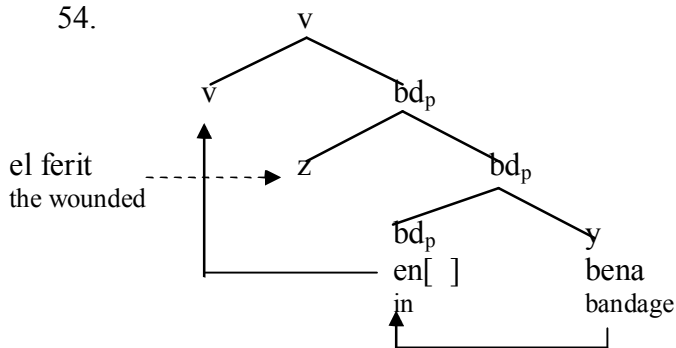
52. L'enfermera va embenar el ferit (cf. *bena*, “bandage”)

The nurse past in.bandage the wounded
“The nurse bandaged the wounded”

53.



54.



An inchoative version of these verbs (with or without prefix) is impossible, even with the help of the inchoative marker, the particle *se*:⁴

⁴ These sentences are all grammatical in the impersonal meaning, which is irrelevant here. The meaning we are looking for is the “spontaneous meaning” found in *The screen cleared* (vs. *Tim cleared the screen*).

55. a. * Els tigres van engabiar(-se)
the tigers past in-cage(se)
b. * El ferit va embenar(-se)
the wounded past in-bandage(se)
c. * Els documents van arxivar(-se)
the documents past file(se)
d. * El bacallà va salar(-se)
the codfish past salt(se)

- Given this data, one might think that the prefixes *en-* and *a-* (or some null counterparts of them) are the determinants of the transitivity of the predicate. However, these prefixes are compatible with an inchoative marker like *se* in other contexts, indicating that this prefix is not responsible for the transitivity of the verb:

<i>Noun</i>	<i>Transitive</i>	<i>Intransitive</i>
Amor, “love”	enamorar, “seduce”	enamorar-se, “fall in love”
Gresca, “joy”	engrescar, “excite, encourage”	engrescar-se, “get excited”

56. El Timas va enamorar la Lídia (amb el seu somriure encantador)
The Timas past in-love the Lídia (with the his smile enchanting)
“Timas made Lídia fall in love with his enchanting smile”

57. La Lídia es va enamorar del Timas
The Lídia SE past in-love of.the Timas
“Lídia fell in love with Timas”

- Moreover, few verbs formed with these prefixes exist only as inchoatives (with *se*): *enfebrar-se*, “to become feverish”, *enorgullir-se*, “to be proud”, *emplujar-se* “to become rainy (weather), *emborrascar-se* “to become stormy (weather)”, *ennuvolar-se*, “to become cloudy (weather), *agenollar-se* “to kneel down”:

58. De sobte el dia *(es) va ennuvolar
Of sudden the day SE past in-cloud
“Suddenly, the day became cloudy”

- And yet another group of verbs formed with these prefixes alternate between a transitive and an inchoative frame without any morphological change between the alternants. These are *emmalaltir* “make/become sick”, *emmudir* “make/become silent”, *enllaçar* “to entangle/to relate”, *aterrar* “to land”, *acampar* “to camp”:

59. El pilot va aterrar l’avió enmig d’un camp
The pilot past land the plane in.middle of a field
“The pilot landed the plane in the middle of a field”

60. L'avió va aterrar enmig d'un camp
 The plane past land in middle of a field
 "The plane landed in the middle of a field"

- In sum, denominal and deadjectival verbs with the prefixes *en-* and *a-* in Catalan appear in all possible valency forms:
 - as transitive only (locatio/locatum like *engabiar*, "to cage" and *embenar*, "to bandage");
 - presenting the alternation between transitive and inchoative with *se* (*enamorar*, "seduce", *enamorar-se*, "fall in love");
 - inchoative with *se* only (*enfebrar-se*, "to become feverish");
 - and presenting the alternation between transitive and inchoative without any morphological reflex (*emmalaltir*, "to become ill").
- Further proof that these prefixes do not affect transitivity is the few pairs in which they have been attached to an already verbal base, whose transitivity value is preserved. The presence of *en-* does not change the basic transitivity of the base:

<i>Base verb</i>		<i>Derived verb</i>	
cobrir, "cover"	(transitive)	encobrir, "cover, hide"	(transitive)
creuar, "trespass"	(transitive)	encreuar, "putting forming a cross"	(transitive)

61. El Sergi va cobrir la Laura amb la manta
 The Sergi past cover the Laura with the blanket
 "Sergi covered Laura with the blanket"

62. L'actor va encobrir la seva identitat
 The actor past hide the his/her identity
 "The actor hid his identity"

- A complication in the data is presented by verbs that, having attached *en-* to related verbal bases, occur always with the so-called reflexive clitic *se*. In these cases the transitivity of the base verb has also been unchanged:

<i>Base verb</i>		<i>Derived verb</i>	
portar, "carry, bring"	(transitive)	emportar-se, "take along"	(transitive)
provar, "test"	(transitive)	emprovar-se, "try on"	(transitive)
dormir, "sleep"	(intransitive)	adormir-se, "fall asleep"	(intransitive)

63. Els visitants van portar regals per a tothom
 The visitors past bring presents for to everybody
 "The visitors brought presents for everybody"

64. Els visitants es van emportar regals de tothom
 The visitors SE past take.along presents of everybody
 "The visitors took (with them) presents from everybody"

I claim that the above cases are precisely cases of aspectual *se* and therefore the presence of this element should not affect the present account. The relevant property of *en-*, mainly its null effect in the transitivity of the predicate, still holds for this group.

- To complicate things further, there are two apparent counterexamples, although I sustain here that they are not really so. The first one is *passar*, “pass”, which can be transitive or intransitive:

65. El tren passa a les tres en punt
The train passes at the three in point
“The train passes at three o’clock”

66. El Víctor va passar l’exàmen sense dificultat
The Víctor past pass the exam without difficulty
“Víctor passed the exam without difficulty”

Affixation of *en-* results in an unambiguously transitive verb (requiring aspectual *se*, as above, probably directing the meaning of the verb):

67. La Natàlia es va empassar l’entrepà
The Natàlia ES past swallow the sandwich
“Natàlia swallowed the sandwich”

The second case is the verb *cabre*, “fit (in)”, which is always intransitive:

68. El piano no hi cabrà per la porta
The piano not there fit across the door
“The piano will not fit across the door”

When *en-* is affixed, the resulting verb is transitive:

69. No sé com encabirem el piano en aquesta habitació
Not know.I how fit.future the piano in this room
“I don’t know how we are going to fit the piano in this room”

One similar counterexample is found with the prefix *a-*, in the verbs *jeure*, “lay down”, and *beure*, “drink” intransitive, whose respective counterparts with *a-* are the transitive *ajeure*, “lie down”, and *abeurar*, “give water to someone (normally animals)”:

70. El malalt va jeure al llit
The ill past lay on.the bed
“The ill person laid on the bed”

71. La vaca va beure aigua
The cow past drink water
“The cow drank water”

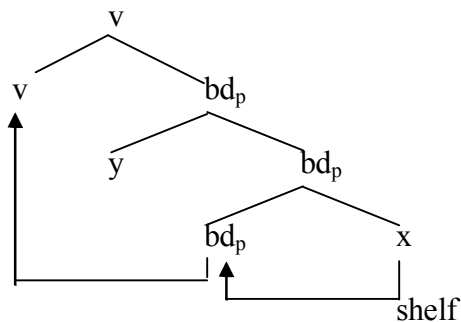
72. L'enfermera va ajeure el malalt al llit
 The nurse past lay the ill on.the bed
 "The nurse laid the ill person on the bed"

73. El pastor va abeurar el ramat
 The shepherd past give.water the herd
 "The shepherd gave water to the herd"

4.3.2. Affixes of the Second Type: Proposal

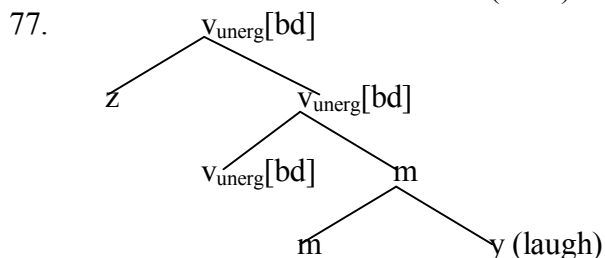
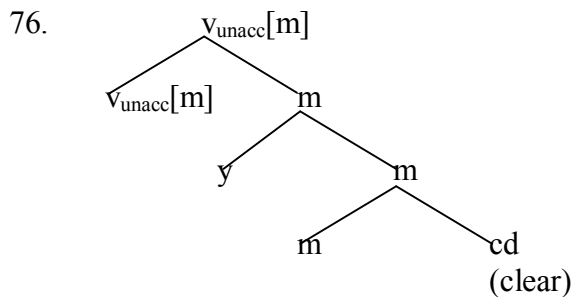
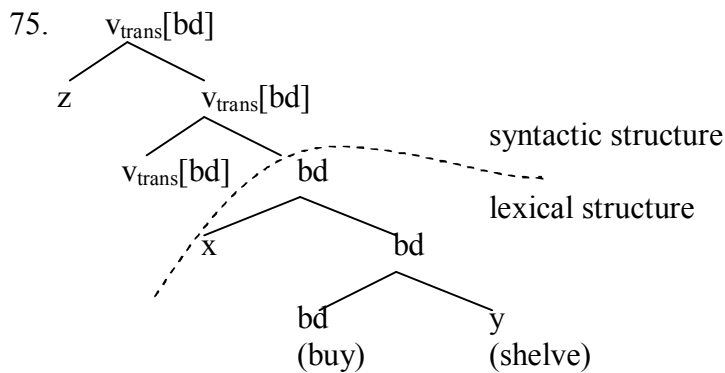
- A number of authors have proposed that the arguments of a predicate are linked to the presence of corresponding functional categories. The head linked to the external argument has received various names, depending on the theoretical orientation or the focus of research: little *v* (Koizumi 1995), Voice (Kratzer 1993), AgrS (Chomsky 1995), Event (Travis 2000), or ASP_{or} (Borer 1994).

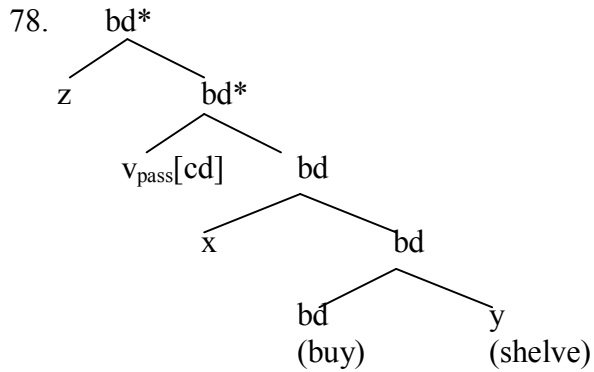
74. Transitive verb



- Recall that in H&K, the default realization of this structure would produce a prepositional phrase, and that is the reason of the obligatoriness of the upper monadic head. This head is also claimed to be responsible for the introduction of the external argument in sentential syntax.
- I claim that the upper monadic element that appears in the transitive predicates of H&K's structures corresponds to the functional heads identified in the literature (little *v*, Voice, AgrS, Event, Asp_{or}).
- The second type of affixes represent overt manifestations of these functional categories. I call them *bridging categories*, since they "bridge" between lexical and syntactic structure. They "close off" (Fukui and Speas 1988) the lexical structure and introduce syntactic features demanding agreement.
- I further pursue the idea that the typology of these functional categories is restricted by the same elements that restrict the typology of the lexical categories in H&K's theory: whether they have a complement or not, and whether they have a specifier or not:

- V_{trans} : a basic dyadic category introducing the external argument of a transitive verb, and providing the structure with verbal features. Possibly, it carries accusative case too.
 - V_{unerg} : a basic dyadic category introducing the external argument of an unergative verb, and providing the structure with verbal features.
 - V_{unacc} : a monadic category providing the structure with verbal features.
 - V_{pass} : a composite dyadic category allowing for the external argument to be expressed as an adjunct in a passive verb; gives verbal character to the structure, no accusative case.
 - $V_{impersonal}$: a monadic category with accusative case; no external argument. This category is found in impersonal constructions in Spanish (Juarros-Daussà 2000), and Japanese passives of the type discussed in Harley (1995).
- Bridging categories do not belong to the lexical Phase (Chomsky 2000), so they are not subject to the US.
 - Sample derivations





In sum, the proposed bridge categories have the following functions:

- they provide the structure with morphosyntactic label and features
- they introduce an external argument, if applicable
- they introduce the case and agreement features necessary for the structure to become syntactic

4.3.2.1. Transitivity: category v_{trans}

- **Japanese** has an overt affix of second type corresponding to the category v_{trans} . Such morpheme is the causative morpheme *sase*, as analyzed by Harley (1995) and others (Pilkaanen 2001, Kitagawa 2000).
- **Catalan:**

A first group of alternating verbs presents no morphological reflex:

<i>Transitive</i>	<i>Inchoative</i>	<i>Meaning</i>
canviar	canviar	change
penjar	penjar	hang
rotar	rotar	rotate

79. a. El partit va canviar la seva política ambiental
 The party past change the its policy environmental
 ‘The party changed its environmental policy’
- b. La seva política ambiental va canviar (un cop el partit va ser escollit)
 The their policy environmental past changed (a time the party past be elected)
 ‘Their environmental policy changed (once the party was elected)’
80. a. Els convidats van penjar els abrics a l’armari
 The guests past hung the coats in the closed
 ‘The guests hang the coats into the closet’

- b. Els abrics pengen a l'armari
 The coats hang in the closet
 "The coats are hanging inside the closet"

A second group, somehow larger, includes denominal or deadjectival verbs with the prefixes *en-* or *a-*, which, as argued before, belong to type 1:

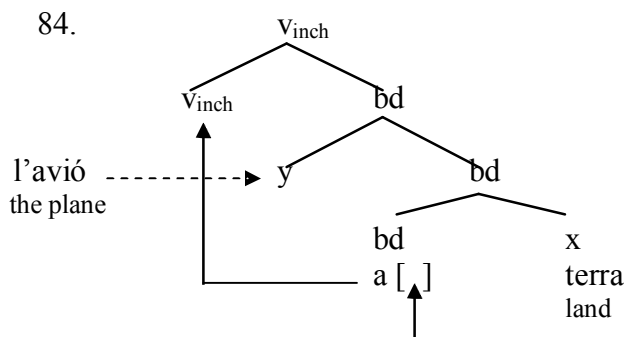
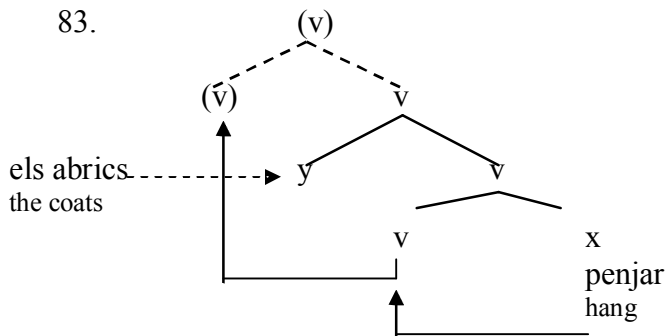
<i>Transitive</i>	<i>Inchoative</i>	<i>Meaning</i>
embarcar	embarcar	embark
aterrar	aterrar	land
emmalaltir	emmalaltir	make/get sick
empitjorar	empitjorar	make/get worse

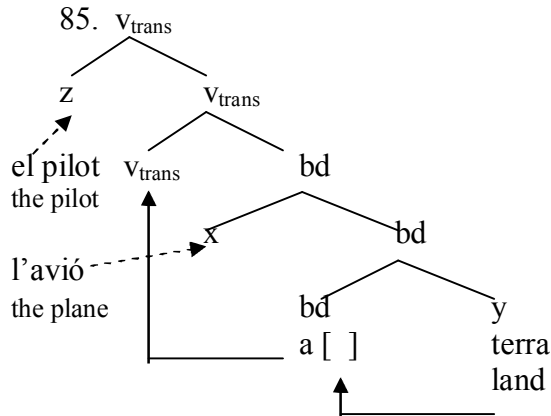
81. a. El pilot va aterrar l'avió amb gran habilitat
 The pilot past land the plane with great skill
 "The pilot landed the plane very skillfully"

- b. El cohet va aterrar a la lluna
 the rocket past land on the moon
 "The space rocket landed on the moon"

82. a. Els bolets verinosos van enmalaltir els excursionistes
 the mushrooms poisonous past sicken the hickers
 "The poisonous mushrooms sickened the hickers"

- b. Els excursionistes van emmalaltir sobtadament
 the hickers past sicken suddenly
 "The hickers suddenly got sick"





4.3.2.2. Detransitivization: category v_{unacc}

Transitive	Intransitive	Meaning
obrir	obrir-se	open
tancar	tancar-se	close
trencar	trencar-se	break

86. La portera va obrir la porta
 The doorwoman past open the door
 “The doorwoman opened the door”

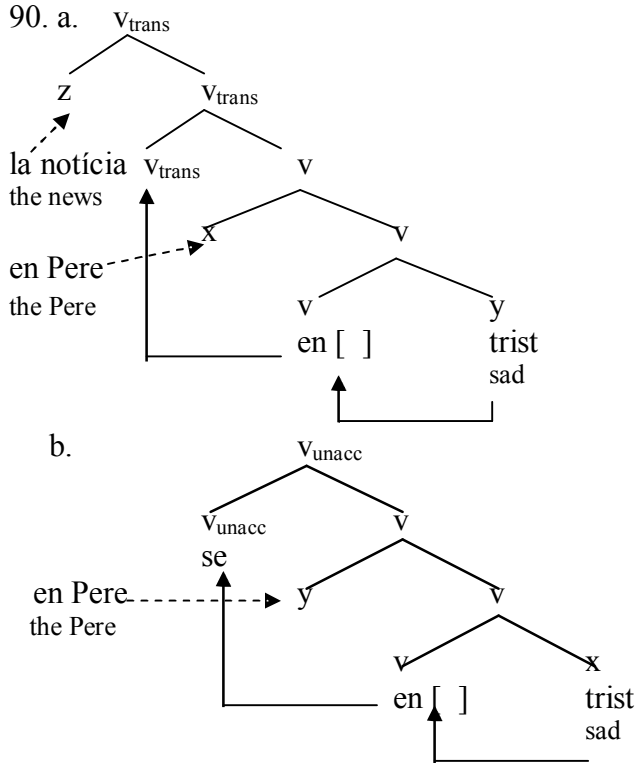
87. * La porta va obrir
 the door past open

88. La porta es va obrir
 The door es past open
 “The door opened”

- I propose that the clitic *se/es* in Catalan is a bridging category of type v_{unacc} that merges with category-neutral structures. Its main property is that it does not introduce an external argument.
- The Romance clitic *se* appears in a variety of constructions. Juarros-Daussà (2000) argues that *se* is uniformly generated in head position of the functional node that would otherwise introduce the external argument of the verb (v_{trans} or v_{unerg}), and hence in complementary distribution with such node.

89. a. La notícia va entristir el Pere
 the news past sadden the Pere
 “The news saddened Pere”

b. En Pere es va entristir
 the Pere SE past sadden
 “Pere got sad”



- Incompatibility of *se* with v_{unerg} :

91. a. En el campo se vive bien
 In the country se live.3s well
 “One lives well in the country”

b. * En el campo la gente se vive bien
 in the country the people se live.3s well

92. Al campo se va para aliviar las penas
 to.the country se go.3s to alleviate the grieves
 “One goes to the country to alleviate one’s grieves”

- Obligatoriness of *se* with unaccusatives, and obligatoriness of a DP:

93. Mi hermana *(se) desmaya a menudo
 My sister se faint.3s often
 “My sister often faints”

94. * Se desmalla a menudo
 se faint.3s often
 (intended: “One faints often”)

Some lexical structures allow merging either with *se* or with v_{trans} :⁵

95. Las nubes *se* disiparon
The clouds *se* dissipated.3pl
“The clouds dissipate”
96. El viento (**se*) disipa las nubes
The wind dissipate.3s the clouds
“The wind dissipates the clouds”

4.4. Conclusions from Romance

- There are two kinds of affixes: affixes of the first type do not affect the argument structure of the verbs they appear with, but are purely aspectual; affixes of the second type determine the transitivity of the predicate.
- For each affix, we should determine whether they belong to the first or the second group.
- Both processes, traditionally labelled transitivity and detransitivity, are observed in the formation of Catalan and Spanish verbs, as was in O’odham.
- In Catalan, the bridging category responsible for the transitive alternant is a phonologically null v_{trans} , while the bridging category responsible for the intransitive alternant is a phonologically overt v_{unacc} , mainly, *es/se*.
- These data illustrate that languages differ in the morphological expression of their bridging categories.

4.5. Problematic crosslinguistic data

4.5.1. Misumalpan Lgs (Hale and Salamanca 1999) and Yaqui (Jelinek 1998)

97. Windas glas-ka ba bai-w-an Miskitu
Window glass-CSNTR the break-WA-PST3 *inchoative: wa*
“The window broke”
98. Lapta ba glas bai-k-isa Miskitu
Heat the glass break-K-PRES3 *transitive: ka*
“Heat breaks glass”

⁵ Examples based on the Italian ones in Zubizarreta (1987), following Burzio (1981).

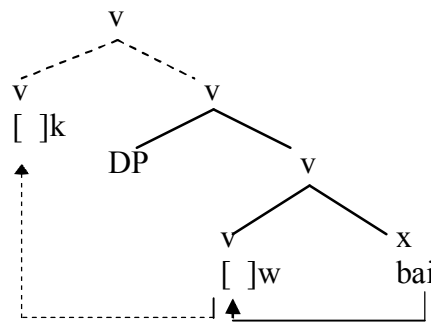
99. Walang bas-ka sang-**da**-I
 Savanna foliage-CNSTR green-**DA**-PRES3
 “The foliage of the savanna is greening up”

Ulwa
inchoative: da

100. Kahluaka sang-**p**-uting
 Shirt this green-**PA**-IMFUT1
 “I am going to make (dye) this shirt green (or blue)”

Ulwa
transitive: pa

101.



Transitive: * bai-w-k-
 (cf. bai-k-)

- Yaqui, like Miskitu, also presents verb doublets where a transitive verb has the suffix *-(t)a*, while a corresponding intransitive ends with *-(t)e*:

Intransitive

chep-**te**, “jump”
 ‘om-**te**, “be angry”
 vee-**te**, “burn”
 kot-**te**, “break”
 yook-**e**, “change color”
 sip-**e**, “become cool”

Transitive

chep-**ta**, “step on x”
 ‘om-**ta**, “anger x”
 vee-**ta**, “burn x”
 kot-**ta**, “break x”
 yook-**a**, “color x”
 sip-**a**, “become cool”

Transitive: * chep-te-ta
 (cf. chep-ta)

4.5.2. Navajo (Hale and Keyser 2002)

Inchoative

béézh
 ii-dlaad

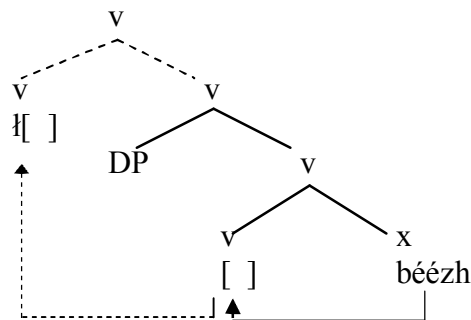
Transitive

l-béézh
 ii-**ll**-dlaad

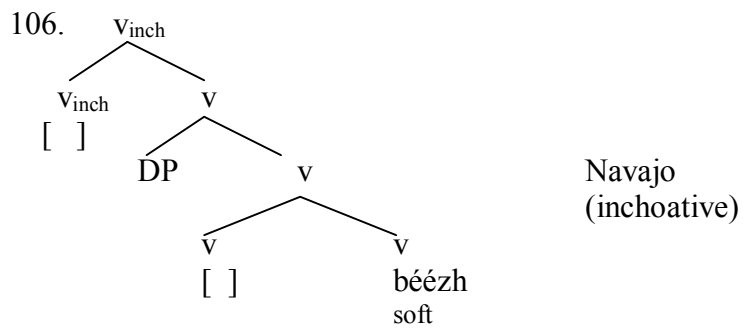
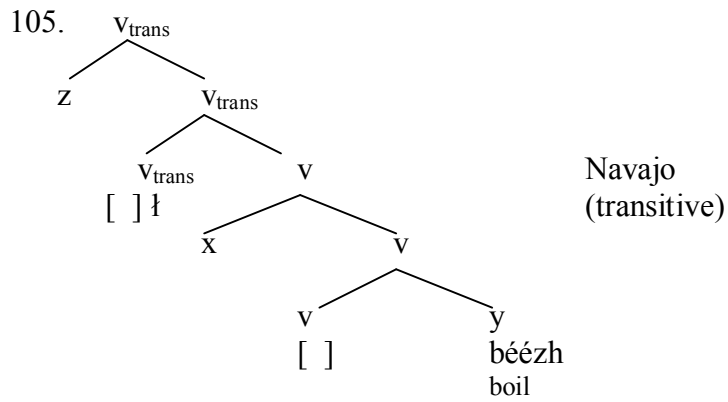
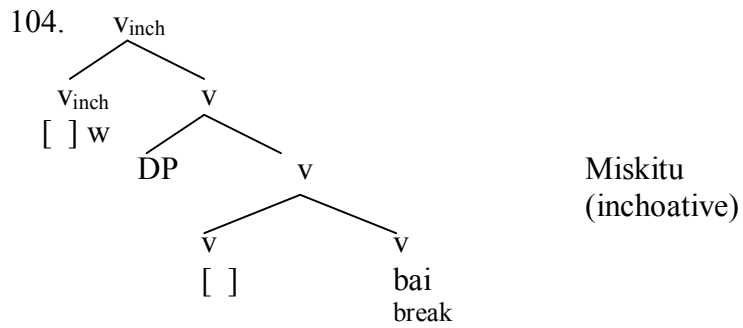
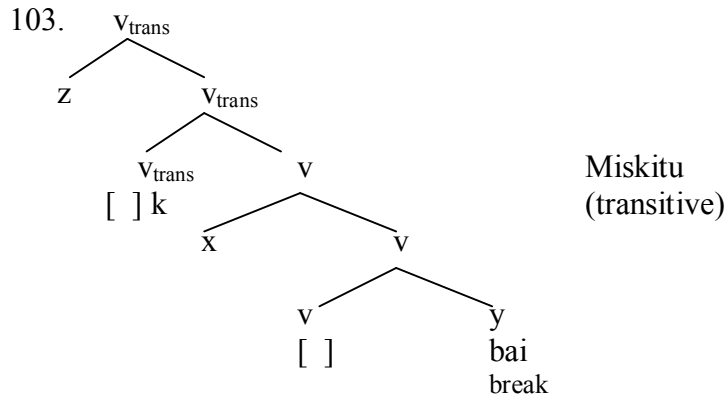
Meaning

boil
 break

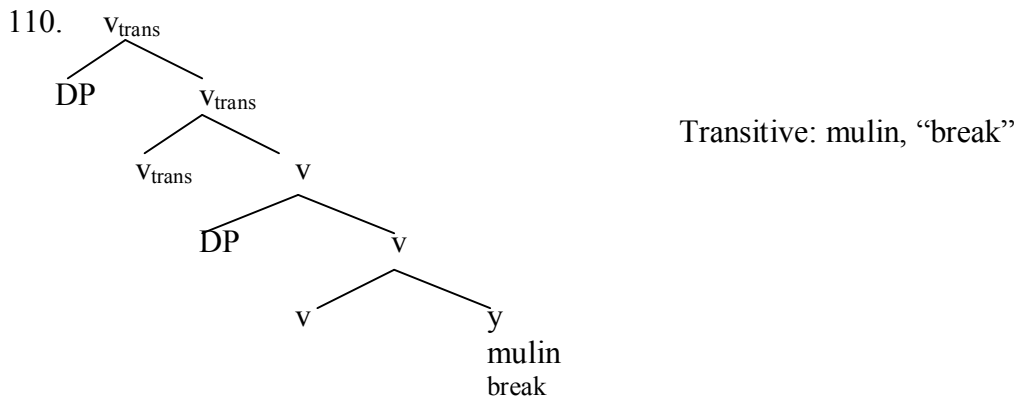
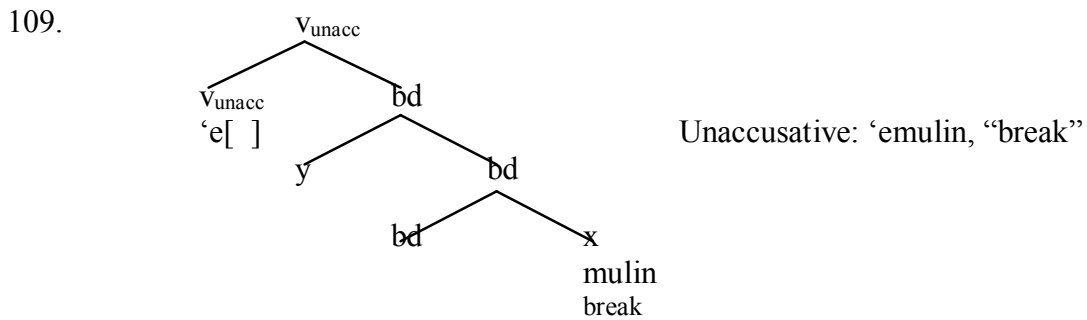
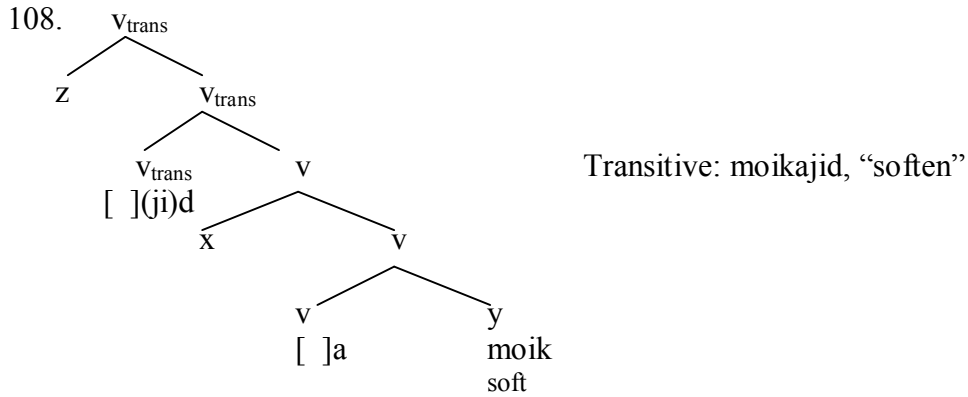
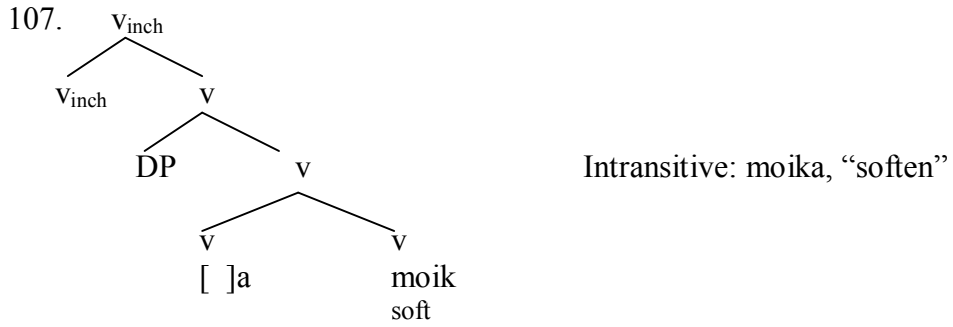
102.



4.6. Reanalysis of the problematic data



Some complication is presented by the O’odham data.



- This possibility opens the door to a possible explanation of why locatio/locatum verbs do not transivize in English. The reason is simply because English does not have the V_{unacc} element equivalent to the O’odham prefix ‘e-.

4.7. Typology of Affixes of type 1

Language	Transitivizer	Intransitivizer
Miskitu	k/t	w
Ulwa	ta	da
Yaqui	(t)a	(t)e
Navajo	ł	non-overt
Catalan	non-overt	se
English	non-overt	non-overt
O’odham	(j)i	non-overt
	non-overt	‘e

4.8. Conclusion

- The problem of free transitivization/detransitivization is a matter of merging the appropriate category. Since the structures are category-neutral, a bridging category will always be added to them.
- Gain: there are not two (unrelated) processes (transitivization and detransitivization). There is only Merge, and an inventory of possible bridging categories.

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