

EUROPEAN SUMMER SCHOOL IN LINGUISTIC TYPOLOGY

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TRANSITIVITY, VALENCY, AND VOICE

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Abbreviations

A	(a) the term of the basic transitive construction that represents the agent in the construction of core transitive verbs (b) in the glossing of argument indexes in languages in which indexing is not limited to one argument, index belonging to a series used for (but not necessarily restricted to) the A term of the basic transitive construction
ABL	ablative (case)
ABS	adposition flagging nouns in 'absolutive' (P or U) role
ACC	accusative (case)
ADJ	adjective
ALL	allative
ANTIPASS	antipassive
APPL	applicative
BEN	benefactive
CAUS	causative
CL	noun class
CLF	classifier
CONTINT	continuative-intensive
CONV	converb
COP	copula
CPL	completive
CSTR	construct form marker
D	default determiner (determiner that may mark definiteness or referentiality in limited contexts, but whose combination with nouns often acts as the semantically less-specified form of nouns)
DAT	dative case marker, or dative index
DECL	declarative
DEF	definite
DEM	demonstrative
DETR	detransitivizer
DIR	direct
DOM	differential object (P) marking
EP	epenthetic
ERG	ergative
EXCL	exclusive
F	feminine
FOC	focalization marker
FUT	future
FV	final vowel (in Bantu languages, a vowel analyzable as inflectional ending of verbs)
GEN	genitive
GER	gerundive
H	(superscript) high morphotoneme
HON	honorific
ICPL	incompletive
IMPERS	impersonal
INDEF	indefinite
INF	infinitive

INSTR	instrumental (case)
INTR	intransitive
INV	inverse
IPF	imperfective
IPRF	imperfect
L	(superscript) low morphotoneme
LH	(superscript) low-high morphotoneme
LK	linker
LOC	locative
M	masculine
MDPASS	mediopassive
MID	middle voice marker
N	neuter (gender)
NEG	negative
NFUT	non-future
NP	noun phrase
NPL	non-human plural
NPST	non-past
OBL	oblique (case marker or adposition)
P	(a) the term of the basic transitive construction that represents the patient in the construction of core transitive verbs (b) in the glossing of argument indexes in languages in which indexing is not limited to one argument, index belonging to a series used for (but not necessarily restricted to) the P term of the basic transitive construction
PART	partitive (case)
PASS	passive
pers.doc.	personal documentation
pers.knowl.	personal knowledge
PF	perfective
PL	plural
POSS	possessive
POSTP	postposition (gloss mainly used for multifunction postpositions showing a very low degree of semantic specificity)
PRF	perfect
PRO	pronoun
PRS	present
PRT	preterite
PRVL	privileged argument
PST	past
Q	interrogative particle
RECIP	reciprocal
RECPST	recent past
REFL	reflexive
S	case marker of adposition flagging nouns in subject (A or U) role
SAP	speech act participant (1st or 2nd person)
SBD	subordination marker
SEQ	sequential (tense)
SFOC	subject (A or U) focalization
SFP	sentence final particle
SG	singular

TAM	tense-aspect-modality marker
TOP	topicalization marker
TR	transitive
U	(a) sole argument of semantically monovalent verbs (b) core argument in a predicative construction that does not include an {A, P} pair (c) in the glossing of argument indexes in languages in which indexing is not limited to one argument, index belonging to a series used specifically for the U argument of intransitive verbs
V	verb
VFOC	verb focalization marker

Lesson 1

Transitive coding and other verbal predicative constructions

1.1. Some terminological clarifications

1.1.1. Arguments and adjuncts

The noun phrases involved in verbal predicative constructions are commonly divided into two broad types designated in most recent works as *arguments* and *adjuncts*. Arguments are characterized by their relatively tight semantic relationship to the verb, whereas adjuncts are characterized by a looser type of semantic relationship to the verb.

The argument *vs.* adjunct distinction has sometimes been discussed (in particular, in descriptions of individual languages) in such a way that it is not clear whether the authors conceive this distinction as referring to syntax, to the conceptualization of events, or to both at the same time.

The notion of argumenthood has been discussed, and argumenthood tests have been proposed, in classical works such as Jackendoff (1977), Marantz (1984), Pollard and Sag (1987), Grimshaw (1990). Schütze (1995) provides both a detailed survey and an interesting discussion in which he argues in favor of a scalar conception of argumenthood. However, the detailed discussions of argumenthood one can find in the literature almost always deal exclusively with English (or other well-described languages such as French or German), and it is not difficult to find languages to which the argumenthood tests put forward in the literature cannot be transposed. A cross-linguistic approach to argumenthood can only be based on semantic considerations.

Semantic argumenthood can be defined in terms of degree of involvement of participants in the event. Two types of participants can be viewed as showing a high degree of involvement: those without which the event cannot be conceived (for example, the lexical meaning of ‘eat’ cannot be defined without mentioning an eater and a thing being eaten), and those whose participation conditions that of other participants. Note that this notion of semantic argumenthood is gradient rather than categorical. For example, phrases representing beneficiaries or instruments, although commonly classified as adjuncts, are clearly less adjunct-like than for example phrases referring to the location of the event. The point is that instruments facilitate the actions performed by agents, and events implying beneficiaries are typically motivated by another participant’s desire to act in favor of the beneficiary. And among agents, a semantic distinction can be made between those (for example, eaters) without which the process undergone by the patient is simply impossible to conceive, and those (for example, breakers) controlling processes that are also conceivable as occurring more or less spontaneously.

Crucially, there is no straightforward correspondence between essential participants in a given type of event and obligatory NPs in the construction of the verb encoding the event.

A particularly clear case is that of the verbs of eating. The act of eating cannot be defined without mentioning two essential participants, but many languages have two ‘eat’ verbs, one of them transitive and the other intransitive, that cannot be analyzed as related to each other via some morphological operation, as illustrated by Akhvakh **q’am-** (quoted in the infinitive as **q’ōnuḷa**) ‘eat (transitive)’ *vs.* **ūk-** (quoted in the infinitive as **ūkunuḷa**) ‘eat (intransitive)’ – Ex. (1). Crucially, in this example, sentence (d) cannot be used in the same meaning as (b),

and is acceptable only if the unexpressed participant can be identified to a referent retrievable from the context or the situation.

(1) Akhvakh (pers.doc.)

(1a) **Riḷ'i q'am-a!**
 meat eat-IMPER
 'Eat (tr.) the meat!'

(1b) **İč'i ūk-a!**
 first eat-IMPER
 'Eat (intr.) first!'

(1c) ***Riḷ'i ūk-a!**
 meat eat-IMPER
 *'Eat (intr.) the meat!'

(1d) **İč'i q'am-a!**
 first eat-IMPER
 'Eat it/that first!'

In the case of 'eat', it is absolutely uncontroversial that an eating event is a two-participant event, whatever the syntactic properties of the verbs used to encode it in individual languages. Things are not always so simple, as many verbs cannot be unambiguously characterized as mono- or bivalents, or as bi- or trivalents. However, in the framework developed in this course, this is not a problem, since none of the definitions that will be put forward presupposes the possibility of identifying the number of arguments of each individual verb with precision.

At this point, it is important to emphasize that a crucial advantage of the framework developed in this course, in comparison with other possible frameworks, is that the analytical decisions it implies are not conditioned by decisions about the status of participants in the argument structure of individual verbs as arguments or adjuncts. The crucial distinction in this framework is not the *argument* vs. *adjunct* distinction briefly commented in this section, but rather the distinction between *core arguments* and *obliques* introduced in Section 1.1.6 below, which logically follows from the notions defined in sections 1.1.2 to 1.1.4.

1.1.2. Valency, transitivity and voice

1.1.2.1. Valency, argument structure, coding frames

The notion of valency encompasses the argument structure of verbs (i.e. the involvement of a given number of participants in the event encoded by a given verb, and the roles they fulfill in this event), and the mapping of argument structure onto syntactic roles. For example, the argument structure of the English verb **break** in the clause **The child broke the glass** includes a breaker, encoded as the subject, and a thing broken, encoded as the object. The clause **The glass was broken by the child** expresses the same argument structure with a different mapping of participant roles onto syntactic functions (the thing broken is encoded as the subject, and the breaker as an oblique). A clause like **The child saw a dog** has the same syntactic structure as **The child broke the glass**, but it expresses a different type of argument structure, since **break** refers to an action performed by an agent and resulting in a change of

state in the other participant (the patient), whereas **see** refers to a perception, and the participants are better characterized as an experiencer (or perceiver) and a stimulus.

Note that a given verb does not necessarily have the same argument structure in all its possible uses. For example, in **The glass broke**, **break** does not refer to an action performed by an agent, but to a process whose possible causes are left unspecified, and consequently the argument structure includes just one participant (the entity affected by the process in question).

Each language has an inventory of possible coding frames through which verbs express their argument structure. Formal contrasts between arguments may involve flagging, indexation, and linear order.

For example, Basque¹ has three basic types of canonical coding frames that differ in the presence *vs.* absence of terms marked by one of the two morphological cases Zero (alias Absolutive)² and Ergative, and of the corresponding indexes on the verb form:

- <Ø> – Ex. (1a);
- <ERG> – Ex. (1b);
- <ERG, Ø > – Ex. (1c).

Each of these basic types can be expanded by the addition of a term in the Dative case, which shares with terms in the Zero case and in the Ergative case the property of being obligatorily indexed on the verb form – Ex. (2d-f), and also by the addition of oblique arguments, i.e. NPs representing arguments but coded like typical adjuncts.

(2) Basque (pers.doc.)

(2a) **Ispilu-a erori da.**
 mirror-SG fall.CPL PRS.P.3SG³
 ‘The mirror has fallen down.’

(2b) **Ur-ak irakin du.**
 water-SG.ERG boil.CPL PRS.A.3SG.P.3SG⁴
 ‘The water has boiled.’

¹ Throughout this course, unless otherwise specified, language names must be understood as referring to the standard variety of the languages in question.

² On the term/notion of *zero case*, and on the use of Ø in the schematization of coding frames, see Section 1.1.8. The convention for the glosses is that, in languages in which nouns are marked for case, the absence of any overt indication of case means that the noun in question is in the Zero case.

³ In the languages that have two or more series of argument indexes, the glossing convention is as follows: indexes belonging to a series used to index the A term of the basic transitive construction are glossed A (even if they are used to index the U term of an intransitive construction); indexes belonging to a series used to index the P term of the basic transitive construction are glossed P (even if they are used to index the U term of an intransitive construction); indexes belonging to a series specifically used for the U term of an intransitive construction are glossed U; in languages that have a third set of indexes for the third argument of trivalent verbs, the indexes of this set are glossed DAT.

⁴ **Du** is a form of the so-called transitive auxiliary, which in principle indexes two arguments. Verbs with a sole core argument in the Ergative case are conjugated by means of this auxiliary, and their sole core argument is represented by an index of the A series, whereas the index that normally represents an argument in the Zero case takes the default value 3SG.

- (2c) **Haurr-ek ispilu-a puskatu dute.**
 child-PL.ERG mirror-SG break.CPL PRS.A.3PL.P.3SG
 ‘The children have broken the mirror.’
- (2d) **Jon-i liburu-ak gustatzen zaizkio.**
 Jon-DAT book-PL please.ICPL PRS.P.3PL.DAT.3SG
 ‘Jon likes books.’
- (2e) **Otso-ek ardi-ei esetsi zieten**
 wolf-PL.ERG sheep-PL.DAT attack.CPL PST.A.3PL.P.3SG.DAT.3PL⁵
 ‘The wolves attacked the sheep.’
- (2f) **Haurr-ek Jon-i ispilu-a eman zioten.**
 child-PL.ERG Jon-DAT mirror-SG give.CPL PST.A.3PL.P.3SG.DAT.3SG
 ‘The children gave the mirror to Jon.’

1.1.2.2. *Transitivity*

The notion of transitivity encompasses semantic transitivity and syntactic transitivity. There is a relationship between semantic and syntactic transitivity, since logically, syntactic transitivity can only be defined with reference to semantic transitivity. However, it is crucial to distinguish them carefully, since they do not necessarily coincide: transitive constructions do not necessarily refer to transitive events (cf. **The child saw a dog**), and transitive events are not necessarily encoded by transitive constructions (cf. **The glass was broken by the child**).

Semantic transitivity refers to the type of interaction between participants in two-participant events. As a semantic notion, it is gradient rather than categorical: two-participant events should not be characterized as transitive *vs.* non-transitive, but rather as more or less transitive. Prototypical transitive events (or events characterized by the highest possible degree of transitivity) involve a change of state or position undergone by one of the two participants (the patient) and triggered by the action of the other participant (the agent); moreover, prototypical transitivity implies that the action of the agent is conscious and voluntary, and aims at changing the state of the patient or controlling its position.

For example, the lexical meaning of **break** is compatible with the highest possible degree of semantic transitivity, but this is not the case for **hit** or **eat**. Hitting events are not prototypically transitive events, because the affected (or non-agentive) participant in a hitting event does not undergo a change of state or position, and consequently is not a typical patient. As regards eating events, the point is that the primary motivation of the action performed by the active participant in an eating event is not to change the state of the other participant or control its position, but rather to satisfy a physiological need, and consequently, the active participant in an eating event is not a typical agent.

The notion of syntactic transitivity will be defined and commented in Section 1.1.3.

⁵ **Zieten** is a form of the so-called transitive-plus-dative auxiliary, which in principle indexes three arguments. Verbs with two arguments to which they assign the Ergative case and the Dative case are conjugated by means of this auxiliary, and the index corresponding to NPs in the Zero case takes the default value 3SG.

1.1.2.3. Voice

There is no generally accepted definition of voice, although in all traditions, ‘voice’ refers to regularities in the relationship between argument structure and morphosyntax. For example, the particular type of alternation in the mapping of participant roles onto syntactic constructions illustrated by **The child broke the glass ~ The glass was broken by the child** is traditionally described as a choice between ‘active’ and ‘passive’ voice.

When it comes to descriptions of previously undescribed languages, or to cross-linguistic comparisons, some authors use a very broad notion of voice, including all possible types of valency alternations, even those involving no morphological marking, whereas others use definitions of ‘voice’ that exclude valency-increasing mechanisms, and still others use definitions that exclude valency alternations involving no change in the semantic role assigned to the subject.

The definition of voice adopted in this course is that first proposed by Xolodovič (1970), according to which ‘voice’ is an abbreviation for ‘morphologically coded valency alternation’, without any additional condition on the valency alternations designated as voices. According to this definition, the mechanisms presented in Lessons 2 and 3 and in Sections 1 and 2 of Lesson 4 qualify as voices, whereas the alternations presented in the remainder of Lesson 4 are not voices.

1.1.3. Syntactic transitivity

1.1.3.1. Core transitive verbs

In this course, verbs encoding events involving one, two, or three essential participants are designated as *monovalent*, *bivalent*, and *trivalent*. *Transitive* and *intransitive* do not refer to the number of essential participants in the events denoted by verbs, but to the fact that they select a coding frame identical to that of verbs encoding a particular type of event. The delimitation of the set of transitive verbs is language-specific and relies on formal criteria, but the sets of transitive verbs of the individual languages are universally defined as including a particular semantic class of verbs, the *core transitive verbs*, defined as bivalent verbs that can head clauses encoding events characterized by a maximum degree of semantic transitivity as defined in Section 1.1.2.2 above.

In other words, a core transitive verb is a bivalent verb that has the ability to refer to two-participant events involving two well-individuated participants, a typical agent (i.e. a human participant consciously and willingly controlling an activity oriented towards the other participant), and a typical patient (i.e. a participant undergoing a change of state or position triggered by the activity of an agent). **Break** is a good example of a core transitive verb. By contrast, as already commented in Section 1.1.2.2, **hit** is not a core transitive verb (and in many languages, hittees are coded differently from typical patients), and **eat** is not a core transitive verb either (which explains why many languages have two totally different translational equivalents of English **eat**, one of them transitive and the other intransitive, a situation that seems to never occur with core transitive verbs).

It is commonly assumed that, in the languages of the world, the set of the verbs recognizable as core transitive verbs according to the restrictive definition posited above shows a high degree of formal homogeneity, in the sense that, in each individual language, all core transitive verbs, or almost all, assign the same coding characteristics to their agents and patients. By contrast, cross-linguistically, as discussed among others by Tsunoda (1985) and Lazard (1994) and confirmed by Hartmann et al. (2013), no other class of verbs defined in terms of semantic role assignment shows a comparable propensity to group together into the

same valency class. This suggests a cognitive prominence of this semantic class of verbs, and justifies giving it a central status in a typology of argument coding and in a typology of the interface between argument structure and morphosyntax.

1.1.3.2. *Syntactically transitive verbs*

In all languages, many verbs that are not core transitive verbs according to the definition put forward in Section 1.1.3.1 select a type of argument coding identical to that selected by core transitive verbs. The term *transitive verb* without further specification refers to verbs whose construction includes two terms coded like the two arguments of core transitive verbs, whatever their semantic roles. For example, English **see** is not a core transitive verb, but the coding it assigns to its arguments identifies it as transitive, since verbs such as **break** or **fix** assign the same coding to their arguments. Basque **ikusi** ‘see’ is also a transitive verb, since its coding frame <ERG, Ø> is the same as that of **puskatu** ‘break’ – Ex. (3). By contrast, Akhvakh **hariguruLa** ‘see’ is not transitive, since its coding frame <DAT, Ø> is different from the coding frame <ERG, Ø> selected in Akhvakh by **biq’oruLa** ‘break’ – Ex. (4).

(3) Basque (pers.doc.)

(3a) **Haurr-ek ispilu-a puskatu dute.**
 child-PL.ERG mirror-SG break.CPL PRS.A.3PL.P.3SG
 ‘The children have broken the mirror.’

(3b) **Haurr-ek ispilu-a ikusi dute.**
 child-PL.ERG mirror-SG see.CPL PRS.A.3PL.P.3SG
 ‘The children have seen the mirror.’

(4) Akhvakh (pers.doc.)

(4a) **Mik’i-de istaka biq’wāri.**
 child-ERG glass break.CPL
 ‘The child broke the glass.’

(4b) **Mik’i-La istaka harigwari.**
 child-DAT glass see.CPL
 ‘The child saw the glass.’

Ex. (5) shows that, contrary to their English or French equivalents, the Mandinka verbs **lāfi** ‘want’ and **ñiná** ‘forget’ are not transitive, since constituent order in Mandinka clauses is absolutely rigid, and the verbs in question select a coding frame N1 V N2 Postp different from the coding frame N1 N2 V typical for transitive clauses.

(5) Mandinka (pers.doc.)

(5a) **Kèwôo yè fòolèesúwòo dádáa.**
 man.D CPL bicycle.D repair
 ‘The man repaired the bicycle.’

(5b) **Kèwôo làfí-tà kód-òo lá.**
 man.D want-CPL money.D POSTP
 ‘The man wants money.’

(5c) **Kèwôo ñìná-tà í kòntónò lá.**
 man.D want-CPL 1SG name.D POSTP
 ‘The man has forgotten my name.’

Similarly, French **regarder** ‘look at’ is transitive, but its English equivalent **look (at)** is not transitive. Its coding frame can be designated as *extended intransitive*, and its second argument can be characterized as an *oblique argument* – see section 1.1.6.

As illustrated by the examples above, there is cross-linguistic variation in the extension of the set of bivalent verbs selecting coding frames different from those typical for core transitive verbs (we will return to this question in Section 1.5), but transitive coding is universally the default type of coding for bivalent verbs.

1.1.4. Basic transitive coding

The notion of basic *transitive coding* is central throughout this course. The basic transitive coding is a construction involving a verb and two NP’s designated as A and P, whose coding is identical to that of the agent and the patient when the verb heading the construction is a core transitive verb.

The question discussed in this section is that the coding of agents and patients in the construction of core transitive verbs may show different types of variation which do not have the same consequences for the identification of a particular construction as the basic transitive construction in a given language. In some cases, an analysis in terms of conditioned variation within the frame of a single construction is possible (Sections 1.1.4.1 and 1.1.4.2). Sometimes, the variation is better analyzed in terms of choice between the basic transitive construction and detransitivized variants (Section 1.1.4.3), but it may also happen that it must be analyzed in terms of choice between two or more constructions that equally deserve being recognized as transitive (Section 1.1.4.4).

1.1.4.1. TAM/polarity-conditioned transitive coding

It may happen that the variation in the coding of A and P is conditioned by the TAM or polarity value of the clause, commonly (but not necessarily) expressed through verb morphology. Ex. (6) illustrates this phenomenon: in the Kurmanji variety of Kurdish, with the verb in the incomplete aspect, A is in the Zero case and P in the so-called Oblique case, whereas with the verb in the completive aspect, P is in the Zero case, and A in the Oblique case; as regards indexation, the verb invariably indexes the argument in the Zero case, i.e. A in the incomplete aspect, and P in the completive aspect.

(6) Kurmanji (Blau and Barak 1999)

(6a) **Ez Sînem-ê dibîn-im**
 1SG Sinem-OBL see.ICPL-1SG
 ‘I see Sinem.’

(6e) **Min Sînem dît-Ø.**
 1SG.OBL Sinem see.CPL-3SG
 ‘I saw Sinem.’

- | | |
|--|---|
| <p>(6b) Sînem min dibîn-e
 Sinem 1SG.OBL see.ICPL-1SG
 ‘Sinem sees me.’</p> | <p>(6f) Sînem-ê ez dît-im.
 Sinem-OBL 1SG see.CPL-3SG
 ‘Sinem saw me.’</p> |
| <p>(6c) Ez tê-m
 1SG come.ICPL-1SG
 ‘I am coming.’</p> | <p>(6g) Ez hat-im
 1SG come.CPL-1SG
 ‘I came.’</p> |
| <p>(6d) Sînem tê-Ø
 Sinem come.ICPL-3SG
 ‘Sinem is coming.’</p> | <p>(6h) Sînem hat-Ø
 Sinem come.CPL-3SG
 ‘Sinem came.’</p> |

1.1.4.2. *Differential coding of agents or patients*

I designate as differential coding of agents and patients a phenomenon more widely known as ‘differential marking of subjects or objects’. This phenomenon may occur in flagging or indexation. For example, in (7), the P argument of Spanish **atropellar** ‘run over’ is flagged by the preposition **a** (which in most of its uses corresponds to English **to**) in sentence (a), but is left unflagged in sentence (b).

(7) Spanish (pers.knowl.)

(7a) **El coche atropelló a un peatón.**

the car ran_over to a pedestrian

‘The car ran over a pedestrian.’

(7b) **El tren atropelló un tractor.**

the train ran_over a tractor

‘The train ran over a tractor.’

The term of differential argument coding as I use it in this course applies to variation in the coding characteristics of A or P exclusively conditioned by features inherent to the argument in question, or by its function in information structure. This means that alternations conditioned by features of the verb such as TAM, by features of the co-argument, or implying variation in semantic role assignment, do not meet the definition of differential argument coding.

Differential coding may be rigid or flexible. Rigid differential coding is conditioned by inherent grammatical or semantic features of NPs (pronoun vs. noun, animate vs. inanimate), whereas flexible differential coding is conditioned by their discourse status.⁶ Many languages have differential argument coding mechanisms combining rigidity and flexibility. For example, in Sinhala, accusative flagging is optional for animate patients, whereas inanimate patients are obligatorily unflagged.

It is commonly assumed that the differential coding of agents and the differential coding of patients are each other’s mirror image, but as argued by Fauconnier and Verstraete (2014), this idea can be criticized. What seems to me particularly important is that, once the definition of differential coding is made explicit, it turns out that most of the cases of ‘differential

⁶ On the role of information structure in differential P coding, see Iemmolo (2010, 2011) and Dalrymple & Nikolaeva (2011).

marking of agents' mentioned in the literature must be discarded as involving a change in semantic role affecting the features that define typical agents.

For example, involuntary agents are not typical agents, and consequently involuntary agent constructions are not instances of differential agent coding, and must rather be analyzed as coding frame alternations triggered by a change in argument structure. Evidence that involuntary agents imply a change in argument structure rather than differential agent marking is provided by languages like Akhvakh, where a verb like **biq'urula** 'break, intr.' / **biq'orula** 'break, tr. (causative form of **biq'urula**)' occurs in the causative form in combination with a typical agent, and in the intransitive form in combination with an 'involuntary agent' – Ex. (8).

(8) Akhvakh (pers.doc.)

(8a) **Mik'i-de istaka b-iq'wāri.**

child-ERG glass N-break.CAUS.CPL

'The child broke the glass.'

lit. 'The child made the glass break.'

(8b) **Mik'i-gune istaka b-iq'wari.**

child-ABL glass N-break.CPL

'The child broke the glass unintentionally.' lit. 'The glass broke from the child.'

Similarly, some languages have a more or less strict ban on the use of inanimates as A arguments of transitive verbs, and use various types of constructions to express the equivalent of English sentences such as **The wind broke the branch**. In such languages, the constructions used with inanimates fulfilling an agent-like role must be analyzed as alternative constructions whose selection is triggered by a change in argument structure, rather than instances of differential agent marking within the transitive construction, since inanimates cannot be typical agents.

1.1.4.3. *Basic transitive construction and intransitive constructions of transitive verbs*

It may happen that the variation observed in the coding of the arguments of core transitive verbs is best analyzed as reflecting an alternation between a construction that qualifies as *basic transitive coding* and one or more constructions involving detransitivization. This is particularly obvious in the case of constructions (irrespective of whether they involve morphological coding on the verb or not) that semantically imply that the agent is removed from the argument structure: anticausative constructions (**The glass broke**), P-oriented resultatives (**The glass is broken**).

There are also less obvious cases in which the argument structure is not affected, but the status of one of the alternative constructions as the basic transitive construction can nevertheless be established on the basis of the following two criteria: the basic transitive construction is less marked than the other(s) in terms of discursive or semantic conditioning (and consequently much more frequent in texts), and the morphosyntactic properties of the alternative construction(s) of core transitive verbs provide evidence of demotion of either the agent (passivization) of the patient (antipassivization). Note that the choice between the alternative constructions may imply the use of a distinct form of the verb (voice), but it may also happen that the alternative constructions use the same verb forms (lability).

Ex. (9b) illustrates the cross-linguistically rare phenomenon of a passive construction without passive morphology, and Ex. (10b) illustrates an antipassive construction without

antipassive morphology. Both Bambara and Supyire have a rigid APVX constituent order in the basic transitive construction, and in both examples, P>X demotion is marked by the change in the linear order of constituents and the presence of a postposition.

(9) Bambara (pers.doc.)

(9a) **Sékù má nègèsô dílán.**
 Sékou CPL.NEG bicycle repair
 ‘Sékou did not repair the bicycle.’

(9b) **Nègèsô má dílán Sékù fè.**
 bicycle CPL.NEG repair Sékou by
 ‘The bicycle was not repaired by Sékou.’

(10) Supyire (Carlson 1994)

(10a) **U a mpàà-bí bò.**
 3SG CPL sheep.PL-DEF kill
 ‘He killed the sheep.’

(10b) **U a bò mpàà-bíl-ê.**
 3SG CPL kill sheep.PL-DEF-in
 ‘He killed some of the sheep.’
 lit. ‘He killed in the sheep.’

1.1.4.4. *Multiple transitive coding*

In some of the languages that have two or more alternative constructions for transitive verbs, no obvious candidate for the status of basic transitive construction emerges. I will refer to this phenomenon as *multiple transitive coding*.

The case of the languages with the Philippine-type of voice system has been widely discussed in the literature. Ex. (11) illustrates three verbal voice forms in Tagalog. Each clause has a *privileged argument* marked by the preposition **ang**,⁷ and this privileged argument is the only one having access to some operations (for example, questioning). The preposition **ang** provides no indication about the semantic role of the privileged argument, but this information is given by the voice form of the verb. The other nominal terms of the clause are marked by prepositions whose choice reflects the argument structure of the verb and the semantic roles of adjuncts: **ng** (used to mark adnominal possessors, but also agents and patients when they are not promoted to privileged argument), **sa** (dative), etc. The functions of these voice alternations are quite similar to those of the alternations described in terms of passive or antipassive voices in other languages, but there is no clear asymmetry that could justify analyzing (a) as basic and (b) as passive, or (b) as basic and (a) as antipassive.

⁷ This preposition is commonly designated as ‘nominative preposition’, but this term is potentially misleading, since the Tagalog system is basically different both from those for the description of which the term ‘nominative’ is traditionally used (Latin, Greek, etc.) and from those to the description of which the use of the term ‘nominative’ has been extended in more recent times (for example, Japanese, or the ‘marked-nominative’ languages of East Africa).

(11) Tagalog (Latrouite 2001: 123-4)

(11a) Nagbigay **ang babae** ng liham sa kapit-babay.
 VOICE.give PRVL woman CORE letter DAT neighbour
 ‘The woman gave a letter to the neighbour.’

(11b) Ibinigay ng babae **ang liham** sa kapit-babay.
 VOICE.give CORE woman PRVL letter DAT neighbour
 ‘The woman gave a letter to the neighbour.’

(11c) Binigyan ng babae ng liham **ang kapit-babay.**
 VOICE.give CORE woman CORE letter PRVL neighbour
 ‘The woman gave a letter to the neighbour.’

A similar problem arises with other languages that have alternative constructions of transitive verbs expressing alternative perspectivizations of the event comparable to those expressed by passive or antipassive derivations, without however clear evidence that one of the alternative constructions should be considered as basic, and the other as a detransitivized variant.

Uduk (Koman) is a case in point. In this language, the unique argument of monovalent verbs is invariably in immediate preverbal position, devoid of case marking and cross-referenced on the verb. Obliques follow the verb, or precede the unique argument in case of topicalization.

(12) Uduk (Koman – Killian 2015: 218)

à ’cí ’kút-úd.
 CL2 child cough.IPF-3SG
 ‘The child is coughing.’

Transitive verbs have two alternative constructions, designated by Killian as ‘A-voice’ and ‘O-voice’.⁸ Although the choice between these two constructions may be functionally similar to the choice between the basic transitive construction and a detransitivized variant (passive or antipassive) in other languages, the position defended by Killian (2015) is that both are transitive.

In the A-voice, the agent of typical transitive verbs occupies the immediate preverbal position. It is in the same Zero case as the unique argument of monovalent verbs, whereas P in postverbal position is marked for the Accusative case if it belongs to the gender designated by Killian as ‘class 2’. Class 1 P’s are in the Zero case but trigger a change in the indexation of A: A is indexed for all persons with class 2 P’s, whereas class 1 P’s inhibit the indexation of A in all persons except for 1SG, 1PL, and INCL.

(13) Uduk (Koman – Killian 2015: 218)

Wàthí? ’cít-h-í’d ā yí’d.
 man cut.PF-3SG ACC.CL2 skin
 ‘The man cut the skin.’

⁸ Note that, according to the terminology adopted in this course, these two alternative constructions of Uduk transitive verbs do not qualify as ‘voices’, since they do not involve any specific morphological marking.

In the O-voice, A is case-marked with the Ergative case, and is always in immediate postverbal position. There is no argument indexation on the verb. P is usually found in immediate preverbal position, but its position is relatively flexible.

(14) Uduk (Koman – Killian 2015: 218)

Tāshá wò'c mà 'ká.
 snake bite.IPF ERG.CL2 dog
 'The dog bit the snake.'

1.1.5. Direct/inverse marking

1.1.5.1. Definition

The notion of *direct/inverse marking* refers to languages in which the verb forms heading transitive constructions include a marker encoding the relative ranking of A and P according to some referential hierarchy. The referential hierarchies conditioning direct/inverse marking variously involve factors such as person (SAP > 3),⁹ animacy (human > nonhuman animate > inanimate), grammatical features (unpossessed > possessed), and discursive features (salient within a given stretch of discourse > non-salient).

In such systems, the transitive verb forms encoding that A ranks higher than P on the hierarchy in question are called *direct*, and those used when P ranks higher than A are called *inverse*.

Although this is not necessarily the case, it is interesting to observe that, in transitive constructions involving direct/inverse marking, the presence of a direct or inverse marker in the verb form may constitute the only clue to the identification of one of the participants as the agent, and the other as the patient, as in Ex. (15). In the hierarchy underlying direct/inverse marking in Plains Cree, SAP's rank higher than non-SAP's, and non-SAP's marked as obviatives (non-salient) rank lower than 'proximate' non-SAP's (salient, and morphologically unmarked).

(15) Plains Cree (Haude & Zúñiga 2016 quoting Wolfart 1996: 410)

(15a) **Ni-sêkih-â-nân atim.**
 1-scare.TA-DIR-1PL.EXCL dog
 'We scare the dog.'

(15b) **Ni-sêkih-iko-nân atim.**
 1-scare.TA-INV-1PL.EXCL dog
 'The dog scares us.'

(15c) **Sêkih-ê-w nâpêw atim-wa.**
 scare.TA-DIR-3 man dog-OBV
 'The man (salient) scares the dog (non-salient).'

(15d) **Sêkih-ikw-w nâpêw atim-wa.**
 scare.TA-INV-3 man dog-OBV
 'The dog (non-salient) scares the man (salient).'

⁹ SAP is an abbreviation for 'Speech Act Participant' (i.e. 1st or 2nd person).

1.1.5.2. *The domains of direct/inverse marking*

In a given language, direct/inverse marking must not necessarily be found in all possible agent-patient combinations. Three types of configurations must be distinguished:

- *local* scenarios: both A and P are SAP's;
- *mixed* scenarios: one of the protagonists is a SAP, the other is not;
- *non-local* scenarios: neither A nor P is a SAP.

It seems that direct/inverse marking in local scenarios is only found in systems that also have direct-inverse marking in mixed scenarios, with SAP's ranking higher than non-SAP's. Moreover, the extension of direct-inverse marking to local scenarios often shows various types of idiosyncrasies and irregularities. In particular, ranking among SAP's is language-specific (1>2 in some languages, 2>1 in others). Consequently, what is really important for a typology of direct/inverse marking systems is the distinction between the following three types of systems:

- systems with direct/inverse marking both in mixed and non-local scenarios;
- systems with direct/inverse marking in mixed scenarios only;
- systems with direct/inverse marking in non-local scenarios only.

1.1.5.3. *Rigid vs. flexible systems of direct/inverse marking*

Systems in which direct/inverse marking does not concern non-local scenarios may be morphologically very complex and difficult to analyze, but in other respects they are quite straightforward, since in such systems, the choice between direct and inverse marking automatically follows from a hierarchy of person.

By contrast, in systems with direct/inverse marking in mixed and non-local scenarios, or in non-local scenarios only, the criteria determining the relative ranking of non-SAP's in the hierarchy governing the choice between direct and inverse marking may involve a complex interplay of grammatical, semantic, and discursive factors. In particular, such systems may be more or less rigid or flexible, depending on the importance of grammatical or semantic criteria, and the place left to discourse factors in the definition of the hierarchy.

1.1.6. **Core arguments vs. obliques**

As already announced in Section 1.1.1, the crucial distinction in the framework developed in this course is not the *argument* vs. *adjunct* distinction, but rather the distinction between *core arguments* and *obliques*.

1.1.6.1. *Core arguments*

The first observation underlying the definition of core arguments put forward in this section is that, in the languages of the world, the overwhelming majority of monovalent verbs divide into a small number of classes as regards the coding of their unique argument. Most of the time, there is just one major class of monovalent verbs to which almost all monovalent verbs belong, regardless of the semantic role of their unique argument. Some languages have two major classes of monovalent verbs, but languages with three or more classes of monovalent verbs including more than a handful of members each are quite exceptional.

Moreover, as a rule, intransitive predications with non-monovalent verbs include an argument encoded like the unique argument of (a major class of) monovalent verbs.

On this basis, a notion of core argument transcending the distinction between transitive and intransitive predication can be defined as follows:

- in transitive predication, the core arguments are A (the argument encoded like the agent of core transitive verbs) and P (the argument encoded like the patient of core transitive verbs);
- in intransitive predications, the core argument is the argument whose coding coincides with that of the unique argument of (a major class of) monovalent verbs.

In the remainder of this course, U is used as an abbreviation for the argument in an intransitive predication whose coding coincides with that of the unique argument of (a major class of) monovalent verbs.

Note that, according to this definition, a language may have statistically marginal types of intransitive predication including no core argument.

1.1.6.2. *Obliques*

By definition, all the terms of verbal predicative constructions that are not core arguments according to the definition given in 1.1.6.1 are *obliques*, regardless of their status according to the *argument vs. adjunct* distinction.

Terms that are analyzable semantically as arguments, but do not show the type of coding that would justify identifying them as core arguments, will be designated as *oblique arguments*.

1.1.7. Alignment

The term ‘alignment’ refers to similarities between two terms belonging to two different constructions:¹⁰

A TERM T_1 OF A CONSTRUCTION C_1 AND A TERM T_2 OF A
CONSTRUCTION C_2 ARE ALIGNED WITH RESPECT TO A GIVEN FEATURE
IF THEY SHARE THE SAME VALUE OF THE FEATURE IN QUESTION.

For example, in Ex. (1), reproduced here as (16), the coding of the unique core argument of **erori** ‘fall’ is aligned with that of the P argument of **puskatu** ‘break’, whereas the coding of the unique core argument of **irakin** ‘boil’ is aligned with that of the A argument of **puskatu** ‘break’.

¹⁰ Unfortunately, one can find some uses of the term ‘alignment’ in the typological literature that are not consistent with this definition. In particular, in ‘hierarchical alignment’ as introduced by Nichols (1992), ‘alignment’ does not refer to properties shared by terms belonging to different constructions, but to the mapping from the semantic roles of agent and patient to morphosyntactic slots. The misnamed ‘hierarchical alignment’ is rather a *type of transitive coding* in which the coding characteristics of A and P are determined by their relative ranking with respect to the indexability hierarchy. It is true that this type of transitive coding raises specific problems for alignment typology, since from a strictly logical point of view, it is difficult to compare the coding of the unique argument of monovalent verbs to that of A or P in languages in which it is impossible to define types of coding assigned to A and P independently from each other. It should, however, be clear that considering this situation as a particular type of ‘alignment’ makes no sense.

(16) Basque (pers.doc.)

(16a) **Ispilu-a erori da.**
 mirror-SG fall.CPL PRS.P.3SG
 ‘The mirror has fallen down.’

(16b) **Ur-ak irakin du.**
 water-SG.ERG boil.CPL PRS.A.3SG.P.3SG
 ‘The water has boiled.’

(16c) **Haurr-ek ispilu-a puskatu dute.**
 child-PL.ERG mirror-SG break.CPL PRS.A.3PL.P.3SG
 ‘The children have broken the mirror.’

The alignment of the unique argument of a monovalent verb with the agent of the basic transitive construction is commonly designated as *accusative* alignment (or *nominative-accusative* alignment), whereas the alignment of the unique argument of a monovalent verb with the patient of the basic transitive construction is commonly designated as *ergative* alignment (or *absolutive-ergative* alignment).¹¹ Note that this example shows that both types of alignment may co-exist in the same language.

1.1.8. Zero case

In the languages in which nouns are inflected for case, I designate as *zero case* (and I represent as \emptyset in the schematization of coding frames) the case form of nouns that coincides with the form used in isolation for quotation and labeling, whatever the distribution of this form in syntactic contexts. By labeling, I refer for example to nouns accompanying a picture representing a possible referent, nouns written on signal boards, nouns describing the content of a box on which they are written, etc.

In most languages, the zero case is characterized by the absence of an overt case marker, but there are exceptions, and the absence of an overt marker is not essential in the notion of zero case. What is essential is the ability to be used, not only as the quotation form of nouns in elicitation contexts, but also as a pure label in the absence of any syntactic context. For example, the Zero case of Latin (traditionally called Nominative) has a zero ending with some nouns (**puer** ‘child’), but an overt ending with some others (**domin-us** ‘master’). In Russian, nouns like **devušk-a** ‘girl’ have an ending **-a** in the Zero case in the singular, but a zero ending in the Genitive plural. Similarly, in Icelandic, **hatt-ur** ‘hat’ has an overt ending **-ur** in the Zero case in the singular, but a zero ending in the Accusative singular (**hatt**). With such nouns, flagging may involve deletion of morphological material present in the syntactically unmarked form of nouns.

¹¹ In the typological literature, the abbreviation commonly used for the unique core argument of monovalent verbs is S, but this is potentially misleading, since S is also commonly found as the abbreviation for ‘subject’. The two notions should not be confused, and this is the reason why I will not follow this convention. As already commented in Section 1.1.6.1, the abbreviation U will be used with the slightly different (although clearly related) meaning of ‘argument in an intransitive predication whose coding coincides with that of the unique argument of (a major class of) monovalent verbs’.

1.2. Transitive coding typology

1.2.1. Introductory remarks

In this section, I propose a typology of transitive coding based on the notion of symmetry *vs.* asymmetry in the coding of A and P. This is a typology of constructions, not of languages, which means that the transitive coding of individual languages does not necessarily belong straightforwardly to a given type, and may involve variously conditioned alternations between two or more types. This remark applies not only to languages with multiple transitive coding, but also to languages with differential coding of agents or patients, and to languages in which the coding of A and P is conditioned by the TAM and/or polarity value of the clause.

For example, as ‘ergative’ as Dyrirbal may be in its syntax, its transitive coding cannot be straightforwardly identified as the type of transitive coding normally expected in ‘ergative’ languages, since it involves an alternation between four different types. The only constant thing in the transitive coding of Dyrirbal is the absence of indexation. As regards flagging, Dyrirbal can be described as having two core cases in addition to the Zero case, Ergative (not available for 1st and 2nd person pronouns) and Accusative (available for 1st and 2nd person pronouns only), and a system of differential coding of agents and patients conditioned by the distinction between pronouns referring to SAP’s and all other nominals: in A role, 1st and 2nd person pronouns show Zero flagging and other nominals Ergative flagging, whereas in P role, 1st and 2nd person pronouns show Accusative flagging and other nominals Zero flagging. Consequently, four configurations are possible depending on the nature of A and P. Two of them are illustrated in Ex. (17): in (17a), flagged A contrasts with unflagged P, whereas in (17b), unflagged A contrasts with flagged P.¹²

(17) Dyrirbal (Dixon 1994:161)

(17a) **Duma yabu-ŋgu bura-n.**
 father mother-ERG see-NFUT
 ‘Mother saw father.’

(17b) **Dana purra-na bura-n.**
 1PL 2PL-ACC see-NFUT
 ‘We saw you all.’

1.2.2. Joint vs. disjoint A/P coding

The notion of *joint vs. disjoint A/P coding* is not of the same nature as those discussed in the remainder of Section 1.2, since it characterizes the transitive coding system as a whole, whereas the other distinctions discussed in this section apply to characteristics of transitive constructions that must not necessarily be uniquely determined in a given language.

Joint A/P coding refers to transitive coding systems in which the coding characteristics of A and P cannot be described separately, because the nature of one of the core terms of the

¹² Alternatively, Dyrirbal can be analyzed as having the same case inventory for all nominals, with both the Ergative and the Accusative case partially homonymous with the Zero case. According to this analysis, the Ergative case has the allomorphs zero and **-ŋgu**, and the Accusative case has the allomorphs **-na** and zero. Interestingly, this analysis preserves the unity of transitive coding, although in a somewhat artificial way, but leads to the conclusion that the argument coding system of Dyrirbal departs from the ‘ergative’ canon even more radically than commonly assumed, with both A and P flagged in transitive coding, and ‘tripartite’ alignment (A consistently in the Ergative case, P consistently in the Accusative case, and U in the Zero case).

transitive construction conditions the coding of the other. This phenomenon is also referred to as *co-argument sensitivity*.

In this respect, there is a sharp contrast between flagging and indexation: joint A/P flagging (or co-argument sensitivity in flagging) is quite exceptional, whereas joint A/P indexation (or co-argument sensitivity in indexation) is very common.

The two cases of joint A/P flagging I am aware of are Sahaptin, with an ergative case used only when P is a SAP (1st or 2nd person), and Ik, with an accusative case used only when A is not a SAP (i.e. belongs to 3rd person).

In systems in which both A and P are indexed, disjoint indexation means that there is a dedicated slot for A indexes, another dedicated slot for P indexes, and they are filled independently from each other. Quite obviously, many indexation systems do not meet this characterization. The notion of joint A/P indexation subsumes hierarchical A/P indexation, indexation in direct/inverse marking systems, and A/P indexation by means of portmanteau indexes.

For example, Guarani has two sets of person markers for verbs. One of them indexes the A argument of transitive verbs and the U argument of intransitive verbs that assign a relatively agentive role to U, the other one indexes the P argument of transitive verbs and the U argument of intransitive verbs that assign a relatively patientive role to U. However, transitive verbs cannot have more than one person agreement prefix, and the choice of the person agreement prefix illustrates the notion of hierarchical A/P indexation:

- in all combinations of 1st/2nd person and 3rd person, the agreement prefix indexes the 1st/2nd person argument, whatever its semantic role – Ex. (18a-b);
- in 2>1 combinations (2nd person A + 1st person P), the agreement prefix indexes the 1st person P, resulting in ambiguity with 3>1 combinations – Ex. (18c);
- in 1>2 combinations (1st person A + 2nd person P), special portmanteau prefixes are used – Ex. (18d);¹³
- if both A and P are 3rd person, the verb bears the 3rd person prefix of the agentive series.

(18) Guarani (Tonhauser 2006: 132-3)

(18a) **A-hecha Juan.**

A.1SG-see Juan
'I see Juan.'

(18b) **Che-hecha Juan.**

P.1SG-see Juan
'Juan sees me.'

(18c) **Che-su'u-ta.**

P.1SG-bite-FUT
'You will bite me.'
or 'He/she/it/they will bite me.'

¹³ Interestingly, the portmanteau prefix **ro(i)-** '1>2SG' has the same form as the 1EXCL prefix of the agentive series.

- (18d) **Roi-su'u-ta.**
 1>2SG-bite-FUT
 'I will bite you.'

Joint A/P coding is not problematic for the typology of transitive constructions sketched in sections 1.2.3 to 1.2.7. The problem is that, in systems with joint A/P coding, the recognition of alignment relationships between transitive coding and non-transitive coding frames necessitates an adaptation of the notion of alignment. I will not discuss this question further, since it is not directly relevant to the topic of this course.

1.2.3. Symmetrical vs. asymmetrical transitive constructions

Transitive constructions may involve a greater or lesser degree of symmetry between the coding characteristics of A and P, and I propose to relate this variation to the tendencies observed cross-linguistically in the encoding of core terms and obliques: indexation is not a universal phenomenon, but it is common for core syntactic terms, whereas the indexation of obliques, although found to a limited extent in some languages, is relatively exceptional; conversely, flagging by means of non-zero case forms or adpositions is more common for obliques than for core syntactic terms. Nothing similar can be observed for constituent order, which consequently will play no role in this typology.

The combination of four binary features (\pm A flagging, \pm A indexation, \pm P flagging, \pm P indexation) gives sixteen logically possible types. They are not evenly distributed in the languages of the world, and some of them seem to be found only in languages whose transitive coding involves variously conditioned alternations with other types. A is more often indexed than P, P is more often flagged than A, and the indexation of both A and P in the same construction is much more common than the flagging of both A and P. However, I have not done the kind of investigation that would allow me to give a precise quantitative evaluation of these tendencies, and I will just propose a classification of the possible types.

I first propose to characterize as *symmetrical* the transitive constructions in which A and P do not differ in the extent to which they show core-like or oblique-like coding characteristics. I further propose to characterize the transitive constructions in which A shows more core-like coding characteristics than P as *A-centered*, and those in which the term showing more core-like coding characteristics is P, as *P-centered*.

The possible subtypes of transitive constructions are enumerated in Sections 1.2.4 to 1.2.7, with the indication of languages in which they can be found, alone or in alternation with other subtypes. Question marks indicate configurations that are not attested in the documentation I have been able to consult.

1.2.4. Subtypes of symmetrical transitive constructions

There are four logical possibilities of symmetrical transitive constructions:

- neither A nor P is flagged or indexed (Bambara, Vietnamese);
- both A and P are indexed, neither A nor P is flagged (K'iche', Abkhaz, Nahuatl, Lakota);
- both A and P are flagged, neither A nor P is indexed (Japanese, Tongan);¹⁴
- both A and P are flagged and indexed (Udi, Kanuri, Choctaw, some Basque varieties).¹⁵

¹⁴ Like the other types in which both A and P are flagged, this type seems to be attested only in languages that have differential flagging of A and/or P.

1.2.5. Subtypes of fully asymmetrical transitive constructions

In *fully asymmetrical transitive constructions*, the asymmetry is found in both flagging and indexation, with two logical possibilities:

- *fully A-centered constructions*: A is not flagged whereas P is flagged, A is indexed whereas P is not indexed (Latin, Turkish);
- *fully P-centered constructions*: P is not flagged whereas A is flagged, P is indexed whereas A is not indexed (Avar).

1.2.6. Subtypes of partially asymmetrical transitive constructions

In *partially asymmetrical transitive constructions*, the asymmetry is found in one coding characteristic only, which gives eight logical possibilities.¹⁶ Four of them can be characterized as *partially A-centered*:

- neither A nor P is flagged, only A is indexed (French);
- both A and P are flagged, only A is indexed (?);
- neither A nor P is indexed, only P is flagged (Mongolian, Sinhala);
- both A and P are indexed, only P is flagged (Hungarian, Quechua).

The following four can be characterized as *partially P-centered*:

- neither A nor P is flagged, only P is indexed (!Xoon);
- both A and P are flagged, only P is indexed (?);
- neither A nor P is indexed, only A is flagged (Lezgi);
- both A and P are indexed, only A is flagged (Basque).

1.2.7. Transitive constructions with conflicting asymmetries

Two logically possible types of transitive constructions involve asymmetries in flagging and indexation that do not converge in characterizing one of the arguments as more core-like or more oblique-like than the other in its coding characteristics:

- A is both marked and indexed, whereas P is neither marked nor indexed (Oromo);
- A is neither marked nor indexed, whereas P is both marked and indexed (?).

1.2.8. Variation in transitive coding and the characterization of the transitive coding system of individual languages as A- or P-centered

In many languages, the basic transitive construction has variously conditioned variants that differ with respect to at least one of the four features on which the typological grid put forward in the previous sections is based (\pm A flagging, \pm A indexation, \pm P flagging, \pm P

¹⁵ The Western Basque varieties illustrating the type of transitive construction with both A and P flagged and indexed have a system of differential patient coding with an alternation between Zero case and Dative case (and the corresponding indexes) in the coding of the patient.

¹⁶ In Sections 3.6 and 3.7, the question marks signal types for which I have no illustration to propose, which of course does not imply that illustrations could not be found in a wider and more systematic language sample.

indexation). However, in a broad typological perspective, the crucial distinction is between systems of transitive coding in which the variants of the basic transitive construction do not instantiate two opposite values of the A-centered vs. P-centered parameter, and systems of transitive coding that, taken as a whole, cannot be unambiguously characterized as A- or P-centered.

1.2.8.1. Variation in transitive coding that does not affect the possibility of characterizing the transitive coding system as a whole as A- or P-centered

This situation can be illustrated by the Romance transitive coding systems. Across Romance languages, the details of A indexation vary, and 1st/2nd person pronouns may behave in this respects differently from other nominals; there is also important variation in the obligatoriness / optionality of P indexation, depending on the nature of the P argument, and differential P flagging in found in some Romance varieties only. However, A is uniformly unflagged and obligatorily indexed, and consequently, in spite of the unquestionable variation, the Romance systems of transitive coding can be unambiguously characterized as A-centered.

1.2.8.2. Variation in transitive coding making impossible the characterization of the transitive coding system as a whole as A- or P-centered

Kurmanji Kurdish (cf. Ex. (4) above) provides a straightforward illustration of this kind of situation, since one of the two variants of transitive coding in Kurmanji Kurdish is fully A-centered (A unflagged and indexed, P flagged and not indexed), whereas the other one is fully P-centered (A flagged and not indexed, P unflagged and indexed).

1.3. The Obligatory Coding Principle

1.3.1. The Obligatory Coding Principle as a reformulation of the distinction between morphologically accusative and morphologically ergative languages

The usual definition of accusative / ergative alignment has been given in Section 1.1.4. However, as regards alignment relationships in the coding properties of core arguments (morphological accusativity / ergativity), the traditional distinction between predominantly accusative and predominantly ergative languages is best understood with reference to a very general (although violable) constraint on the possible coding frames in a given language, for which I propose the term of Obligatory Coding Principle.

In the languages that have coding frame inventories fully consistent with the Obligatory Coding Principle, every coding frame must include an argument showing a given type of coding that can be viewed as the default or unmarked argument coding for a given language.

Given the definition of A and P, this constraint leaves just two logical possibilities: in a language whose argument coding system does not violate the Obligatory Coding Principle, the type of coding that must be found in every possible coding frame must necessarily coincide, either with A coding (*obligatory A coding languages*), or with P coding (*obligatory P coding languages*). Consequently, in a language whose argument coding system does not violate the Obligatory Coding Principle, all intransitive constructions include a core argument whose coding uniformly coincides, either with the coding of A (in obligatory A coding languages), or with the coding of P (in obligatory P coding languages).

The notion of obligatory A coding language is consequently a reformulation of the notion of language consistently accusative in the coding properties of core arguments, and the notion

of obligatory P coding language is a reformulation of the notion of language consistently accusative in the coding properties of core arguments.

However, many languages have statistically marginal classes of intransitive verbs that violate the Obligatory Coding Principle, and in some languages, intransitive verbs divide into valency classes in a way that radically violates the Obligatory Coding Principle. For example, Basque has monovalent verbs assigning P coding to their sole argument – Ex. (19c), and others assigning A coding – Ex. (19b), and in most Basque varieties, none of these two classes of intransitive verbs can be considered marginal.

(19) Basque (pers.doc.)

(19a) **Haurr-ak ur-a ekarri du.**
 child-SG.ERG water-SG bring.CPL PRS.A.3SG.P.3SG
 ‘The child brought the water.’

(19b) **Ur-ak irakin du.**
 water-SG.ERG boil.CPL PRS.A.3SG.P.3SG¹⁷
 ‘The water boiled.’

(19c) **Haurr-a etorri da.**
 child-SG come.CPL PRS.P.3SG
 ‘The child came.’

1.3.2. Impersonality and the Obligatory Coding Principle

1.3.2.1. Introductory remarks

Impersonality has been a regular topic of investigation in Indo-European linguistics, but until very recently it was not the subject of detailed cross-linguistic or typological research. This is the obvious consequence of the difficulties involved in identifying instances of impersonality on a cross-linguistic basis.

A major problem in a cross-linguistic investigation of impersonality is that no clear definition emerges from the inventories of phenomena viewed as instances of impersonality in different traditions. Moreover, it turns out that none of the traditional inventories of phenomena presented as instances of impersonality is fully consistent, and the same can be said of most of the recent works that have tried to define a cross-linguistically valid notion of impersonality. Some of the phenomena currently viewed as instances of impersonality have a clear structural basis, but others can only be identified as instances of impersonality on a purely functional basis, and any functional definition making it possible to group them together would unavoidably lead to extend the label ‘impersonal’ to many phenomena, such as canonical passives, indefinite subject NPs, non-agentive but otherwise canonical subjects, non-topical but otherwise canonical subjects, reference to kinds, etc., which most authors do not include in impersonality.

In this course, the label ‘impersonal’ is restricted to impersonal *constructions* in the strict sense of this term. The definition that will be put forward and commented in Section 1.3.2.2 excludes from impersonality a number of phenomena commonly viewed as instances of impersonality, such as:

¹⁷ See Footnote 4.

- the unspecified interpretation of null subjects;
- the unspecified interpretation of 3rd person plural pronouns;
- the generic use of the 2nd person;
- generic/vague human pronouns such as German **man** or French **on**;
- demonstratives encoding vague reference to inanimate entities (French **ça**).

The point is that such phenomena, although commonly considered instances of impersonality, occur in constructions that, *as constructions*, are not really different from canonical verbal predication. Given the topic of this course, it is not necessary to discuss them further. By contrast, impersonal *constructions* in the strictest sense of this term play an important role in the valency system of many languages.

1.3.2.2. Impersonal constructions

An important advantage of the Obligatory Coding Principle is that it provides at the same time a very simple way of defining impersonal constructions, and a good basis for discussing the possible extension of this notion to languages other than obligatory A coding languages.

The languages in the description of which the notion of impersonal construction has been used by traditional grammarians are obligatory A coding languages with more or less marginal exceptions to the rule of obligatory A coding. In such languages, an impersonal construction can be defined as a construction that does not include a slot for an argument encoded in the same way as the agent in the basic transitive construction.

For example, in French, in a clause like **Il est venu deux femmes**, lit. ‘It came two women’ the 3rd person masculine A/U index **il** is a mere place-holder devoid of any reference, since the sole argument of **venir** ‘come’ is represented by the NP in postverbal position, and the gender-number values normally expressed by **il** (singular masculine) are in contradiction with those of this NP (plural feminine).

Note that, as illustrated by this example, an impersonal construction may include a dummy element that in other constructions would be interpreted as representing an A argument. Conversely, a clause including no A-like NP is not necessarily impersonal: what is crucial for distinguishing canonical constructions with a null A from impersonal constructions is the possibility to introduce an NP coded like the A term of the basic transitive construction without modifying the argument structure, and without modifying the rest of the construction either.

In the perspective of this course, it is important to distinguish two types of impersonal constructions: those constituting the only available option for a given verb and a given argument structure, and those in competition with a canonical predicative construction expressing the same argument structure. Ex. (20) illustrates the second possibility.

(20) French

(20a) **Il est venu deux femmes.**
 A.3SGM be.PRS.3SG come.PTCP.SGM two woman.PL
 ‘Two women came.’ (impersonal construction)

(20b) **Deux femmes sont venues.**
 two woman.PL be.PRS.3PL come.PTCP.PLF
 ‘Two women came.’ (canonical predication)

The French verb **falloir** ‘need’ illustrates the possibility of an impersonal construction that does not alternate with a canonical predicative construction: in Modern French, this verb can only be used with the dummy A index **il** ‘he’, and its two arguments are obligatorily expressed in the same way as the non-A arguments of typical trivalent verbs – Ex. (21).

(21) French

Il nous faut ces livres.
 A.3SGM DAT.1PL need.PRS.3SG DEM.PL book.PL
 ‘We need these books.’ lit. ‘It needs us these books.’

1.3.2.3. *Anti-impersonal constructions*

The term *anti-impersonal construction* was coined by Gilbert Lazard (1985, 1995) to designate the mirror-image of impersonal constructions in obligatory P coding languages that have more or less marginal exceptions to the general rule of obligatory P coding. In such languages, an anti-impersonal construction can be defined as a construction that, exceptionally, does not include a slot for an argument encoded in the same way as the patient in the basic transitive construction.

For example, in several Nakh-Daghestanian languages, bivalent verbs whose arguments can be characterized resp. as *aimer* and *target* are often found in the anti-impersonal construction illustrated by ex. (22), with an Ergative-marked argument (the aimer) and a Lative-marked argument (the target), but no slot for a Zero-marked NP (i.e. an NP case-marked like the patient in the basic transitive construction).

(22) Akhvakh (pers.doc.)

Wašo-de jašo-ga eḡaje godi.
 boy-ERG girl-LAT look_at.CVB COP.SGN
 ‘The boy looked at the girl.’

Interestingly, impersonal and anti-impersonal constructions are the mirror-image of each other, but functionally, they are not found with the same semantic types of verbs. For example, constructions of aiming verbs in which the aimer has the coding characteristics of the agent in the basic transitive construction, but the target has the coding characteristics of locative or allative obliques, are cross-linguistically very common, irrespective of alignment patterns. In obligatory A coding languages, as illustrated by English **look at**, this does not contradict the rule according to which verbal predicative constructions must include a term showing A coding, whereas in obligatory P coding languages, this violates the constraint according to which verbal predicative constructions normally include a term showing P coding.

Additional data on obligatory P coding languages corroborate the propensity of verbs of aiming to occur in anti-impersonal constructions (see among others, on Australian languages, Tsunoda (1981) on Djaru, and Hale (1982) on Warlpiri).

Diachronically, it is interesting to observe that, in obligatory P coding languages, the univerbation of light verb compounds in which the non-verbal element of the compound is a noun encoded like the P term of a transitive construction mechanically creates intransitive verbs violating the principle of obligatory P coding, whereas in obligatory A coding language, the intransitive verbs resulting from the same evolution do not violate the rule of obligatory A coding – for more details, see Creissels (2015a).

1.4. Relationship between types of transitive coding and types of alignment

1.4.1. Correlation between transitive coding typology and the Obligatory Coding Principle

Quite obviously, the A-centered type of transitive coding strongly correlates with obligatory A coding (or, in other words, with the ‘accusative’ alignment $A = U \neq P$), whereas the P-centered type of transitive coding strongly correlates with obligatory P coding (or, in other words, with the ‘ergative’ alignment $A \neq U = P$).

Interestingly, the languages with symmetrical transitive coding do not show a clear preference for A or P as the default type of argument coding. Among languages with symmetrical transitive coding it is equally easy to find examples of languages with obligatory A coding (in which U consistently aligns with A), such as Nahuatl, and of languages with obligatory P coding (in which U consistently aligns with P), such as K’iche’. It is also among such languages that it is possible to find the less controversial examples of split-U languages, in which a class of intransitive verbs with U coded like A and a class of intransitive verbs with U coded like P are roughly equal in size.

1.4.2. A-unmarked vs. P-unmarked systems of argument coding

The combination of A-centered transitive coding with obligatory A coding and the combination of P-centered transitive coding with obligatory P coding define prototypes corresponding to what seems to be the most widespread (although generally implicit) conception of what may be ‘typical accusative languages’ and ‘typical ergative languages’ respectively. This correlation is, however, not absolute, hence the terminological and conceptual problems raised by the indiscriminate use of ‘ergative’ with reference to a type of transitive coding and a type of alignment. In order to avoid the misunderstandings resulting from this terminological practice, I propose to call *A-unmarked systems of argument coding* the systems of argument coding that combine A-centered transitive coding with obligatory A coding (i.e., the systems found in ‘typically accusative’ languages), and *P-unmarked systems of argument coding* those combining P-centered transitive coding with obligatory P coding (i.e., the systems found in ‘typically ergative’ languages).

1.4.3. Atypical systems of argument coding

Atypical systems of argument coding are systems of argument coding that depart from the prototypes defined in 1.4.2 in one of the following ways:

- systems involving multiple transitive coding;
- systems involving a type of transitive coding that cannot be unambiguously characterized as symmetrical, A-centered, or P-centered;
- systems that cannot be unambiguously characterized as obligatory A coding or obligatory P coding systems;
- systems contradicting the tendency to associate A-centered transitive coding with obligatory A coding, and P-centered transitive coding with obligatory P coding.

1.5. Transitive coding and valency

1.5.1. Bivalent verbs and transitivity

Languages differ in the extent to which they make use of transitive coding, in other words, in their degree of *transitivity prominence*. For example, like English or French, Wolof (Atlantic) extends the transitive coding typically found with verbs such as ‘break’ to a verb like ‘forget’ (whose arguments cannot be described as an agent and a patient), whereas in Mandinka (Mande), ‘forget’ has an *extended intransitive construction* in which one of the arguments is an oblique argument.

(23) Wolof (Atlantic – pers.doc.)

(23a) **Xale bi toj na weer bi.**
 child CLb.DEF break PRF.3SG glass CLb.DEF
 ‘The child has broken the glass.’

(23b) **Xale bi fàtte na sama sant**
 child CLb.DEF forget PRF.3SG my name
 ‘The child has forgotten my name.’

(24) Mandinka (Mande – pers.doc.)

(24a) **Díndíngò yè wéerò tèyí.**
 child.D CPL.TR glass.D break
 ‘The child has broken the glass.’

(24b) **Díndíngò ñíná-tà í kòntóŋò lá.**
 child.D forget-CPL.INTR 1SG name.D POSTP
 ‘The child has forgotten my name.’

It has long been known that English or French have a much stronger tendency to employ transitive verbs than for example German or Russian. Say (2014) provides a precise picture of the variation in transitive prominence across European languages. As regards the languages of the world, some precise data are now available due to the Leipzig Valency Classes Project, whose database contains data from 36 languages world-wide. Haspelmath (2015) discusses the classification of the 36 languages according to their degree of transitivity prominence on the basis of the sample of 80 verb meanings that were systematically collected for all the languages of the project. For example, in this classification, Mandinka (illustrated in Ex. (24)) ranks 20th on 36, immediately after Italian, which means that its moderate degree of transitivity prominence is comparable to that of West European languages. More generally, it seems that, in the languages of the world, the low degree of transitivity prominence that characterizes the languages of Eastern Europe and of the Caucasus is exceptional, whereas languages with a degree of transitive prominence higher than that found in West European languages are common.

1.5.2. Trivalent verbs and transitivity

1.5.2.1. Extended-transitive coding and double-transitive coding

As a rule, trivalent verbs such as ‘give’, ‘show’, ‘send’, ‘sell’, etc. select either *extended-transitive* coding frames, or *double-transitive* coding frames.¹⁸ In both cases, the most agentive participant is encoded like the A term of the basic transitive construction. In the extended-transitive type of coding, illustrated by Ex. (25) and (26), one of the other two arguments is encoded like the P term of the transitive construction, and the third one is assigned a distinct coding. In the double-transitive type of coding, illustrated by Ex. (27), two arguments show coding characteristics identical to those of the P term in the basic transitive construction. Note that the double-transitive type of coding, relatively marginal in the languages of Europe, is common in the languages of the world.

(25) Hungarian (pers.doc.)

(25a) **János pénz-t keresett.**
 János money-ACC earn.PST.3SG
 ‘János earned money.’

(25b) **János pénz-t adott Béla-nak.**
 János money-ACC give.PST.3SG Béla-DAT
 ‘János gave money to Béla.’

(26) Chamorro (Topping 1973: 241, 251)

(26a) **Ha tuge’ i kannastra.**
 3SG.ERG weave ABS basket
 ‘He wove the basket.’

(26b) **Ha na’i i patgon ni leche.**
 3SG.ERG give ABS child OBL milk
 ‘He gave the child milk.’

(27) Panyjima (Dench 1991: 195)

(27a) **Ngunha parnka ngarnarta mantu-yu.**
 DEM lizard eat.FUT meat-ACC
 ‘That lizard will eat the meat.’

(27b) **Ngatha yukurru-ku mantu-yu yinyanha.**
 1SG dog-ACC meat-ACC give.PF
 ‘I gave the dog meat.’

¹⁸ I introduce the term of ‘double-transitive’ coding frame in order to avoid the ambiguity of ‘ditransitive’: in principle, given its etymology, ‘ditransitive’ should be restricted to verbs selecting a coding frame with two terms showing the same coding properties as the P term of the basic transitive construction. Unfortunately, in recent typological literature, ‘ditransitive’ is commonly used as synonymous with ‘trivalent’, even by authors that distinguish ‘transitive’ from ‘bivalent’ in the way adopted in this course.

1.5.2.2. *Indirective vs. secondative alignment*

As can be seen from Ex. (25) and (26), in the extended-transitive type of coding of the trivalent verbs whose argument structure includes a recipient and a ‘theme’ (gift, etc.), there is cross-linguistic variation in the choice of the argument encoded like the P term of the basic transitive construction. In the recent typological literature, the alignment $T = P \neq R$ (as in Ex. (25)) is designated as *indirective alignment*, and the alignment $R = P \neq T$ (as in Ex. (26)) as *secondative alignment*.

Ex. (28) illustrates the fact that indirective and secondative alignment may co-exist in the same language. Soninke has two quasi-synonymous verbs **kínì** and **ʼkú** ‘give’. With **kínì**, the position immediately to the left of the verb, which characterizes the P term of the basic transitive construction, is occupied by the theme phrase (and the recipient is encoded as an oblique), whereas with **ʼkú**, the same position is occupied by the recipient phrase (and the theme phrase is encoded as an oblique).

(28) Soninke (pers.doc.)

(28a) **Múusá dà qálisí-n kìnì Dénbà yí.**
 Moussa TR money-D give Demba POSTP
 ‘Moussa gave the money to Demba.’

(28b) **Múusá dà Dénbà kú qálisí yà.**
 Moussa TR money-D give Demba POSTP
 ‘Moussa gave the money to Demba.’

1.5.2.3. *Hierarchy in double-transitive constructions*

In double-transitive constructions, there is no morphological evidence of a hierarchy between the theme phrase and the recipient phrase. However, as regards the behavioral properties typical for the patient in the basic transitive construction of a given language, the theme phrase and the recipient phrase do not always show the same degree of assimilation to the monotransitive patient. In other words, in this respect, double-transitive constructions are frequently more or less asymmetric.

For example, in the languages that have both passive constructions and a double-transitive construction for trivalent verbs, it is not rare that the recipient and the theme, in spite of their identical coding, do not have equal access to the function of U term of a passive construction.

It seems that, in the double-transitive constructions showing this kind of asymmetry, it is most of the time the recipient phrase that shows more resemblance in its behavior with the P term of the basic transitive construction.

1.5.2.4. *Dative coding*

The traditional descriptions of constructions of trivalent verbs with the recipient treated differently from the monotransitive patient (as in (25b) and (28a) above) often use terms such as ‘dative’ or ‘indirect object’, and suggest that, in some respects at least, this argument shows more affinities with core syntactic terms than with obliques. In some languages, for example Basque, or Georgian, such an analysis is solidly motivated by properties such as obligatory indexation, or involvement in case alternations. In French, the fact that some phrases introduced by the preposition *à* behave exactly like P phrases in reflexivization is a strong argument for giving them a special status. However, this is clearly not always the case. For

example, in Latin, or in Hungarian, the dative-marked recipients do not seem to have properties justifying to classify them apart from the other obliques.

1.5.3. Monovalent verbs and transitivity

There is a variety of ways in which monovalent verbs may be found in constructions including two terms with the coding characteristics of the A and P terms of the basic transitive construction. However, with monovalent verbs, one of the two terms (most commonly, the P-like term) cannot represent a participant, and consequently this term, in spite of its coding, must not be expected to behave in all respects like typical patients. For example, in the languages that have passive constructions, the atypical P's found in transitive constructions of monovalent verbs must not be expected to have the ability to be converted into the U term of a passive construction.

1.5.3.1. Light verb constructions

Light verb constructions such as English **have a look**, **do a dance**, or **take a plunge**, depart from the canonical situation in which NP's in a direct syntactic relationship to verbs represent participants in an event encoded by the verb. Light verb constructions are a particular type of complex predicate, in which a given type of event is lexified as the combination of a verb and a non-verbal word, the verb being semantically 'light' in the sense that its contribution to the conceptualization of an event is relatively small in comparison with that of the non-verbal element of the complex predicate. As illustrated by Ex. (29), the non-verbal element of complex predicates of this type is often a noun, and it is particularly common that the light verb construction has the coding characteristics of a transitive construction with the noun that constitutes the non-verbal element of the complex predicate in P role. This results in constructions in which the unique argument of monovalent predicates is expressed as the A term of a transitive construction, as in (a), and one of the arguments of bivalent predicates can only be expressed as an oblique, as in (b).

(29) Basque (pers.doc.)

(29a) **Haurr-ek lo egiten dute.**
 child-PL.ERG sleep do.ICPL PRS.A.3PL.P.3SG
 'The children are sleeping (lit. are doing sleep).'

(29b) **Gizon horr-ek ez du euskar-az hitz egiten.**
 man DEM.SG-ERG NEG PRS.A.3SG.P.3SG Basque-SG.INSTR word do.ICPL
 'This man does not speak Basque (lit. does not do word in Basque).'

Light verb constructions are probably universal, but some languages use them with great frequency and systematically, and thus have a relatively limited number of verbal lexemes, in some cases less than a hundred. Some languages have a particularly high proportion of predicates expressed as light verb compounds in which the light verb is a transitive verb (most often a verb with the meaning 'do, make', as in Ex. (29)), and the non-verbal element is a noun encoded like the P argument of transitive verbs.

Languages in which light verb constructions are particularly frequent include languages with A-unmarked systems of argument coding, such as Japanese, Turkish, Persian or Ewe, languages with P-unmarked systems of argument coding, such as Tibetan or Lezgi, and languages with atypical systems of argument coding, such as Basque. Examples (30) and (31)

illustrate the use of ‘do’ as a light verb in Turkish and Basque.

(30) Turkish (pers.doc.)

hayret etmek	astonishment	+ do	→ be astonished
istirahat etmek	rest (noun)	+ do	→ rest (verb)
kabul etmek	acceptance	+ do	→ accept
şüphe etmek	doubt (noun)	+ do	→ doubt (verb)
taksim etmek	division	+ do	→ divide
vefat etmek	death	+ do	→ die

(31) Basque (pers.doc.)

agur egin	greeting	+ do	→ greet
barre egin	laugh (noun)	+ do	→ laugh (verb)
amets egin	dream (noun)	+ do	→ dream (verb)
leher egin	explosion	+ do	→ explode
lo egin	sleep (noun)	+ do	→ sleep (verb)
negar egin	tear	+ do	→ cry

Crosslinguistically, the nouns combining with light verbs usually exhibit morphosyntactic properties different from those of ordinary nominal arguments. For instance, in Basque and other languages where determiners are obligatory, light verb constructions are often characterized by the use of bare nouns. And in languages with a relatively flexible constituent order, the nouns in light verb constructions tend to exhibit limited mobility in relation to the verb.

Creissels (2015) discusses the consequences of the evolution of light verb constructions for the typology of argument coding systems.

1.5.3.2. Cognate P constructions with intransitive verbs

A *cognate P construction* (or cognate object construction, cognate accusative construction) is a construction in which a verb is used transitively with a cognate noun in P role. Cognate P constructions are found with transitive verbs as a possible strategy for avoiding the specification of the P argument (see Section 4.4), but they are also found with verbs that cannot be constructed transitively with a participant encoded as P – Ex. (32).

(32) English

He slept a troubled sleep.
He laughed a bitter laugh.
He died a painful death.
He smiled a charming smile.
He danced a cheerful dance.
He walked their walk and talked their talk. (i.e., He walked and talked as they did.)

In some of the languages that make a particularly wide use of such constructions, many monovalent predicates can only be expressed as a cognate P construction.

The cognate P construction may also be motivated by the expression of verb focus. In the languages that use this strategy, the meaning expressed in English as ‘He did sleep’ is rendered literally as **It’s sleep that he slept**.

1.5.3.3. Other types of atypical P’s: the case of Soninke and Manding

Mande languages are particularly interesting for a study of atypical P’s, since in Mande languages, verbal predication is organized in such a way that there cannot be any ambiguity between phrases in P role and oblique phrases.

In Mande morphosyntax, the A term in the basic transitive construction and the U term in intransitive constructions are immediately followed by a ‘predicative marker’ expressing grammaticalized TAM distinctions and polarity, and also involved in transitivity marking. The position between the predicative marker and the verb unambiguously characterizes the P term of the basic transitive construction. However, this position may also be occupied by *atypical P’s*, i.e. noun phrases that do not represent a participant, and nevertheless are encoded in the same way as typical patients, in particular phrases that provide information about the duration of an activity, as in (33b).

(33) Soninke (pers.doc.)

(33a) **Hàatú dà kónpè-n cèllà.**

Fatou TR room-D sweep
‘Fatou swept the room.’

(33b) **Hàatú dà kòotá-n mùumâ-n cèllà.**

Fatou TR day-D whole-D^{LH} sweep
‘Fatou spent the whole day sweeping.’

In Ex. (33), the verb is transitive, and the atypical P expressing duration of an activity occupies the syntactic position normally occupied by the patientive argument of the transitive verb.¹⁹ However, as illustrated by Ex. (34), the same construction is also found with otherwise strictly intransitive verbs, i.e. with verbs that cannot be found in a transitive construction with a noun phrase representing a participant in the P slot, and nevertheless can be constructed transitively with a duration phrase in the P slot.

(34) Soninke (pers.doc.)²⁰

(34a) **Ŋ ñàtí yérú.**

1SG be_sick last_year
‘I was sick last year.’

(34b) **Ŋ dà qású-báané wàtí.**

1SG TR month-one be_sick
‘I was sick during a whole month.’

¹⁹ In Lesson 5, we will see how the patientive argument can be expressed when the P slot in the construction of a transitive verb is occupied by such a non-argumental phrase.

²⁰ In this example, ‘be sick’ appears as **ñàtí** in (a) and **wàtí** in (b), but this alternation is automatically triggered by the presence/absence of a nasal at the end of the preceding word..

With some intransitive verbs denoting activity, this construction triggers a vowel alternation that can be analyzed as encoding transitivization. This phenomenon clearly supports the distinction between semantic transitivity and syntactic transitivity, since the presence of an atypical P has no impact on semantic transitivity.

(35) Soninke (pers.doc.)

(35a) **Tógáanà-n téré léerì-nú sikkì.**

hunter-D walk hour-D three^L

‘The hunter walked three hours.’

(35b) **Tógáanà-n dà léerì-nú sikkì tèrá.**

hunter-D TR hour-D three^L walk.TR

‘The hunter spent three hours walking.’

Intransitive verbs denoting manner of movement, such as **wùrú** ‘run’ or **téré** ‘walk’ can be used transitively with a duration phrase in the P slot, but the same position may also be occupied by a phrase denoting the interval covered. In this use, they show the same possibility of transitivization marking.

(36) Soninke (pers.doc.)

(36a) **Ó wùrú léerì-báané.**

1PL run hour-one

‘We ran one hour.’

(36b) **Ó dà léerì-báané wùrá.**

1PL TR hour-one run.TR

‘We spent one hour running.’

(36c) **Ó dà kílóméetàrá-nú sikkì wùrá.**

1PL TR kilometer-PL three^L run.TR

‘We ran three kilometers.’

The third type of phrases that do not refer to a participant and can feature in the P slot of a transitive construction of otherwise strictly intransitive verbs is the noun **hó** ‘thing’, interpreted in this construction as expressing intensity of the activity – Ex. (32).

(37) Soninke (pers.doc.)

Lémínè-n ñá hó qènqè-né.

child-D ICPL thing sleep-GER

‘The child sleeps so much.’

Hó ‘thing’ as an atypical P expressing intensity may trigger the same transitivization marking as described above.

(38) Soninke (pers.doc.)

Yàxàrê-n ɲá hó tètà-ná.
 woman-D ICPL thing walk.TR-GER
 ‘The woman walks so much.’

The same types of atypical P’s are found in Mandinka, and in addition to that, as illustrated by Ex. (39a), Mandinka has atypical P’s referring to the cause of the event. In particular, with verbs that cannot be constructed transitively with a participant in P role, a transitive construction with the interrogative **mũŋ** ‘what’ in the P slot is possible, as in (39b), and **mũŋ** is then interpreted as ‘why’.

(39) Mandinka (pers.doc.)

(39a) **Wùlôo kà làpìrindíngò lè ɲúurà.**
 dog.D ICPL small_blow.D FOC growl
 ‘It’s for a small blow that the dog growls.’

(39b) **Í kà mũŋ nè mée jěe?**
 2SG ICPL what FOC spend_time there
 ‘Why are you always spending time there?’

1.5.3.4. Time phrases encoded as the A term of a transitive construction

Many languages have sentences like **The storm found me in the middle of the forest** with the meaning ‘I was in the middle of the forest when the storm burst’. West African languages make a particularly wide use of this kind of construction. Ex. (40) illustrates this construction in Mandinka with the transitive verb ‘create’ and the P-labile verb ‘finish’.

(40) Mandinka (pers.doc.)

Bĩ mâŋ dúńyáa dáa, bĩ fánánj té dúńyáa bàn-ná.
 today CPL.NEG world create today also ICPL.NEG world finish-GER
 lit. ‘Today did not create the world, today will not finish the world either.’
 > ‘The world was not created today, it will not finish today either.’

Ex. (41) illustrates a construction of this type in Bambara with an intransitive verb.

(41) Bambara (pers.doc.)

Bì má Sékù nà.
 today CPL.NEG Sékou come
 lit. ‘Today did not come Sékou.’ > ‘Sékou arrived long ago.’

Lesson 2

Valency-decreasing voices

In the valency alternations described in this lesson, the less valent verb form is more complex than the more valent one. In the simple cases, either the less valent verb form differs from the more valent one by the addition of a derivational affix, or the less valent verb form is an analytic verb form combining a voice auxiliary and a non-finite form of the auxiliated verb.

2.1. A/U-demoting voices

By demotion (or backgrounding), I mean an operation that deprives an argument from its syntactic status of core argument, without however removing it from the argument structure. In the description of valency-decreasing mechanisms, it is crucial to distinguish between argument-*backgrounding* mechanisms (which change the mapping of semantic roles onto syntactic functions but leave the argument structure unchanged, even if the demoted argument is not expressed) and argument-*removing* mechanisms (which modify the argument structure).

2.1.1. Canonical passive constructions

2.1.1.1. Passive constructions including an oblique agent phrase

Ex. (1b) illustrates the kind of constructions for which there is consensus on the use of the label ‘passive’.

(1) Tswana (pers.doc.)

(1a) **Kítsó** **†ó-tláà-kwál-á** **lò-kwâ:lò.**
(CL1)Kitso A.CL1-FUT-write-FV CL11-letter
‘Kitso will write the letter.’

(1b) **Lò-kwáló** **†ló-tláà-kwál-w-à** **(kí †Kî:tsò).**
CL11-letter A.CL11-FUT-write-PASS-FV by (CL1)Kitso
‘The letter will be written (by Kitso).’

In addition to the presence of a suffix **-w-** providing evidence that (1b) derives from (1a), the crucial characteristics of clause (1b), in comparison with the transitive clause (1a), are that the argument structure of **kwálá** ‘write’ is not affected in (1b), but the mapping of semantic roles onto syntactic functions is different:

- in (1b), the writer is not one of the two core terms (A) of a transitive predication, as in (1a); it may be left unexpressed, or encoded as an oblique;
- in (1b), the thing written is not the P term of a transitive predication, but the U term of an intransitive predication.

To summarize, the valency change in (1b) can be summarized as combining the demotion of A and the promotion of P.

Functionally, the observation of the contexts in which passive constructions are particularly frequent leads to the conclusion that they can be characterized as presenting the

event from the perspective of the patientive argument. In other words, passive constructions express a reversal of the topicality hierarchy: A>P in the basic transitive construction, P>A in the passive construction. A particularly clear case is that of languages in which inherently non-topical phrases such as interrogative or negative pronouns cannot fulfill the role of A in the basic transitive construction, and the use of a passive construction is obligatory whenever such a phrase refers to a participant normally encoded as the A term of a transitive construction – Ex. (2).

(2) Tswana (pers.doc.)

(2a) ***Máǀ** ⁺**ó-tláà-kwál-á** **lò-kwâ:lò?**
 who A.CL1-FUT-write-FV CL11-letter
 *‘Who will write the letter?’

(2b) **Lò-kwáló** ⁺**ó-tláà-kwál-w-à** **kí** ⁺**mâ:ǀ?**
 CL11-letter A.CL11-FUT-write-PASS-FV by who
 ‘The letter will be written by whom?’

Section 4.5.4 will deal with morphologically unmarked passive constructions, which combine demotion of A and promotion of P, exactly like canonical passive constructions, but include no morphological material (auxiliary, affix, or other) that could be analyzed as marking the valency change, and thus constitute an instance of labiality.

2.1.1.2. Agentless passives

In Ex. (1b) above, the demoted A is not necessarily expressed. It can be left unexpressed, which means that the participant in question is still semantically present, but its identity is not specified. Some languages have constructions quite similar to (1b), with however the difference that the demoted A must remain unexpressed, although semantically present.

In such cases, the identification of the construction as passive rather than anticausative crucially relies on observations implying the presence of an unexpressed agent. In general, the insertion of agent-oriented adverbs (such as ‘voluntarily’, ‘on purpose’) constitutes a good test, since such adverbs are ruled out from anticausative constructions. Another good test is the insertion of adverbs or adverbial expressions such as ‘by itself’, which are acceptable in anticausative constructions, but ruled out from passive constructions, since they would contradict the maintenance of the agent in the argument structure.

In languages with agentless passives, biclausal constructions of the type illustrated in (3) constitute a common equivalent of passive constructions including an agent phrase.

(3) Classical Nahuatl (Launey 1980)

Ni-tlazòtla-lo, nēch-tlazòtla in no-tàtzin.
 A.1SG-love-PASS P.1SG-love DEF 1SG-father
 ‘I am loved by my father.’
 lit. ‘I am loved, my father loves me.’

Interestingly, passive constructions with an agent phrase may result from the grammaticalization of such biclausal constructions. For example, in Tswana, the preposition **kí** found in Ex. (1b) above results from the grammaticalization of the predicator **kí** ‘it is’ in a

construction that, originally, was something like ‘The letter will be written, it is Kitso [who will write it]’.

2.1.1.3. Constraints on the use of passive constructions

It has been mentioned above that, in some languages, the use of the basic transitive construction is limited by constraints on the inherent topicality of the A term that make the passive construction obligatory in some conditions. Conversely, it may happen that the use of the passive construction is limited by constraints related to contrasts in the inherent topicality of the P argument promoted to U. Constraints on the animacy or person of the P argument promoted to U or of the demoted A are just a particular case.

For example, in Nahuatl, the active-passive alternation is only possible with animate P’s. With inanimate P’s, the active-passive alternation is not possible, but middle verb forms can be used with a passive reading – Example (4).

(4) Classical Nahuatl (Launey 1980)

(4a) **Ø-Itta-lō-c in cihuātl.**

A.3-see-PASS-CPL DEF woman
‘The woman was seen.’

(4b) **Ø-Mo-tta-c in cihuātl.**

A.3-MID-see-CPL DEF woman
‘The woman saw herself (e.g. in a mirror).’

(4c) ***Ø-Itta-lō-c in calli.**

A.3-see-PASS-CPL DEF house
*‘The house was seen.’

(4d) **Ø-Mo-tta-c in calli.**

A.3-MID-see-CPL DEF house
‘The house was seen.’ (lit. ‘saw itself’)

In K’ichee’, passive constructions with an agent phrase are not possible with 1st or 2nd person A’s.

(5) K’ichee’ (Campbell 2000)

(5a) **X-Ø-kunax ri ak’aal r-umal ri ixoq.**

CPL-P.3SG-treat.PASS DEF child 3SG-by DEF woman
‘The child was treated by the woman.’

(5b) ***X-Ø-kunax ri ak’aal w-umal.**

CPL-P.3SG-treat.PASS DEF child 1SG-by
*‘The child was treated by me.’

Conversely, in some languages, pragmatic factors may result in a preference for passive constructions. For example, depending on the relationship between the speech act participants, transitive constructions with 1st or 2d person A’s may be considered rude. It has been argued that the development of this kind of use of passive constructions may lead to the

obsolescence of the original transitive construction, and consequently to the reanalysis of the former passive construction as the basic transitive construction (Queixalós 20013).

2.1.2. Impersonal passives from transitive verbs

In many languages, the verb forms found in canonical passive constructions are also found in constructions in which the A-argument is demoted exactly as in a canonical passive construction, but the P-argument is encoded as in the basic transitive construction. Such constructions are commonly termed ‘impersonal passives’.

(6) French

(6a) **Le président a pris une décision.**

the president has taken a decision

‘The president took a decision.’

(6b) **Une décision a été prise (par le président).**

a decision has been taken by the president

‘A decision was taken (by the president).’ (canonical passive)

(6c) **Il a été pris une décision.**

it has been taken a decision

‘A decision was taken.’ (impersonal passive)

Ex. (7) illustrates an impersonal passive construction including an agent phrase.

(7) German

In der Küche wurde von vielen Leuten geraucht.

in the kitchen was by many people smoked

‘There was smoking by many people in the kitchen.’

2.1.3. Extension of passive morphology to U-demotion

2.1.3.1. Oblique passives

Oblique passives are constructions in which an intransitive verb undergoes a morphological operation identical to that marking A demotion and P promotion with transitive verbs. The unique core argument U of the intransitive verb is demoted exactly like the A argument of a transitive verb, and a term encoded as an oblique in the construction of the underived form of the intransitive verb is promoted to U. Ex. (8) is a classical example of oblique passive.

(8) English

This bed has been slept in.

Sambou (Forthcoming) shows that Joola languages (Atlantic) have a type of oblique passive, illustrated by Ex. (9b), which as far as I know has not been mentioned so far in the literature on passives. In (9b), **e-bool-yu** ‘the bowl’ in U role governs verb agreement, but is also resumed by a pronoun in the position it would occupy in the corresponding active sentence.

(9) Kuwaataay (Joola, Atlantic – Sambou Forthcoming)

(9a) **Sana a-ñoofo-a-ñoofo ti e-bool-yu.**

Sana CLa-eat-VFOC-eat in CLe-bowl-CLe.D
‘Sana has eaten in the bowl.’

(9b) **E-bool-yu e-ñoofo-ee-ñoofo ti e-yo.**

CLe-bowl-CLe.D CLe-eat-VFOC.PASS-eat in CLe-PRO
lit. ‘The bowl_i has been eaten in it_i.’

Although this is not a common type of passive construction, it is not difficult to imagine a plausible grammaticalization path. Since impersonal passives (i.e. constructions in which the demotion of A or U is not accompanied by the promotion of any other term) are cross-linguistically very common, one can imagine that the source of this construction was an impersonal passive with a dummy A/U index, something like *It-has been eaten in this bowl* with a non-referential reading of *it*, which in combination with the topicalization of the oblique phrase may have given something like *This bowl_i, it-has been eaten in it_i*. Then the topicalized phrase was reinterpreted as occupying an argumental position, and the dummy index of the impersonal passive construction was replaced by a index expressing agreement with the NP to its left: *This bowl_i it_i-has been eaten in it_i*.

2.1.3.2. Impersonal passives from intransitive verbs

In impersonal passives from intransitive verbs, passive morphology (identified as such by reference to its function with transitive verbs) encodes the demotion of the U term of an intransitive construction without promotion of any other term.

Ex. (10) & (11) illustrate the impersonal passive of Tswana, a language in which the use of impersonal passives is fully productive not only with transitive verbs – Ex. (10), but also with intransitive verbs – Ex. (11). In the impersonal passive constructions of Tswana, the morphological slot in the verb form normally devoted to A/U indexation is occupied by a dummy element which is etymologically a locative index.

(10) Tswana

(10a) **Mà-búru †á-rék-íl-é dí-q^hò:mó.**

CL6-Afrikaner A.CL6-buy-PRF-FV CL10-cow
‘The Afrikaners have bought (the) cows.’

(10b) **Dì-q^hòmó dí-rèk-íl-w-è (kí Mà-bû:rù).**

CL.10-cow A.CL10-buy-PRF-PASS-FV by CL6-Afrikaner
‘The cows have been bought (by the Afrikaners).’ (canonical passive)

(10c) **Χó-rék-íl-w-é dí- q^hò:mó.**

A.CL17-buy-PRF-PASS-FV CL10-cow
‘Some cows have been bought.’ (impersonal passive)
lit. ‘There has been bought cows.’

(11) Tswana

(11a) **Kítsó ó-bù-î:l-è.**

(CL1)Kitso A.CL1-speak-PRF-FV
‘Kitso has spoken.’

(11b) **χó-bù-î:l-w-è.**

A.CL17-speak-PRF-PASS-FV
‘People have spoken.’ (impersonal passive)
lit. ‘There has been spoken.’

2.1.3.3. *The adversative passive of Japanese*

In Japanese, the verb forms found in canonical passive constructions can also be found in a construction equally available for transitive and intransitive verbs, in which the A/U argument is demoted to oblique, and the A/U position (marked as such by the particle **ga**, glossed ‘S’) is occupied by a noun phrase representing a person negatively affected by the event. The difference with the constructions described in the previous sections is that the rest of the construction remains unchanged, whereas the A/U role in the adversative passive construction is occupied by a term that could not feature as a term of the construction of the base verb, and could only be encoded as a possessor. In other words, adversative passives can be viewed as a particular variety of *external possession*, a family of constructions whose common feature is that they put some emphasis on the affectedness of the external possessor (on external possession, see also 4.11, 5.3).

A remarkable feature of the adversative passive construction is that, in this particular use, passive morphology does not encode a valency decrease, but rather a valency increase reminiscent of that observed in causative constructions, since the A/U slot is occupied by an NP referring to a participant that could not feature as a term of the construction of the base verb.

In Ex. (12), sentence (a) illustrates the canonical passive construction, and sentences (b-e) illustrate the adversative passive.

(12) Japanese

(12a) **Kodomo-ga otoosan-ni yob-are-ta.**

child-S father-OBL call-PASS-PST
‘The child was called by [his] father.’

(12b) **Kodomo-ga otoosan-ni shin-are-ta.**

child-S father-OBL die-PASS-PST
‘The child was affected by the death of his father.’
lit. ‘The child was dead by [his] father.’

(12c) **Taroo-ga Ziroom-ni saihu-o nusum-are-ta.**

Taroo-S Ziroom-OBL purse-ACC steal-PASS-PST
‘Taroo had his purse stolen by Ziroom.’
lit. ‘Taroo was stolen the purse by Ziroom.’

(12d) **Taroo-ga Reiko-ni kao-o tatak-are-ta.**

Taroo-S Reiko-OBL face-ACC hit-PASS-PST

‘Taroo was hit in the face by Reiko.’

lit. ‘Taroo was hit the face by Reiko.’

(12e) **Taroo-ga sensei-ni kodomo-o sikar-are-ta.**

Taroo-S teacher-OBL child-ACC scold-PASS-PST

‘Taroo had his child scolded by the teacher.’

lit. ‘Taroo was scolded the child by the teacher.’

2.1.4. Syncretic passives and the origin of passive constructions

By syncretic passives, I mean the use of the same morphological marking in canonical passive constructions and in constructions expressing other kinds of valency operations or involving no valency change. Note that the impersonal passives and oblique passives presented in 2.1.2 and 2.1.3 can be viewed as instances of voice syncretism, since in some languages, the same valency changes are encoded by dedicated voices (impersonal voices – 2.1.5 – and oblique voices – 2.1.6).

The remainder of this section is devoted to other types of syncretisms in which the verb forms found in canonical passive constructions may be involved. They have their explanation in the grammaticalization processes in which passive constructions are involved.

2.1.4.1. *The passive-resultative syncretism*

Resultative constructions are a common source of passive constructions. This explains why many European languages have analytic passives in which a ‘be’ verb combines with a non-finite verb form also used in noun-modifying function with a clearly resultative semantics (commonly designated as ‘past participle’). In some languages, passive and resultative are distinguished by the use of two distinct auxiliaries (Spanish **ser** vs. **estar**, German **werden** vs. **sein**), but in others (French, English), if no agent phrase is present, ‘be + past participle’ may be ambiguous between an agentless passive reading and a resultative reading.

2.1.4.2. *The passive-middle syncretism*

On the passive-middle syncretism, see Section 2.5.2.

2.1.4.3. *The passive-antipassive syncretism*

In Soninke, some transitive verbs have a detransitized form equally available for passive and antipassive uses – Ex. (13).²¹

²¹ In this example, it is not immediately obvious why the transitive form **yígá** (whose initial **y** is realized **ñ** in contact with a nasal) should be considered as the base form from which the intransitive form **yígé** is derived. In fact, this derivation involves a ditransitivizing suffix **-i** which is realized as a distinct segment with monosyllabic stems, but fuses with the last vowel of non-monosyllabic stems, converting a final **a** or **o** into **e**, and a final **u** into **i**.

- (13) Soninke (pers.doc.)
- (13a) **Lémúnù-n dà tìyè-n ñígá.**
 child.PL-D TR meat-D eat
 ‘The children ate the meat.’
- (13b) **Lémúnù-n ñígé.**
 child.PL-D eat.DETR
 ‘The children ate.’
- (13c) **Tìyè-n ñígé.**
 meat-D eat.DETR
 ‘The meat was eaten.’

In many cases (in particular, in the case of Soninke), a plausible explanation is that a reflexive construction has been the source of both middle, passive, and antipassive constructions – see Sections 2.5.2 and 2.5.3. Another possible explanation is that a sociative-reciprocal derivation has developed not only an antipassive function, but also middle functions, from which a passive function may have developed – see Sections 2.3.4 and 2.5.2.

2.1.4.4. *The passive-causative syncretism*

On the passive-causative syncretism, see Section 3.1.8.1.

2.1.4.5. *Others*

The languages of South East Asia have constructions sometimes analyzed as passive periphrases, which however are just a particular case of benefactive / adversative periphrases that also have uses that do not lend themselves to a passive analysis.

For example, in Vietnamese, **duoc** ‘receive, enjoy’ and **bi** ‘suffer’ can be used as benefactive / adversative auxiliaries in combination with other verbs, and it is tempting to analyze them as passive auxiliaries when the construction has the following shape:

- P **duoc** (A) V ‘P is V-ed (by A)’ (benefactive passive)
 P **bi** (A) V ‘P is V-ed (by A)’ (adversative passive)

This analysis is however problematic in many respects, since the verbs involved in **duoc/bi** periphrases are not necessarily transitive, the NP preceding the benefactive / adversative auxiliary is not necessarily an argument of the second verb, and even when a passive analysis seems possible, the A argument of the transitive verb does not show evidence of having been demoted – Bruening & Tran (2015).

2.1.5. **Impersonal voices**

Some languages have derived verb forms found exclusively in the types of constructions described in Sections 2.1.3 (impersonal passives from transitive verbs) and 2.1.4.2 (impersonal passives from intransitive verbs). I propose the term of *impersonal voice* for such verb forms. This raises however a terminological problem, because in some traditions, they are designated as ‘passive’, which implies a definition of passive broader than that adopted in this course.

Ex. (14c) illustrates the impersonal voice of Finnish (commonly called ‘passive’ in Finnish grammars) in the case of a transitive verb. Ex. (15) illustrates impersonal derivation from an intransitive verb. The impersonal nature of the construction follows from the inability of the verb form to express agreement with any of its arguments.

(14) Finnish (pers.doc.)

(14a) **Minä tunne-n sinut**
 1SG speak.PRS-1SG 2SG.ACC
 ‘I know you.’

(14b) **Sinä tunne-t minut**
 2SG speak.PRS-2SG 1SG.ACC
 ‘You know me.’

(14c) **Sinut tunne-taan siellä**
 1SG speak-IMPERS there
 ‘You are known there. / They know you there.’

(15) Finnish (pers.doc.)

Täällä puhu-taan saksaa
 here speak-IMPERS German
 ‘German is spoken here. / They speak German here.’

As evidenced by Lunda, Kimbundu and other South West Bantu languages (Givón 2001, vol. 2:149-151, Kawasha 2007), a possible evolution resulting in the emergence of an impersonal voice is the reanalysis of a constructions with a 3rd person plural referring to an unspecified A/U: in clauses that, initially, were something like ‘They killed the lion’, it became possible to add an oblique representing a specific A/U (something like ‘They killed the lion by the hunter’, interpreted as ‘The hunter killed the lion’), which implies the reanalysis of the former pronoun or index or of 3rd person plural as a voice marker devoid of any reference.

2.1.6. Oblique voices

Some languages have derived verb forms found exclusively in the types of constructions described in Section 2.1.3.1 (oblique passives). I designate such verb forms as *oblique voices*. Malagasy is a case in point. In Malagasy, A in transitive clauses and U in intransitive clauses are identified as such by their final position, and as illustrated by Ex. (16), distinct verb forms are used to promote patients (passive voice, sentence (b)) and instruments (oblique voice, sentence (d)) to the status of A/U.

(16) Malagasy (pers.doc.)

(16a) **Manasa ny lamba Raso.**
 PRS.wash DEF cloth Raso
 ‘Raso is washing the clothes.’

- (16b) **Sasan -dRasoa ny lamba.**
 PRS.be_washed Rasoa DEF cloth
 ‘The clothes are washed by Rasoa.’
- (16c) **Manasa lamba amin’ ny savony Rasoa.**
 PRS.wash cloth with DEF soap Rasoa
 ‘Rasoa is washing clothes with the soap.’
- (16d) **Anasan -dRasoa lamba ny savony.**
 PRS.be_used_to_wash Rasoa cloth with soap
 ‘The soap is used by Rasoa to wash the clothes.’

2.2. P-demotion: the antipassive voice

2.2.1. Definition

Like the passive, the antipassive does not affect the argument structure of the verb. In canonical antipassive constructions, a transitive verb undergoes a morphological operation encoding P demotion: the P argument of the transitive verb is either left unexpressed or encoded as an oblique, whereas the A argument of the transitive verb is treated as the U term of an intransitive predication.

For example, K’ichee’ has two distinct antipassive suffixes that differ in the details of their syntactic properties and of their functions. Note that in the basic transitive construction, both A and P are obligatorily indexed, whereas in the antipassive construction, the P argument demoted to oblique is not indexed, and the A argument is indexed as the U term of an intransitive construction (and consequently, like the P term in the basic transitive construction, since K’ichee’ is an obligatory P coding (‘ergative’) language).

- (17) K’ichee’ (Campbell 2000)
- (17a) **X-Ø-ki-loq’ ixim ri ixoqiib’.**
 CPL-P.3SG-A.3PL-buy maize DEF woman.PL
 ‘The women bought some maize.’
- (17b) **X-e-loq’-on ri ixoqiib’.**
 CPL-P.3PL-buy-ANTIPASS DEF woman.PL
 ‘The women bought [unspecified things].’
- (17c) **Aree ri ixoqiib’ x-e-loq’-ow r-eech ri ixim.**
 FOC DEF woman.PL CPL-P.3PL-buy-ANTIPASS 3SG-for DEF maize
 ‘THE WOMEN bought the maize.’

2.2.2. Typology of antipassive derivations

Cross-linguistically, antipassive derivations vary along the following parameters:

- the demoted P argument may be optionally expressed as an oblique, but in some antipassive constructions, it is obligatorily left unexpressed;

- the verb forms found in antipassive constructions may be dedicated antipassive forms, or forms also found in constructions expressing other types of valency operations, or even in constructions involving no change in the valency (see Section 2.2.6.4);
- there is also some cross-linguistic variation in the functions of the constructions meeting the definition formulated in Section 2.2.1.

2.2.3. The functions of antipassive derivations, and the relationship between antipassive and the Obligatory Coding Principle

Very generally, the demotion of the P argument results in an increase of the relative topicality of the A argument, and in a decrease in the relative topicality of the P argument. This results in a general tendency to favor the use of antipassive constructions with indefinite or non-referential P's, and consequently with reference to habitual rather than specific events.

For example, in Yup'ik, the P term of the transitive construction can only be interpreted as definite. Some Yup'ik verbs are A-labile, and allow for the expression of indefinite P arguments as obliques in an intransitive construction without changing their form – Ex. (18a-b), but with other verbs, a morphologically unmarked intransitive construction can only have an anticausative or passive interpretation, and antipassive derivation is required to express indefiniteness of the P argument – Ex. (18c-e).

(18) Yup'ik (Mithun 2000)

(18a) **Arna-m tangrr-aa taqukaq.**
 woman-ERG see-DECL.A.3SG.P.3SG bear
 'The woman sees the bear.'

(18b) **Arnaq tanger-tuq taquka-mek.**
 woman see-DECL.U.3SG bear-ABL
 'The woman sees a bear.'

(18c) **Arna-m allg-aa 'lumarraq.**
 woman-ERG tear-DECL.A.3SG.P.3SG shirt
 'The woman tears the shirt.'

(18d) **'Lumarraq alleg-tuq.**
 shirt tear-DECL.U.3SG
 'The shirt gets torn.' or 'The shirt is being torn.'

(18e) **Arnaq allg-i-uq 'lumarra-mek.**
 woman tear-ANTIPASS-DECL.U.3SG shirt-ABL
 'The woman tears a shirt.'

In the languages that have strict constraints on the expression of the P argument in the basic transitive construction, the antipassive is a possible strategy for leaving the P argument unexpressed (see the example of Soninke in Section 2.2.4).

Finally, in 'deep-ergative' languages in which the A term of the transitive construction is not accessible to some operations (focalization, relativization, questioning, etc.) to which P's and U's lend themselves, the conversion of A into U by means of antipassive derivation makes it accessible to the operations in question.

Antipassive derivations have long been observed by linguists describing individual languages, but no cross-linguistic generalization had been proposed. For example, the antipassive prefixes of Nahuatl were just called ‘unspecified object prefixes’ in Nahuatl grammars. The systematic cross-linguistic investigation of the antipassive started 40-50 years ago in connection with the cross-linguistic study of ergativity, and a correlation was immediately proposed between the alignment properties of languages and the presence of passive or antipassive voices. According to this hypothesis, obligatory A coding (‘nominative-accusative’) languages would have a passive voice, whereas obligatory P coding (‘absolutive-ergative’) languages would have an antipassive voice. However, this hypothesis does not stand up to scrutiny:

- antipassive voices, either syncretic or dedicated, are quite common in obligatory A coding languages (see Section 2.2.4 for more details),
- passive voices are not rare in obligatory P coding languages either,
- many languages, whatever their status with respect to the Obligatory Coding Principle, have both a passive and an antipassive voice (K’ichee’, Yup’ik, Soninke, etc.).

In fact, as regards the antipassive voice, the only differences between obligatory A coding and obligatory P coding languages are that:

- the antipassive voice is more visible in obligatory P coding languages, since the conversion of A into U changes its coding characteristics, whereas in obligatory A coding languages, the conversion of A into U triggers no change in its coding characteristics;
- making the A argument accessible to operations to which it does not have access as the A term of a transitive construction is a possible function of the antipassive voice in some ‘ergative’ languages which has no equivalent in ‘accusative’ languages.

Janic (2013) provides a general survey of antipassive constructions in accusative languages, and a general discussion of this question.

2.2.4. Antipassives in obligatory A coding languages: evidence from Sub-Saharan languages

2.2.4.1. Introductory remarks

In the long-standing debate about the relationship between antipassive and accusativity / ergativity, a number of Sub-Saharan languages belonging to various families and areas provide crucial evidence against the hypothesis of a privileged relationship between antipassive as a type of valency change and ergativity, and provide strong support to the view that accusative languages may have fully productive antipassive derivations. The languages in question have ‘accusative’ alignment in core argument coding, and also have antipassive derivations.

Ex. (19) illustrates this situation in Tenneset (Surmic, Eastern Sudanic): Tenneset uses the same ‘marked-nominative’ case (glossed ‘S’) for noun phrases in A or U role, and requires the addition of a special antipassive suffix to transitive verbs in unspecified-P constructions.

(19) Tennet (Surmic, Eastern Sudanic – Randall 1998: 245)

(19a) **Á-dáh doléc áhát.**
 IPF-eat child.S asida
 ‘The child is eating asida.’

(19b) **Á-dáh-ye doléc.**
 IPF-eat-ANTIPASS child.S
 ‘The child is eating.’

Koyraboro Senni (Songhay – Heath 1999: 166-167) has a detransitivizing suffix **-a** which, depending on the individual verbs, may encode valency changes of the mediopassive or antipassive type. This latter possibility can be illustrated by **haabu** ‘sweep (tr.)’ > **haab-a** ‘do the sweeping’.

In the remainder of this section, I briefly present some Bantu and West African illustrations.

2.2.4.2. Bantu antipassives

The reciprocal-antipassive syncretism, widely attested outside Africa (in particular among Austronesian and Turkic languages) is also typically found among Bantu languages, where the verbal suffix **-an-** traditionally designated as reciprocal extension has more or less productive uses that depart from the notion of reciprocal, and rather fall under the notion of antipassive. In some of them (for example, Tswana), the antipassive uses of **-an-**, although unquestionably attested, have a very low productivity. In others (for example, Kirundi), the reciprocal and antipassive uses of **-an-** seem to have a comparable degree of productivity, resulting in a systematic ambiguity between the antipassive and reciprocal readings of **an-** forms with plural NP’s in U role – Ex. (20)

(20) Kirundi (Bantu – Ndayiragije 2006: 275)

(20a) **Abanyéeshuúle baatukye umwarimu.**
 students insulted teacher
 ‘Students insulted the teacher.’

(20b) **Abanyéeshuúle baatukanye**
 students insulted.RECIP/ANTIPASS
 (a) ‘Students insulted each other.’ (reciprocal reading)
 (b) ‘Students insulted [people].’ (antipassive reading)

2.2.4.3. West African antipassives

Antipassive derivations with a limited degree of productivity are common among Atlantic and Mande languages. For example, Ganja (Balant, Atlantic) has 11 transitive verbs that cannot be used in a null-P construction, and whose intransitive use with reference to no specific patient requires the use of an antipassive form. Five of them involve a special suffix, whereas the antipassive form of the other six verbs is formed by means of a reciprocal or mediopassive suffix. Ex. (21) illustrates antipassive derivation with **wɔm** ‘eat’.

(21) Ganja (Balant, Atlantic – Creissels and Biaye 2016: 251-252)

(21a) **À-wòm tîw.** vs. ***À-wóm-tè tîw.**
 CLha-eat (CLu)meat CLha-eat-ANTIPASS (CLu)meat
 ‘He/she ate meat.’

(21b) **À-wóm-t-ò.** vs. ***À-wóm-ò.**
 CLha-eat-ANTIPASS-FV CLha-eat-FV
 ‘He/she ate.’

The antipassive is more productive in Wolof (Atlantic). It involves a suffix **-e** also used in reciprocal function. Ex. (22) illustrates the antipassive use of this suffix.

(22) Wolof (Atlantic – Nougier-Voisin 2002:310)

(22a) **Xaj a ko màtt.**
 dog FOC 3SG bite
 ‘A DOG bit him/her.’

(22b) **Xaj bi du màtt-e.**
 dog CLb.DEF ICPL.NEG.3SG bite-ANTIPASS
 ‘[You should not be afraid,] the dog doesn’t bite.’

Interestingly, in Wolof, antipassive **-e** is particularly productive with verbs that have a double-transitive construction. In that case, it invariably encodes the demotion of the recipient / beneficiary argument. This is consistent with the general tendency of this argument to act as the primary P in the double-transitive constructions of Sub-Saharan languages.

A similar situation is described by Renaudier (2012) for Sereer (Atlantic).

Among Atlantic and Mande languages, Soninke (Mande) distinguishes itself by the very high degree of productivity of its antipassive derivation. Moreover, in Soninke, the productivity of antipassive derivation relies essentially on the use of a dedicated antipassive suffix.

Soninke has a particularly clear-cut distinction between transitive and intransitive predication, even in comparison with other Mande languages, and very strict constraints on the intransitive use of transitive verbs. With the only exception of a handful of A-labile verbs, transitive verbs in their underived form cannot be found in constructions in which the P argument would not be expressed. The discourse frequency of antipassive constructions in which the verb is overtly marked as detransitivized follows from the fact that, in Soninke, they constitute the usual strategy to encode two-participant events lexicalized as transitive verbs without mentioning the patient. With the only exception of ten A-labile verbs or so, the Soninke verbs that can be used transitively have an antipassive form. A minority of transitive verbs have an antipassive form marked by a multifunction detransitivizing suffix **-i** also found with the same verbs with an anticausative or passive function, but most transitive verbs use a dedicated antipassive suffix **-ndì ~ -ndí**.

Soninke has no constraint restricting the use of the antipassive form of transitive verbs to stereotyped activities or habitual events. Antipassive verb forms can refer to specific events, provided no specific patient is mentioned – Ex. (23) below. Most of the time, the participant that would be encoded as the P term of the transitive construction is not mentioned at all, but as shown by Ex. (23c), constructions in which it is expressed as an oblique are also possible:

(23) Soninke (pers.doc.)

(23a) **Hàatú dà yúgó sàará.**

Fatou TR male give_birth

‘Fatou gave birth to a boy.’ (transitive construction)

(23b) **Hàatú sàaré.**

Fatou give_birth.DETR

‘Fatou had a baby.’ (antipassive construction with unexpressed P argument)

(23c) **Hàatú sàaré tì lénńúgó yì.**

Fatou give_birth.DETR with son POSTP

‘Fatou gave birth to a son.’ (antipassive construction with demoted P argument)

Interestingly, Soninke also has a productive mechanism of P-incorporation which semantically triggers a non-specific reading of the incorporated noun, and morphologically implies detransitivization marking on the verb. However, as a rule, incorporation requires the multifunction detransitivizing suffix **-i** – Ex. (24b), where **gáagè** < **gáagà+i** – even with verbs whose antipassive form is formed by means of the dedicated antipassive suffix – Ex. (24c).

(24) Soninke (pers.doc.)

(24a) **À wá yiràamû-n gáagà-ná.**

3SG ICPL cloth.PL-D sell-GER

‘(S)he sells (the) clothes.’

(24b) **À wá yiràan-gáagè-né.**

3SG ICPL cloth-sell.DETR-GER

‘(S)he sells clothes.’

or ‘She does cloth selling.’

(24c) **À wá gáagá-ndì-ní.**

3SG ICPL sell.ANTIPASS-GER

‘(S)he sells things.’

or ‘She does selling.’

As regards the origin of the two suffixes involved in Soninke antipassivization, comparative evidence suggests that the multifunction detransitivizing suffix was originally a reflexive marker that developed anticausative / passive and antipassive uses, whereas the dedicated antipassive suffix might be the reflex of a former verb ‘do’ in an antipassive periphrasis (‘do V-ing’).

2.2.5. Dedicated vs. syncretic antipassive voices, and the origin of antipassive voices

2.2.5.1. Antipassive, reflexive, and reciprocal

As alluded to earlier in the previous section, reflexive and reciprocal constructions are particularly common sources of antipassives, hence the frequent reflexive-antipassive and reciprocal-antipassive syncretisms.

The evolution from reflexive to antipassive is well-attested with the reflexes of the Indo-European reflexive pronoun *se in Romance and Slavic languages, but the evolution from reciprocal to antipassive seems to be more widespread in the languages of the world. Of course, antipassive voices resulting from the evolution of reflexive construction can be syncretic with other types of voices historically related to reflexive constructions (anticausative, passive).

In Section 2.3.4, we will return to the question of the reciprocal-antipassive syncretism, in relationship with the reciprocal-pluractional syncretism.

2.2.5.2. *Other possible sources of antipassive markers*

Other possible sources of antipassive markers are:

- the grammaticalization of hypernymic nouns in P role ('buy thing' > buy.ANTIPASS, 'help person' > help.ANTIPASS),
- the grammaticalization of a light verb 'do' in an antipassive periphrasis ('do buying' > buy.ANTIPASS).

2.2.5.3. *The antipassive-causative syncretism*

On the antipassive-causative syncretism, see Section 3.1.8.2.

2.2.5.4. *Antipassive markers also found in constructions involving no valency change*

Avar has a verbal derivation, designated as 'continuative-intensive' by Charachidzé (1981), which with transitive verbs triggers a valency change of the antipassive type – Ex. (25).

(25) Avar (Charachidzé 1981)

(25a) **Musa-ca kaʁat qwa-na**
 Musa-ERG lettre write-CPL
 'Musa wrote a letter.'

(25b) **Musa qwa-dar-na**
 3SG write-CONTINT-CPL
 'Musa was busy writing.'

The same derivation is available for the intransitive verbs, but with intransitive verbs, no valency change occurs.

2.2.6. **Non-canonical antipassives**

As illustrated by Ex. (17c) above, the derived verb forms of K'ichee' marked by the suffix **-ow** can be found in canonical antipassive constructions. However, the same forms can also be found in constructions involving a valency change that does not correspond to any well-identified type of voice. In Ex. (26), sentence (b) is the canonical antipassive counterpart of the transitive sentence (a), whereas sentence (c) illustrates an alternative construction of the same antipassive form. In this variant, the sole index included in the verb form refers to the P argument, which suggests a passive rather than antipassive construction, but at the same time, the A argument is not flagged as could be expected in a passive construction. This alternative

construction is conditioned by person hierarchy: the P argument must rank higher than A in the ‘1st person > 2nd person > 3rd person plural > 3rd person singular’ hierarchy.

(26) K’ichee’ (Campbell 2000)

(26a) **X-*oj-u-ti*** **ri** **kumatz**
 CPL-P.1PL-A.3SG-bit DEF snake
 ‘The snake bit us.’

(26b) **Aree** **ri** **kumatz** **x-Ø-ti’-ow** **q-eech**
 FOC DEF snake CPL-P.3SG-bite-ANTIPASS 1PL-for
 ‘THE SNAKE bit us.’

(26c) **Aree** **ri** **kumatz** **x-*oj-ti*’-owik**
 FOC DEF snake CPL-P.1PL-bite-ANTIPASS
 ‘THE SNAKE bit us.’

2.3. Reflexive and reciprocal

Reflexive and reciprocal have in common with passive and antipassive that the argument structure of the verb is not affected. Their particularity is that the relationship between participants in the event and participant roles in the argument structure of the verb is not one-to-one.

2.3.1. Reflexive events, reflexive construction, reflexive voice

Reflexive events are events that can be conceptualized as involving a participant cumulating two participant roles normally assigned separately, as in (27b).

(27) English

(27a) **John injured Peter.**

(27b) **John injured himself.**

Ex. (27b) illustrates a cross-linguistically common way of coding reflexive events: the construction is the same as for the same event with distinct participants fulfilling each of the two roles, and one of the two syntactic roles is fulfilled by a pronoun interpreted as co-referent with another term of the construction.

Depending on the individual languages and the syntactic roles involved in the reflexive relation, this type of reflexivity coding may involve fully dedicated reflexive pronouns or other types of pronouns lending themselves to a reflexive interpretation. Intensive pronouns are particularly common in reflexive function, but in some languages, even ordinary third person personal pronouns in P role are ambiguous between a reflexive and a non-reflexive interpretation, if a pronoun expressing the same person and number values fulfills the A role.

The role of reflexive pronoun may also be fulfilled by forms that transparently result from the grammaticalization of nouns such as ‘body’ or ‘head’, alone or combined with possessives – Ex. (28).

(28) Georgian (pers.doc.)

(28a) **Vano-s bedžit st’udent’-ad vtvli.**
 Vano-ACC serious student-as consider.PRS.A.1SG.P.3SG
 ‘I consider Vano a serious student.’

(28b) **Čem-s tav-s bedžit st’udent’-ad vtvli.**
 POSS.1SG-ACC head-ACC serious student-as consider.PRS.A.1SG.P3SG
 ‘I consider myself (lit. I consider my head) a serious student.’

However, when the two roles assigned to the same participant are normally encoded as A and P in a transitive construction, many languages code the participant cumulating two roles as the U term of an intransitive predication involving a derived form of the transitive verb – Ex. (29).

(29) Jóola Banjal (Bassène 2007)

(29a) **Alafubbun a-sóttén-e aare aku.**
 CLa.doctor A.CLa-treat-TAM CLa.woman CLa.DEF
 ‘A doctor treated the woman.’

(29b) **No ni-sómut-me ínje i-sóttén-oro-e.**
 when A.1SG-be_sick-SBD 1SG A.1SG-treat-REFL-TAM
 ‘When I was sick, I treated myself.’

This type of reflexive coding is quite widespread, but most of the time, the derived verb forms expressing reflexivization also have other possible functions, due to a widespread tendency to extend reflexive marking to the expression of other types of valency operations. We will return to this question in Sections 2.3.3 and 2.5.

2.3.2. Reciprocal events, reciprocal constructions, reciprocal voice

In prototypical reciprocal events, two participant roles are shared by two participants, as in (30b).

(30) English

(30a) **John greeted Peter.**

(30b) **John and Peter greeted each other.**

The definition of reciprocal events with more than two participants involved in the reciprocal relationship is less straightforward. For example, **The guests greeted each other** does not necessarily imply that each of the guests greeted all the others, but only that a sizeable proportion of the guests greeted another members of the group and were also greeted, not necessarily by the same persons.

Ex. (30b) illustrates a cross-linguistically common way of coding reciprocal events: the construction is the same as for the same event with distinct participants fulfilling each of the two roles, and one of the two syntactic roles is fulfilled by a reciprocal pronoun. Depending on the individual languages, this type of reciprocity coding may involve fully dedicated

reciprocal pronouns or forms that transparently result from the grammaticalization of nouns such as ‘like’ or ‘companion’, or of word combinations such as ‘one one’ or ‘one other’. K’ichee’ illustrates the case of a language using the same pronoun in reflexive and reciprocal function. Note that the 3rd person agreement triggered by this reflexive/reciprocal pronoun, even when it refers to a speech act participant, is consistent with its probable etymology as a former possessed noun.

(31) K’ichee’ (Campbell 2000)

(31a) **X-Ø-w-il** **jun kuuk.**
 CPL-P.3SG-A.1SG-see one squirrel
 ‘I saw a squirrel.’

(31b) **X-Ø-w-il** **w-iib’** **pa le ja’.**
 CPL-P.3SG-A.1SG-see 1SG-REFL/RECIP in DEF water
 ‘I saw myself in the water.’

(31c) **X-e-ki-to’** **ri ixoqiib’** **ri alab’oom.**
 CPL-P.3PL-A.3PL-help DEF woman.PL DEF child.PL
 ‘The children helped the women.’

(31d) **X-Ø-ki-to’** **k-iib’** **ri alab’oom.**
 CPL-P.3SG-A.3PL-help 3PL-REFL/RECIP DEF child.PL
 ‘The children helped each other.’

However, when the two roles shared by a group of participants are normally encoded as A and P in a transitive construction, many languages code the group of participants sharing two roles as the unique core argument of a derived intransitive verb form. It may also happen that part of the participants involved in the reciprocal relationship are encoded as the unique core argument of the derived verb forms, the others being encoded as a comitative adjunct, as in (32c). Note that verb agreement excludes considering that (32c) differs from (32b) in constituent order only.

(32) Tswana (pers.doc.)

(32a) **Kítsó** **’ó-rát-á** **Lòrátó** **t’â:tâ.**
 (CL1)Kitso A.CL1-love-FV (CL1)Lorato much
 ‘Kitso loves Lorato much.’

(32b) **Kítsó** **lí-Lòrátó** **’bá-rát-án-à** **t’â:tâ.**
 (CL1)Kitso with-(CL1)Lorato A.CL2-love-RECIP-FV much
 ‘Kitso and Lorato love each other much.’

(32c) **Kítsó** **’ó-rát-án-à** **lí-Lòrà:tò**
 (CL1)Kitso A.CL1-love-FV (CL1)Lorato
 ‘Kitso and Lorato love each other.’
 lit. ‘Kitso loves each other with Lorato.’

Reciprocal constructions involving a derived intransitive form of transitive verbs are quite widespread, but most of the time, as developed in Sections 2.3.3 and 2.3.4, the derived verb forms expressing reciprocity also have other possible functions.

2.3.3. The reflexive-reciprocal syncretism

The reflexive-reciprocal syncretism does not seem to be particularly widespread in the languages of the world, but it is found in several branches of Indo-European (Romance, Slavic, etc.), in which it results from the extension of the uses of a former reflexive pronoun (Indo-European **se*). A possible functional explanation is that a reciprocal event can be viewed as a reflexive event involving a plural individual.

2.3.4. Reciprocity, co-participation, and antipassive

The reciprocal-antipassive syncretism has been presented in Section 2.2.6.1. Another syncretism in which reciprocal voices are commonly involved is the syncretism with sociative derivations expressing joint action (co-participation) without changing the valency.

For example, Turkish grammars usually designate the verbal suffix **-(I)ş** as ‘reciprocal suffix’, but define its meaning as indicating a reciprocal or mutual action. This suffix has a reciprocal interpretation in e.g. **bak-ış** ‘look at one another’, but with verbs whose argument structure excludes reciprocity, the same suffix indicates co-participation with identical roles: **koş-uş** ‘run together’, **gül-üş** ‘laugh together’, etc. The notion of co-participation is crucial for a proper understanding of these two syncretisms:

- reciprocity can be viewed as a particular type of co-participation;
- co-participation can be viewed as an extension of the notion of reciprocity;
- co-participation marking can be interpreted as leaving open the question of semantic role assignment to individual participants, in which case contextual factors or our knowledge of the world constitute the basis on which particular semantic roles are assigned to individual participants.

The notion of co-participation can conveniently be defined as applying to constructions that imply a plurality of participants in the event they refer to without assigning them distinct roles. This definition groups together three types of situations that can be termed *unspecified co-participation*, *parallel co-participation*, and *reciprocal co-participation*.

In constructions with a meaning of unspecified co-participation, an event involves two or more participants that may assume distinct roles, but the construction by itself leaves open the precise role assumed by some of them, and role recognition crucially relies on lexical and/or pragmatic factors. Constructions with a meaning of parallel co-participation (typically expressed by *together* in English) imply that two or more participants share the same role, and constructions with a meaning of reciprocal co-participation imply a plurality of participants interacting in such a way that at least some of them fulfill two distinct roles in their interaction with the others.

Such definitions are necessary, but the linguistic manifestations of the different types of co-participation are not always easy to identify, and shifts are not rare, from one type of co-participation to another one, or from co-participation to types of role assignment in which each participant receives a distinct role.

For example, many languages have markers such as English **with**, commonly defined as polysemous, with a comitative meaning and an instrumental meaning, and *comitative* > *instrumental* is a very common diachronic process. The notion of comitative is commonly

defined in a way that makes it compatible the notion of parallel co-participation, whereas the notion of instrumental implies a conceptualization of the event in which each participant explicitly receives a distinct role, and consequently, cannot be included in co-participation. Moreover, the notion of parallel co-participation is too restricted to cover the variety of non-instrumental uses of *with*. For example, **John came with Peter** can indistinctly refer to situations that could be described in a more precise way by sentences such as **John and Peter came together**, **John came and brought Peter with him**, **John came in the car driven by Peter**, etc.

The distinction between abstract meaning and default interpretation provides a possible explanation of such facts. According to this kind of analysis, **with** has unspecified co-participation as its abstract meaning, and parallel co-participation as its default interpretation. This definition of the meaning of **with** leaves open the possibility that contextual and/or pragmatic factors force interpretations of **with** whereby the noun phrase introduced by **with** represents a participant whose role is more or less distinct from those assumed by the other participants. For example, **A came with B** says nothing about the precise way the entity represented by the term B participates in the event. In the absence of any other indication, the default interpretation will therefore be A and B came together. But the construction by itself does not necessarily imply a meaning of parallel co-participation, even when A and B represent entities of the same type (as in **John came with Peter**). And in sentences in which A and B are necessarily assigned distinct semantic roles, such as **Mary came with her baby** (= **Mary brought her baby**) and **Mary came with her bicycle** (= **Mary used her bicycle to come**), it seems reasonable to posit that the difference in the interpretation is determined by the semantic nature of the entities denoted by the nominal terms of a construction whose abstract meaning is unspecified participation.

In this perspective, the diachronic shift *comitative* > *instrumental* can be analyzed as involving both the loss of the default interpretation of parallel co-participation and the semanticization of a contextually determined interpretation. The interest of this analysis is confirmed by the fact that, cross-linguistically, the use of comitative markers to code participants with specific roles recoverable from the context, and the tendency to semanticize such uses, are not limited to the expression of an instrumental meaning: some languages use comitative markers to retrieve the demoted agent in passive constructions, and the homonymy between causative markers and comitative markers observed in some languages (e.g., in the Mande language Soso²²) can be viewed as an evidence that a possible origin of causative constructions is the semanticization of a particular use of constructions whose original meaning was unspecified participation.

Returning to verbal derivations currently identified as reciprocal in descriptive grammars, it is interesting to observe that derived verb forms used most commonly in a way compatible with the notion of reciprocity may also have more or less marginal uses that cannot be described as reciprocal. Such ‘reciprocal’ verb forms clearly have reciprocity as their default meaning, but can also be used with a meaning of unspecified or parallel co-participation in contexts that exclude a reciprocal interpretation.

Some Tswana data are particularly suggestive in this respect. The Tswana verbs derived by means of a suffix **-an-** are commonly termed reciprocal, and this designation is justified by the fact that, almost always, they unambiguously convey a reciprocal meaning. However, verbs derived by means of the suffix **-an-** are also found, although sporadically, in contexts in

²² In Soso, **N1 N2 ra-faa** ‘N1 brought N2’, with the causative prefix **ra-** attached to the verb **faa** ‘come’, is synchronically distinct from **N1 faa N2 ra** ‘N1 came with N2’, with the comitative postposition **ra** taking N2 as its complement, but diachronically, these two constructions seem to originate from two different arrangements of the same morphological material.

which speakers unanimously interpret them as non-reciprocal. For example, the only possible meaning of **bóp-áχ-án-à** (< **bóp-éχ-á** ‘take shape’) is ‘fuse together’, **χán-án-á** (< **χán-á** ‘refuse’) is commonly interpreted as ‘disobey’, and in example (33), a reciprocal interpretation of (33a) is not excluded, but this ‘reciprocal’ clause is commonly understood as synonymous with the transitive clause (33b), in which the underived form of **bàtl-à** ‘look for’ combines with **lìpòdísí** ‘policeman’ in A role, and **lí-χò:dù** ‘thief’ in P role.

(33) Tswana (pers.doc.)

(33a) **Lì-pòdísí** **‘lí-bàtl-án-à** **lí-lí-χò:dù.**
 CL5-policeman A.CL5-look_for-RECIP-FV with-CL5-thief
 abstract meaning: ‘The policeman and the thief are both involved in a looking-for event.’, preferred interpretation: ‘The policeman is looking for the thief.’

(33b) **Lì-pòdísí** **‘lí-bàtl-á** **lí-χò:dù.**
 CL5-policeman A.CL5-look_for-FV CL5-thief
 ‘The policeman is looking for the thief.’

Such observations can easily be accounted for by positing that:

- (a) reciprocity is the default interpretation of Tswana reciprocal verbs,
- (b) the reciprocal interpretation of Tswana reciprocal verbs can be cancelled by the lexical meaning of the verb, or by pragmatic factors,
- (c) the cancellation of the default interpretation of reciprocity results in activating an instruction to go back to the more abstract meaning of co-participation, and to construct an interpretation compatible with the factors that have led to the cancellation of the default meaning.

For example, a reciprocal interpretation of **bóp-áχ-án-à** ‘fuse’ is excluded, since **bóp-éχ-á** ‘take shape’ has only one semantic role to assign, but a meaning of parallel co-participation (‘take shape together’ > ‘fuse’) is easy to imagine.

In the case of **χán-án-á** ‘disobey’ < **χán-á** ‘refuse’, a reciprocal interpretation is not totally excluded, but one usually refuses a proposal, or a thing, not another person, which makes a reciprocal interpretation not very likely.

Finally, in the case of **bàtl-án-à**, in principle, a reciprocal interpretation is perfectly possible, and what suggests to cancel it here is that policemen used to look for thieves, but thieves as a rule rather try to avoid policemen.

In Tswana, the interpretation of the reciprocal form of transitive verbs in a construction including a comitative adjunct seems to proceed as follows: the U term is assigned the same semantic role as A in the transitive construction of the corresponding non-derived verb, and the recognition of the precise way its referent interacts with the participant represented by the comitative adjunct relies on lexical, contextual and pragmatic factors, the reciprocal interpretation being only the default interpretation. The example of **bàtl-án-à** shows that interpretations of reciprocal verbs whereby a comitative adjunct is assigned the same semantic role as P in the transitive construction of the corresponding non-derived verb are not excluded. This results in sporadic antipassive uses of the reciprocal derivation of Tswana.

2.4. Anticausative and resultative

Anticausative and resultative differ from the mechanisms described in the previous sections in that they involve a change in argument structure: in anticausative and resultative constructions, the A argument of a transitive verb is removed from argument structure. As already mentioned in Section 2.1.4 above, anticausatives and resultatives are equally common sources of passives.

2.4.1. Anticausative

The anticausative is similar to the passive in that the A argument loses its core syntactic term status and the P argument becomes the U term of an intransitive predication. However, in the passive, the agent is not removed, but only demoted. Semantically, a passive such as French **La porte a été ouverte** ‘The door was opened’ crucially differs from the anticausative **La porte s’est ouverte** ‘The door opened’ in that an agent is implied (though not mentioned explicitly) in the passive, whereas the event encoded by an anticausative construction is thought of as happening spontaneously. This explains the following two observations:

- agent-oriented adverbs can be inserted in passive constructions, as in **La porte a été ouverte exprès** ‘The door was opened on purpose’, but not in anticausative constructions (***La porte s’est ouverte exprès**),
- adverbs highlighting the absence of involvement of an instigator can be inserted in anticausative constructions, as in **La porte s’est ouverte toute seule** ‘The door opened by itself’, but not in passive constructions (***La porte a été ouverte toute seule**).

Furthermore, contrary to the passive, which can generally be formed from the great majority of transitive verbs (if not all), anticausatives can be formed only from verbs expressing processes that can be thought of as happening more or less spontaneously, without a (human) agent’s intervention.

Some languages (for example, Tswana) have derivational suffixes fully specialized in anticausative-marking function, but it is more common that anticausative is one of the possible functions of middle markers with a variety of detransitivizing functions. This situation often results from the evolution of constructions whose original function was the expression of reflexivity, but the development from reciprocal to anticausative is also attested in some Oceanic and Bantu languages. (see Section 2.5).

2.4.2. The resultative

The resultative is defined as a derivation that turns a verb referring to an event into a derived form (verb or participle) referring to the state resulting from that event.

Although the anticausative and the resultative have the same derived valency pattern, the two derivations are very different in nature. The anticausative has the removal of the agent as its primary function, whereas the primary function of the resultative is the expression of a state by means of an event word. The removal of the agent is a secondary effect of this primary function: states cannot have agents. Since the expression of a state is the primary function of the resultative, it can also be formed from intransitive verbs in many languages, and in resultatives of intransitive verbs, there is no valency change at all.

The problem with resultatives is that, in their predicative use, they are very unstable diachronically: when used predicatively, resultatives tend to re-activate the dynamic meaning of the verb from which they derive, and consequently to reintroduce the suppressed agent in

their argument structure. Depending on the details of the constructions and the valency of the verbs involved in resultative constructions, this may lead to the reanalysis of resultatives as perfects or passives. Such evolutions have been extremely common in the history of Indo-European languages.

2.5. The middle

2.5.1. Reflexive, reciprocal, and middle

2.5.1.1. *Quasi-reflexive events and the notion of middle voice*

The notion of quasi-reflexive event is necessary to account for the cross-linguistically widespread use of reflexive forms or constructions to encode one-participant events that cannot be viewed as reflexive events *stricto sensu*, although they have an affinity with reflexive events that explains the tendency to use the same coding.

For example, in French, there is the same formal relationship between **se lever** ‘stand up’ and **lever** ‘raise’ as between **se blesser** ‘injure oneself’ and **injure** ‘blesser’, although the semantic relationship is not identical: a person who stands up cannot be described as performing on themselves the same action as when raising another person or an object.

Consequently, I propose the term of *quasi-reflexivity* for the following type of relationship between one- and two-participant events:

- the action performed by the unique participant in the one-participant event can be assimilated to the process undergone by the patient in the two-participant event;
- this action is performed consciously and voluntarily, but in a way that cannot be assimilated to the action performed by the agent in the two-participant event.

Moreover, intermediate cases between uncontroversial reflexives and uncontroversial quasi-reflexives can be found. For example, **wash** stands closer to the reflexive prototype than **stand up**, but it cannot be viewed as a fully prototypical reflexive either, since washing oneself is not exactly performing on oneself an action one normally performs on other persons.

The fuzzy limit between typical reflexives and quasi-reflexives explains the development of *middle voices* in which the same morphological marking is typically used to encode events lending themselves to a reflexive, quasi-reflexive, or anticausative type of conceptualization.²³

2.5.1.2. *From reciprocal to middle*

Detransitivization markers with functions including the expression of quasi-reflexivity and anticausativity may also develop from reciprocal markers that have no connection with reflexivity. This development is documented by the evolution of reciprocal markers in some Bantu and Oceanic languages.

2.5.1.3. *Further extensions*

Middle marking resulting from the evolution of a former reflexive or reciprocal construction may be syncretic with the marking of other varieties of valency reduction: passivization (see

²³ The term *middle* is used by most authors in this broad sense. Note however that some authors use it in a more restricted sense corresponding to what is called here ‘quasi-reflexive’.

2.5.2), antipassivization (see 2.5.3), impersonalization (see 2.5.4). Middle marking may also be found in constructions that do not imply a reduction of the number of core arguments but modify the semantic role of the A arguments (see 2.5.5). Finally, the lexicalization of middle marking is a very common phenomenon (see 2.5.6).

Interestingly, at some stage of their evolution, it is not rare that middle voices resulting from the grammaticalization of an initially reflexive construction lose the ability to encode typical reflexive events which constitutes their original function, subsisting only in other functions, due to the grammaticalization of a new way of encoding reflexivity.

2.5.2. Passive middles

European languages provide ample evidence for the diachronic development reflexive > middle > passive. In some of the languages in question, the passive uses of the middle voice are more or less sporadic, or marginal (this is for example the case in French), whereas in others (Spanish, or Russian), the Indo-European reflexive pronoun *se converted into a middle voice marker has further acquired a productive passive use. In Example (34), (a) illustrates the original reflexive function of the middle marker of Russian **-sja**, whereas (b) illustrates the passive use of the same marker.

(34) Russian (pers.knowl.)

(34a) **Ivan moet-sja**

Ivan wash.PRS.3SG-MID
‘Ivan is washing.’

(34b) **Eto javlenie issleduet-sja učenyimi.**

DEM.SG.N phenomenon investigate.PRS.3SG-MID scientist.PL.INSTR
‘This phenomenon is investigated by scientists.’

2.5.3. Antipassive middles

Although the semantic aspects of this development are not well-understood, it is uncontroversial that middle voices resulting from the grammaticalization of a reflexive construction are very frequently also found with a more or less productive antipassive function. Ex. (35) illustrates the antipassive use of the middle marker of Russian **-sja**, illustrated above in reflexive and passive function, and Ex. (36) illustrates the antipassive use of Spanish **se** (Note that, in Spanish, the middle marker shows the same variation in person-number as the reflexive clitic pronoun from which it originates). In the antipassive construction illustrated by (35), the demoted P is obligatorily left unspecified, whereas in (36), it surfaces at an oblique. This aspect of the antipassive use of middle marking is variously regulated in individual languages.

(35) Russian (pers.knowl.)

Beregite-s’ sobaki, ona kusaet-sja.

beware-MID dog.GEN 3SG.F bite.PRS.3SG-MID
‘Beware of the dog, it bites.’

(36) Spanish (pers.doc.)

(36a) **Aproveché la confusión.**
 take_advantage_of.PRF.1SG DEF.SG.F confusion
 ‘I took advantage of the confusion.’

(36b) **Me aproveché de la confusión.**
 MID.1SG take_advantage_of.PRF.1SG of DEF.SG.F confusion
 ‘I took advantage of the confusion.’

2.5.4. Impersonal middles

The extension of middle marking to impersonalization is found among others in Spanish. (37a) illustrates the canonical transitive construction of **encontrar** ‘find’. In (37b), the construction is de-transitivized by the middle marker (originally, a reflexive clitic) **se**; the NP in post-verbal position governs verb agreement, and the construction is ambiguous between a reciprocal and a passive reading. In (37c), the NP in post-verbal position is introduced by the same preposition **a** as in (37a) and does not govern verb agreement, and there is no possibility to add an NP governing verb agreement. Consequently, the construction (37c) must be analyzed as including a slot for a term showing P coding, but no slot for a term showing A coding.

(37) Spanish (pers.doc.)

(37a) **El policía encontró a los ladrones.**
 DEF.SG.M policeman find.PRF.3SG DOM DEF.PL.M thief.PL
 ‘The policeman found the thieves.’

(37b) **Se encontraron los ladrones.**
 MID find.PRF.3PL DEF.PL.M thief.PL
 ‘The thieves met.’ or ‘The thieves were found.’

(37c) **Se encontró a los ladrones.**
 MID find.PRF.3SG DOM DEF.PL.M thief.PL
 ‘They (unspecified) found the thieves.’

Ex. (38) illustrates the use of middle marking in the impersonal variant of an intransitive construction in Portuguese.

(38) Portuguese

Aquí não se pode nadar.
 here NEG MID be_able.PRS.3SG swim.INF
 ‘One can’t swim here.’

2.5.5. Middle marking without reduction of the number of arguments

Starting from the expression of agent-beneficiary reflexivization (or *auto-benefactive*), as in (39b), middle voices may develop uses marking no change in the number of arguments, their syntactic status, or the denotative meaning, in which middle marking just highlights the

affectedness of the agent, as in (39d).²⁴ Note that, in French, middle marking automatically triggers the use of ‘be’ (instead of ‘have’) in completive auxiliary function.

(39) French

(39a) **Il a acheté des chaussures.**

he has bought some shoes.
‘He bought shoes.’

(39b) **Il s’est acheté des chaussures.**

he MID-is bought some shoes.
‘He bought shoes for himself.’

(39c) **Il a mangé un gâteau entier.**

he has eaten a cake whole
‘He ate a whole cake.’

(39d) **Il s’est mangé un gâteau entier.**

he MID-is eaten a cake whole
‘He ate a whole cake (and enjoyed it).’

Middle marking may also be used to modify the perspectivization of an event without affecting the number of participants or their roles. In all cases, the participant selected by the middle form as A is less agentive than the A in the construction of the base verb. For example, in Greek, **danéizomai** ‘borrow’ is the middle form of **danéizo** ‘lend’.

2.5.6. Lexicalized middles

Middle derivatives have a strong propensity to lexicalize. As a rule, the languages that have a middle voice also have verbs that show middle marking but cannot be analyzed as the middle form of another verb in a synchronic analysis, such as French **s’avérer** ‘turn out to be’, or **s’évanouir** ‘faint’. Such verbs are traditionally called *media / reflexiva tantum*.

²⁴ Note that some languages have a dedicated auto-benefactive voice. This is the case of the so-called ‘subjective version’ of Georgian.

Lesson 3

Valency-increasing voices and voice combinations

3.1. The causative voice

3.1.1. Definitions

In their typical use, causative voices are morphologically coded valency alternations in which the argument structure of the morphologically more complex form differs that of the less complex one by the addition of *causer* showing the following two characteristics: formally, it is encoded as the A term of a transitive construction, and semantically, it exerts its control on a *causee* corresponding semantically to the A/U argument of the base verb. Ex. (1) illustrates the causativization of an intransitive verb (1a-b) and of a transitive verb (1c-d) in Nahuatl. Note that, in (1d), the slot dedicated to P indexation in the causative verb form does not index the initial P, but the causee.

(1) Classical Nahuatl (Launey 1980)

(1a) **Ni-tzàtzi.**

A.1SG-scream.PRS
'I am screaming.'

(1b) **Ti-nēch-tzàtzitia.**

A.2SG-P.1SG-scream.CAUS.PRS
'You are making me scream.'

(1c) **Ti-c-cua in nacatl.**

A.2SG-P.3SG-eat.PRS DEF meat
'You are eating the meat.'

(1d) **Ni-mitz-cualtia in nacatl.**

A.1SG-P.2SG-eat.CAUS.PRS DEF meat
'I am making you eat the meat.'

3.1.2. Direct vs. indirect causation

Some languages have two or more causative markers that express different semantic types of causation. Others have causative markers lending themselves to a wide range of interpretations.

Two main semantic types of causatives can be distinguished. With the first one, the causer actively participates in the caused event, acting on the causee in order to get the content of the base verb realized, which will imply some kind of coercion in case the causee is animate. This type of causative is often called the *direct causative*. In the *indirect causative* ('have someone do something'), the causer is conceived of as a mere instigator or distant cause of the realization of the verb content. Depending on the individual languages, direct and indirect causatives may be formally distinct. For example, in Wolof, **toog** 'sit' has two causative

forms: **toog-al**, which implies that the causer is physically involved in the caused event (for example, by bringing a chair), and **toog-loo**, which does not imply more than an invitation to sit down.

In Tamil, the verb ‘place’ has been grammaticalized as a direct causative auxiliary, and the verb ‘make’ as an indirect causative auxiliary.

(2) Tamil (Fedson 1985)

(2a) **piLLaiyai tuunka vai-tt-een.**
 child.ACC sleep.INF place-PRT-1SG
 ‘I made the child sleep.’

(2b) **avaru jepam taan noNTiyai naTakka cey-t-atu.**
 3.HON(GEN) prayer indeed cripple.ACC walk.INF make-PRT-3SG.N
 ‘His (someone else’s) prayer really made the cripple walk.’

It may also happen that the expression of direct causation involves lability, whereas indirect causation requires the use of a marked causative form, as in (3).

(3) Bambara (pers.doc.)

(3a) **Sékù bέ bòlí.**
 Sékou ICPL run
 ‘Sékou is running.’

(3b) **Sékù bέ móbílí bòlí.**
 Sékou ICPL car.D run
 ‘Sékou is driving the car.’

(3c) **Sékù bέ wùlû lá-bòlí.**
 Sékou ICPL dog.D CAUS-run
 ‘Sékou is making the dog run.’

Direct causation typically applies to intransitive verbs, and indirect causation, to transitive verbs, but this is not a strict rule, just a tendency.

Often the indirect causative subsumes an *assistive* meaning (‘help causee to V’), a *permissive* meaning (‘let causee V’), or even a *comitative* meaning that can be viewed as a borderline case of assistive causation. For example, in Tswana, depending on the context, **áχísá** (causative of **áχá** ‘build’) can be interpreted as ‘make build’, ‘let build’, or ‘help to build’. Ex. (4) provides further illustrations of the assistive-comitative use of the causative voice in Tswana. Note that, depending on the context, the causative verbs occurring in this example could also be found with the meanings ‘make someone cry’ or ‘make someone speak’, since Tswana is typically a language with a single causative marker lending itself to a wide range of interpretations.

(4) Tswana (pers.doc.)

(4a) **Bà-sádí ’bá-líd-ís-à mò-tʰóláχâ:dì.**
 CL2-woman 2.CL2-cry-CAUS-FV CL1-widow
 ‘The women are crying with the widow.’

- (4b) **Ki-tlàà-bú-ís-á tàútóná kámò:só.**
 A.1SG-FUT-speak-CAUS-FV (CL1)president tomorrow
 ‘I’ll talk with the president tomorrow.’

Another general particularity of indirect causatives is that they tend to imply some backgrounding of the causer. Interestingly, Wolof has two distinct suffixes for indirect causation, one of them compatible with the expression of the causer, the other blocking the expression of the causer, which must be interpreted as unspecified.

- (5) Wolof (Nouguier-Voisin 2002)

- (5a) **Ñaw-loo naa ko roob.**
 sew-CAUS PRF.1SG 3SG dress
 ‘I made him sew a dress.’

- (5b) **Ñaw-lu naa roob.**
 sew-CAUS PRF.1SG dress
 ‘I had a dress sewn.’

3.1.3. Restrictions on causative derivations, double causatives

A cross-linguistically common restriction on causative derivations is that, with few exceptions, morphological causatives can only be formed from intransitive verbs, and transitive verbs can only be causativized by means of more or less grammaticalized causative periphrases.

Interestingly, in the languages that have this kind of restriction, ‘eat’ and ‘drink’ are generally among the transitive verbs that exceptionally lend themselves to the same causative derivation as intransitive verbs.

The ban on morphological causativization of transitive verbs is however far from general in the languages of the world. Some of the languages that allow for the morphological causativization of transitive verbs even allow for double causativization, with a direct causative serving as the base for the formation of an indirect causative.

- (6) Mandinka (pers.doc.)

- (6a) **Bòotô fáa-tà.**
 bag.D get_full-CPL
 ‘The bag is/got full.’

- (6b) **Kàmbàanô yè bòotô fá-ndì.**
 boy.D CPL bag.D be_full-CAUS
 ‘The boy filled the bag.’

- (6c) **Mùsô yè kàmbàanô fá-ndí-ríndì bòotô lá.**
 woman.D CPL boy.D be_full-CAUS-CAUS bag.D POSTP
 ‘The woman made the boy fill the bag.’

3.1.4. The causee in the construction of causative verb forms

As a rule, as illustrated by several of the examples above, causatives derived from intransitives have a transitive construction with the causer in A role and the U argument of the base verb in P role.

Causatives derived from transitives show more variety in their possible constructions, and much more space than is available here would be necessary to give a detailed account of this question in the languages of the world.

In the languages in which trivalent verbs may have double-transitive constructions, a natural solution is to treat both the causee and the P argument of the base verb as P's in a double transitive construction. Among the languages illustrated in the previous sections, this is the case for Nahuatl, Wolof, and Tswana. Note however that, with respect to the mechanisms that do not treat the two P's in an equal way, it is the causee (rather than the P argument of the base verb) that tends to be fully assimilated to the P term of the basic transitive construction.

In the languages that do not have double-transitive constructions, the choice is essentially between maintaining the P argument of the base verb as the P term of the causative construction (the causee being encoded as an oblique), and demoting the P argument of the base verb (the causee taking the role of P in the causative construction). The rules accounting for the choice between these two solutions show considerable cross-linguistic variation. Sometimes they apply quite mechanically, but they may also be sensitive to semantic factors.

In Soninke, as illustrated by Ex. (7), the rule is that, if both the causee and the P argument of the base verb are expressed, the P argument of the base verb is maintained in P role, and the causee is expressed as an oblique; however, the P argument of the base verb may be left unexpressed, and then the P role in the causative construction is fulfilled by the causee.

(7) Soninke (pers.doc.)

(7a) **Lémínè-n dà tíyè-n ñígá.**

child-D TR meat-D eat
'The child ate meat.'

(7b) **Hàatú dà tíyè-n ñígá-ndí lémínè-n ñá.**

Fatou TR meat-D eat-CAUS child-D POSTP
'Fatou made the child eat meat.'

(7c) **Hàatú dà lémínè-n ñígá-ndí.**

Fatou TR child-D eat-CAUS
'Fatou made the child eat.'

In other languages, as illustrated by Ex. (8), the choice is less mechanical, and seems to be sensitive to the degree of affectedness of the causee. In (8b), the causee is in the comitative-instrumental case, and the initial P in the accusative case, whereas in (8d), the causee is in the accusative case, and the initial P in the comitative-instrumental case.

(8) Hungarian (pers.doc.)

(8a) **A rendőrség keres-i a gyerek-et.**

DEF police look_for-A.3SG.P.3DEF DEF child-ACC
'The police is searching the child.'

(8b) **A szülő-k keres-tet-ik a gyerek-et. a rendőrség-gel**
 DEF parent-PL look_for-CAUS-A3PL.P3DEF DEF child-ACC DEF police-with
 ‘The parents make the police search the child.’

(8c) **A gyerek tej-et isz-ik**
 DEF child milk-ACC drink-A3SG
 ‘The child is drinking milk.’

(8d) **Az anya tej-jel i-tat-ja a gyerek-et**
 DEF mother milk-with drink-A3SG.P.3DEF DEF child-ACC
 ‘The mother is making the child drink milk.’

3.1.5. Possible sources of causative voices

3.1.5.1. *The grammaticalization path causation verb > causative auxiliary > causative derivational affix*

It seems reasonable to assume that all languages can encode the causation relationship between a causing event and a caused event by means of biclausal constructions, either of the ‘main clause + subordinate clause’ type, or of the serial type. Such constructions may evolve toward more tightly integrated clause combinations, and eventually give rise to complex predicates combining a causative auxiliary and a non-finite form of the verb encoding the caused event. The final stage of the evolution is the univerbation of the complex predicate, by which the former causative auxiliary is converted into a derivational affix. This explains why so many languages across the world have causative derivational affixes cognate with a verb ‘do’, or with another verb commonly used as a causative auxiliary in periphrastic causatives (‘give’, ‘put’, ‘send’, etc.)

There is a huge literature about the analysis of causative periphrases and the criteria according to which they can be analyzed as maintaining properties characteristic for the biclausal constructions from which they originate, or rather showing a behavior more typical for fully integrated constructions.

In this respect, it is for example easy to show that the English construction ‘make V’ behaves in many respects as a biclausal construction, whereas for most French speakers, ‘faire V’ has completely lost the properties that would justify a biclausal analysis, and can be viewed as an uncontroversial complex predicate. And in French, there is a clear-cut distinction in this respect between *faire*-causatives and other causative periphrases such as *laisser*-causatives (permissive causation) or *aider*-causatives (assistive causation), which still have many properties typical for biclausal constructions.

3.1.5.2. *Others*

Although the details of the diachronic scenario are not well-understood, it is worth mentioning here that several West Mande languages have causative prefixes (Bambara **lá-**, etc.) cognate with an instrumental postposition originating from a locational noun whose original meaning can be reconstructed as ‘place, side, opening’.

3.1.6. Non-canonical causatives, lexicalized causatives

3.1.6.1. Causative voice and underspecified transitivization

In the languages that have a causative voice, it may happen that formally causative verb forms encode events that cannot be dissociated into a caused event and the action of a causer. This is the domain of the non-productive / lexicalized causative, with causative forms expressing meanings that are not fully predictable from the meaning of their components.

For example, in the languages that have a causative voice:

- ‘bring’ may be expressed as the causative form of ‘come’,
 - ‘spend (some time)’ may be expressed as the causative form of ‘pass’,
 - ‘miss’ may be expressed as the causative form of ‘run’,
- etc.

In such cases, the causative derivation must be analyzed as creating transitive verbs that have some semantic relationship with the intransitive verb from which they derive, but cannot be analyzed in terms of manipulation exerted by a causer on a causee.

It is interesting at this point to mention that there are also languages, in particular in the Oceanic language family, whose underived verbs are usually intransitive, and in which consequently most transitive verbs (if not all) result from a transitivizing derivation. In Ex. (9), the suffixes **-va** and **-a** are allomorphs of a multipurpose transitivizing suffix used in Fijian to create transitive verbs regardless of the precise semantic relationship between the base verb and the derived verb. Note that the constituent order in the transitive construction of Fijian is VPA.

(9) Boumaa Fijian (Dixon)

(9a) **E-la'o a gone.**

3SG-go DEF child

‘The child is going.’

(9b) **E-la'o-va a suka a gone.**

3SG-go-TR DEF sugar DEF child

‘The child is going to get sugar.’

(9c) **E-lo'i a kaukamea**

3SG-get_twisted DEF iron

‘The iron is twisted.’

(9d) **E-lo'i-a a kaukamea a gone.**

3SG-get_twisted-TR DEF iron DEF child

‘The child is twisting the iron.’

3.1.6.2. Causative voice and perspectivization

Some languages attest uses of causative voices that are not related to a change in the number of participants or in their role in the event, but to the selection of one of the participants as the A term of a transitive construction. In such cases, the participant selected as the A term in the construction of the causative form is more agentive than that selected as A or U in the

construction of the base verb. For example, many languages express ‘frighten’ as the causative form of ‘fear’ – Ex. (10), or ‘sell’ as the causative form of ‘buy’ – Ex. (11).

(10) Mandinka (pers.doc.)

(10a) **Díndínò kà sílá wùlôo lá.**
 child.D ICPL be_afraid dog.D POSTP
 ‘The child is afraid of the dog.’

(10b) **Wùlôo kà díndínò sílá-ndì**
 child.D ICPL child.D be_afraid-CAUS
 ‘The dog frightens the child.’

(11) Tswana (pers.doc.)

(11a) **Kì-bàtt-à ǀò-rék-á q^hò:mó.**
 A.1SG-want-FV INF-buy-FV (CL9)cow
 ‘I want to buy a cow.’

(11b) **Kì-bàtt-à ǀò-rék-ís-á q^hò:mó.**
 A.1SG-want-FV INF-buy-CAUS-FV (CL9)cow
 ‘I want to sell a cow.’

3.1.6.3. Causative voice encoding an increase in the agentivity of a participant

Sometimes, a verb and its causative derivative lexify events that can be conceived as essentially identical, with the same number of participants, and differing only in the degree of agentivity of a participant, for example ‘hear’ and ‘listen’ - Ex. (12).

(12) Bambara (pers.doc.)

(12a) **Sékù yé kùbàrô mén.**
 Sékou CPL news.D hear
 ‘Sékou heard the news.’

(12b) **Sékù yé cèkòròbâ lá-mén.**
 Sékou CPL oldman.D CAUS-hear
 ‘Sékou listened to the oldman.’

Similarly, in East Uvean, **-’i** is a suffix typically used to add an argument to monovalent intransitive verbs, but in **sio** ‘see’ / **sio-’i** ‘look at, observe’, the base verb is semantically bivalent. In this case, the suffixation of **-’i** converts a verb with an extended intransitive construction into a transitive verb.

(13) East Uvean (Claire Moyse, pers.com.)

(13a) **Sio ia Paulo ki tona ’ohoaná.**
 see ABS Paulo OBL his wife
 ‘Paulo saw his wife.’

- (13b) **Sio-'i e Paulo ia tona 'ohoaná.**
 see-TR ERG Paulo ABS his wife
 'Paulo observed his wife.'

3.1.7. Syncretic causatives

3.1.7.1. *The passive-causative syncretism*

In the languages in which morphological causatives from transitive verbs are possible, and in which the initial P (causee) may be demoted to oblique, there is an obvious similarity between the treatment of the initial P in passive and causative construction – Ex. (14).

- (14) French

- (14a) **Le directeur a fait écrire la lettre par la secrétaire.**
 the manager has made write the letter by the secretary
 'The manager had the letter written by the secretary.' (causative)

- (14b) **La lettre a été écrite par la secrétaire.**
 the letter has been written by the secretary
 'The letter was written by the secretary.' (passive)

In some languages, for example, Korean – Ex. (15), causative and passive constructions may coincide, not only in the treatment of the initial P, but also in their morphological marking.

- (15) Korean (???)

- (15a) **Ai-ka pihayngki-lul po-ass-ta.**
 child-SUBJ plane-ACC see- PAST-DECL
 'The child saw the plane.'

- (15b) **Pihayngki-ka ai-eykey po-y-ess-ta.**
 plane-SUBJ child-by see-CAUS/PASS-PAST-DECL
 'The plane was seen by the child.'

- (15c) **Emeni-ka ai-eykey pihayngki-lul po-y-ess-ta.**
 mother-SUBJ child-by plane-ACC see-CAUS/PASS-PAST-DECL
 'The mother made the child see the plane.'

A possible analysis is that the suffix **-y-** just encodes A/U demotion, leaving open two possibilities: this demotion can be compensated, either by P promotion to U (passive), or by the introduction of a causer taking the A role.

The generally accepted diachronic explanation is that this syncretism results from an evolution of initially causative constructions lending themselves to morphologically unmarked reflexivization: a causative-from-transitive construction with a null P (something like 'Causer lets Causee V Ø') lended itself to a reflexive reading ('Causer_i lets Causee V Self_i'), which paved the way to the possibility of a plain passive reading.

This hypothesis is supported by the fact that, in French, the 'causative + reflexive' combination (**se faire** V) is not necessarily interpreted compositionally ('Causer_i makes

Causee act on Self;'). For example, depending on the context, **Il s'est fait tuer** lit. 'He made himself kill' may have its literal interpretation 'He acted in such a way that he was killed', but most of the time, this construction is found in contexts in which it is clear that the intended meaning is simply 'He was killed'.

A causative-to-passive development involving the grammaticalization of a 'give' verb has been shown in a number of languages, among them Manchu-Tungusic (Nedjalkov 1993; Knott 1995) and Sinitic (e.g. Mandarin, Cantonese, Southern Min) (Hashimoto 1988; Cheng et al. 1999; Zhang 2000; Chin 2011; Yap & Iwasaki 2003, 2007; Chappell & Peyraube 2007).

3.1.7.2. *The antipassive-causative syncretism*

Soninke has an antipassive suffix **-ndì ~ ndí** quasi-homonymous with the causative **-ndí**, and a similar homonymy (or quasi-homonymy) has been observed in other languages. A plausible explanation is that verbs 'do' have the potential to grammaticalize, not only as causative auxiliaries, but also as antipassive auxiliaries in antipassive periphrases, the subsequent univerbation of the periphrases in question resulting in an antipassive-causative syncretism.

Verbs with the meaning 'do, make' commonly occur in causative periphrases, and constitute a well-known source of causative markers. But such verbs are also very commonly involved in constructions that can be viewed as antipassive periphrases, although they are not commonly referred to as such, and the possibility that verbs with the meaning 'do, make' involved in such constructions grammaticalize as antipassive markers must be considered

For example, French has a causative construction in which **faire** 'do, make' combines with the infinitive of the verb expressing the caused event, as in Ex. (16a), but the use of **faire** with an event noun in P role is also a very common strategy to avoid specifying the P argument of transitive verbs with which the mere omission of the P phrase does not constitute the normal way to simply omit specifying P, as in Ex. (16b).

(16) French

(16a) **La femme a fait acheter le pain par son fils.**
 the woman has made buy the bread by her son
 'The woman made her son buy the bread.'

(16b) **La femme a fait des achats.**
 the woman has made some buying
 'The woman did some shopping.'

In most Mande languages, the verbs expressing 'do, make' are reflexes of two Proto-Mande roots reconstructable as ***ma** and ***kɛ**, which quite obviously cannot be the source of the causative and antipassive suffixes of Soninke. But ***ma** and ***kɛ** are not the only roots reconstructable at least at Proto-West-Mande level with the meaning 'do, make'. In Mandinka, 'do' is commonly expressed as **ké**, but Mandinka also has a verb **tîŋ ~ tinnà ~ túnnà** 'cause', and this verb is probably cognate with Bozo Jenaama **tîn** (completive) **tíná** (incompletive) 'do'. Given the position of Mandinka and Bozo in the genealogical tree of Mande languages, a Proto-West-Mande root ***tîn** 'do' can be reconstructed, and the hypothesis I propose is that the causative and antipassive suffixes of Soninke result from the grammaticalization of ***tîn** 'do' in periphrases of the types illustrated in (16).

3.1.7.3. *The causative-applicative syncretism*

On the causative-applicative syncretism, see Section 3.2.7.

3.1.7.3. *The causative-iterative syncretism*

Iterative is an aspectual notion that has no obvious link with valency-changing operations, but in Balant (Atlantic), the same morphological derivations are found with a causative function with some verbs, and with an iterative function with others. Moreover, in Kejom (Grassfields Bantu – Nguendjio 1989: 243), the Bantu causative suffix has become an iterative suffix, which suggests that the direction of change is from causative to iterative. The details of the scenario are however unclear.

3.2. The applicative voice

3.2.1. Definition

In the typological literature, the applicative is generally defined in terms of promotion of an oblique to P. However, a considerable proportion of the valency alternations designated as applicatives, in descriptions of individual languages as well as in the typological literature, do not meet this definition, which consequently must be revised.

The right definition of the applicative is as follows: applicative voices are morphologically coded valency alternations in which the argument structure of the morphologically more complex form differs from that of the less complex one by the addition of an *applied argument* encoded as the P term of a transitive construction, whereas the A/U argument in the construction of the base verb is maintained as the A term of the applicative construction. This definition leaves open the question of the treatment of the initial P, which shows cross-linguistic variation – see Section 3.2.4. It also leaves open the question of a possible alternative coding of the applied argument. In this respect, a distinction must be drawn between *optional applicatives* and *obligatory applicatives*.

3.2.2. Optional applicatives

In optional applicatives, the applied argument can be analyzed as a promoted oblique, since the participant it encodes also has the ability to be encoded as an oblique in the construction of the base verb – Ex. (17).

(17) Wolof (Nouguier-Voisin 2002)

(17a) **Mu séy ak doom-u nijaay-am.**
 3SG marry with child-CSTR uncle-3SG
 ‘He married his uncle’s daughter.’

(17b) **Doom-u nijaay-am la séy-al.**
 child-CSTR uncle-3SG FOC.3SG marry-APPL
 ‘He married HIS UNCLE’S DAUGHTER.’

This example illustrates a typical function of applicative voices: making participants normally encoded as obliques accessible to operations to which obliques do not have access. The point is that, in Wolof, comitative adjuncts cannot be focalized, whereas the core terms of the transitive construction can. Converting a comitative adjunct into the applied argument of an applicative construction is therefore a way around the problem.

Some languages have mechanisms of adjunct promotion that suggest relaxing somewhat the definition of optional applicatives. Georgian and the other Kartvelian languages are a case in point. In Kartvelian languages, the so-called ‘objective version’ and ‘locative version’ are morphological modifications of the verb by which participants otherwise encoded as ordinary obliques are assigned dative coding. Crucially, Kartvelian languages are among the languages that have a syntactic function ‘dative’ whose properties are more similar to those of core arguments in the narrowest sense of this term than to those of ordinary obliques. A similar phenomenon can be observed in North West Caucasian languages (Circassian, Adyghe), and also in Kanuri (Saharan).

3.2.3. Obligatory applicatives

In obligatory applicatives, the participant encoded as the applied argument cannot feature in a monoclausal construction headed by the base verb. For example, in Tswana, the recipient of **kwálá** ‘write’ can only be encoded as the applied argument of the applicative derivative **kwálélá**; there is no possibility of encoding it as an oblique in the construction of the base verb.

(18) Tswana (pers.doc.)

(18a) **Lòrátó** **‘ó-tláà-kwál-á** **lò-kwâ:lò.**
 (CL1)Lorato A.CL1-FUT-write-FV CL11-letter
 ‘Lorato will write a letter.’

(18b) **Lòrátó** **‘ó-tláà-kwál-él-á** **‘Kítsó** **lò-kwâ:lò.**
 (CL1)Lorato A.CL1-FUT-write-APPL-FV (CL1)Kitso CL11-letter
 ‘Lorato will write a letter to Kitso.’

Obligatory applicatives are particularly common among the languages of Sub-Saharan Africa (in particular, Bantu).

3.2.4. The treatment of the initial P in applicatives from transitives

In languages in which trivalent verbs may have double-transitive constructions, the introduction of an applied argument in P role in the construction of applicatives derived from transitives does not necessitate the demotion of the initial P. This is illustrated by Ex. (18) above. Note however that the initial P and the applied argument, although equally encoded like the P term of the basis transitive construction, do not necessarily coincide in all the details of their behavior. In the particular case of Tswana, the crucial factor is their relative ranking in animacy hierarchy.

In languages that do not have double-transitive constructions, the introduction of the applied argument triggers the demotion of the initial P. In the applicative construction illustrated by Ex. (19b), the beneficiary is coded as the P term of a transitive construction, whereas the patient can only be expressed as an oblique in the Ablative case.

(19) Yup’ik (Mithun 2000)

(19a) **Taqukaq** **tuqut-aa** **angute-m**
 bear kill-DECL.A.3SG.P.3SG man-ERG
 ‘The man is killing the bear.’

- (19b) **Arnaq tuquy-ut-aa angute-m taquka-mek.**
 woman kill-APPL-DECL.A.3SG.P.3SG man-ERG bear-ABL
 ‘The man is killing the bear for the woman.’

3.2.5. Semantically specialized vs. unspecified applicatives

Applicative verb forms may specify the semantic role of the applied argument. For example, K’ichee’ has applicative verb forms used exclusively to promote instrumental adjuncts – Ex. (20).

(20) K’ichee’ (Campbell 2000)

- (20a) **X-Ø-u-paxiij ri b’o’j r-uuk’ ab’aj ri ali.**
 CPL-P.3SG-A.3SG-break DEF pot 3SG-with stone DEF girl
 ‘The girl broke the pot with a stone.’

- (20b) **Ab’aj x-Ø-u-paxib’eej r-eech ri b’o’j ri ali.**
 stone CPL-P.3SG-A.3SG-break.APPL 3SG-for DEF pot DEF girl
 ‘The girl broke the pot with a stone.’

Some languages may thus have a whole range of distinct applicative voices, each of them encoding the assignment of a particular semantic role to the applied argument – cf. Peterson (2007) on Hakka-Lai.

However, it may also happen that the only semantic indication provided by the use of an applicative verb form is that the construction includes a P term with a semantic role that cannot be assigned by the same verb in its non-applicative form. This means that the exact role of the applied argument must be inferred from contextual factors (either semantic or pragmatic). Such semantically unspecified applicatives are particularly common among Bantu languages. For example, Tswana has just one applicative marker,²⁵ and Ex. (21) illustrates the variety of the semantic roles that can be fulfilled by the applied arguments it licenses.

(21) Tswana (pers.doc.)

- (21a) **Q^hósí ’í-át^hól-éts-í mò-ńná bó-χò:dù.**
 (CL9)king A.CL9-condemn-APPL.PRF-FV CL1-man CL14-thief
 ‘The king condemned the man for theft.’

- (21b) **Q^hósí ’í-át^hól-éts-í mò-ńná lò:-só.**
 (CL9)king A.CL9-condemn-APPL.PRF-FV CL1-man CL11-death
 ‘The king condemned the man to death.’

- (21c) **Kítsó ’ó-bérékélà tíé:χò.**
 (CL1)Kitso A.CL16work-APPL-FV (CL9)delay
 lit. ‘Kitso is working for the delay.’ (> in order to make up lost time)

²⁵ The suffix **-ets-** found in some of the sentences in Ex. (21) must be analyzed as the result of the fusion of the applicative suffix **-el-** with a ‘palatal’ feature encoding the TAM value ‘perfect’.

- (21d) **Mà-χòdù á-bó-lá-éts-í mò-íná mà:-dí.**
 CL6-thief A.CL6-kill-APPL.PRF-FV CL1-man CL6-money
 ‘The thieves killed the man for money.’
- (21e) **Ṁpḥó †ó-dz-éts-í †Kítsó dí-nà:wá.**
 (CL1)Mpho A.CL1-eat-APPL.PRF-FV (CL1)Kitso CL10-bean
 ‘Mpho ate the beans that were intended for Kitso.’
- (21f) **Kì-lèbòχ-èl-à Kítsó mà:-dí.**
 A.1SG-thank-APPL-FV (CL1)Kisto CL6-money
 ‘I am thanking Kitso for the money.’
- (21g) **Lò-siá †lò-líl-él-à χò-â:nà.**
 CL11-baby A.CL11-cry-APPL-FV INF-suck
 ‘The baby is crying [because he wants] to suck.’
- (21h) **Mò-sádi jó †ó-ákélà rálíbúntfí:lì.**
 CL1-woman CL1.DEM A.CL1-tell_lies-APPL-FV (CL1)shopkeeper
 ‘This woman is telling lies about the shopkeeper.’
- (21i) **Mà-bèlé †á-áláf-èl-w-à tsḥù:pà.**
 CL6-sorghum A.CL6-treat-APPL-PASS-FV (CL9)tshupa
 ‘The sorghum is treated against tshupa (a kind of worm).’
- (21j) **Mò-sádi †ó-bíl-éts-á b-àná dì:-dzó.**
 CL1-woman A.CL1-call-APPL CL2-child CL8-food
 ‘The woman is calling the children to eat.’
- (21k) **Mò-sádi †ó-bíl-éts-á b-àná ñâ:kà.**
 CL1-woman A.CL1-call-APPL CL2-child (CL9)doctor
 ‘The woman is calling the doctor for the children.’
- (21l) **Kì-f-éts-í ñwánàké báisíkílí mà:-dí.**
 A.1SG-give-APPL.PRF-FV (CL1)child.1SG (CL9)bicycle CL6_money
 ‘I gave money to my son for a bicycle.’
- (21m) **Kì-f-éts-í màlómé dí-qḥòmó lì-tswâ:i.**
 A.1SG-give-APPL.PRF-FV (CL1)uncle.1SG CL10-cow CL5-salt
 ‘I gave salt to the cows for my uncle.’
- (21n) **Mò-sétsánà jó †ó-fós-éts-à bà-tsâ:dì.**
 CL1-girl CL1.DEM A.CL1-be_wrong-APPL-FV CL2-parent
 ‘This girl behaves badly towards her parents.’
- (21o) **Kì-χáqḥámál-èl-à bò-pìlòqḥálì dzwá-ñwàná: jò.**
 A.1SG-be_impressed-APPL-FV CL14-courage CL14.GEN-CL1-child CL1.DEM
 ‘I am impressed by the courage of this child.’

The following generalization can however be put forward: in the languages that have semantically specialized applicatives, benefactive applicatives (i.e. applicatives assigning the

role of beneficiary to the applied argument) are particularly common; and in the languages that have semantically unspecified applicatives, the general rule seems to be that the role of beneficiary is the default choice in contexts that do not suggest another interpretation.

3.2.6. Applicatives in diachrony

3.2.6.1. Adposition incorporation as a possible source of applicatives

Adposition incorporation, illustrated by Ex. (22), seems to be a major source of applicatives. In (22a-b), the same argument is encoded either as an oblique in an intransitive construction, or as the P term of a transitive clause, and the verb in this transitive clause is a compound verb form incorporating the postposition used to mark the same argument when it is encoded as an oblique.

(22) Mandinka (pers.doc.)

(22a) **Bándíy-òo-lú bùyí-tà jùl-òo-lú kâŋ.**
 bandit-D-PL fall-CPL merchant-D-PL on
 ‘The bandits attacked the merchants (lit. fell on the merchants).’

(22b) **Bándíy-òo-lú yè jùl-òo-lú bùyì-ŋ-káŋ.**
 bandit-D-PL CPL merchant-D-PL fall-EP-on
 ‘The bandits attacked the merchants.’

In Mandinka, this phenomenon is sporadic, and similar things can also be observed sporadically in the languages of Europe (cf. French **courir** ‘run (intr.)’ / **par-courir** ‘cover a distance (tr.)’, where **par-** is cognate with the preposition **par** ‘by, through’), but there is no difficulty in imagining that its systematization at some stage in the history of a language might lead to the emergence of a productive applicative voice.

3.2.6.2. Applicative periphrases

Applicative periphrases are biverbal constructions functionally comparable to monoverbal constructions headed by applicative verb forms. One of the verbs determines the type of event encoded by the applicative periphrasis, and the argument structure of the applicative periphrasis is the argument structure of the lexical verb augmented by an additional participant. The other verb acts as a valency operator whose contribution to the construction is limited to licensing the expression of an additional participant fulfilling a given semantic role in the event encoded by the lexical verb, without modifying the morphosyntactic treatment of the other participants.

Applicative periphrases licensing beneficiaries are particularly common, and ‘give’ is particularly common in the function of valency operator in such periphrases.

(23) Yoruba – Rowlands (1969:83), Abraham (1962:348)

(23a) **Rà á fún mi.**
 buy 3SG give 1SG
 ‘Buy it for me.’

(23b) **Ó jíṣé fún mi.**
 3SG go_on_an_errand give 1SG
 ‘He went on an errand for me.’

(24) Ecuadorian Highland Spanish – Haboud (1994)

(24a) **Me dio cocinando.**
 DAT.1SG give.CPL.1SG cook.GER
 ‘(S)he cooked for/instead of me.’

(24b) **Él me da haciendo el pan mientras yo lavo.**
 3SGM DAT.1SG give.PRS.3SG make.GER DEF.SGM bread while 1SG wash.PRS.1SG
 ‘He bakes the bread for/instead of me while I wash.’

(24c) **Él me dio dando el cuchillo a la María.**
 3SGM DAT.1SG give.CPL.1SG give.GER DEF.SGM knife to DEF.SGF María
 ‘He gave the knife to María instead of me.’

According to Peterson (2007), in Hakha Lai (Tibeto-Burman), the benefactive/malefactive applicative suffix **-piak**, seen in (25a), closely resembles the ‘give’ verb seen in (25b), “reflecting a grammaticalization path already well established for this verb”.

(25) Hakha Lai – Peterson (2007:131-2)

(25a) **Tsewmaṅ=ni? door-?a? ?a-ka-kal-piak.**
 Tsewmaṅ=ERG market-ALL/LOC A.3SG-P1SG-go-BEN
 ‘Tsewmaṅ went to the market for me.’

(25b) **Tsewmaṅ=ni? ?aar-saa ?a-ka-peek.**
 Tsewmaṅ=ERG chicken-meat A.3SG-P.1SG-give
 ‘Tsewmaṅ gave me chicken meat.’

Interestingly, Old Nubian had “dative” periphrases involving the verbs **den-** ‘give (to me/us)’ and **tīr-** ‘give (to you/him/them)’. Not surprisingly, modern Nubian languages have benefactive applicative markers resulting from the grammaticalization of these verbs, for example **-dèen-** and **-tīr-** in Kunuz Nubian – Ex. (26).

(26) Kunuz Nubian – Abdel-Hafiz (1988:231)
Id ay-gi baab-ki alle-deen-s-u.
 man 1SG-ACC door-ACC repair-BEN-PST-A.3SG
 ‘The man repaired the door for me.’

Similar facts can be observed in many languages all around the world, which leads to the conclusion that the grammaticalization of verbs such as ‘give’ in applicative periphrases is a major source of applicative markers.

3.2.7. The causative-applicative syncretism

Some languages have a single morphological operation yielding derived verbs that can be equally found in causative and applicative constructions.

A first possible explanation is that verbs ‘give’ are very commonly found in applicative periphrases, but can also be found in causative periphrases (‘give someone something to do’ > make someone do something’). Consequently, a syncretic causative-applicative marker may result from the grammaticalization of ‘give’ in both causative and applicative periphrases in the same language.

Another possible explanation of this syncretism is that some events may be ambiguous between the kind of conceptualization reflected in causative constructions, and that reflected in applicative constructions. For example, languages may have instrumental applicatives, in which the applied argument is assigned the role of instrument, but many Bantu languages do not use their semantically under-specified applicative voice to encode instruments as applied arguments, and encode instruments by means of causative verb forms. In the languages in question, the semantic role of instrument is assigned in constructions that, literally, are something like ‘Agent makes Instrument act on Patient’. And even in a Bantu language like Tswana, in which instruments are standardly encoded as prepositional phrases, without any voice-marker added to the verb form, this kind of construction is marginally possible – Ex. (27).

(27) Tswana

Kítsó **‘ó-ǰát-ís-íts-é** **mó-thò** **m-mótóròkâ:rà.**
 (CL1)Kitso A.CL1-crush-CAUS-PRF-FV CL1-person CL3-car
 ‘Kitso drove over a person with his car.’
 lit. ‘Kitso let the car crush a person.’

Assistive causation can also be viewed as blurring the limit between causative and applicative – See Ex. (4) above.

Cf. also, in this connection, Section 3.1.7.1 on causativization and underspecified transitivity.

3.2.8. Non-canonical applicatives: the case of Tswana

Bantu languages in general provide many interesting data about non-canonical applicatives. As a rule, Bantu applicatives in their canonical use are obligatory and semantically under-specified applicatives – see Ex. (21) above.

3.2.8.1. *Applicative derivation and the promotion of instrumental adjuncts*

In Tswana, participants usually treated in the construction of the non-applicative form of a verb as instrumental adjuncts, i.e. represented by a prepositional phrase headed by the instrumental preposition **ká**, cannot be encoded as applied arguments. By contrast, if no agent is mentioned, they can be encoded as the A term in the construction of an applicative verb form – Ex. (28).

(28) Tswana (Bantu – pers.doc.)

(28a) **Ū-nè à-àpàj-à q^háká á-jàbà**
 A.CL1-AUX A.CL1.SEQ-cook-FV (CL9)guinea-fowl A.CL1.SEQ-flavour-fin

bò-χóbé ká námà j-á-j-ò:né.
 CL14-porridge with (CL9)flesh 9-GEN-9-CL9.PRO

‘He cooked the guinea-fowl and flavoured the porridge with its flesh’

(28b) **Nàmà í-jáb-él-à bò-χô:bè.**
 (CL9)meat A.CL9-flavour-APPL-FV CL14-porridge
 ‘Meat is used to flavour the porridge.’

This use of applicative derivation is clearly non-canonical, since in (28b), the A argument of the base verb is left unexpressed (and interpreted as non-specific), and the instrumental adjunct is not promoted to the role of P, but to that of A. In other words, this particular use of the Tswana applicative meets the definition of an oblique voice (see Section 2.1.6) rather than that of an applicative voice.

3.2.8.2. *Applicative derivation and the semantic role of locative phrases: general remarks*

The use of Tswana applicative verb forms examined in this section has in common with their canonical use that it licenses the presence of a term with a particular semantic role in the construction of the verb. It however departs from the canonical use in that the term in question is not encoded as a P, but as a locative phrase showing no evidence of a syntactic status different from that of ordinary obliques: it cannot be cross-referenced by a P index, or converted into the U term of a passive construction, and more generally, seems to have exactly the same syntactic behavior as locative phrases accompanying non-derived verbs.

In Tswana, locative phrases are not marked for the *location* vs. *source* vs. *destination* distinction, and their semantic role is regulated in the following way:

- (a) any Tswana verb can combine with a locative phrase expressing the localization of the event, or of a participant in the event, as in Ex. (29a);
- (b) in combination with some movement verbs, locative phrases are assigned the semantic role of source, as in Ex. (29b);
- (c) with some other movement verbs, locative phrases are assigned the role of destination, as in Ex. (29c).

(29) Tswana (Bantu – pers.doc.)

(29a) **Kítsó ’ú-bérék-à kó Kà:ǰé.**
 (CL1)Kitso A.CL1-travailler-FV LOC (CL1)Kanye
 ‘Kitso is working in Kanye.’

(29b) **Kítsó ó-ìl-é kó Kà:ǰé.**
 (CL1)Kitso A.CL1-go.PRF-FV LOC (CL1)Kanye
 ‘Kitso went to Kanye.’

- (29c) **Kítsó** **‘ó-húdúx-íl-è** **kó** **Kà:né.**
 (CL1)Kitso A.CL1-move-PRF-FV LOC (CL1)Kanye
 ‘Kitso moved from Kanye.’

Interestingly, applicative derivation may modify the semantic roles that verbs assign to locative phrases. Three cases must be distinguished.

3.2.8.3. *Verbs of movement that cannot assign the role of source or destination*

Tábóxá ‘run’ is semantically a verb of movement, but in its non-derived form, it has no semantic role to assign to a locative phrase, which means that the only available interpretation for a locative term in the construction of **tábóxá** in its non-derived form is the default interpretation of location of the event. By contrast, the applicative form **tábóxéla** can assign the role of destination – Ex. (30). The same behaviour is observed with **àkòfà** ‘hurry’, **fòfà** ‘fly’, **fità** ‘pass’, etc.

(30) Tswana (Bantu – pers.doc.)

- (30a) **Kì-tlàà-tábóx-à** **kó** **tsilê:-ŋ.**
 A.1SG-FUT-run-FV LOC (CL9)road-LOC
 ‘I will run on the road.’

- (30b) **Kì-tlàà-tábóx-él-à** **kó** **tsilê:-ŋ.**
 A.1SG-FUT-run-APPL-FV LOC (CL9)road-LOC
 ‘I will run to the road.’²⁶

In this particular case (but not in those examined in the following sections), a canonical applicative construction, with **tsilâ** ‘road’ encoded as the P term of a transitive construction, would be possible with the same meaning:

- (30c) **Kì-tlàà-tábóx-él-à** **tsi:là.**
 A.1SG-FUT-run-APPL-FV (CL9)road
 ‘I will run to the road.’

There is an obvious relationship with the fact that, in Tswana, non-derived verbs of movement that assign the role of destination (such as **yà** ‘go’) have an alternative construction in which the destination is encoded as the P term of a transitive construction.

3.2.8.4. *Verbs of movement that can assign the role of source*

With verbs of movement whose non-derived form assigns the role of source to locative complements, the applicative form has the same formal valency as the non-derived form, but assigns to its locative complement the role of destination, as illustrated in Ex. (31) by **húdúxá** ‘change one’s residence’. Note that, in order to express ‘move from A to B’, Tswana must use successively the non-derived form of **húdúxá** introducing the source of movement, and the applicative form of the same verb introducing the destination – Ex. (31c). More generally, Tswana, like many languages of Sub-Saharan Africa, cannot specify the source and the destination of a movement within the frame of a monoverbal construction.

²⁶ See section 3.2.8.6 for another possible interpretation of this sentence.

(31) Tswana (Bantu – pers.doc.)

(31a) **Kì-tlàà-húdúχ-à kó Kà:ǰé.**

A.1SG-FUT-move-FV LOC (CL1)Kanye

‘I will move from Kanye.’

(31b) **Kì-tlàà-húdúχ-él-à kó χàbórô:nì.**

A.1SG-FUT-move-APPL-FV LOC (CL1)Gaborone

‘I will move to Gaborone.’

(31c) **Kì-tlàà-húdúχ-à kó Kàǰé kì-húdúχ-él-ì kó χàbórô:nì.**

A.1SG-FUT-move-FV LOC (CL1)Kanye A.1SG-move-APPL-FV LOC (CL1)Gaborone

‘I will move from Kanye to Gaborone.’

3.8.2.5. Verbs that do not express movement

Verbs that do not express movement freely combine with locatives expressing the location of the event or of a participant, as already illustrated by Ex. (30a) above, but the use of the applicative form is obligatory to license the presence of a locative whose semantic role departs more or less from the mere indication of a location. For example, Tswana syntax is sensitive to the difference in the semantic role of *in the yard* and *in the big pot* in *She is cooking porridge in the yard* / *She is cooking porridge in the big pot*. In the first sentence, *in the yard* expresses nothing more than the location of the event, whereas in the event represented by the second sentence, the pot contains the porridge, which justifies to code it as a locative, but it also plays the role of an instrument in the cooking event. In other words, the spatial relationship between the pot and the porridge is not accidental; it follows from the role they play in the cooking event. Consequently, in the Tswana equivalent of *She is cooking porridge in the yard*, the verb *cook* can remain in its non-derived form, whereas in the equivalent of *She is cooking the porridge in the big pot*, the verb *cook* must be in the same applicative form as when, for example, a noun phrase referring to a beneficiary is added to the construction of this verb, and the applicative derivation must be reiterated in order to make it possible to mention both the vessel used to cook the porridge and the beneficiary of the cooking event – Ex. (32).

(32) Tswana (Bantu – pers.doc.)

(32a) **Lòráǰó ’ó-tláá-àpày-à mò-tǰ:χǰ.**

(CL1)Lorato A.CL1-FUT-cook-FV CL3-porridge

‘Lorato will cook the porridge.’

(32b) **Lòráǰó ’ó-tláá-àpè-él-à b-àná mó-tǰ:χǰ.**

(CL1)Lorato A.CL1-FUT-cook-APPL-FV CL2-child CL3-porridge

‘Lorato will cook the porridge for the children.’

(32c) **Lòráító** **‘ó-tláá-àpè-èl-à** **mò-tòǵó**
 (CL1)Lorato A.CL1-FUT-cook-APPL-FV CL3-porridge

mó pìtsé-ḡ **é** **‘tò:nà.**
 LOC (CL9)pot-LOC (CL9)LK (CL9)big
 ‘Lorato will cook the porridge in the big pot.’

(32d) **Lòráító** **‘ó-tláá-àpè-èl-èl-à** **b-àná** **mó-tòǵó**
 (CL1)Lorato A.CL1-FUT-cook-APPL-APPL-FV CL2-child CL3-porridge

mó pìtsé-ḡ **é** **‘tò:nà.**
 LOC (CL9)pot-LOC CL9.LK (CL9)big
 ‘Lorato will cook the porridge for the children in the big pot.’

Ex. (33) provides additional illustrations of the obligatory use of applicative forms of verbs that do not express movement combined with a locative phrase referring to a participant whose role implies a spatial relationship with another participant, or more generally, a locative phrase whose semantic role is not limited to mere location.

(33) Tswana (Bantu – pers.doc.)

(33a) **Dì-q^hòmó** **‘dí-nw-él-à** **mó** **mò-kórô:-ḡ.**
 CL8/10-cow A.CL8/10-drink-APPL-FV LOC CL3-*mokoro*-LOC
 ‘Cows drink from a *mokoro*.’ (a tree trunk carved in the shape of a canoe)

(33b) **Rí-kwál-él-à** **mó** **pámpiri:-ḡ.**
 A.1PL-write-APPL-FV LOC (CL9)paper-LOC
 ‘We write on paper.’

Instruments usually represented by locatives in this type of construction by virtue of the spatial relationship they necessarily have with another participant share with more typical instruments (encoded by means of the instrumental preposition **ká**) the possibility of being encoded also as the A term in the construction of applicative verb forms, as illustrated by Ex. (34), to be compared with Ex. (28) above.

(34) Tswana (Bantu – pers.doc.)

(34a) **Mò-sádí** **ó-nè** **à-tsh^hòl-èl-à** **bò-ǵóbé**
 CL1-woman A.CL1-AUX A.CL1-dish_out-APPL-FV CL14-porridge

mó m̀-ǵópô:-ḡ.
 LOC CL4-wooden_bowl-LOC
 ‘The woman dished out the porridge into the wooden bowls.’

(34b) **Mò-ǵópó** **‘ó-tsh^hòl-èl-à** **bò-ǵô:bè.**
 CL3-wooden_bowl CL3-dish_out-APPL-FV CL14-porridge
 ‘The wooden bowl is used to dish out porridge.’

Similarly, ‘the *mokoro* used to water cows’ is **mòkórò ó ‘ónwélàḡ díq^hòmó** lit. ‘the *mokoro* that drinks.APPL cows’, ‘coffee-cup’ is **kópì é ‘ínwélàḡ ‘kófi** lit. ‘the cup that drinks.APPL

coffee’, ‘room used to do the cooking’ is **ntlò é ‘íápéèlàḡ** lit. ‘the room that cooks.APPL’, etc.

3.2.8.6. *Applicative derivation and the focalization of locative phrases*

In constructions including a locative phrase that does not necessarily trigger the use of the applicative form of the verb, the applicative form of the verb can be used to focalize the locative phrase, without any change in the construction or in the semantic roles. Interestingly, this use of the applicative derivation is strictly limited to constructions including a locative phrase whose semantic role does not trigger the use of the applicative form of the verb. It constitutes an alternative to cleft constructions, which are in Tswana the standard way to express focalization.

For example, in Ex. (30) above, repeated here as (35), the second sentence is in fact ambiguous between an interpretation according to which the applicative suffix codes a change in the role-assigning properties of **tábóχá** (‘I will run *to* the road (not *on* the road)’), and another interpretation according to which the applicative suffix codes the focalization of a locative phrase without modifying its semantic role of location.

(35) Tswana (Bantu – pers.doc.)

(35a) **Kì-tlàà-tábóχ-à kó tsilê:-ḡ.**

A.1SG-FUT-run-FV LOC (CL9)road-LOC
 ‘I will run on the road.’

(35b) **Kì-tlàà-tábóχ-él-à kó tsilê:-ḡ.**

A.1SG-FUT-run-APPL-FV LOC (CL9)road-LOC
 (a) ‘I will run to the road.’
 (b) ‘I will run ON THE ROAD (and nowhere else).’

This ambiguity is general with verbs of movement that must be used in the applicative form in order to be able to assign the role of destination to locative phrases: the same applicative form can always be also used to focalize a locative phrase in the role of location. But with verbs whose applicative form cannot be used to assign the role of destination to a locative phrase that otherwise would be interpreted as expressing location, the focalization of a locative phrase is the only possible function of an applicative verb form used in a construction identical to that of the non-applicative form of the same verb. Ex. (36) illustrates applicative forms whose only possible interpretation is that they focalize a locative phrase expressing location. In Tswana, contrary to what could suggest the use of the applicative derivation with verbs such as **tábóχá**, a directional interpretation of the applicative form of verbs that do not express movement is not possible.

(36) Tswana (Bantu – pers.doc.)

(36a) **Lòráṭó ‘ú-ápé-él-à mó dzáràtê:-ḡ.**

(CL1)Lorato A.CL1-cook-APPL-FV LOC (CL9)yard-LOC
 ‘Lorato does the cooking IN THE YARD.’

(36b) **Mò-ńná w-á-mí ‘ú-sw-éts-ì kó mò-ráfô:-ḡ.**

CL1-man CL1-GEN-1SG A.CL1-die-APPL.PRF-FV LOC CL3-mine-LOC
 ‘My husband died IN THE MINE.’

This possibility of using the immediate-after-verb position for particular discursive purposes rather than assigning it automatically to a particular argument is confirmed by the existence of the inversion construction illustrated in (38).²⁷ Interestingly, interrogative words cannot occupy the canonical U position, even if they fulfill a semantic role normally assigned in this position, but can occur as inverted U's – Ex. (38c-d).

(38) Tswana (Bantu – pers.doc.)

(38a) **Bà-símàní 'bá-tláà-bî:n-à.**

CL2-boy A.CL2-FUT-dance-FV
'The boys will dance.'

(38b) **χó-tláà-bín-á bà-símà:ní.**

A.CL17-FUT-dance-FV CL2-boy
'There will be a dance performed by (the) boys.' (lit. 'There will dance boys.')

(38c) **χó-tláà-bín-á 'bó-mâ:ŋ?**

A.CL17-FUT-dance-FV CL2-who
'Which persons will dance?' (lit. 'There will dance which persons?')

(38d) ***Bó-máŋ 'bá-tláà-bî:n-à?**

CL2-who A.CL2-FUT-dance-FV

The function of this inversion construction with an expletive class 17 index in the verb form is U detopicalization. This is a so-called 'presentational' construction encoding that the argument which otherwise would be encoded as a preverbal U refers to new information. In Tswana, interrogative words cannot function as canonical U's, because of a general ban on non-topical A's or U's, but the inversion construction can be used to get round this constraint.

In this connection, it is also interesting to observe that a handful of Tswana verb are attested with another inversion construction, clearly residual in Tswana (but productive in other Bantu languages – see Section 4.8), whereby the U term of the non-inverted construction moves to immediate-after-verb position, and a phrase referring to a participant encoded as a locative oblique in the non-inverted construction is encoded as the A term of a transitive construction.

(39) Tswana (Bantu – pers.doc.)

(39a) **Mà-dí á-tsw-à mó ñt^hô:-ŋ.**

CL6-blood A.CL6-come from-FV in (CL9)wound-LOC
'The blood is flowing out from the wound.'

(39b) **Ñt^hó 'í-tsw-á mà:-dí.**

(CL9)wound A.CL9-come_from-FV CL6-blood
'The wound is bleeding.' lit. 'The wound flows out blood.'

²⁷ For a detailed analysis of this construction, see Creissels (2011).

(40) Tswana (Bantu – pers.doc.)

(40a) **Dàkà j-á-sì-tswáná ʔí-áχ-íl-è**
 (CL9)doctor CL9-GEN-CL7-Tswana A.CL9-settle-PRF-FV

mó mó-tsi-ŋ lí-bâ:-tʰò.
 in CL3-village-LOC with-CL2-person

‘The traditional doctor lives in the village with the people.’

(40b) **Lì-fátsʰì l-é ʔí-áχ-íl-é Bà-sâ:rwà.**
 CL5-territory CL5-dem A.CL5-settle-PRF-FV CL2-San

‘This territory is inhabited by San.’ lit. ‘This territory settles San.’

Here again, as reflected in the translations, U demotion involving movement to immediate-after-verb position is motivated by a change in information structure.

To conclude, applicative derivation and placement of constituents in immediate-after-verb position in constructions that trigger no morphological marking on the verb share an important particularity: both are crucially involved in the particular way the general notion of P is codified in Tswana morphosyntax, but both have uses that cannot be described adequately with reference to argument structure only, and necessitate taking into account information structure. A clue to this puzzle must probably be sought in an ancient state of Bantu syntax in which constituent order was less grammaticalized, more flexible and more sensitive to variations in information structure than in modern Bantu languages. Very general principles governing the most basic aspects of the syntactic organization of languages seem to be at play here:

- (a) as a core term of transitive clauses, P shares with A the property of representing a participant in the event that has intrinsically a certain degree of salience;
- (b) as opposed to A, which typically represents the initiator of the event, and consequently tends to be taken as the initial term from the point of view of communicative dynamism too, P is characterized by a lesser degree of topicality. (cf. Dalrymple & Nikolaeva 2011)

However, before trying to evaluate the possible diachronic scenarios (the one according to which the use of applicative derivation as a focalizing device would be an innovation of some Bantu languages, as suggested by current Bantu reconstructions, and the one according to which a suffix originally involved in the expression of information structure got syntacticized to a considerable extent), it would be crucial to gather more data on the focalizing use of applicative derivation across Bantu language family, and possibly also in other language families having applicatives.

3.3. Some rare types of valency increasing derivations

3.3.1. The possessive voice of Wolof

Wolof (Atlantic) has a particularly rich and original system of valency-changing derivations, described in detail by Nougulier-Voisin (2002, 2011). This system includes a suffix **-le** encoding the following type of valency change: intransitive verbs become transitive, their U argument is demoted to P, and the A term in the construction of the derived verb represents a possessor. To put it somewhat differently, an additional argument with the semantic role of

possessor is introduced in A position, whereas the P term in the construction of the derived possessive verb cumulates the role of possessee and the semantic role assigned to the U argument of the base verb. The resulting construction can be viewed as a particular variety of morphologically marked external possession construction.

(41) Wolof (Atlantic – Voisin-Nouguier 2002: 383)

(41a) **Woto bi gaaw na.**
 car CLb-D be_fast PRF.3SG
 ‘The car is fast.’

(41b) **Sàmba gaaw-le na woto.**
 Samba be_fast-POSS PRF.3SG car
 ‘Samba has a fast car.’

To summarize, the derived possessive verbs of Wolof occur in a transitive construction A V-le P that can be glossed as ‘A is the possessor of a P that has the property expressed by V’.

This derivation has a valency-increasing effect, which however differs from that induced by causative or applicative markers.

The productivity of the possessive suffix **-le** is limited to a class of intransitive verbs assigning non-agentive roles to their U argument, such as **dee** ‘die’ or **réer** ‘get lost’. It is particularly common with verbs expressing meanings that, cross-linguistically, tend to be encoded by adjectives, such as **rafet** ‘be beautiful’, **baax** ‘be good’.

(42) Wolof (Atlantic – Voisin-Nouguier 2010: 384)

(42a) **Baax-le na ay tééré.**
 be_good-POSS PRF.3SG INDEF.PL book
 ‘He has good books.’

(42b) **Góor g-ii, moo dee-le jabar.**
 man CLg-DEM SFOC.3SG die-POSS wife
 ‘This man’s wife is dead.’
 (French: ‘Cet homme a sa femme qui est morte’)

(42c) **Maa réer-le xar.**
 SFOC.1SG be_lost-POSS sheep
 ‘My sheep got lost.’
 (French: ‘J’ai un mouton de perdu’)

Typologically, it is worth noting that other languages have semantically comparable derivations: the ‘adversative passive’ in Japanese – Ex. (43), and the combination of applicative and passive derivation in Bantu languages – Ex. (44). What is however particular in the case of Wolof is the use of a specific suffix that does not lend itself to any decomposition within the frame of a synchronic analysis.²⁸

²⁸ See Nouguier (2002) for the discussion of a possible diachronic analysis of possessive **-le**.

(43) Japanese (Martin, 1956:400-401)

Watakushi-wa hon-o tor-are-ta.
 1SG-TOP book-ACC take-PASS-PST
 ‘I had my book taken.’ (lit. ‘I was taken a book.’)

(44) Tswana (Bantu – pers.doc.)

Ba-tho ba-š-el-w-a ke ma-ntlo.
 CL2-person A.CL2-burn-APPL-PASS-FV by CL6-house
 ‘People’s houses are burning.’ (lit. ‘People are burnt-for by houses.’)

3.3.2. Others

Some rare types of valency-increasing mechanisms resulting probably from the univerbation of various types of complex predicates are attested in Eskimo languages. In Ex. (45), the suffix **-yuk-** (glossed ‘believe’, although it is not attested independently as a verb) encodes the addition of a phrase representing a ‘believer’ in A role. If the base verb is intransitive, its U argument is encoded as P in the construction of the derived verb. If it is transitive, its A argument is demoted to oblique (marked by the Allative case).

(45) Yup’ik (Mithun 2000)

(45a) **Angun ayag-tuq.**
 man go-DECL.U.3SG
 ‘The man went away.’

(45b) **Nuk’a-m angun ayag-yuk-aa.**
 Nuk’aq-ERG man go-believe-DECL.A.3SG.P.3SG
 ‘Nuk’aq believes that the man went away.’

(45c) **Angute-m kiput-aa kelipaq.**
 man-ERG buy-DECL.A.3SG.P.3SG bread
 ‘The man bought the bread.’

(45d) **Nuk’am angut-mun kipu-cuk-aa kelipaq.**
 Nuk’aq-ERG man-ALL buy-believe-DECL.A.3SG.P.3SG bread
 ‘Nuk’aq believes that the man bought the bread.’

3.4. Voice combinations

3.4.1. Combinations of voices with a compositional meaning

Ex. (46) shows that Tswana verb forms already including voice markers may take further voice markers with a fully compositional meaning.

- (46) Tswana (pers.doc.)
- (46a) **Kì-tlàà-kwál-á lò-kwâ:lò.**
 A.1SG-FUT-write-FV CL11-letter
 ‘I will write a letter.’
- (46b) **Lò-kwáló ’lò-tlàà-kwâ:l-w-à.**
 CL11-letter A.CL11-FUT-write-PASS-FV
 ‘The letter will be written.’
- (46c) **Kì-tlàà-kwál-él-á M̀p̀h̄́ lò-kwâ:lò.**
 A.1SG-FUT-write-APPL-FV (CL1)Mpho CL11-letter
 ‘I will write a letter to Mpho.’
- (46d) **Kítsó ’ó-tlàá-̀̀-̀̀-kwád-ís-á lò-kwâ:lò.**
 (CL1)kitso A.CL1-FUT-P.1SG-write-CAUS-FV CL11-letter
 ‘Kitso will make me write a letter.’
- (46e) **Kítsó ’ó-tlàà-kwád-ís-éts-à M̀p̀h̄́ lò-kwâ:lò.**
 (CL1)kitso A.CL1-FUT-write-CAUS-APPL-FV (CL1)Mpho CL11-letter
 ‘Kitso will make someone write a letter to Mpho.’
- (46f) **M̀p̀h̄́ ’ó-tlàà-kwál-él-w-á lò-kwâ:lò.**
 (CL1)Mpho A.CL1-FUT-write-APPL-PASS-FV CL11-letter
 ‘A letter will be written to Mpho.’
- (46g) **Kì-tlàà-kwád-ís-íw-à lò-kwâ:lò.**
 A.1SG-FUT-write-CAUS-PASS-FV CL11-letter
 ‘Someone will make me write a letter.’
- (46h) **M̀p̀h̄́ ’ó-tlàà-kwád-ís-éd-ìw-à lò-kwâ:lò.**
 (CL1)Mpho A.CL1-FUT-write-CAUS-APPL-PASS-FV CL11-letter
 ‘Someone will make someone else write a letter to Mpho.’

This phenomenon is not general, and many languages have arbitrary restrictions on the stacking of voice markers. For example, French and Italian have very similar passive and causative constructions, but passivization of causative constructions is ungrammatical in French, whereas it is acceptable in Italian (as in **Fummo fatti scendere**, lit. ‘We were made go down’).

In this connection, it is interesting to observe that, when working with consultants, one often gets the impression that speakers may feel uncomfortable processing verb forms including two or more voice markers. And even if they have no problem with the verb form itself, they may have problems with constructions in which all the participants it implies are overtly expressed.

3.4.2. Combinations of voices with non-compositional interpretations

Another interesting phenomenon is that, depending on the individual languages, some combinations of voices may lend themselves to non-compositional interpretations. Here are some examples:

- In French, ‘reflexive + causative’ (compositional meaning: Causer_i makes unspecified Causee act on Self_i) can be interpreted as synonymous with passive;
- In Tswana, Mandinka, Jóola, etc. ‘reflexive + causative’ can express a simulative meaning (‘pretend to V’);
- In Tswana, ‘reflexive + applicative’ can express ‘enjoy V-ing’;
- In Tswana, the stacking of two applicative suffixes may be used with its compositional meaning (as in **kwálá** ‘write’ > **kwál-él-él-à** ‘write to someone on behalf of someone else’, but it may also encode intensity of action without any change in the valency).

The honorific use of voice in Classical Nahuatl is particularly interesting. The general rule is that the combination ‘reflexive + causative’ is used as the honorific form of intransitive verbs, whereas the combination ‘reflexive + applicative’ is used as the honorific form of transitive verbs.

(47) Classical Nahuatl (Launey 1981)

(47a) **Ti-mo-cochī-tia.**

A.2SG-MID-sleep-CAUS

lit. ‘You are making yourself sleep.’ > ‘You are sleeping.’ (hon.)

(47b) **Ø-Qui-mo-chihu-ilia.**

A.3SG-P.3SG-MID-do-APPL

lit. ‘He is doing it for himself.’ > ‘He is doing it.’ (hon.)

4.2. Inflectional classes of verbs and valency (inflectional voices)

The valency alternations described in Lessons 2 and 3 can be characterized as ‘derivational voices’, but the valency operations they express may also be encoded, at least to some extent, through verb inflection.

In the languages in which verbs divide morphologically into two or more inflectional classes, it may happen that verbs with similar valency properties tend to group into the same inflectional class, and that a given verb stem changes its valency depending on the inflectional class in which it is conjugated. In such cases, there is generally a default (or unmarked) voice, in which verbs with all possible kinds of valency patterns can be found, and one or two marked voices characterized by a clear predominance of verbs with a given type of valency pattern. Traditionally, the unmarked voice in such systems is designated as the ‘active’ voice, and labels such as ‘passive’ or ‘middle’ are used for the other one(s).

Ancient Greek had three inflectional voices (active / middle / passive), and this system has been reduced to a binary system (active / mediopassive) in Modern Greek. Latin had a binary system in which the marked voice is traditionally designated as ‘passive’, although ‘mediopassive’ would certainly be more appropriate, since this voice is widely attested in typically middle functions – Ex. (2).

(2) Latin (Ernout & Thomas 1953)

(2a) **Magister pueros laud-at.**

teacher boy.PL.ACC congratulate-PRS.3SG
‘The teacher is congratulating the boys.’

(2b) **Pueri a magistro laud-antur.**

boy.PL by teacher.ABL congratulate-PRS.3PL.MDPASS
‘The boys are congratulated by the teacher.’

(2c) **Pueri exerc-ebantur.**

boy.PL practice-IPRF.3PL.MDPASS
‘The boys were practicing.’

(2d) **Copul-antur dexteras.**

join-PRS.3PL.MDPASS right_hand.PL.ACC
‘They are shaking hands.’

(2e) **Laet-antur.**

rejoice-PRS.3PL.MDPASS
‘They are rejoicing.’

A system of inflectional voice very similar functionally to the Ancient Greek system is found in Fulfulde – Ex. (3).

(3) Fulfulde (pers.doc.)

(3a) **O mooft-ii be.**

A.CLo gather-CPL P.CLbe
‘He gathered them.’

(3b) **Be moobt-aama.**
 A.CLo gather-PASS.CPL
 ‘They were gathered.’

(3c) **Be moobt-iima.**
 A.CLo gather-MID.CPL
 ‘They gathered.’

Balant Ganja also has a ternary system of inflectional voice, in which however the two marked voices must rather be characterized as ‘mediopassive’ and ‘causative’ (Creissels and Biaye 2016).

Diachronically, a possible source of inflectional voice is the fusion of inflectional affixes of the type commonly found in verb inflection with derivational affixes encoding valency alternations. Another possible source is the univerbation of analytic verb forms in systems characterized by a relationship between auxiliary selection and valency (cf. Section 4.3).

4.3. Auxiliary selection and valency

In Basque, with the exception of a limited number of verbs that have synthetic finite forms, all finite verb forms are analytical (auxiliary + non-finite form), and two distinct auxiliaries are used: ‘be’ with the verbs whose coding frame includes no Ergative-marked argument, and ‘have’ with the verbs that have an Ergative-marked argument in their coding frame. A high proportion of verbs can combine with both auxiliaries without changing their form. With the verbs in question, auxiliary selection expresses the same type of valency alternation as anticausative derivation in other languages.

(4) Basque (pers.doc.)

(4a) **Hurrek ispilua puskatu dute.**
 child.PL.ERG mirror.SG break.CPL have.A.3SG.P.3PL
 ‘The children broke the mirror.’

(4b) **Ispilua puskatu da.**
 mirror.SG break.CPL be.P.3SG
 ‘The mirror broke.’

4.4. A note on unexpressed arguments

Before discussing lability and ambitransitivity, some precisions are in order about the question of unexpressed arguments, since languages greatly differ in the way they regulate the possibility of leaving core arguments unexpressed, either with an anaphoric or unspecified reading. Moreover, in this respect, the definitions found in most elementary handbooks, according to which an essential property of arguments is their ‘obligatoriness’, are quite misleading.

It is true that, in some languages (for example, in most Mande languages), there is a total ban on unexpressed core arguments, but in the languages of the world, this situation is rather exceptional, and some languages (for example, Japanese) are extremely liberal about the possibility of leaving core arguments unexpressed, either with an anaphoric or unspecified reading.

The cross-linguistic variation in the regulation of unexpressed arguments can be illustrated by the contrast between most European languages and Turkish as regards the interpretation of unexpressed P's. In European languages, the mere omission of the P term of a transitive clause is a common strategy for leaving the P argument unspecified. By contrast, in Turkish, null P's have an anaphoric rather than arbitrary reading, and the cognate-P strategy is widely used to encode unspecific P's. Ex. (5) illustrates the anaphoric reading of null P's. The cognate-P strategy can be illustrated by **örgü örmek** lit. 'knit the knitting' > 'knit (an unspecified thing)', **dikiş dikmek** lit. 'sew the sewing' > 'sew (an unspecified thing)'.

(5) Turkish (Göksel & Kerslake 2005:140-1, 537-8)

(5a) **–Bu ev-i bir gün mutlaka el-de ed-eceğ-im.**
 DEM house-ACC one day certainly hand-LOC do-FUT-1SG
 '–I will certainly get this house one day.'

–Ne-den bu kadar çok ist-iyor-sun?
 what-ABL DEM like much want-PRS-2SG
 '–Why do you want [it] so much?'

(5b) **Ayşe'yi gör-dü-m ve çok sev-di-m.**
 Ayşe-ACC see-CPL-1SG and much like-CPL-1SG
 'I saw Ayşe and liked [her] very much.'

Similarly, in Mandarin Chinese, a null P in the construction of 'eat' can only be interpreted as anaphoric, and lit. 'eat rice' is the usual way of referring to an eating event without specifying the P argument.

As illustrated by Ex. (6), in Basque, some transitive verbs at least equally allow for an anaphoric or unspecific reading of an unexpressed P. In Basque, the use of third person indexes with no corresponding noun phrase constitutes the usual strategy to encode that the argument in question must be identified anaphorically, but in the case of arguments in the Zero case (including P's), constructions with a third person singular index and no corresponding noun phrase may be ambiguous between an anaphoric and a non-specific reading.

(6) Basque (pers.doc.)

(6a) **Bilbon ikasi dut.**
 Bilbao.LOC learn.CPL PRS.A.1SG.P.3SG
 'I learnt it in Bilbao.' OR 'I studied in Bilbao.'

(6b) **Jonek erretzen du.**
 Jon.ERG burn.ICPL PRS.A.3SG.P.3SG
 'Jon burns/smokes it.' OR 'Jon smokes (= is a smoker).'

4.5. Ambitransitivity

4.5.1. A terminological clarification

'Labile' can be found in the literature with broader or narrower definitions. In this course, I use 'labile' in the broadest sense: a verb is designated as labile if it can be involved in a

valency alternation without any formal change, whatever the precise nature of the valency alternation in question.

Note however that, in the case of polysemous verbs, the property of being labile or not must be evaluated separately for each possible meaning. For example, the fact that the French verb **prendre** ‘take’ is used intransitively in (7) does not justify considering it as labile. Rather, **prendre** ‘take’ is transitive in some of its possible meanings, intransitive in some others.

(7) French

Le feu a pris.
 the fire has taken
 ‘The fire started.’

According to the definition of lability retained here, ambitransitivity, defined as the ability for verbs to be used transitively or intransitively without any formal change, is a particular case of lability. Several types of ambitransitivity can be distinguished, according to the relationship between the semantic roles assigned by the ambitransitive verb in its transitive and in its intransitive use.

4.5.2. Major types of ambitransitivity

Dixon (1994) introduced a distinction between *P-lability* (or *patient-preserving lability* – Ex. (8)) and *A-lability* (or *agent-preserving lability* – Ex. (9)), which unquestionably constitute the two major types of ambitransitivity.

(8) English

(8a) **I broke the stick.**

(8b) **The stick broke.**

(9) English

(9a) **John is drinking tea.**

(9b) **John is drinking.**

4.5.3. A typology of ambitransitivity

4.5.3.1. Introductory remarks

The typology of ambitransitivity I propose is based on three logically independent parameters:

- a first distinction between *A-lability*, *P-lability*, *reflexive lability*, and *reciprocal lability*,
- a second (semantic) distinction between *argument structure preserving* and *argument structure modifying ambitransitivity*,
- a third (formal) distinction between *weak* and *strong ambitransitivity*.

Note that some of the theoretically possible combinations of values of these three parameters may be unattested, but I will not try to be more precise on this point.

4.5.3.2. *A-lability, P-lability, reflexive lability, and reciprocal lability*

This distinction takes into account the relationship between the semantic role of U in the intransitive use of an ambitransitive verb and the semantic roles assigned to A and P in the transitive use of the same verb: the semantic role of U in the intransitive use of the ambitransitive verb may coincide with that of A (A-lability, cf. Ex. (9) above) or with that of P (P-lability, cf. Ex. (8) above), but it may combine both roles, with two possibilities: either the ambitransitive verb in its intransitive use represents an event conceived as reflexive, as in (10) (reflexive lability), or an event conceived as reciprocal, as in (11) (reciprocal lability).

(10) English

(10a) **The mother washed the child.**

(10b) **The child washed.**

(11) English

(11a) **John kissed Mary.**

(11b) **John and Mary kissed.**

4.5.3.3. *Argument structure preserving vs. argument structure modifying ambitransitivity*

The semantic distinction between *argument structure preserving* and *argument structure modifying ambitransitivity* is defined as follows:

- in *argument structure preserving* ambitransitivity, the verb in its intransitive use implies the same participants with the same roles as in its transitive use, but in the intransitive use, one of the participants is demoted to oblique or left unexpressed;
- in *argument structure modifying* ambitransitivity, the intransitive use of the ambitransitive verb implies a single participant whose role may be related in various ways to the roles the ambitransitive verb assigns to two distinct participants in its transitive use.

In other words, argument structure preserving ambitransitivity is semantically similar to the valency-decreasing derivations that do not affect the argument structure of transitive verbs (passive and antipassive), whereas argument structure modifying ambitransitivity is semantically similar to the valency-decreasing derivations that modify the argument structure of transitive verbs.

For example, contrary to **John is drinking tea / John is drinking**, which illustrates argument structure preserving ambitransitivity, **The child broke the vase / The vase broke** is undoubtedly an instance of argument structure modifying ambitransitivity, since the intransitive construction does not imply the involvement of an agent (in other words, **The vase broke** is not synonymous with **The vase has been broken**).

4.5.3.4. *Weak vs. strong ambitransitivity*

The formal distinction between *weak* and *strong* ambitransitivity is defined as follows:

- in *weak* ambitransitivity, the only core argument of the intransitive construction is encoded exactly like the argument with a similar or identical role in the transitive construction, and superficially, the two constructions show no other formal distinction than the presence vs. absence of a noun phrase (as in English **John is drinking tea / John is drinking**);
- in *strong* ambitransitivity, the two constructions differ formally in other respects than the mere presence vs. absence of a nominal term, either because the only core argument of the intransitive construction is encoded differently from the argument with a similar or identical role in the transitive construction (as **the vase** in English **The vase broke / The child broke the vase**), or for other reasons, for example transitivity marking, as in Example (12).

(12) Mandinka

(12a) **Mòólú yè bâa tée.**
 people.D.PL CPL.TR river.D cross
 ‘The people crossed the river.’

(12b) **Mòólú tée-tà.**
 people.D.PL CPL.INTR
 ‘The people crossed.’

In (12a) and (12b), **mòólú** ‘the people’ shows the same coding properties, but Mandinka has two partially distinct sets of TAM-polarity markers in transitive and intransitive constructions, and consequently ‘completive positive’ is marked by **yè** in the transitive use of **tee** ‘cross’ and **-tà** in its intransitive use.

Note that the examples given above show the independence of the two parameters *argument structure preserving vs. modifying* and *weak vs. strong*: the English example **John drinks (tea)** and the Mandinka example **Mòólú tée-tà / Mòólú yè bâa tée** are two instances of argument structure preserving ambitransitivity, but **John drinks (tea)** is a case of weak ambitransitivity, whereas **Mòólú tée-tà / Mòólú yè bâa tée** illustrates strong ambitransitivity.

In fact, the distinction between weak and strong lability is conditioned by the alignment property of the language and the existence of transitivity marking. In languages like Mandinka, in which the distinction between transitive and intransitive predication is overtly marked (for example, by the choice between two distinct sets of TAM markers), weak ambitransitivity cannot exist. By contrast, in the absence of overt transitivity marking, obligatory A coding (‘accusative’) languages (like English) can only have weak A-lability and strong P-lability, whereas obligatory P coding (‘ergative’) languages can only have strong A-lability and weak P-lability.

Ex. (13) shows that, in an obligatory P coding language such as East Uvean, the intransitive use of A-labile verbs triggers a change in the flagging of A converted into the U term of an intransitive predication.

(13) East Uvean (Claire Moyse, pers.com.)

(13a) **'E huō e Soane tana gāue'aga 'ufi.**
 NPST weed ERG Soane his field yam
 'Soane is weeding his yam field.'

(13b) **'E huō ia Soane**
 NPST weed ABS Soane
 'Soane is weeding.'

Dargi languages are an interesting example of obligatory P coding languages with a phenomenon of A-lability (misleadingly described by most authors as an instance of antipassivization) whose analysis is made difficult by the polyfunctionality of the Ergative case used in Dargi languages to flag agents. The point is that the same morphological case is also used to flag some types of obliques (in particular, instrumental adjuncts), and in the intransitive construction of A-labile verbs, the oblique term corresponding to the P term of the transitive construction is Ergative-marked, which may give the impression that the core terms of the transitive construction exchange their roles – Ex. (14).

(14) T'ant'i Dargi (Sumbatova & Lander 2014: 270)

(14a) **Murad-li T'ant'i-d qul-re d-irq'-u-le=sa-j.**
 Murad-ERG T'ant'i-NPL(LOC) house-PL NPL-make.IPF-PRS-CONV=COP-M
 'Murad is building houses in T'ant'i.' (basic transitive construction)

(14b) **Murad T'ant'i-w qul-ra-li w-irq'-u-le=sa-j.**
 Murad T'ant'i-M(LOC) house-PL-ERG M-make.IPF-PRS-CONV=COP-M
 'Murad is building houses in T'ant'i.' (intransitive variant of (a))

What is decisive for a correct analysis of A-lability in Dargi languages is the observation of agreement. As illustrated by Ex. (14a), in the basic transitive construction, both A and P act as agreement controllers: in the glosses, M (masculine) indicates agreement with the agent **Murad**, whereas NPL (non-human plural) indicates agreement with the patient **qul-re** 'houses'. By contrast, Ergative-marked obliques do not intervene in agreement mechanisms, and in intransitive predication, all agreement mechanisms are controlled by the unique core argument. Consequently, the fact that all the agreement marks in (14b) are masculine must be analyzed as evidence that the patient has been demoted to Ergative-marked oblique, and that the Zero-marked NP representing the agent is the U term of an intransitive predication.

4.5.4. Two semantic types of P-lability

P-labile verbs are verbs that can be used in their underived form either transitively, or intransitively with a U term undergoing the same process as the P term of the transitive construction. However, this definition encompasses two semantic varieties of P-lability:

- *(anti)causative lability*, if the U term of the intransitive construction represents a participant undergoing the same process as the P argument of the transitive construction, but not necessarily as the result of the action of an agent,
- *active / passive lability*, if the intransitive construction implies the participation of an unexpressed agent.

Cross-linguistically, (anti)causative lability, illustrated by English **break**, is extremely common, and its existence has long been widely acknowledged in typological investigations of valency changes, whereas until not long ago, the very possibility of active / passive lability was either ignored or even explicitly denied by typologists working on valency-decreasing derivations (Haspelmath 1990). Arka & Kosmas (2005) on Manggarai (Austronesian) and Lüpke (2005) on Jalonke (Mande) are to the best of my knowledge the first published works that have explicitly argued the case for the recognition of zero-coded passives (aka bare-passives), but this recognition was implicit in many previously published descriptions of languages belonging to various families, both within and outside Africa (for a review, see Cobbinah and Lüpke (2009)).

The Mande language family shows a particular concentration of languages with more or less productive zero-coded passives, or active/passive lability (Lüpke (2007), Cobbinah and Lüpke (2009)). Manding languages illustrate the extreme case of languages which have no strictly transitive verb, and a very restricted class of A-labile verbs, but in which all the verbs that have a transitive use can also be used intransitively in their underived form with a passive reading.

In language description, the analysis of ambitransitivity is conditioned not only by the alignment properties of the languages, but also by the existence of a more or less clear-cut distinction between transitive and intransitive predications – Creissels (2014). In Mandinka and other Mande languages, the analysis of ambitransitivity is facilitated by the rigidity of the A/U P V X constituent order and the total ban on null core arguments: in Mande languages, a single NP in preverbal position in assertive or interrogative clauses can only be the U term of an intransitive construction. Moreover, some TAM-polarity markers may have variants conditioned by the *transitive vs. intransitive* nature of the predicative construction.

For example, in (15b), the absence of any specific passive marking might suggest positing a null A with an arbitrary reading. However, if **kúlúŋò** were the P term of a transitive construction with a null A, the TAM-polarity marker would be **yè** preceding **kúlúŋò** rather than **-tá** suffixed to the verb, as in the ungrammatical sequence (15c).

(15) Mandinka (pers. doc.)

(15a) **Kèwôo yè kúlúŋò dádáa.**
 man.D CPL.TR boat.D repair
 ‘The man repaired the boat.’

(15b) **Kúlúŋò dádàa-tá.**
 boat.D repair-CPL.INTR
 ‘The boat will not be repaired.’

(15c) ***Ø yè kúlúŋò dádáa.**
 CPL.TR boat.D repair

Consequently, (15b) is not a transitive construction with a null A, but an intransitive construction expressing the same argument structure, in which the U term (**kúlúŋò**) has the same semantic role as the P term of the transitive construction (15a), whereas the participant expressed as A in the transitive construction is understood as non-specified – in other words, a zero-coded passive.

A decisive proof of the passive nature of the intransitive constructions involved in this active / passive alternation is their ability to include agent-oriented adverbs, such as

fèerèetò- ‘cleverly’ in Ex. (16b), since agent-oriented adverbs are impossible in anticausative constructions with inanimate U’s.

(16) Mandinka (pers. doc.)

(16a) **Kàmbàanô yè násò fèerèetò-bóŋ kòlòŋò kónò.**
 boy.D CPL.TR magic_water.D cleverly-pour well.D inside
 ‘The boy cleverly poured the magic water into the well.’

(16b) **Násò fèerèetò-bón-tà kòlòŋò kónò.**
 magic_water.D cleverly-pour-CPL.INTR well.D inside
 ‘The magic water was cleverly poured into the well.’

In spite of the absence of any specific passive morphology, the construction illustrated by sentences (15b) & (16b) is passive in the sense that the patient is the U term of an intransitive construction in which the agent is syntactically *demoted* without however being *deleted* from argument structure.

In Manding languages, the passive reading of such intransitive clauses is not bound to any particular condition on aspect, mood, or referentiality. Manding speakers use them in the same conditions, with the same freedom, and with the same semantic implications, as agentless passive clauses in languages that have a canonical and fully productive passive voice.

There is however an interesting difference between Mandinka and most other Manding languages in the syntactic properties of the zero-coded passive construction. In most Manding languages, intransitive clauses constituting the passive counterpart of a transitive clause may include an oblique representing the agent, as in Ex. (17).

(17) Bambara (pers. doc.)

(17a) **Wùlû má sògô dún.**
 dog.D CPL.NEG meat.D eat
 ‘The dog did not eat the meat.’

(17b) **Sògô má dún (wùlú fɛ̃).**
 meat.D CPL.NEG eat dog.D beside
 ‘The meat was not eaten (by the dog).’

This possibility does not exist in Mandinka. Interestingly, the passive clauses of Mandinka may include obliques marked by the same postpositions as those used to encode the demoted agent in the other Manding languages (i.e. postpositions whose basic meaning is reference to the personal sphere of an individual), but in the passive clauses of Mandinka, such obliques are interpreted as referring to a person who has some link with the event but does not play an active role in it, or to an involuntary agent, as in Ex. (18).

(18) Mandinka (pers. doc.)

Kódòò dómò-tá í fèe.
 money.D spend-CPL.TR 1SG beside
 ‘The money was spent without my knowing.’
 OR ‘I spent the money, but I did not do it on purpose.’

Interestingly, (anti)causative lability, which is cross-linguistically a much more widespread type of P-lability, is also found in Mandinka and other Manding languages. However, in Manding languages, contrary to active / passive lability, which is a property shared by all potentially transitive verbs, (anti)causative lability is a lexical property of individual verbs. As illustrated by Ex. (19), with the verbs that have this property, the intransitive construction is potentially ambiguous between an anticausative-like and a passive-like reading: sentence (19b) can be equally found in contexts unambiguously triggering an anticausative interpretation, and in others suggesting a passive interpretation.

(19) Mandinka (pers. doc.)

(19a) **Kèwôo yè sàajíyò fãa.**
 man.D CPL.TR sheep.D kill/die
 ‘The man killed the sheep.’

(19b) **Sàajíyò fãa-tà.**
 sheep.D kill/die-CPL.INTR
 ‘The sheep died.’ OR ‘The sheep was killed.’

Note that, irrespective of its precise interpretation, the Mandinka sentence (19b) is an instance of strong ambitransitivity, since TAM and polarity marking unambiguously designates **sàajíyò** ‘the sheep’ as the U term of an intransitive construction.

4.5.5. Two semantic types of A-lability

The distinction between argument structure preserving and argument structure modifying lability is less obvious in the domain of A-lability, since most of the A-labile verbs one may come across are equally bivalent in their transitive and intransitive uses. Argument structure modifying A-lability can however be illustrated by A-labile verbs that are clearly monovalent in their intransitive use, such as French **pleurer** ‘cry’, used transitively with the meaning ‘lament someone’s death’. Mandinka **jélè** ‘laugh’, used transitively with the meaning ‘make fun of someone’, is another good example.

(20) Mandinka (pers. doc.)

(20a) **Díndínò jélè-tá.**
 child.D laugh-CPL.INTR
 ‘The child laughed.’

(20b) **Díndínò yè í jélè.**
 child.D CPL.TR 1SG laugh
 ‘The child made fun of me.’

4.5.6. Underspecified ambitransitivity

By underspecified ambitransitivity, I mean the case of verbs that can be used in three different ways without any specific morphological marking: transitively, intransitively with the U term corresponding to the A term of the transitive construction, or intransitively with the U term corresponding to the P term of the transitive construction.

(21) Soninke (pers.doc.)

(21a) **Lémínèn ɲá qátìn mìníní bà?**
 child.D ICPL milk.D drink.GER Q
 ‘Is the child drinking the milk?’

(21b) **Lémínèn ɲá mìníní bà?**
 child.D ICPL drink.GER Q
 ‘Is the child drinking?’

(21c) **Jí ké wá mìníní bà?**
 water DEM ICPL drink.GER Q
 ‘Is this water safe to drink?’ lit. ‘Does this water drink?’

(22) Samoan (Mosel & Hovdhaugen 1992: 718, 108)

(22a) **Sā 'ai e le teine le i'a.**
 PST eat ERG DEF girl DEF fish
 ‘The girl ate the fish.’

(22b) **Sā 'ai le i'a.**
 PST eat DEF fish
 ‘The fish ate.’ OR ‘The fish was eaten.’

4.6. A-P reversal

Given the terminological system used in this course, *A-P reversal* is a convenient label for a type of valency alternation that has been described in several Bantu languages under the name of ‘subject-object reversal’. As illustrated by Ex. (23), in A-P reversal, like in P-lability, one of the two alternative constructions clearly has all the properties of a canonical transitive construction, and the other construction can be described in terms of P promotion and A demotion. P promotion is evidenced by the change in verb agreement. The difference with P-lability is that the A argument is obligatorily expressed, and there is nothing suggesting that it has been demoted to oblique. Consequently, at least superficially, the construction looks like a transitive construction with the demoted A argument in the P slot, hence the term ‘reversal’.

(23) Tswana (pers.doc.)

(23a) **Mètsí †á-tléts-í lì-tâ:mò.**
 (CL6)water A.CL6-fill.PRF-FV CL5-dam
 ‘The water filled the dam.’

(23b) **Lì-támó †lí-tléts-í mèt:tsí.**
 CL5-dam A.CL5-fill.PRF-FV (CL6)water
 ‘The dam is full of water.’

Functionally, this alternation expresses the same reversal of the A>P topicality hierarchy as passive constructions (either morphologically marked or unmarked).

In Tswana, this kind of valency alternation is extremely marginal, but in some Central Bantu languages (Lomongo, etc.), it is much more productive, although it is always limited to transitive constructions in which the semantic nature of the protagonists is such that the semantic roles can be retrieved regardless of syntactic structure.

4.7. A~X lability

By A~X lability, I mean morphologically uncoded valency alternations in which both alternative constructions are transitive, and a participant encoded as an oblique in one of them is encoded as A in the other. Ex. (24) illustrates this kind of alternation with an instrumental adjunct. Note that, in this particular case, the participant encoded as A in (24a) is still semantically present in (24b), but cannot be expressed.

(24) English

(24a) **I opened the front door with this key.**

(24b) **This key opens the front door.**

4.8. Locative lability

By locative lability, I mean morphologically uncoded valency alternations in which one of the alternative constructions is clearly intransitive, and a participant encoded as a locative adjunct in this construction is encoded as A or U in the other – Ex. (25). Note that, in this particular case, the demoted U is obligatorily present in a position superficially similar to that of P in a transitive construction, although it does not have the properties of a canonical P. This alternation is relatively marginal in Tswana, it is more productive in other Bantu languages.

(25) Tswana (Bantu – pers.doc.)

(25a) **Mà-dí á-tsw-à mó ñt^hô:-ñ.**
 CL6-blood A.CL6-come from-FV in (CL9)wound-LOC
 ‘The blood is flowing out from the wound.’

(25b) **Ñt^hô ‘í-tsw-á mà:-dí.**
 (CL9)wound A.CL9-come_from-FV CL6-blood
 ‘The wound is bleeding.’ lit. ‘The wound flows out blood.’

A remarkable property of many Bantu languages (not found however in Tswana and other Southern Bantu languages) is that, due to the way the expression of localization is integrated in their noun class system, they also have alternations of this type in which locative adjuncts moving to preverbal position maintain their locative marking, and at the same time govern verb agreement in the same way as canonical A’s or U’s.

(26) Chichewa (Bresnan and Kanerva 1989: 2)

(26a) **A-lendô-wo a-na-bwérá ku-mu-dzi.**
 CL2-visitor-CL2.DEM A.CL2-RECPST-come CL17-CL3-village
 ‘Those visitors came to the village.’

- (26b) **Ku-mu-dzi ku-na-bwérá a-lendô-wo.**
 CL17-CL3-village A.CL17-RECPST-come CL2-visitor-CL2.DEM
 ‘To the village came those visitors.’

4.9. Impersonal liability

4.9.1. Unmarked impersonalization of transitive constructions with demotion of A to oblique

Ex. (27) illustrates the possibility of morphologically unmarked impersonalization of the Russian verb **trjasti** ‘shake’ with demotion of A to oblique. Sentences (a) and (b) illustrate the use of this verb in the basic transitive construction. However, when shaking is not caused by a human agent, but by the physical state of the person affected, or by some inanimate force (and only in such cases), an impersonal construction is possible in which the cause is encoded as a prepositional phrase, whereas the coding of the person affected is not modified, and the verb form does not change, apart from the fact that, in the impersonal construction, it can only express default agreement (3rd person singular in the present, neuter singular in the past).

(27) Russian (pers.knowl.)

- (27a) **Ja trjasu kovër.**
 1SG shake.PRS.1SG carpet.ACC
 ‘I am shaking the carpet.’

- (27b) **Menja trjasët lixoradka.**
 1SG.ACC shake.PRS.3SG fever
 lit. ‘Fever is shaking me.’

- (27c) **Menja trjasët ot lixoradki.**
 1SG.ACC shake.PRS.3SG from fever-GEN
 lit. ‘It’s shaking me from fever.’ > ‘I am shaking with fever.’

- (27d) **V poezde trjasët**
 in train.LOC shake.PRS.3SG
 lit. ‘It shakes in the train.’ > ‘One gets shaken in the train.’

Similarly, ex. (28) illustrates the possibility that, if the A argument of **razbit’** ‘destroy’ is an inanimate force (and not a human agent), the A argument can be demoted to oblique without any other change in the construction, and without any change in the verb form, apart from the fact that, in the absence of an A/U argument, it can only express default neuter singular agreement.

(28) Russian (pers.knowl.)

- Stenu razbilo molniej.**
 wall.ACC destroy.PST.SGN thunderbolt.INSTR
 lit. ‘I destroyed the wall by a thunderbolt.’
 > ‘The wall was destroyed by a thunderbolt.’

4.9.2. Impersonal lability in presentational constructions

In the languages whose basic constituent order in verbal predication can be schematized as A/U V P X ('SVO languages' in the tradition initiated by Greenberg's account of word order typology), there is often a discursively marked construction of intransitive verbs whose function is to de-topicalize the U argument, and whose general characteristic is the post-verbal position of the U argument, contrasting with its canonical pre-verbal position. There is variation as regards the possible restriction of this construction to a sub-class of so-called 'unaccusative' intransitive verbs (i.e., intransitive verbs assigning a patient-like role to U), or its possible extension to transitive verbs, but this point will not be discussed here. There is also variation as regards the syntactic demotion of the U argument, and the possible promotion of a locative adjunct.

Presentational inversion has been particularly studied for Romance and Bantu languages. In some cases at least, the presentational inversion construction is a clear instance of impersonal lability, in the sense that the initial U moving to post-verbal position loses properties such as the control of verb agreement, and no other argument shows evidence of being promoted. This situation is illustrated by Ex. (29) for French, and Ex. (30) for Tswana.

(29) French

(29a) **Deux femmes viendront.**
 two woman(F).PL come.FUT.3PL
 'Two women will come.'

(29b) **Il viendra deux femmes.**
 A.3SGM come.FUT.3SG two woman(F).PL
 'Two women will come.'

(30) Tswana (pers.doc.)

(30a) **Bà-símàní 'bá-tláà-bî:n-à.**
 CL2-boy A.CL2-FUT-dance-FV
 'The boys will dance.'

(30b) **ǀó-tláà-bín-á bà-símà:ní.**
 A.CL17-FUT-dance-FV CL2-boy
 lit. 'There will dance boys.' > 'The/some boys will dance.'

However, not all presentational inversion constructions can be straightforwardly analyzed as instances of impersonal lability. The point is that, in some languages (French and Tswana among others), the U argument moving to postverbal position loses the control of verb agreement, which can be viewed as evidence for demotion. However, this is not always the case, and in this respect there is huge variation, across both Bantu and Romance languages.

Finnish has a semantically similar inversion construction with the U argument of an intransitive verb in the partitive case and the verb invariably in the 3rd person singular – ex. (31). Interestingly, in Finnish, case marking provides additional evidence in favor of the analysis according to which this construction is an instance of impersonalization. The point is that Partitive case marking is possible for P, but not for A, and consequently, the construction illustrated by (31b) violates the constraint of obligatory A coding.

(31) Finnish (Sands & Campbell 2001)

(31a) **Lapset leikkivät ulkona.**

child.PL play.PST.3PL outside
‘The children played outside.’

(31b) **Ulkona leikki lapsia**

outside play.PST.3SG child.PL.PART
‘There were children playing outside.’

Mandarin Chinese has neither case marking of core arguments nor indexation, and the notion of impersonal construction is not traditional in Chinese linguistics, but the transitive construction of Mandarin has the basic A V P order, without any possibility to move A to postverbal position, whereas the U argument of intransitive verbs occurs in postverbal position (and can therefore be analyzed as overtly aligned with P) in ‘presentative sentences’ – ex. (32).

(32) Mandarin Chinese (Li & Thompson 1981:509-519)

(32a) **Tao-le san-zhi yang.**

escape-CPL three-CLF sheep
‘Three sheep escaped.’

(32b) **Women-de wanhui zhi lai-le Zhangsan gen Lisi.**

1PL-GEN party only come-CPL Zhangsan and Lisi
‘Only Zhangsan and Lisi came to our party.’

Functionally, the impersonal constructions examined in this section belong to a family of constructions (including in particular so-called ‘locative inversion’ – Bresnan 1994) in which a presentational reading is triggered by the postverbal position of the U argument of intransitive verbs in languages that have the basic AVP order in the prototypical transitive construction. Presentational constructions, which have figured prominently in discussions about unaccusativity (see a.o. Levin & Rappaport Hovav 1995: 215-77), show variation with respect to case marking and indexation of U arguments in postverbal position, but in the perspective of valency grammar, some of them at least are clear instances of the type of valency alternation designated in this course as impersonal liability.

4.9.3. Other instances of impersonal liability

In Russian, an impersonal construction with the U argument of an intransitive verb in the Genitive case, and default 3rd person singular or neuter verb agreement, is possible under certain conditions with intransitive verbs combined with negation – ex. (33). The identification of this construction as an instance of unmarked impersonalization (or impersonal liability) follows from the fact that agents never appear in the ‘genitive of negation’.

(33) Russian (pers.knowl.)

(33a) **Otvét ne prišel.**
 answer(M) NEG come.PST.SGM
 ‘The answer did not come.’

(33b) **Otveta ne prišlo.**
 answer(M).GEN NEG come.PST.SGN
 lit. ‘It didn’t come of-answer.’ > ‘No answer came.’

4.10. G-lability

In the term of ‘G-lability’ as I propose to use it, G must be understood as referring to the role of goal (or destination, recipient, etc.) in the argument structure of trivalent verbs. In this kind of morphologically unmarked valency alternation, the expression of the most agent-like participant in the argument structure of the trivalent verb is not affected, but the other two participants can be encoded in two different ways: in one of the possible coding frames, the goal/destination/recipient is encoded as an oblique, whereas in the alternative coding frame, it has the same coding properties as the P term of the basic transitive construction.

The alternation known as ‘dative-shift’ in English grammar – ex. (34) – clearly meets this definition. In this particular case, the alternation is between an extended transitive construction showing indirective alignment and a double-transitive construction.

(34) English

(34a) **John gave the book to Mary.**

(34b) **John gave Mary the book.**

The so-called ‘locative alternation’ illustrated by Ex. (35) is another variety of G-lability.

(35) English

(35a) **John smeared paint on the wall.**

(35b) **John smeared the wall with paint.**

This kind of morphologically unmarked valency alternation is quite widespread cross-linguistically. Ex. (36) & (37) provide some Mandinka illustrations. Interestingly, in Mandinka, when the recipient or goal is encoded as P, the theme encoded as an oblique is invariably flagged by the instrumental postposition **lá**, but when the recipient or goal is encoded as an oblique, the postposition varies according to its precise semantic role.

(36) Mandinka (pers.doc.)

(36a) **Kèwôo yè bàtáayòo sáfée à díŋò yé.**
 man.D CPL letter.D write 3SG son.D to
 ‘The man wrote a letter to his son.’

(36b) **Kèwôo yè à díṅò sáfée bàtáyòo lá.**
 man.D CPL 3SG son.D write letter.D with
 ‘The man wrote a letter to his son. (lit. wrote his son with a letter)’

(37) Mandinka (pers.doc.)

(37a) **Kèwôo yè tîyôo sóolì bòotôo kónò.**
 man.D CPL peanut.D stuff bag.D in
 ‘The man stuffed the peanuts into the bag.’

(37b) **Kèwôo yè bòotôo sóolì tîyôo lá.**
 man.D CPL bag.D stuff peanut.D with
 ‘The man stuffed the bag with peanuts.’

4.11. Alternations between terms of predicative constructions and adnominal possessors

4.11.1. External possession

External possession constructions are constructions in which the semantic relationship between a nominal term N1 of a predicative construction and a noun N2 found elsewhere in the sentence could justify coding N1 as an adnominal possessor of N2.

Such constructions are commonly in competition with a construction in which the participant in question is coded as an adnominal possessor – Ex. (38), and a general characteristic of external possession constructions, insofar as they are in competition with an adnominal possession construction, is that they highlight the affectedness of the possessor. However, depending on the individual languages, external possession constructions may be marked constructions, not very frequent in spontaneous discourse, whereas in some other languages, they are extremely frequent, sometimes virtually obligatory. Romanian is remarkable in this respect.

(38) French

(38a) **J’ai la jambe cassée.**
 I-have the leg broken
 ‘My leg is broken.’

(38b) **Ma jambe est cassée.**
 my leg is broken
 ‘My leg is broken.’

Not all such alternations qualify as valency alternations, since they may involve constructions whose analysis as mono- or biclausal is debatable. This is in particular the case in (38a). Uncontroversial cases of external possession constructions analyzable as instances of valency alternation are given in (39) and (40). Ex. (41) illustrates the kind of ambiguity that may follow from the use of an external possession construction.

(39) French

(39a) **Il nous a réparé la voiture.**

he to.us has fixed the car
'He fixed our car.'

(39b) **Il a réparé notre voiture.**

he has fixed our car
'He fixed our car.'

(40) Basque (pers.doc.)

(40a) **Edurne-ri ama hil zaió.**

Edurne-DAT mother die.CPL be.A.3SG.DAT.3SG
'Edurne's mother died.' lit. 'To Edurne the mother is.to.her dead.'

(40b) **Edurne-ren ama hil da.**

Edurne-GEN mother die.CPL be.3SG
'Edurne's mother died.'

(41) Basque (pers.doc.)

Eskutitz-a iritsi zait

letter-SG arrive.CPL be.A.3SG.DAT.1SG

lit. 'The letter is.to.me arrived.'

can be interpreted as, either 'The letter [sent by another person] came to me.', or 'My letter (i.e. the letter I sent) has reached its destination.'

Interestingly, Bantu languages have both morphologically marked and morphologically unmarked valency alternations of this type. In Tswana, the rule is that external possession constructions involving body-part nouns do not require morphological marking, as in (42b), whereas external possession constructions involving alienable possession require applicative marking, as in (42a). In both cases, the external possessor is syntactically the primary P in a double-transitive construction.

(42) Tswana (doc.pers.)

(42a) **Dw-àná †ó-tláá-χò-dz-él-á dí-nà:wá.**

CL1-child A.CL1-FUT-P.2SG-eat-APPL-FV CL.10-beans
lit. 'The child is going to eat.APPL you the beans.'
> 'The child is going to eat your beans.'

(42b) **Ṁ-mótúrókára †ó-tláá-χò-χát-á lì-tsô:χò.**

CL3-car A.CL3-FUT-P.2SG-crush-FV CL.5-hand
lit. 'The car is going to crush you the hand.'
> 'The car is going to crush your hand.'

4.11.1. 'Indirect object lowering'

The alternation known in the literature as ‘indirect object lowering’ is formally similar to the alternation between an external possession construction and a construction in which the possessor is encoded as a noun modifier. It differs semantically in that the participant whose coding alternates between adnominal possessor and term of a predicative construction cannot be characterized as a possessor affected by an event in which an element of its personal sphere is directly involved, but rather as a recipient or beneficiary that will end up possessing the item encoded as P. As noted by Croft (1985: 43), this kind of alternation is marginally possible in English, when sentences such as (43a) are uttered in a particular type of context. In most languages (including English), sentences like (43a) and (43b) are not synonymous, since (43a) implies the possibility of viewing the relationship between the two terms of the genitival construction as already established in some way or another, whereas (43b) carries no such implication. However, this constraint may be sporadically violated by speakers, resulting in the use of sentences like (43a) in situations in which they normally do not occur.

(43) English (Croft 1985: 43)

(43a) **Let’s go get your beret.**

(43b) **Let’s go get a beret for you.**

What occurs in the languages in which ‘indirect object lowering’ is regular is that, in the languages in question, the construction illustrated by (43a) is not bound to the conditions that limit its use in most languages, and regularly occurs whenever a recipient or beneficiary can also be characterized as a future possessor. Creissels (1979) mentions two Mayan languages, Q’eqchi’ and K’ichee’ – Ex. (44) and (45), and indicates that such constructions are common in Guatemalan Spanish (i.e. in a Spanish variety influenced by a Mayan substrate).

(44) Q’eqchi’ (Creissels 1979: 572)

Tixloq’ li r-ixim.

FUT.A.3SGP.3SG DEF 3SG-maize

lit. ‘He will buy his maize.’ > ‘He will buy maize for himself.’

(45) K’ichee’ (Creissels 1979: 573)

Kutzukuj jun u-kamixa’.

ICPL.A.3SG.P.3SG.look_for INDEF 3SG-shirt

lit. ‘He is looking for a shirt of his.’ > ‘He is looking for a shirt for himself.’

Croft (1985) also mentions Tlapanec, Hixkaryana, Kobon, Buin, and Mokilese. Similar constructions are analyzed by Lehman (1999) for Yucatec Maya, and by Sonnenschein (2015) for San Bartolomé Zoogocho Zapotec.

Lesson 5

Incorporation and transitivity

5.1. Incorporation as a morphological operation

The definition of incorporation retained in this course is that according to which incorporation is a *morphological* operation creating verbal lexemes by compounding a verbal lexeme and a lexeme belonging to another category (noun, adjective, adverb, ideophone, or adposition). Adposition incorporation has been mentioned in lesson 3 as a possible source of applicatives. However, since the central topic of this course is transitivity, in this lesson, we will be mainly concerned by noun incorporation.

The notion of incorporation is sometimes broadened so as to include ‘verb + noun’ combinations that do not show evidence of morphological compounding, but in which the noun behaves, at least to some extent, like an incorporated noun (reduced mobility, incompatibility with determiners) and not like the head of a full-fledged noun phrase. I propose to characterize this phenomenon as *quasi-incorporation*.

Ex. (1) illustrates quasi-incorporation in Futunan. Sentence (1a) illustrates the basic transitive construction, with the VAP constituent order, and A flagged by the ergative preposition *e*. In sentence (1b), there is no morphological evidence of compounding, but the noun ‘car’ has moved to immediate post-verbal position, and the agentive argument is not flagged, which suggests that P has been demoted, and A has been converted into the U term of an intransitive construction. Given the position of the noun ‘car’ and the lack of any evidence of oblique status, the notion of quasi-incorporation seems to be the right way of summarizing the observations on this construction.

(1) Futunan (Moyses-Faurie 1997)

(1a) **E taki e le faine le motokā kula.**
ICPL drive ERG DEF woman DEF car red
‘The woman is driving the red car.’

(1b) **E taki motokā le faine**
ICPL drive car DEF woman
‘The woman is driving.’

Given the topic of this course, it is not necessary to discuss this point in more detail, and it will be sufficient to illustrate the relationship between incorporation and transitivity by examples from languages that have an uncontroversial and productive mechanism of morphological incorporation.

5.2. Argument incorporation

In this type of incorporation, the incorporated noun ‘absorbs’ the semantic role assigned by the verb to one of its arguments. The meaning of the verb is restricted to events involving potential referents of the incorporated noun in the role in question, but this role cannot be assigned to an NP. Since argument incorporation is most of the time restricted to the P argument of transitive verbs, this results in a detransitivizing mechanism comparable to the antipassive: P-incorporation converts transitive verbs into intransitive verbs assigning to U the

role assigned by the base verb to A, reinforcing thus the topicality of the A argument converted into the U term of an intransitive construction.

In Ex. (2), the valency decrease is made obvious by the fact that both A and P are obligatorily indexed in the basic transitive construction, and the compound verb **naca-cua** ‘eat meat’ has just one morphological slot for argument indexation. Note that the analysis of **naca-cua** as a morphological compound follows from the use of a form of the noun ‘meat’ that cannot be used by itself as a word.

(2) Classical Nahuatl (Launey 1980)

(2a) **Ni-c-cua in nacatl.**

A.1SG-P.3-eat DEF meat

‘I am eating the meat.’

(2b) **Ni-c-cua nacatl.**

A.1SG-P.3-eat meat

‘I am eating meat.’

(2c) **Ni-naca-cua.**

A.1SG-meat-eat

lit. ‘I am meat-eating.’

Formally, in this Nahuatl example, the distinction between P-incorporation and the use of an indefinite noun in P role is quite clear-cut. Semantically, the distinction is less obvious, and in some other languages (for example, Soninke), it is dubious whether there is any semantic distinction at all, although the formal distinction is equally clear-cut. In Nahuatl (and the same has been observed in many other languages), it seems that P-incorporation is particularly common in reference to activities that can be characterized as socially salient, stereotyped, or ritualized. For example, **naca-cua** does not just refer to meat eating, but for example to meat eating as ritually performed within the framework of some celebration.

5.3. Possessive incorporation

Possessive incorporation can be viewed as a particular variety of external possession constructions. As illustrated by Ex. (3), in possessive incorporation, there is a part-whole relationship between the incorporated noun and another noun in P or U role, and the incorporated noun is assigned the semantic role normally assigned to the syntactic position occupied by its possessor. The presence of two argument indexes in (3b) shows that this kind of incorporation affects the assignment of semantic roles, but does not affect the transitivity of the construction.

(3) Classical Nahuatl (Launey 1980)

(3a) **Ni-c-pāca in pilli.**

A.1SG-P.3-wash DEF child

‘I am washing the child.’

(3b) **Ni-c-tzom-pāca in pilli.**

A.1SG-P.3-hair-wash DEF child

lit. ‘I am hair-washing the child.’ > ‘I am washing the child’s hair.’

This type of incorporation is quite widespread cross-linguistically. In particular, as a rule, in the languages of Europe, incorporation is sporadic at best. The only exception is the relative productivity of possessive incorporation in Catalan and other closely related Romance varieties.

(4) Catalan (Gràcia & Fullana 1991)

cama-trencar	leg-break	> break someone's leg
cor-trencar	heart-break	> break someone's heart
ull-ferir	eye-injure	> impress someone

The case of **ull-ferir** 'eye-injure > impress' illustrates the propensity for compound verbs resulting from this type of incorporation to develop lexicalized meanings. Similar cases of lexicalized possessive incorporation abound, for example, in Manding languages and in Soninke.

5.4. Modifying incorporation

In modifying incorporation, the incorporated noun restricts the meaning of the verb in the same way as NP's in adjunct function, and does not trigger any change in its valency. An important difference between modifying incorporation and NP adjunction is that, as a rule, the flagging of adjunct NP's provides some information about their semantic role, whereas in modifying incorporation, there is no overt indication about the semantic nature of the relationship between the incorporated noun and the verb.

Modifying incorporation affects neither the transitivity of the construction, nor the assignment of semantic roles.

Ex. (5) illustrates the incorporation of a cause adjunct, and Ex. (6) illustrates similitive incorporation, a cross-linguistically widespread variety of modifying incorporation.

(5) Classical Nahuatl (Launey 1980)

(5a) **Ø-Huāqui in xōchitl.**

A.3-fade DEF flower

'The flower is fading.'

(5b) **Ø-Tle-huāqui in xōchitl.**

A.3-fire-fade DEF flower

lit. 'The flower is fire-fading.' > 'The flower is fading under the influence of fire.'

(6) Classical Nahuatl (Launey 1980)

(6a) **Ø-Cuepōni in xōchitl.**

A.3-bloom DEF flower

'The flower is blooming.'

(6b) **Ø-Xōchi-cuepōni in no-cuīc.**

A.3-flower-bloom DEF 1SG-song

lit. 'My song is flower-blooming.' > 'My song is blooming like a flower.'

In Manding languages, several semantic types of incorporation are attested, but similitive incorporation, illustrated by Ex. (7), is the only fully productive type of incorporation.

(7) Mandinka (pers.doc.)

(7a) **Kàmbàanôo sólí-sáwùn-tá.**

boy.D leopard-jump-CPL.INTR
‘The boy jumped like a leopard.’

(7b) **Mòólú yè sùŋ-ôo wùlù-fáa.**

person.D.PL CPL.TR thief-D dog-kill
‘The people killed the thief like a dog.’

In (7a), the similarity relationship is between *JUMP(the boy)* and *JUMP(leopards)*, whereas in (7b), it is between *KILL(the people, the thief)* and *KILL(x, dogs)* (‘The people killed the thief as if he were a dog’). Crucially, this construction is not available to express similarity between *KILL(the people, the thief)* and *KILL(dogs, y)* (‘The people killed the thief as if they were dogs’). In other words, in terms of semantic roles, the incorporated noun can be identified to U in intransitive predication or to P in the transitive construction, but not to A. This constitutes an instance of P-alignment (or ‘ergative’ alignment) in a language in which A-alignment (or ‘accusative’ alignment) is predominant.

5.5. Classificatory incorporation

In classificatory incorporation, the incorporated noun is a hypernym of another noun in P or U role, or more generally a classifier expressing the categorization of the noun in P or U role. In Ex. (8), **-’iç’ah-** ‘eye’ acts as a classifier for small round objects, and is incorporated to the verb (with some morphophonological changes) in the presence of nouns such as ‘bead’ or ‘plum’ in U or P role.

(8) Caddo (Mithun 1986)

(8a) **Kassi’ háh-’iç’á-sswí’-sa’.**

bead TAM-eye-string-TAM
‘I am stringing beads.’

(8b) **Ka’ás háh-’iç’ah-’i’-sa’.**

plum TAM-eye-grow-TAM
‘Plums are growing.’

Semantically, this type of incorporation is in some respects not very different from argument incorporation. The difference is however that, in classificatory incorporation, the incorporated noun does not absorb the semantic role of the corresponding argument, which makes it possible for a semantically more specific NP to occupy the syntactic position in which it is assigned this role.

5.6. Incorporation in diachrony

As regards the historical origin of incorporation, the first explanation that comes to mind is the univerbation of ‘noun + verb’ or ‘verb + noun’ sequences in which the noun is the head of

a noun phrase in argument or adjunct function. This hypothesis is however difficult to reconcile with the observation that, in many languages, the relative order of the verb and the incorporated noun is different from the relative order of the verb and a noun phrase fulfilling the same semantic role.

A plausible explanation is that verbal compounds may also develop from the conversion (or ‘re-verbalization’) of compound event nouns (such as English **truck-driving**). This explanation is supported by the fact that, cross-linguistically, nominal compounds are much more common than verbal compounds, and the order of the formatives in nominal compounds headed by a nominalized verb is often different from the order of the corresponding constituents in a predicative construction.

5.7. Incorporation and transitivity marking: the case of Soninke

5.7.1. Introductory remarks

In the previous sections, incorporation has been illustrated mainly by Nahuatl examples. Interestingly, Soninke is in many respects quite different typologically from Nahuatl (in particular the constituent order in verbal predication is A/U P V X, as opposed to the V A/U P X constituent order found in Nahuatl) but it has incorporation mechanisms strikingly similar to those found in Nahuatl.

In Soninke, as in Nahuatl, incorporation as a morphological operation creates compound verbal lexemes by attaching the non-autonomous form of a nominal lexeme to the left of a verbal lexeme. The distinction between incorporated nouns and nouns occupying a syntactic position immediately to the left of the verb is ensured by the following two particularities of nominal and verbal morphology in Soninke:

- (a) most nouns have a non-autonomous form distinct from their free form, and this non-autonomous form is used whenever nouns occur as non-final formatives within compound or derived lexemes. For example, the non-autonomous form of **séllìngé** ‘chicken’ (plural **séllìngú**) is **séllín-**;
- (b) in some conditions (for example, in combination with some negative markers) the inherent tonal melody of the verb is replaced by an entirely low melody, and this tonal change affects incorporated nouns as part of a compound verb stem, but not nouns occupying a syntactic position immediately to the left of the verb – Ex. (9).

(9) Soninke (pers.doc.)

(9a) **Ì wá séllìngû-n gáagà-ná.**

3PL ICPL chicken.PL-D sell-GER
‘They are selling the chickens.’

(9b) **Ì ntá séllìngú-n gàagà-nà.**

3PL ICPL.NEG chicken.PL-D sell-GER^L
‘They are not selling the chickens.’

(9c) **Ì wá séllín-gáagè-né.**

3PL ICPL chicken-sell.DETR-GER
‘They sell chickens.’

- (9d) **Ì ntá sèlìn-gàagè-nè.**
 3PL ICPL.NEG chicken-sell.DETR-GER^L
 ‘They don’t sell chickens.’

5.7.2. Functional subtypes of incorporation in Soninke

Three functional subtypes of incorporation can be distinguished in Soninke: possessive incorporation, P incorporation, and oblique incorporation:

- in possessive incorporation, the construction with an incorporated noun can be paraphrased by a construction in which this noun is the head of a noun phrase in U role, with a genitival modifier corresponding to U in the construction of the compound verb – Ex. (10);
- in P incorporation, the construction with an incorporated noun can be paraphrased by a construction in which this noun is the head of a noun phrase in P role – Ex. (11);
- in oblique incorporation, the construction with an incorporated noun can be paraphrased by a construction in which this noun is the head of a noun phrase in oblique role – Ex. (12).

(10) Soninke (pers.doc.)

- (10a) **Múusá bùttê-n bí.**
 Moussa liver-D burn
 ‘Moussa got furious.’ lit. ‘Moussa’s liver burnt.’

- (10b) **Múusá búttí-n-bí.**
 Moussa liver-EP-burn
 ‘Moussa got furious.’ lit. ‘Moussa liver-burnt.’

(11) Soninke (pers.doc.)

- (11a) **Yàxàrú-n dà kónpè-n cèllà.**
 woman.PL-D TR room-D sweep
 ‘The women swept the room.’

- (11b) **Yàxàrú-n kónpó-sèllè.**
 woman.PL-D room-sweep.DETR
 ‘The women did room sweeping.’ lit. ‘The women room-swept.’

(12) Soninke (pers.doc.)

- (12a) **À yàxí qóò qùsô.**
 3SG get_married like girl.D
 ‘He got married like a girl (i.e. very early).’

- (12b) **À qùsù-n-ñàxí.**
 3SG girl-EP-get_married
 ‘He got married like a girl (i.e. very early).’ lit. ‘He got girl-married.’

As illustrated by these examples, this functional distinction has two morphological correlates:

- in possessive incorporation and oblique incorporation (but not in P incorporation) a linking (or epenthetic) **-n-** (glossed EP) occurs between the two formatives of the compound verb;
- in P incorporation (but not in possessive incorporation or oblique incorporation), the verbal lexeme that constitutes the second formative of the compound verb is marked as detransitivized.

The presence of the linking **-n-** can only be detected if the non-autonomous form of the incorporated noun does not end with a nasal. The linking **-n-** also occurs in some types of nominal compounds, but as discussed by Diagana (1995), its occurrence cannot be predicted by a general rule. It must be emphasized that it is probably not cognate with the determination marker **-n** suffixed to nouns, since the determination marker includes a floating low tone, whereas the linking **-n-** is tonally inert.

Interestingly, the presence vs. absence of the linking **-n-** may be the only clue to the distinction between P incorporation, as in (13b), and the incorporation of an adjunct to the detransitivized form of the same verb, as in (14b).

(13) Soninke (pers.doc.)

(13a) **Múusá dà hàrû-n kátú.**
 Moussa TR donkey.PL-D beat
 ‘Moussa beat the donkeys.’

(13b) **Múusá hàrì-kátí.**
 Moussa donkey-beat.DETR
 ‘Moussa did donkey beating.’

(14) Soninke (pers.doc.)

(14a) **Múusá kátí qòò hàrê.**
 Moussa beat.DETR like donkey-D
 ‘Moussa was beaten like a donkey.’

(14b) **Múusá hàrì-n-kátí.**
 Moussa donkey-EP-beat.DETR
 ‘Moussa was beaten like a donkey.’ lit. ‘Moussa was donkey-beaten.’

5.7.3. Possessive incorporation

In Soninke, possessive incorporation seems to be possible with intransitive verbs only, and the incorporated noun is always a body part noun. There seems to be no semantic distinction between possessive incorporation constructions and their paraphrases (in particular, they show the same tendency toward lexicalization). Possessive incorporation does not affect the transitivity of the construction either.

Morphologically, as can be seen from Ex. (15), the syntactic rearrangement that characterizes possessive incorporation is particularly apparent if a third person pronoun is involved, since in Soninke, third person pronouns have a L tone in core argument function (A/U or P), and a H tone in genitive function. In this example, it is also possible to observe a change in the tone of the noun ‘liver’, due to the fact that, in Soninke, nouns heading a

genitival construction take a grammatical LH pattern analyzable as the mark of a construct form of nouns.

(15) Soninke (pers.doc.)

(15a) **Á bùttê-n bí.**
 3SG^H liver-D^{LH} burn
 ‘(S)he got furious.’ lit. ‘His/her liver burnt.’

(15b) **À búttí-n-bí.**
 3SG liver-EP-burn
 ‘(S)he got furious.’ lit. ‘He/she liver-burnt.’

5.7.4. P incorporation

Semantically, P incorporation implies a generic reading of the incorporated noun. Syntactically, all the mechanisms sensitive to transitivity unambiguously show that P incorporation yields intransitive compound verbs, and this is consistent with the detransitivization marking observed in P incorporation.

However, although P incorporation can be analyzed functionally as a variety of antipassive (since it converts the A argument of a transitive verb into the U term of an intransitive predication), detransitivization marking in P incorporation is not identical to antipassive marking. In the antipassive, the general rule is the use of the dedicated antipassive marker **-ndì ~ -ndí**, with the exception of a limited number of transitive verbs that have an antipassive form in **-i**. In P incorporation, the detransitivization marker **-i** can be used with all verbs ending with **a**, **o**, or **u**; with verbs ending with **i** or **e**, the antipassive marker **-ndì ~ -ndí** is sometimes found, but its use is optional, and not very frequent. Ex. (16) illustrates the case of a transitive verb whose detransitivization is marked differently in antipassive derivation and in P incorporation.

(16) Soninke (pers.doc.)

(16a) **À wá yiràamû-n gáagà-ná.**
 3SG ICPL cloth.PL-D sell-GEN
 ‘(S)he sells (the) clothes.’

(16b) **À wá yiràn-gáagè-né.**
 3SG ICPL cloth-sell.DETR-GER
 ‘(S)he does cloth selling.’

(16c) **À wá gáagá-ndì-ní.**
 3SG ICPL sell.ANTIPASS-GER
 ‘She does selling.’

5.7.5. Oblique incorporation

In Soninke, oblique incorporation is productive with similitive adjuncts, temporal adjuncts, and reduplicated numerals used adverbially with a distributive meaning. It operates on transitive and intransitive verbs without affecting their valency properties.

5.7.5.1. Similitive incorporation

As illustrated by Ex. (17) with an intransitive verb, in this kind of incorporation, the incorporated noun is semantically equivalent to a similitive adjunct introduced by the preposition **qóò** ‘like’. There seems to be no semantic difference between the two constructions, except from the fact that incorporation excludes a specific reading of the incorporated noun.

(17) Soninke (pers.doc.)

(17a) **À wùrú qóò yàxàrê.**
 3SG run like woman.D
 ‘He ran like a woman.’

(17b) **À yàxàrì-n-ḡùrú.**
 3SG woman-EP-run
 ‘He ran like a woman.’ lit. ‘He woman-ran.’

Ex. (18) illustrates the same mechanism with a transitive verb, showing that similitive incorporation has no incidence on transitivity. Note that, semantically, as already observed above about a Mandinka example, the incorporated noun describes the way the referent of P participates in the event: the meaning of sentence (18b) is ‘... like one kills dogs’, not ‘... like dogs kill’.

(18) Soninke (pers.doc.)

(18a) **À wá sòró-n kàrì-ní qóò wùllú.**
 3SG ICPL person.PL-D kill-GER like dog.PL.D
 ‘He kills the people like dogs.’

(18b) **À wá sòró-n ḡùllì-n-kàrì-ní.**
 3SG ICPL person.PL-D dog-EP-kill-GER
 ‘He kills the people like dogs.’ lit. ‘He dog-kills the people.’

Ex. (19) shows that similitive incorporation (19b) has no incidence on the behavior of transitive verbs with respect to antipassive (19c) and passive (19d) derivations.

(19) Soninke (pers.doc.)

(19a) **Ì dà Múusá kátú qóò hàrê.**
 3PL TR Moussa beat like donkey.D
 ‘They beat Moussa like a donkey.’

(19b) **Ì dà Múusá hàrì-n-kátú.**
 3PL TR Moussa donkey-EP-beat
 ‘They beat Moussa like a donkey.’ lit. ‘They donkey-beat Moussa.’

(19c) **Ì hàrì-n-kátú-ndì.**
 3PL donkey-EP-beat-ANTIPASS
 ‘They beat people like donkeys.’

(19d) **Múusá hàrì-n-kátí.**

Moussa donkey-EP-beat.DETR

‘Moussa was beaten like a donkey.’ lit. ‘Moussa was donkey-beaten.’

5.7.5.2. *Incorporation of temporal adjuncts*

As illustrated by Ex. (20) with an intransitive verb, in this kind of incorporation, the incorporated noun is interpreted in the same way as when it occurs in post-verbal position as an adjunct expressing temporal location. There seems to be no semantic difference between the two constructions.

(20) Soninke (pers.doc.)

(20a) **À dàgá sùxùbà.**

3SG leave morning

‘(S)he left in the morning.’

(20b) **À sùxùbà-n-dàgá.**

3SG morning-EP-leave

‘(S)he left in the morning.’ lit. ‘(S)he morning-left.’

Ex. (21) illustrates the same mechanism with a transitive verb, and Ex. (21c-d) show that similative incorporation has no incidence on the behavior of transitive verbs with respect to antipassive and passive derivations.

(21) Soninke (pers.doc.)

(21a) **À dà kónpè-n cèllà sùxùbà.**

3SG TR room-D sweep morning

‘(S)he swept the room in the morning.’

(21b) **À dà kónpè-n cùxùbà-n-cèllà.**

3SG TR room-D morning-EP-sweep

‘(S)he swept the room in the morning.’ lit. ‘(S)he morning-swept the room.’

(21c) **À sùxùbà-n-cèllá-ndì.**

3SG morning-EP-sweep-ANTIPASS

‘(S)he did the sweeping in the morning.’

(21d) **Kónpè-n cùxùbà-n-cèllè.**

room-D morning-EP-sweep.DETR

‘The room was swept in the morning.’

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