The shaping of transitivity and argument structure: theoretical and empirical perspectives

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Reanalysis versus Extension in Creating a Diachronic Typology of Alignment

Spike Gildea (University of Oregon)

In REANALYSIS, one kind of construction (usually marked, e.g. passive, antipassive, cleft, biclausal) is reinterpreted by speakers as another kind of construction (usually more basic, i.e., as an active, monoclausal construction, such as a new main clause coding a distinct tense-aspect-mood value). In contrast, analogical EXTENSION takes a form (e.g. case-marker, agreement prefix) or pattern (e.g. VO order, control of coreference) from one construction and uses it in another; this is also the mechanism responsible for borrowing/contact-induced change. These are the two fundamental mechanisms of historical change in grammar, responsible for introducing innovative alignments, replacing prior alignments, and determining the consistency of alignments within constructions. This paper explores the differences in how they effect alignment change, thereby feeding into distinct synchronic alignment types.

There are examples of reanalysis resulting in all of the basic alignment types:

- NOMINATIVE-ACCUSATIVE from antipassives, nominalizations, predicate locatives > progressive, possessive predicates > perfect > past, etc.
- ERGATIVE-ABSOLUTIVE from passives > resultative > perfective > past, nominalizations, *mihi est* type possessive predicates > perfect > past, etc.
- SEMANTIC (splits in any of S, A, or P) from reanalysis of light verb constructions > S_A, reanalysis of middle voice > S_A or S_P (depending on the grammar), reanalysis of inalienable nouns > S_P, etc.
- HIERARCHICAL from passive > inverse, antipassive > direct, clefts > direct/inverse, SAP free pronouns > hierarchical indexation clitics, etc.

These reanalyses are all apparently unidirectional, and can result in either replication of existing alignment patterns or the introduction of new alignment patterns; this is the source of TAM-based alignment splits (with, e.g., a conservative construction accusative and the innovative ergative). Also, reanalysis creates constructions with the most consistent alignment patterns — it is common after reanalysis for argument flagging, verbal indexation, constituent order, and syntactic control properties to reflect a single alignment pattern.

In contrast, extension creates the piecemeal changes that lead to variable patterns inside a single construction:

- Flagging: dative > differential object marking > accusative, ergative > S_A (agentive) > marked nominative, loss of case (due to extension, erosion) > neutral alignment — note: there are no examples of creation of ergative or hierarchical flagging via extension.
- Indexation: individual markers of person and role extend to new persons and roles > any alignment pattern, more limited number markers expand to entire paradigms (leveling) > any alignment pattern, loss of third person markers > hierarchical indexation, etc.

- Order: Abs V Erg > OVS, Erg Abs V > SVO, etc.
- Control: S/P pivot > S/A pivot (i.e. "deep" ergative > "surface" ergative). No other directions of change in control patterns have been documented.

Diachronic stability of an alignment type is partly a function of the frequency of source constructions that create it: both mechanisms can create consistent accusative alignment, whereas consistent ergative alignment is only a (transitory) outcome of reanalysis, rapidly changed by extension of control properties from P to A, followed by loss of these properties for P.

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The shaping of transitivity and argument structure: a view from language contact

Eitan Grossman (Hebrew University of Jerusalem)

Linguists have proposed numerous explanations distributions, both language-specific and cross-linguistic, of linguistic structures related to transitivity, valency, and argument structure. However, beyond these 'functional' factors (in the sense of Bickel 2015), which are assumed to shape language structure by shaping language change, there is abundant evidence that language structures can change in these very domains as the result of 'event-based' factors (again, in the sense of Bickel 2015), which bring speakers of different languages into contact. Contact-induced changes include the copying of flags, valency frames, voice alternations, person-marking patterns, grammatical relations, and more, including distributional changes – sometimes subtle, sometimes massive – in pre-existing patterns.

In this talk, I survey some of the ways in which language contact can and does shape transitivity, valency, and argument structure, at three different levels: (i) a micro-level of utterances in discourse; (ii) a meso-level of language systems; and (iii) a macro-level of areal effects at various scales. A main theme is that functional and event-based accounts are not mutually exclusive, but are rather factors that can and do interact.

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Mechanisms of argument structure realisation across languages of the world: treebank data and computational modelling

Paola Merlo (University of Geneva)

The valency of a verb is expressed through its arguments in very many ways. Arguments can be explicit or implicit, they vary in the mapping of their semantic role onto their grammatical function in verb alternations, they vary in their way of marking the grammatical function, by word order or case, among other ways.

Current large-scale treebank annotation projects have produced naturalistic data annotated with relevant information for very many languages. These treebanks enable the precise and fine-grained quantification of argument structure variability at the sentence level for many languages.

In this talk, I will report on current measures quantifying argument structure expressions and distributions, such as word order, correlating them with other structural tendencies, such as the tendency to minimise the length of dependencies, and I will present results on modelling argument structure and verb alternations with current neural network models.

Lexical aspect and argument structure of NA-prefixed verbs in Russian:
A diachronic corpus-based account

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The aim of this paper is to provide a corpus-based account of how the semantic functions of the Russian verb prefix *na-* ('on') and the respective argument structure patterns evolved from the Old Russian stage (11–14th cc.) up to the present-day situation. The data were extracted from the historical subcorpus of the *Russian National Corpus*, http://ruscorpora.ru/search-old_rus.html.

Numerous present-day NA-prefixed verbs are transitive (e.g., *na-mylit' ruki* [na-soap hands] 'soap hands') but many trigger other argument structure patterns (dative- and, specifically, competing genitive- vs. instrumental-marked arguments, typically first participants).

Although the original spatial (locative) function of *na-* still dominated in early Old Russian (for instance, in *Povest' vremennych let* (henceforth PVL), the oldest chronicle available), a range of secondary abstract uses is attested. While NA-prefixed verbs with a spatial meaning were typically followed by a prepositional phrase of the type [*na*-V *na* NPACC] (e.g., *navesti*/*navoditi* 'bring on, incur', *navęzati* 'tie on', *nastupiti* 'advance' etc), thus doubling the respective spatial path, non-spatial uses of *na-* gave rise to other argument structure patterns (e.g., with genitive- and instrumental-marked first participants or bare accusative second participants). Consider, for instance, the intransitive verb *iti* 'go' and its prefixed counterpart *na-iti*. It used to have the meanings 'attack (lit. go onto sb); bump, walk into sb/sth' within the [*na*-V *na* NPACC] pattern (1), while it becomes transitive [*na*-V NPACC] at the subsequent stage of semantic development (2), when it shifts to the meaning 'find', the only one surviving up to the present day:

[PVL, beginning of the 12th c., Codex Laur.]

(1) *i* *ne* *směachu* *ni* *(si)* ***na*** ***oni*** ***na-iti.***
and NEG dare.IPF.3PL NEGPTCL this.M.NOM.PL on M.3PL.ACC NA-go.INF
i *ni* *těi* *na* *sichъ*
and NEGPTCL that.M.NOM.PL on this.M.ACC/GEN.PL
'Neither these dared attack those, nor those [dared attack] these.'

(2) *i* ***na-idoša*** ***ja*** *kozar-e* *sěd-ęšč-aja*
and NA-go.AOR.3PL M.3PL.ACC Khazar.M-NOM.PL sit-PTCP.PRS-M.ACC.PL
v *lěsěchъ* *na* *gora(ch)*
in forest.M.LOC.PL on hill.F.LOC.PL
'The Khazars found them sitting in the forests on the hills.'

The prefix *na-* could thus perform an applicative-like function in Old Russian, transforming intransitive verbs of motion into transitive verbs with a bleached spatial meaning.

In present-day Russian, along with the spatial function, the prefix *na-* is associated with two productive *Aktionsarten*, triggering specific argument structure patterns, labeled as (3) 'accumulative' and (4) 'saturative' in traditional Slavic linguistics (Isačenko 2003; Zaliznjak & Šmelev 2000). Both require (when expressed) an object in the genitive case, and both are based on transitive verb phrases with a well-behaved direct object in the accusative case. The 'saturative' pattern also involves the reflexive marker:

(3) *Maša* ***na****-sobirala* *grib-**ov**.*
Masha.F.NOM.SG [NA-collect.PST.F.SG]^{PFV} mushroom.M-GEN.PL
'Masha has collected a large (with respect to the standard) quantity of mushrooms.'

(4) *Maša* ***na****-ela-s'* *grib-**ov**.*
Masha.F.NOM.SG [NA-eat.PST.F.SG-REFL]^{PFV} mushroom.M-GEN.PL
'Masha has eaten mushrooms till full satisfaction.'

Cf.:

(5) *Maša* *sobrala* / *sobirala* /
Masha.F.NOM.SG collect.PFV.PST.F.SG collect.IPFV.PST.F.SG
ela / *s''ela* *grib-y.*
eat.IPFV.PST.F.SG eat.PFV.PST.F.SG mushroom.M-ACC.PL
'Masha collected / was collecting / ate / was eating mushrooms.'

In terms of lexical aspect, in contexts such as the above ones, *na-* has been treated as a superlexical/external prefix (Romanova 2004; Tatevosov 2008) functioning as a temporal and/or (spatial) path measure over events (Filip 2000), in a similar manner to such vague quantifiers as *mnogo* 'much, a lot', which also explains the selection of the genitive case.

What is not quite clear is how the cumulative/saturative function and the respective argument structure patterns developed in diachrony and how they are related to other *na*-patterns. The data from different branches of Slavic (e.g., Ukrainian, Polish, Czech, Bulgarian, and Slovenian) suggest that the cumulative and saturative patterns may have been a common Slavic feature.

We claim that the emergence of the measure function is related to the original spatial meaning.

The development of the cumulative function appears to have started out with the creation of NA-prefixed physical impact verbs denoting the accumulation of matter, originally on a surface. Verbs of this type are found in the Galician Chronicle, such as *navodьniti sę* 'overflow, get filled with water', *nagręznuti* 'get filled, become full', *nakъrmiti sę* 'eat one's fill, eat plenty', *napъlniti* (*sę*) 'fill; get filled'. In PVL, *nasytiti sę* 'become satiated' undoubtedly falls within this class, while *narubati*/*narubiti* 'collect, recruit' and *naseliti* 'people, inhabit' are plausible candidates. The latter is a Fill Verb in Levin's (1993:119–120) classification, participating in a Goal-Object construction, where the goal is marked with NP_{ACC}, whereas the theme is marked with the preposition *otъ* 'from' heading an NP_{GEN} (cf. present-day Russian *naselit' gorod ljud'mi* [NA-inhabit town.ACC people.INS]):

Examples of OR NA-prefixed verbs followed by NP_{GEN} (6–7) and NP_{ACC} (8) are below:

[na-V NP_{GEN}] [Galician Chronicle, 1201-1260, Codex Hyp.]

(6) *i* *vzęša* *skot-y* *ichъ.* *a* *so* *stad-y* *ou.tekoša.*
and take.AOR.PL herd.M-ACC.PL 3PL.M.GEN and with herd.N-INS-PL go.away.AOR.PL
jako *vsimъ* *voemъ* ***na-polni-ti-sę*** ***skot-a.***
so.as all.M.DAT.PL warrior.M.DAT.PL NA-fill-INF-REFL kettle.M-GEN.SG
'… and they took their kettle, and went away with the herds, so that all the warriors <u>became full</u> of kettle.'

(7) *i* ***na-gręže*** *ozer-o* ***troup-ovъ***.
and NA-go.under/plunge.AOR.3SG lake.N-NOM.SG corpse.M-GEN.PL
i *ščit-ovъ*. *i* *šelom-ovъ*.
and shield. M-GEN.PL and helmet.M-GEN.PL
'The lake <u>became full</u> of dead bodies, and shields, and helmets.'

[na-V NP_{ACC}] [PVL, beginning of the 12th c., Codex Laur.]

(8) *i* *nača* ***na-ruba-ti*** ***mužь-i*** ***lutš-i*** *ot(ъ)* *slovenъ.*
and begin. AOR.3SG NA-gather-INF man.M-ACC.PL best-M-ACC.PL from Slav.M.GEN.PL
i *ot(ъ)* *krivi[č]ъ.* *i* *ot(ъ) čjudii.* *i* *ot(ъ)* *vjatičь*
and from Krivichian.M.GEN.PL and from Chud.M.GEN.PL and from Vyatichians.M.GEN.PL
i *ot(ъ)* *sichъ* **na-seli** i **grad-y**
and from this.M.GEN.PL NA-inhabit.AOR.3SG and town/fort. M-ACC.PL
'And he began <u>gathering together</u> the best men of the Slavs, and Krivichians, the Chuds, and the Vyatichians, and <u>peopled/filled</u> these forts with them.'

Our aim is to present a classification of argument structure patterns of NA-prefixed verbs as reflected in Old Russian texts of different periods and genres (chronicles, birchbark letters and didactic literature) with a focus on the cumulative/saturative patterns and show what structural and semantic changes have occurred in this domain.

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Explaining valency change: Hints from 'give' constructions

Alberto Arceri (independent researcher)

The paper has two aims: (a) exploring a number of valency changing operations arisen from constructionalizations involving the verb 'give' in different languages and language families (including benefactive, existential, passive and unaccusative constructions); and (b) putting forward a cognitive-constructionist explanation suitable also for ostensibly puzzling pieces of evidence.

Crosslinguistically, 'give' verbs are known to be the source of a vast array of constructions (Newman 1996; Heine & Kuteva 2002), yielding either valency increase/reduction or no valency change at all, as well as adjunct expansion. Strikingly, across languages the full verb 'give' happens to get the same new target function through quite different pathways. For instance, lexical 'give' has developed into a passive marker both in Luxembourgish, a Moselle Franconian German variety (1), and in the Southern Min variety of Hui'an (2).

(1) Luxembourgish (Germanic, Indo-European) passive (Lenz 2007: 63)

Ech ***gi/gouf*** *fond.*

1SG give1SG/gave1SG found

'I am/was found.'

(2) Southern Min of Hui'an (Sinitic, Sino-Tibetan) passive (Chen & Yap 2018: 51)

(ua^{3}) ***khɔ$^{5\text{-}4}$*** *i^{1}* *bã^{5}*.

(1SG) give 3SG scold

'(I) got scolded by him.'

Nevertheless, the two processes have followed quite different paths (3-4).

(3) Luxembourgish pathway (Lenz 2007: 71)

Lexical 'give' > pseudocopula + NP_{ACC} > copula + NP_{NOM} > copula + AdjP > passive auxiliary

(4) Southern Min pathway (Chen & Yap 2018: 63)

Lexical 'give' > causative > passive > 'speaker affected' unaccusative (with 'implicit affectee' reading)

Furthermore, if the fientive (i.e. 'become') function is taken into account, the Luxembourgish pathway shows that the copular functions of 'give' (5) constitute the intermediate stage from lexical 'give' to passive, whereas in Southern Min 'give' constructions with "stative verbs" (6) come after the passive 'give' and might even be the last step of the unaccusative 'give' constructions, according to Chen & Yap (2018: 39). That is, the relative positions of lexical 'give', passive markers and unaccusative markers turn out to be at odds in the two diachronic scenarios.

(5) Luxembourgish copula (Lenz 2007: 63)

Ech	***gi***	*gesond.*
1SG	give1SG	healthy

'I get healthy.'

(6) Southern Min (Hui'an) unaccusative with stative verb (Chen & Yap 2018: 32)

tshai^{5}	***khɔ***$^{5\text{-}4}$	*i*^{1}	*ɔ*^{1}	*khɯ*^{0}.
vegetable	give	3SG	black	go

'Unfortunately, the vegetables have turned black.'

In addition, with its high transitivity (Kittilä 2006), 'give' can undergo a "labilization" process triggered by constructional reanalysis, exhibiting unaccusative alignment besides its usual three-place valency, as data from Romance witness (7a-b).

(7) Spanish (Romance, Indo-European) inchoative-causative alternation (Alba-Salas 2012: 369)

(a)

A	*Eva*	*le*	***dieron***$_{i}$	*celos*$_{i}$.
To	E.	DAT.3SG	gave.3PL	jealousy.PL

'Eva got jealous.

(b)

Luis$_{i}$	*le*	***dio***$_{i}$	*celos*	*a*	*Eva.*
L.	DAT.3SG	gave.3SG	jealousy.PL	to	E.

'Luis made Eva jealous.'

Thus, evidence seems to suggest that the explanations of change cannot rely solely on semantic principles, such as polysemy and metaphor (*à la* Newman's (1996) figurative extension of the basic meaning of 'give'): inherent connections between, say, 'give' and passivization are arguably hard to spot. In any case, perceived similarities could motivate at the most the link between two adjacent slots in the conceptual space, but not a connection between distant positions (Cristofaro 2010). Moreover, the two different pathways in (3-4) call for a reconsideration of directionality and chains as explicative tools: as Narrog (2014: 93) puts it concerning semantic roles, "a single chain of development cannot accommodate all case functions". Rather, the data support the view that any step of change is the outcome of the interplay of form and function, with the latter being possibly redistributed in a different portion of the wider syntactic context (Cristofaro 2012). For example, the adversative reading now associated to 'give' in Southern Min unaccusative constructions (6) has been retained from the overall encoding of unfortunate events in passive constructions (2) (Chen & Yap 2018: 50-57). Also, omission of the arguments alone without a fitting source construction cannot lead to reanalysis, as Alba-Salas (2012: 378f.) shows for Spanish inchoative 'give'. Indeed, it is the starting structural conditions that enable the historical change, whether a widely attested one or a typological *rarum* (Harris 2008).

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Form, functions and history of a recent periphrastic passive in Budugh

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Budugh is a minor East Caucasian language, and one of the most endangered. With closely related Kryz, it makes up the Southern branch of the core Lezgic subfamily within East Caucasian. Whereas Kryz has a productive passive voice, derived and extended from originally anticausative verb forms, no passive construction has yet been recognized in the few studies dedicated to Budugh. Our paper will present examples of a rare, but easily elicitable, passive voice in this language and explain its emergence in the situation of intense contact (generalized bilingualism) with Azeri.

In cases of patient topicalization, or of irrelevant or unidentified agents, Budugh mainly uses omission of the ergative-marked argument:

(1) *leħ* *hire* *daşduğ-ca* *q'axuts'u-ra'*
calf in_front scree-IN find.IPF(TR)-EVT
'(You) will find the calf in the scree, there.'

(2) *sac-a'* *q'osiye* *ç'axar* *qasa-ci.*
pan-IN inside grain toast.PF-NARR
'(Someone) has toasted grain in the pan.'

Unlike Kryz, Budugh does not use anticausative derived verbs in passive contexts. In a few instances, though, the intransitive variant of a non-prototypically transitive verb can be found:

(3) *a-n-a'* *dard-ına'* *ça'ra* *q'axuts'ar-a'*
3-H-IN pain-IN remedy find. IPF(TR)-EVT
'Some remedy will be found for his pain.'

But in order to translate Azeri passive forms associated with certain aspectual or modal contexts, Budugh can also use periphrastic forms which for semantic reasons must be identified as "passive", even though they do not allow reintroduction of the agent. These periphrastic forms are made of the perfective bare stem (also found as a sequential converb) and a finite form of the verb 'go' (imperfective stem çağar / perfective stem vixhi).

These forms appear with a deontic modal nuance in the (imperfective) indefinite future form:

(4) *xuräk-cä* *ʕats'u-yiz* *eç'exi-ni* *q'art'üşke-rber* *et'e* *çağar-a'.*
meal-IN pour.IPF-DAT peel.PF-SEQ potato-PL.NOM cut.PF go.IPF-EVT
'To be cooked, potatoes have to be peeled and cut.'

=Azeri (passive): Xörəyə tökmək üçün soyulmuş kartoflar doğra-n-ar.

(5) *miç'er* *oroxo* *çoğor-a',* *çäz* *i* *ʕavaqha?*
beard(A) A.shave.PF A.go.IPF-EVT why COP A.keep.PF
'A beard has to be / gets shaved. Why keep it?'

Note that the Azeri equivalent of this example is (1pl) person marked, not passive:
‘Saqqalı qırx-ar-ıq, saxlayıb nə üçündür?’

(6) *sa-d* *ma’şin k’ına’* *ug-und-a’* *ara-ca* *eq’e* *çağar-a’.*
one-N car wood REFL-HPL-IN interval-IN divide.PF go.IPF-EVT
‘(They) will have to share a truckful of wood.’

The Azeri equivalent of this example is marked for the agent (3pl), not passive:
‘Bir maşın odunu öz aralarında böl-ər-lər.’
(Note that there is also a dedicated debitive mood in Budugh (found also in Kryz), which has to be used when the agent is expressed.)
Some examples do not have additional modal meaning – or rather, they are interpreted as less assertive than the alternative strategy of using the non-passive form in the future tense:

(7) *ts’eʕ-in* *ödö* *çoğor-a’.*
goat-ALSO A.shear.PF A.go.IPF-EVT
‘(Don’t worry,) the goat also gets shorn (in the end).’

= Azeri: ‘keçini də qırx-ar-ıq.’
vs

(8) *ts’eʕ-in* *ödü-ra’*
goat- ALSO A.shear.IPF-EVT
‘(Don’t worry,) we will definitely shear the goat also.’

= Azeri: ‘keçini də qırx-acağ-ıq.’

(9) *miç’er* *oroxu-ra’,* *çäz* *i* *ʕavaqha?*
beard(A) A.shave.IPF-EVT why COP A.keep.PF
‘We surely will shave (our) beards. Why keep them?’

=Azeri: ‘Saqqalı qırx-acağ-ıq, saxlayıb nə üçündür.’
In the imperfective, the passive (defocused agent) construction is used mainly to underline the modal, less assertive value of the main future tense of Budugh (the ‘eventual’), while the non-passive future is used to match the Azeri assertive future.
In the (perfective) narrative tense, periphrastic forms with ‘go’ have resultative meaning.

(10) *veyi* *qul-ar-ın* *pitin* *qasa* *vitki-ci.*
COP.PTCP wheat-PL-ALSO all toast.PF N.go.PF-NARR
‘All the grain is / has been toasted.’

=Azeri (passive): ‘Olan buğdanın hamısı üyüdülüb (+qurtardı ‘it is finished’).’

(11) *fu* *qomonu,* *a-c* *sufra-ca* *ʕada’* *eye* *vitki-ci.*
bread PROH.take 3-N tablecloth-IN on N.put.PF N.go.PF-NARR
‘Do not take bread, it is (/ has been put) on the table (already).’

=Azeri (passive): ‘Çörəyi alma, o, süfrənin üstünə qoyulub.’

The modal interpretation of an imperfective passive using ‘go’ is of course reminiscent of a similar phenomenon in Italian (*Questo va fatto così* = ‘This has to be done this way’). But we believe that in Budugh, the periphrastic passive with ‘go’ originates in the perfective, resultative form, because numerous examples can be found of resultative (< non-reversible event) meaning conveyed by the use of ‘go’ as a main (perfective) verb after an unmarked converbial perfective form of an intransitive verb, for instance ‘to dry’ in this example:

(12) *dar-imber* *sa’a* *vidki-ci.*
tree-PL(NOM) dry(ITR).PF N.go-NARR
‘The trees are totally dried out.’

After acquiring passive (defocused agent) meaning when used with transitive verbs, the construction was extended to the imperfective in order to match the Azeri opposition between two future tenses distinguished by a feature of assertiveness. In the end, the passive periphrastic form finds its way into the imperfective assertive domain as a new anticausative (replacing the extremely lexicalized old ones, which are available for only a couple of transitive verbs), for instance in this example:

(13) *qhur* *qoxuts’iyekir* *za’* *ʕinib* *et’e* *çağar-a’vi.*
laughter pour.IPF(MDS).PART 1.IN guts cut.PF go.IPF-PROG
‘(Now) My guts hurt (literaly ‘are cut’) from too much laughing.”

=Azeri (passives): ‘Gülməkdən ugunub gedirəm / gülməkdən bağırsaqlarım qırılıb gedir.’

The rise and fall of Jê ergativity

Bernat Bardagil-Mas, UC Berkeley

This talk explores the diachrony of case marking alignment in Jê languages (Amazonia, Brazil). In it, I argue that Jê ergativity emerged as a by-product of nominalization strategies, and that it is only in Panará (Northern Jê) that a true alignment shift occurred, giving rise to a brand new ergative case.

Jê languages are traditionally divided into three branches (Davis 1966; Rodrigues 1999), namely, from more to less ancient, Southern Jê, Central Jê, and Northern Jê. Generally considered split accusative-ergative languages, the analysis of case assignment in Jê reveals that ergative case marking is restricted to a "long form" of the verb, associated to dependent clauses and usually analyzed as being nominal (Bardagil 2018; Nonato 2014; Salanova 2017). A different, verbal form of the verb that is associated to main clauses correlates with a nominative-accusative case marking in all Jê languages but one, Panará (Northern Jê). With the exception of Panará, Jê ergativity is an instance of *ubiquitous ergativity* (Queixalós 2013), namely an ergative alignment triggered by a nominalized predicate, as is common in the world's languages (Alexiadou 2001).

Panará lacks nominative and accusative cases, unlike standard Jê languages. Even though verbal themes present vowel alternations that correspond to standard Jê long forms, these do not have an incidence in case marking. In all Panará transitive clauses, the external argument is marked for ergative case (1).

(1) a. Realis

Inkjẽ	*hẽ*	*rê=*	*s=*	*anpun*	*Teseja*.
1SG.	ERG	1SG.ERG	3SG.ABS	see	Teseja

'I saw Teseja.'

b. Irrealis

Pykkôôma	*ka=*	*Ø=*	*s=*	*anpu.**ri***	*Teseja.*
tomorrow	IRR	SPK	3SG.ACC	see. IRR	Teseja

'Tomorrow I will see Teseja.'

In Panará, ergative case does not correspond to the classic ergative case in Jê. I argue that the ergative case present in the family, associated with nominal clausal environments, vanished when nominalizations did. Only some fossils of the ubiquitous Jê ergative are left in Panará:

(2) *Jê first person pronouns*

a. *Xavante*	c. *Apinayé*	e. *Timbira*
wa (NOM)	ic (ABS/ACC)	i (ABS/ACC)
wa-te (ERG)	ic-te (ERG)	i-te (ERG)

b. *Mẽbêngôkre*	d. *Kĩsêdjê*	f. *Panará*
i (ABS/ACC)	i (ABS/ACC)	inkjẽ (ABS)
i-je (ERG)	i-re (ERG)	inkjẽ hẽ (ERG)

The comparative method can show us that the Central and Northern Jê ergative morpheme[1] /Cɛ/ is frozen in the unmarked Panará first person pronoun, and a new ergative morpheme is instead used as the exponent of ergative case, on top of the old ergative. Synchronically, Panará ergative case is the equivalent of classic Jê nominative. It is a case assigned in the context of finite verbal clauses, just like classic Jê nominative is, and both cases are also the morphologically marked ones. It appears that, diachronically, the loss of nominalized verbs in Panará triggered the loss of inherent ergative case, in turn giving raise to a reanalysis into an ergative structural case.

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[1] Not applicable to the current form of Southern Jê ergative morphology.

Comparison of semantic description in e-Glava and other valency lexicons

Matea Birtić & Siniša Runjaić (Institute of Croatian Language and Linguistics)

In our talk, we will discuss the representation of valency in the online resource e-Glava, both on a syntactic and semantic level, with the particular focus on a semantic description.

E-glava (http://valencije.ihjj.hr/en) is an online valency lexicon of Croatian verbs based on Valency Database of Croatian Verbs. Although Valency Database of Croatian Verbs contains more verbs, for the time being only 57 psychological verbs were published online. The goal to publish a particular semantic class of verb when the complete class is processed was motivated by the assumption of an interrelation between semantic and syntactic properties of verbs. An alphabetical list contains 900 verbs divided into 35 semantic classes which were motivated by Beth Levin's classes of English verbs (Levin 1993), but do not follow her classification precisely. E-glava treats valency as a two-sided phenomenon, explicable on the syntactic and semantic level; hence to each complement of a verb syntactic and semantic description is assigned. The syntactic description is based on ten classes of complements, and semantic description employs both a verb-specific semantic description of participant and assignment of a semantic category, which was motivated by the semantic description of complements in E-VALBU dictionary.

Various approaches to semantic descriptions of complements in available valency lexicons or repositories (Vallex, Framebank, Framenet, Verbnet, Pattern Dictionary of English, etc.) that use different types of semantic representations (i.e. frame semantics, semantic components, semantic roles), originated in diverse linguistic tradition will be compared with the usage-based approach to semantic description of complements in e-Glava, anchored in German tradition. The aim of the presentation is to explore which semantic phenomena linked to verb's valency are best characterized by certain models and which are limitations and potential overelaborations of particular models.

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A constructional approach to Old Persian argument structure

Maria Carmela Benvenuto (Università di Roma 'La Sapienza')

Old Persian distinguishes two types of ditransitive constructions: the genitive ditransitive construction (see example 1) and the double accusative ditransitive construction (see example 2).

(1) THE GENITIVE DITRANSITIVE CONSTRUCTION

(a) *aita=mai* *yānam* *Auramazdā* *dadātu* (DPd22-24)
DEM.ACC.SG.=me.GEN.SG favour.ACC.SG Auramazdā.NOM.SG. grant.3SG.IMPV.
'this favour may Auramazdā grant me' (Schmitt 2000)

(b) *Auramazdā= mai* *upastām* *abara* (DB 1.55)
Auramazdā.NOM.S.= me.GEN.SG aid.ACC.SG bring.3SG.IMPF
'Auramazdā brought me aid' (Schmitt 1991)

(2) THE DOUBLE ACCUSATIVE DITRANSITIVE CONSTRUCTION

(a) *aita* *adam* *yānam* *jadiyāmi* *Auramazdām* (DPd 20-21)
DEM.ACC.SG I.NOM favour.ACC.SG pray.1SG.PR Auramazdā.ACC.SG
'This I pray as a favour of Auramazdā' (Schmitt 2000)

(b) *xšaçam=šim* *adam* *adinam* (DB 1.59)
kingship.ACC.SG.=him.ACC I.NOM despoile.1SG.IMPF
'I despoiled him of the kingship' (Schmitt 1991)

The differences between these constructions have been observed in previous studies (Meillet & Benveniste 1931; Kent 1953; Schmitt 2004), but they have not been explored in depth. This study considers the syntactic, semantic, pragmatic, morphological, and information structural restrictions on genitive ~ accusative alternation as the indirect object in order to understand the factors that condition the choice between the ditransitive constructions available. Due caution, however, should be exercised as far as OP material is concerned, since our understanding of OP linguistic features is dependent on a limited corpus.

Old Persian 'ditransitive' phenomena will be examined within the framework of construction grammar (CG). In particular, the present study will adopt a constructional approach in line with the work of Adele Goldberg (1995, 2006), arguing that the selection and realization of the argument of the verb are largely taken care of by the construction. A constructional analysis of OP data shows an alignment split ("different constructions under different conditions", cf. Haspelmath 2014): the two ditransitive constructions of OP can be regarded as two independent argument structure constructions characterized by distinct pragmatic profiles associated with somewhat different meanings. The ditransitive construction with genitive as Indirect Object represents the basic

indirective alignment type of ditransitive (Malchukov *et al.* 2010) expressing transfer, while the double accusative construction features neutral alignment (cf. Malchukov *et al.* 2010) with a basic sense of *reversed transfer*. Indeed the double accusative construction involves the proposition of Indirect Object not possessing Direct Object after the verb event, i.e., having a sort of Maleficiary role.

The present paper is diachronic-comparative in scope and seeks to establish a fundamental range of argument realization constructions that can be reconstructed for the Old Iranian genitive.

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The behaviour of unaccusatives and their transitivisation

Víctor Lara Bermejo (Universität Bern)

Transitivity has been described as the verb's ability to have an agent which functions as the subject and a patient, which functions as its direct object. Semantically, transitivity presupposes the conscious and willful action of an agent which brings about a change of state on a patient. However, there are many instances that contradict the very definition of transitivity. Despite the controversy that the traditional definition possesses, Hopper & Thompson (1980, 1982) already pointed out that transitivity responds to a continuum, in which certain semantic features favor a low degree of transitivity (atelicity, unwillingness, less affectedness…) whereas others prompt quite a high transitive reading. Nevertheless, there are still numerous counterexamples for this.

One of the languages that better exhibits a linguistic pattern that does not follow the traditional concept of transitivity is Spanish, at least, in its vernacular variety. Specifically, some unaccusative verbs may develop a direct object and, thus, become transitive at the expense of their normative transitive counterparts. Concretely, *caer* ('to fall'), *quedar* ('to stay') and *entrar* ('to enter') can be employed as transitive in detriment of *tirar* ('to throw'), *dejar* ('to leave') and *meter* ('to put in'). This phenomenon is attested in western Peninsular Spanish and can even be witnessed elsewhere in America. However, not all of them are characterized by the same acceptability, since *entrar* ('to enter') is the transitivized verb that spreads the most, followed by *quedar* ('to stay') and, lastly, *caer* ('to fall').

Thanks to recent fieldwork I have carried out throughout the areas where this transitivization is said to occur, I have been able both to pinpoint its current geographical distribution and the linguistic features that favor such transitivization. Based on the results, the transitivization of these unaccusatives emerges in low transitivity contexts: if the subject lacks agency, animacy or willingness; if the object is little (or no) affected; and if the sentences are perfective or not. The existence of this phenomenon raises the problem about the concept of transitivity, since unaccusatives are the verbs the least likely to be transitive due to their lacking an agent. However, the phenomenon under study verifies that it is possible to have the transitivization of an unaccusative.

In this presentation, I aim to provide the results of my fieldwork and argue that the adding of valencies in unaccusative lexemes is more common than what has been stated. To this respect, I underpin the theory put forward by Bilous (2011), which holds that every verb is capable of being transitive and that this capacity depends on the emergence of a causer or an external argument. Likewise, I intend to show that the adding of valencies follows a cross-linguistic hierarchy that establishes the case marker and the syntactic function of every new argument (Blake 2004). In this sense, if a verb only has a subject (nominative) and increases a new argument, this will receive

nominative and will become the new subject, making the former turn itself into the new direct object and, thus, inflecting in accusative.

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The shaping of the transitivizing Reaction Object Construction

Tamara Bouso (University of Santiago de Compostela)

The focus of this presentation is on the characterization and diachronic development of the reaction object construction (ROC; Levin 1993: 98), as in *She **mumbled** her adoration*, *Pauline **smiled** her thanks* and *The door **jingled** a welcome*. The ROC consists of an originally intransitive verb – particularly manner of speaking verbs such as *mumble* and *mutter*, but also verbs of gestures and sounds such as *smile* and *jingle* – followed by a nonprototypical object that expresses a reaction or an attitude (*adoration*, *thanks* and *welcome*) such that the whole syntactic unit acquires the extended meaning "express/communicate/signal X by V-ing" as in "She expressed/communicated her adoration by mumbling" and "The door expressed/signalled a welcome by jingling" in the examples above. Since the ROC was first mentioned with this label by Levin in 1993, the construction has received renewed and increasing attention by a number of linguists who mainly focused on the nonprototypical features of English reaction objects in relation to cognate objects (e.g. *She smiled an enigmatic smile*) and *way*-objects (e.g. *She giggled her way up the stair*s). From a diachronic perspective, however, the ROC has so far only been mentioned in passing in Jespersen (1909-1949), Poutsma (1926), and Visser's (1963-1973) monumental historical grammars.

In my talk at the STAS2018 Conference, I will provide the first account of the *idiosyncratic nature* of the ROC from the perspective of Construction Grammar (Goldberg 1995, 2006), and explore its *emergence* and subsequent *development* in British and American English on the basis of three corpus-based studies that address the different stages of the evolution of the construction, since its beginnings until Present Day English (OED, EEBO, CLMET3.0, and COCA). In light of Traugott and Trousdale (2013)'s application of Construction Grammar to language change, it will be shown that the ROC followed a similar historical pathway as other transitivizing constructions (e.g. the cognate object construction, the dummy *it* object construction, and the *way*-construction) and, most importantly, that the overall historical development of the ROC lines up with that of the *way*-construction (Israel 1996; Gisborne & Patten 2011; Mondorf 2011; Traugott & Trousdale 2013; Perek 2016a, 2016b). More concretely, (a) the ROC and the *way*-construction find their origins with more transitive-like verbs in the Late Middle English period (approximately in the fifteenth century), (b) the ROC and the *way*-construction crystallize as form-meaning pairings in Early Modern English, (c) both become "fairly productive" in British English by the early nineteenth century (Israel 1996; Traugott & Trousdale 2013; cf. also Mondorf 2011, 404), and finally, (d) both become even more productive and schematic over the course of the twentieth century as they expand to new verb types and classes via analogization, coercion and metaphor.

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Anticausatives and Lability in Romance: A Diachronic Comparative Study

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This paper investigates the role played by the interaction of the *aspectual template of verbs*, the *verb's inherent meaning* (the 'root'), and the *nature of the –P subject* (e.g., animacy and control) in determining the distribution of the different strategies available to mark anticausativization — the reflexive (SE) form of the predicate and its bare active-intransitive counterpart (so-called lability) —, in old French, old Italian and contemporary Brazilian Portuguese, where anticausative SE is receding, as part and parcel of its demise as a voice marker (Cyrino 2013).

We show that in old Italian, although functioning as a marker of thematic reduction, the reflexive tends to occur most prominently with verbs lexicalizing change, alternating with the active intransitive (1), with hints of the gradual gaining ground of aspectual notions such as telicity in determining the preference of SE to mark anticausatives, interacting with the restructuring of the voice system in compound tenses.

(1) a. *Lo mio […] sonno […] si ruppe* (Cennamo 2012)
the my sleep RFL break.PST.3SG
'My sleep was interrupted.'

b. *(La terra) ruppe [...]*
the earth break.PST.3SG
'(The earth) opened up.'

The role played by aspectual notions in the diachrony of this type of intransitive alternation is also apparent in the retrenching and loss of lability for some verbs in old French in favour of the reflexive morpheme, most typically alternating with the active intransitive, the sole/most widespread strategy in old French (2) (Heidinger 2010: 73-86, 2014):

(2) *[...]Li maz froisse* (Heidinger 2010: 34)
the mast break-into-pieces.3SG
'The mast breaks into pieces.'

A different picture obtains from the ongoing loss of SE as a voice marker in Brazilian Portuguese, whereby lability occurs also with achievements, i.e., with telic, punctual verbs in anticausative patterns (3):

(3) *A janela fechou* (Carvalho 2014)
the window close.PST.3SG
'The window closed.'

Two paths of change emerge in the diachrony of anticausatives in the Romance languages investigated: (i), the gradual association of SE with verbs lexicalizing telic change in Italian and French, starting

from the alternation between the reflexive and the active intransitive in old Italian, and lability as the sole/main anticausative strategy in old French, (ii), the loss of SE and the use of the active intransitive as the sole anticausativization strategy in Brazilian Portuguese. In both types of change, i.e., the loss and rise of lability, the aspectual properties of verbs play a key-role that we will further investigate for their interaction with the voice domain in Italian and Brazilian Portuguese.

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Phonologically conditioned lability in Soninke (West-Mande) and its historical explanation

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As regards transitivity, valency and voice, the typological profile of Soninke (a West Mande language spoken in Mali, Mauritania, Gambia, and Senegal) can be summarized as follows:

- a particularly clear-cut distinction between transitive and intransitive predication;
- the rigid SOVX constituent order typical for the whole Mande family;
- no argument indexation, accusative alignment in flagging and constituent order;
- a differential subject marking system in which interrogative and focalized phrases in A/S function are marked by a special enclitic found in no other context;
- three verbal suffixes encoding valency changes: the causative suffix **-ndí**, the dedicated antipassive suffix **-ndì**/ **-ndí** (probably cognate with the causative suffix, from which it differs in its tonal properties only), and the detransitivizing suffix **i** (mostly used in anticausative and passive function, but also found in antipassive function with a limited set of verbs);
- coding of reflexivity and reciprocity by means of dedicated pronouns, with a distinction between local reflexivity and long-distance reflexivity;
- phonologically conditioned lability.

My presentation will address the last point, and show how this unexpected relationship between the phonological structure of verb stems and their transitivity properties developed in the history of Soninke.

Soninke has a five-vowel system with a length contrast, but the length contrast is limited to the non-final syllables of polysyllabic words, and phonetically, the last vowel of polysyllabic words and the single vowel of monosyllabic words can only be short. There is however evidence that this is the result of a relatively recent evolution, and that, originally, the length contrast was not subject to this restriction.

The phonological structure and transitivity properties of verbal stems interact in the following way: all non-monosyllabic verbs ending with **e** or **i** that can be used transitively are P-labile, i.e. can also be used intransitively, without any change in their form, with an anticausative or passive meaning (depending on their lexical meaning), whereas P-lability is extremely rare among the verbs whose stem does not meet this characterization.

For monosyllabic verbs and polysyllabic verbs ending with **a**, **o** or **u** that can be used transitively, the general rule is that their anticausative or passive use requires overt detransitivization by means of the detransitivizing suffix **-i**. Crucially, this suffix has morphophonological properties that explain the complementary distribution between P-lability and overt mediopassive derivation. It surfaces as a distinct segment **-(y)i** with monosyllabic stems only, whereas with polysyllabic stems, it obligatorily fuses with the last vowel of the stem, to which it adds a palatal feature: **a + i > e**, **o + i > e**, **u + i > i**.

Since **i** and **e** already include a palatal feature, they cannot be modified by fusion with **i**. Synchronically, the complementarity between P-lability and overt mediopassive derivation can therefore be analyzed as a consequence of the fact that mediopassive derivation would apply vacuously to polysyllabic stems ending with **i** or **e**. Historically, one may assume that, initially, the use of the suffix **-i** was not constrained by the phonological structure of the stem. There is some evidence that, when it fused with the last vowel of polysyllabic stems, the distinction between transitive stems in **i** or **e** and their mediopassive derivative was first ensured by the length of the vowel resulting from the fusion. However, this distinction disappeared with the systematic shortening of long vowels in word-final position, hence the phenomenon of phonologically conditioned lability observed in the present state of Soninke.

The diachronic emergence of alignment patterns: Towards a database

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Progress in grammaticalization studies and historical linguistics means that more and more evidence is now available about the possible origins of different alignment patterns attested in the world's languages, including for example nominative, ergative, and active alignment, hierarchical alignment, and various types of alignment splits. In particular, individual patterns have been shown to originate through the reinterpretation of various types of pre-existing source constructions. These processes raise a number of questions for traditional assumptions about the motivations underlying the relevant patterns (Harris & Campbell 1995; Gildea 1998; Mithun 2005; Creissels 2008; Cristofaro 2012, 2013, and 2014, among others). To what extent are particular patterns motivated by the properties of specific source constructions, rather than general semantic or pragmatic principles pertaining to those patterns in themselves? To what extent does the distribution of individual patterns across different contexts (alignment splits) follow from such principles, and to what extent is it related to the properties of the source construction? What is the role of extension in shaping this distribution? Can specific alignment patterns be related to a single underlying principle, or is each pattern an epiphenomenal result of several distinct diachronic processes, each motivated by a different principle?

To address these issues, a comprehensive database is needed of the known possible sources for different alignment patterns and alignment splits cross-linguistically. The paper presents a project aiming to develop such a database, focusing on the following types of information:

a) directionality of change in the alignment system of the language, e.g. from accusative to ergative;
b) source construction (e.g. nominalization, resultative construction, serial verb construction);
c) mechanisms leading from the source construction to the resulting alignment pattern (e.g. reanalysis or extension);
d) constraints on the distribution of the resulting alignment pattern (alignment splits).

The database will be searchable and expandable, allowing users to (i) investigate specific changes leading to the development of particular alignment patterns, (ii) investigate correlations between particular alignment patterns and different developmental processes (ii) investigate the geographic and genetic distribution of individual developmental processes.

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Mediopassive and Third Plural Impersonal Constructions in Latin and Biblical Hebrew

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As discussed in Siewierska (2008), opinions differ regarding whether impersonal constructions should be analyzed in terms of lack of a canonical subject or as a kind of agent defocusing, where agent is understood in broad terms as to include instigator or cause of an event. Indeed, impersonal constructions of roughly similar types appear to show significantly different behavioral patterns across languages as well as across different stages of the same language. Moreover, impersonal constructions of various types show intimate and often intriguing diachronic interrelations with passive constructions (cf. e.g. Siewierska 2010; Giacalone Ramat & Sansò 2011). Languages vary with regard to whether they allow both types of constructions, whether the two types of constructions show overlapping or complementary distribution patterns, and whether the distribution of passives and impersonals changes over time. Specifically, even though third person plural impersonals are common across languages and occasionally develop into promotional and canonical passives, this development path is relatively rare and seems to be restricted to languages with ergative, neutral or active morphological alignment, i.e. languages not distinguishing formally between the O of active transitive clauses and the S of passive clauses (cf. Siewerska 2010). Accusative languages, on the other hand, make a formal distinction between O and (passive) S, a morphological factor impeding the reanalysis from impersonal to passive.

On this background, the present paper takes a fresh look upon the diachronic distribution of mediopassive and third plural impersonal constructions as detransitivizing devices in Latin and Biblical Hebrew, illustrated in (1).

(1) a. *ut aegroto, dum anima est, spes esse dicitur*
as sick:DAT while life:NOM be:3SG.PRS hope:NOM be:INF say:3SG.PRS.PASS
'As is said to a sick man, as long as there is life, there is hope.' (Cic. Ep. Att. 9.10.3)

b. *navis (…) omnis aut praecidisse aut incendisse dicunt*
ship:ACC.PL all:ACC or destroy:INF or burn:INF say:3PL.PRS.ACT
'They say that he either destroyed or burnt every ship (…).' (Cic. Ep. Att. 9.6.3)

c. *al-kēn yē'āmar kənimrod gibbōr ṣayid lipnē Yəhvāh*
therefore say:3SG.IPF.NIPH like.nimrod mighty hunter before the,lord
'Therefore it is said 'like Nimrod, the mighty hunter before the lord. (Gen. 10.9)

d. *al-kēn yoməru h^{a}gam sā'ul bannəbi'im*
therefore say:3PL.IPF.QAL also Saul among.the.prophets
'Therefore they say 'Saul is also one of the prophets'' (1 Sam. 19.24)

In Latin, different sets of endings mark the distinction between mediopassive and active diathesis. In contrast, Hebrew employs different verb stems to this end, the *niphal* stem, illustrated in (1c), often showing a passive meaning *vis-à-vis* the unmarked, basic *qal* stem, illustrated in (1d). These examples

illustrate that mediopassive constructions and third plural impersonals at least with some verbs represent competing strategies for defocusing the highest argument and maintaining or promoting the second highest argument in the two languages under consideration. In both of these languages, the mediopassive forms also have other detransitivizing functions (cf. Pinkster 2015; Waltke & O'Connor 1990).

Various factors motivate a comparison of data from Latin and Biblical Hebrew. First, both have an attested history covering approximately slightly more than a millennium, providing a sufficiently broad time-depth for diachronic study. Second, even if they differ on the level of morphosyntactic encoding, Latin being concatenative and having accusative alignment and Biblical Hebrew being nonconcatenative and having split accusative-neutral alignment, they converge in having a relatively rich inventory of mediopassive constructions. Third, both Latin and Biblical Hebrew have complex verbal systems where aspectual distinctions play a central role.

Languages often employ different types of detransitivizing strategies in different lexical and morphosyntactic environments. A reasonable null hypothesis would be that the distribution of the two constructions under consideration is the same in all TAM environments. The mediopassive forms are found across the board in both of the languages under consideration; however, data from Latin suggests that the third plural impersonal construction primarily occurs with Present forms of the verb, rarely with the Imperfect, and does not appear in the Perfect. Moreover, in Latin the third person impersonal construction mainly occurs with *verba dicendi*, with only rare exceptions in the early and classical language. Biblical Hebrew, on the other hand, is considerably more permissive in both of these respects, forming third plural impersonals from both imperfective and perfective verb forms, and from a broader range of predicates. These observations show that the Biblical Hebrew construction has a more passive-like character than its counterpart in Early and Classical Latin, even though both of these languages also have robust mediopassive constructions, with roughly similar functional domains. It is tempting to link this difference to the different basic alignment patterns shown by these languages, Hebrew by hypothesis being more prone to reanalyzing an O as a passive S due to its basic neutral alignment than the overwhelmingly accusative Latin.

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Double causatives and labile verbs in Mehweb Dargwa

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In Mehweb (Dargwa, East Caucasian) verbs are productively causativized through the suffixation of *-aq-*. The suffix is identical to the perfective stem of the verb *-aq(ib)* 'let go, leave' (also used in periphrastic causative constructions – Barylnikova 2018). As noted in Ageeva (2014), morphologically possible and accepted by many speakers are double causatives. Double causatives are not attested in the corpus; elicited examples are given under (1) and (2). In some cases, the forms convey the compositional meaning of double causation (1), but sometimes consultants interpret them as simple causatives (2).

(1) Compositional double causatives (examples from Ageeva's data)

a. *b-elʁ-aq-aq-ib*
N-eat.full:PFV-CAUS-CAUS-PST
'made someone feed (an animal)'

b. *b-erc'-aq-aq-ib*
N-fry:PFV-CAUS-CAUS-PST
'made someone fry (it)'

c. *d-aˁʁw-aq-aq-ib*
NPL-get.wet:PFV-CAUS-CAUS-PST
'made someone get them (feet) wet'

d. *b-alk'w-aq-aq-ib*
N-burn:PFV-CAUS-CAUS-PST
'made someone get (it) burning'

e. *b-arχ-aq-aq-ib*
N-touch:PFV-CAUS-CAUS-PST
'made someone touch (it)'

f. *b-ac'-aq-aq-ib*
N-melt-CAUS-CAUS-PST
'made someone melt (it)'

(2) Non-compositional double causatives (examples from Ageeva's data)

a. *d-alħ-aq-aq-ib*
F1-wake.up:PFV-CAUS-CAUS-PST
'woke her up'

b. *w-aˁrʔ-aq-aq-ib*
M-freeze:PFV-CAUS-CAUS-PST
'made him freeze'

c. *w-aˁbʔ-aq-aq-ib*
M-kill:PFV-CAUS-CAUS-PST
'made someone kill him'

Semantic contrast between double causatives in (2) and the respective simple causatives (*dalħaqas* 'cause to kill' etc.) is unclear, if exists at all. Except (2c), all verbs in (1) and (2) are intransitive. The verb *-arχes* 'touch' means literally 'something touches on something', with a natural interpretation of getting one's hand in contact with something. The full meaning of the form in (1d) is thus 'caused someone$_i$ to cause one$_i$'s hand contact something'.) These are all double causative forms elicited by Ageeva.

From the comparative East Caucasian perspective, all these meanings tend or may be labile (Haspelmath 1993; Daniel, Maisak & Merdanova 2012); and some are indeed labile in Mehweb (e.g. 1d). This allows for a tentative explanation of why double causatives may be limited to these verbs. A

simple causative from a labile root is usually interpreted as a causative of its intransitive rather than of its transitive meaning (schematically, 'burn (Tr/Intr)' → 'burn (Intr)'-caus (Tr)). In such uses, the causative suffix does not derive a new transitive meaning but emphasises the transitive semantics already present in the lexical meaning of the labile verb as one of its possible interpretations. It may be considered as a disambiguation mechanism for interpreting a labile root as expressing specifically transitive meaning. As this causative suffix does not have exactly the same function as regular causativization, it allows for a second marker which serves as a regular causative derivation.

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«Do it for me»!

The use of the Beneficiary-Dative in requesting services in Human-Machine Interaction

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This paper deals with a specific syntactic structure, the beneficiary-dative, used in a particular context of interaction, specifically in human-machine dialogues. The context is indeed a source of variation: for instance, in formal interactions, speakers tend to use a more controlled syntax; conversely, when conversing informally, a marked positioning of arguments is usually used, as for left and right dislocations, topicalization, and other pragmatic strategies used to focus the attention of the interlocutor on certain information. For this reason, we could assume that even interacting with a machine could affect the way speakers use linguistic structures, compared to human-human dialogues. This can be caused by the way speakers perceive that situation and by the pragmatic needs that can arise from it.

This work is intended to be included in a series of analysis on spoken communication concerning human-machine interaction. The main goal is, therefore, to understand if there are linguistic differences and what pragmatic and psychological reasons are hidden behind those differences. On one hand, the conventional assumption towards human-machine interaction is that speakers usually tend to simplify their language to avoid not being understood. The language simplification would occur at different linguistic levels: the uttered sentences tend to be syntactically simpler, sounds are hyper-articulated, a higher intensity of voice is used, pauses and interruptions are avoided, and the speech rate is reduced. This happens because speakers compare the communication with a computer to the one with a child or a foreigner, in other words with someone who has less experience with the language. The resulting register can be called *Machine Talk*, replicating the structure of other registers like *Foreign Talk* (Scarborough et al. 2007) and *Baby Talk* (Ferguson 1977). Therefore, simplification comes here as a strategy to ensure the success of the dialogic exchange. On the other hand, empirical observations highlight how these differences could be more and more decreasing as we get used to making use of computer systems we can talk to, such as virtual assistants on smartphones. This means that our mental representation of machines could be changing as our way of communicating with them (Fischer 2011). Whether we would keep on using a language as much articulated as possible, avoiding auto-corrections, and repetitions, or a less controlled register, syntactic structures could be not that straightforward to describe as we may think.

As a matter of fact, in this paper we are going to investigate an atypical use of verbs' argument patterns in requests made to virtual agents, which highlight the way speakers perceive that request. Indeed, among other phenomena, it has been observed that they tend to stress their role in the action being processed by the device on their behalf, using the beneficiary dative (Masini 2012), as in the following examples:

(1) *Trovami via Carducci 10.*
'Find 10 Carducci street for me.'
(2) *Mandami un messaggio a Rosa su WhatsApp.*
'Send a message to Rosa on WhatsApp for me.'

The example (1) shows the way speakers use a clitic indirect object to express their involvement in the action. The participation need is even more undeniable in (2), where we have two datives: the first one expresses the beneficiary of the action, whereas the second one is the addressee.

In this paper, we are firstly going to describe our corpus, which includes Italian commands and requests posed to *Google Assistant* (https://assistant.google.com/intl/it_it/) on a smartphone, and we will be then focus the attention on the introduced phenomenon. The collected data are compared with the argument structures of verbs as they are described in TPAS (Ježek et al. 2014). As a result, we intend to propose a TPAS-based formalism of analysis, the use of which is expected to simplify language modeling for language understanding in spoken dialogue systems.

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Syntactic patterns, argument structures and semantic frames of the Italian verb *sentire:* corpus based mapping of perceptual-cognitive polysemy and its evolution.

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The study conjointly presents the outcomes of two corpus-based inquiries dedicated to the perceptual and cognitive meanings of the verb *sentire*, tracking the evolution of its semantics, argument patterns and voice alternations from Latin, through XIII century Italian vernaculars and up to contemporary Italian.

The particularity of this Italian verb has been notoriously pointed out in the context the study of perceptual verbs (Viberg, 1984) and it is due to the enormous degree of polysemy which enables it to cover all the conceptual continuum ranging from the expression of bodily sensation, to the *immediate perception of states of things*, onwards to the cognitive area of *mental perception of prepositional content* and *reception of the propositional content of a speech act* (Dik e Hegenveld, 1991).

The documentation on Italian vernaculars relies on a diachronic corpus built to collect all the attested occurrences of the verb from the very beginnings of written records up to the year 1300. Semantic classification and thorough description of the main argument structures attested is operated on the 239 occurrences which have been elicited. By confronting quantitative data drawn from the corpus with Latin's typical meanings and predicative schemes, some explanations are put forward to account for the wide polysemy displayed by the verb, the evolution of its semantics and argument structure and the progressive development of its prevalence as main auditory verb in Italian over the verb *audire.*

The second corpus-based study consisted in the creation of a synchronic resource, fully manually annotated, collecting almost 500 occurrences of *sentire* derived from Italian news articles. The annotation is built on three separate layers, covering respectively: the verb forms (accounting for active and passive transitive voices as well as a set of several intransitive forms with different fully lexicalized pronominal and/or syntagmatic variants); the main syntactic relations in the core sentence where *sentire* is predicated; the semantics of the verb, classified following the frame structure used in *Framenet* and adapting its original frames to the semantics of *sentire.*

Combining the evidences emerging from the annotations of the three layers, it is possible to draw a scheme of the argument structures and form alternations displayed by the verb in its different semantic values and lexicalized form (from the perceptual to the emotive and cognitive continuum).

The overall achievement of the two inquiries consists in describing the semantic evolution of the verb on the account of the ever increasing complexity and variety of the syntactic structures predicated by it; the documentation obtained allows to formulate explanations for its consolidation as a transitive generic multimodal experiential verb (spanning across the fields of *perception*, *emotion* and *cognition*), prevailing with its modality-unspecific semantics over modality-specific intransitive verbs throughout both the Latin and ancient Italian phases.

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The passive and related constructions in an English-Swedish contrastive perspective – what does the parallel corpus show?

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This paper takes as point of departure the passive construction in English and Swedish. In terms of passive form, there are both similarities and differences between the languages. In English, the passive is formed periphrastically by the auxiliaries *be* or *get* and the past participle form. In Swedish, there is a periphrastic passive with two auxiliaries, *bli* or *vara*, but also a morphological passive, the so-called *s*-passive (e.g. Engdahl 2006).

For a long time, the passive has been recognized as a marker of formal style, but recent studies (e.g. Leech et al. 2009:164) suggest that the construction is decreasing in frequency of usage, at least in formal registers in English. If there is an ongoing decline, an interesting question is what constructions may be used instead of the passive. It is well-known that the passive is related to, for example, the middle construction (Shibatani 1985; Kemmer 1993) and the adjectival/predicative construction. Another often-mentioned alternative to the agentless passive is a generic pronoun and an active verb (Altenberg 2004-2005).

This paper addresses the question of what non-passive constructions the passive is related to in English and in Swedish, and how these relations can be characterized. Based on data from the English-Swedish Parallel Corpus (Altenberg & Aijmer 2000), the study uses fiction and non-fiction original texts in English and in Swedish and investigates how 4,600 instances of the passive construction were rendered in their respective translations – whether a passive was translated congruently into a passive or non-congruently, into a non-passive construction (Fredriksson 2016).

In the talk, I will primarily discuss patterns of non-congruent correspondence, which forms a subset of the 4,600 instances. The results show a rich network of non-passive constructions, with several cross-language similarities on a macro level but with micro-level differences. The following constructions were found to show strong degree of correspondence in the contrastive analysis of source text passives and their translations (all examples from the ESPC):

(1) Agentful or agentless passive → active transitive construction; i.e. a passive alternation (e.g. Haspelmath & Hartman 2015:65):

Original text: *Behovet av en omprövning* [Patient] ***förstärks*** *av andra tendenser […]*
the.need of a reassessment accentuate-S.PASSIVE by other tendencies
'The need of a reassessment is accentuated by other tendencies […].'

Translated text: *Other economic tendencies* [Agent] ***accentuate*** *the need for a reassessment*.

(2) Agentful or agentless passive → active transitive construction with thematic structure retained; shift in verb type:

Original text: *De båda citaten* [Patient] ***kan ses*** *som ett uttryck för*
the both quotes can see-S.PASSIVE as an expression for
den undergångsstämning som rådde i många europeiska kretsar[…]
'Both quotes can be seen as an expression for the feeling of doom …'

Translated text: *Both quotes* [Agent] ***express*** *the feeling of doom and demise* [Patient] *that reigned in many European intellectual circles […].*

(3) Agentful or agentless passive → intransitive construction (intransitive alternation). In this particular example, the intransitive has middle meaning and the event is depicted as spontaneous, with no external agent or cause.

Original text: *En del av det bilaterala biståndet* [Patient] ***används*** *till att betala*
a part of the bilateral the.assistance used-S.PASSIVE for to pay
krisländernas förfallna skulder till IMF och Världsbanken.
the.crisiscountries' matured loans to IMF and the.Worldbank
'A part of the bilateral assistance is used for paying …'

Translated text: *Some bilateral assistance* ***goes*** *towards repaying the crisis countries' matured loans to the IMF and the World Bank.*

The example in (3) shows that also in cases where the verb requires a human participant acting with volition, the English translation may use an intransitive construction with no expressed agentive element. The implicit passive agent is vague and unidentified, but it is completely absent from the translation.

(4) Agentful or agentless passive → nominalisation, i.e. the passive VP corresponds to a nominal structure in the translation.

Original text: *The Lady Nii, […], resolved that she and Antoku* [Patient] ***would*** *not* ***be captured by the enemy*** [Agent].

Translated text: *Fru Nii, […], beslöt att hon och kejsaren* [Patient] *inte skulle bli*
Mrs Nii, […], resolved that she and the.emperor not would become
fiendens fångar.
the.enemy.GEN captive.PL
'… she and the emperor would not become the enemy's captives'

Several correspondence types hence exhibit different strategies for agent demotion and detransitivisation. The talk will present a verb semantic analysis of the strongest correspondence categories and show that various co-textual factors within and outside of the passive clause influence the occurrence of a construction in text. Argument patterns and semantic roles are central in the analysis, and other factors include animacy, control and responsibility (Givón & Yang 1994), and

lexical choices. It will also discuss the importance of looking at the co-text and the linear organization of information in chunks of text larger than the clause.

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Passivization and argument structure in Old Italian: the case of ditransitive verbs

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This paper aims to investigate the phenomenon of passivization in Old Italian as related to the category of ditransitive verbs. Following a typological approach (cf. Malchukov *et al*. 2010), *ditransitives* are verbs denoting an event of possessive transfer (e.g., *to give*) or mental transfer (e.g., *to say, to teach*) and having two object arguments, a *Theme* (T) and a *Recipient* (R), which may be encoded through different types of argument structure across languages. More precisely, both the Theme and the Recipient may be marked in the same way as the *Patient* of monotransitives (P) or differently from it, giving rise to various types of *alignment*. The most frequent are: (i) the *indirective alignment* (T = P ≠ R); (ii) the *secundative alignment* (T ≠ P = R); (iii) the *neutral alignment* (T = P = R).

Data from Old Italian, collected by means of a corpus study over the OVI and the MIDIA electronic resources, show that in some cases the R of a ditransitive verb may be passivized (cf. ex. (1)), which never happens in Modern Italian, where only the T may appear as the subject of a passive sentence (cf. ex. (2a,b)):

(1) *E se* ***noi*** *saremo adomandati perché li planeti fuoro sette…*
and if we be:FUT.IND.1PL ask:PTCP why the planets be:PRF.IND.3PL seven
'And if we will be asked why the planets were seven…' (Restoro d'Arezzo, I, 12)

(2) a. *Credo che* ***questa informazione*** *sarà domandata*
believe:PRS.IND.1SG that this information be:FUT.IND.3SG ask:PTCP
a tutti noi al nostro arrivo
to all us at.the our arrival
'I believe that this information will be asked to all of us upon our arrival.'

b. **Credo che* ***tutti noi*** *saremo domandati questa informazione*
believe:PRS.IND.1SG that all we be:FUT.IND.1PL ask:PTCP this information
al nostro arrivo
at.the our arrival
'I believe that all of us will be asked this information upon our arrival.'
(ungrammatical in Modern Italian)

We demonstrate that this behaviour is causally connected with another peculiarity of Old Italian ditransitive verbs, which disappears in Modern Italian, namely with the ability of (some) Old Italian ditransitives to encode the R as a direct object in the active voice:

(3) *L' uomo die insegnare* ***la femmina*** *ch'ella sia umile*
the man must:PRS.IND.3SG teach:INF the woman that she be:PRS.SUBJ.3SG modest
'The man must teach the woman that she is to be modest.' (Egidio Romano, 2, 1, 18)

At the same time, our data show that in the active voice some of the ditransitive verbs allowing the passivization of the R in Old Italian witness all three types of alignment mentioned above: they display not only the indirective alignment (ex. (4)), which is typical of ditransitives in Modern Italian, but also the secundative and/or the neutral alignment.

(4) *Et non è da domandare consiglio* ***ad neuno***
and not be:PRS.IND.3SG to ask:INF advice to nobody
'And one should not ask anyone for advice.' (Andrea da Grosseto, 2, 19)

This means that Old Italian ditransitives may encode the R as a direct object (cf. again ex. (3)). The picture emerging from Old Italian shows a fluctuation of possible argument realizations with the same verb, which requires an in-depth analysis of its pragmatic, semantic and syntactic determining factors. In this contribution we will analyze the behaviour of a selected group of ditransitives in Old Italian trying to explain the role of diachronic and synchronic factors determining the way in which these verbs realize their arguments in the active voice, and passivize them. In particular, we will address the following research questions:

(i) whether it is possible to identify specific semantic subclasses of ditransitives allowing the passivization of the R;

(ii) whether and how the syntactic alignment(s) displayed by a given ditransitive in the passive is related to the alignment type(s) that it uses in the active;

(iii) which role the syntactic status of the argument (pronoun vs. full nominal phrase) has;

(iv) to what extent information structure is related the choice of alignments in the active and passive voices, with a special focus on the phenomenon of topicalization;

(v) which diachronic forces may have influenced the changes from Old Italian to Modern Italian in terms of argument structure of ditransitives, with a particular regard to the encoding of the R;

(vi) which diachronic paths have been followed: is there a general developmental direction followed by all ditransitive verbs? which strategies are witnessed in the development from Latin to Italian (lexical substitution, reanalysis)?

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On argument fronting in Slavic - Constructional approach

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The present investigation focuses on the correlation between position, morphological form and syntactical behavior of arguments in the syntactically dependent clauses in the selected Slavic languages (prevalently Russian, taking into consideration data from Polish, Croatian and Bulgarian). The fronting of internal arguments of embedded infinitives is an observed phenomenon, which has been traced back to the requirements of the information structure of the sentence. While languages with the strict word order tend to develop the construction of the type (1) (known as tough-movement-construction) as a means of foregrounding an important topic (Givon 2001), the oblique form of fronted arguments in Slavic (for ex. (2)) is considered to be due to their relative free word order (for ex. Comrie & Matthews 1990).

The word orders in which an oblique argument of infinitive occupies the leftmost position in the finite clause (lacking as a rule an expressed first argument (for ex. (2) or (3)) are quite common in Slavic languages. They are by no means limited to constructions with a raising or an auxiliary matrix predicate, probably because of the tendency to put the finite verb into the second position, since SVO (not being obligatory) is the statistical dominant transitive order in all Slavic languages (Siewierska & Uhlířová 2010).

Bailyn (Bailyn 2004) argued that EPP in Russian can be fulfilled by any XP and is not connected with case and agreement. Consequently, he suggests that fronted internal arguments behave syntactically like subjects. This latter assumption was, however, disproved (see for ex. Nikolaeva 2011). Within the framework of Generative linguistics, Haider and Szucsich (Haider & Szucsich 2012) have proposed to consider Slavic languages "not exceptional VO languages" but "regular T3 languages", i.e. languages in which the internal argument may precede or follow the head (ibid.). This behavior is claimed to be primary for Indo-European languages (ibid.). While it was widely lost in Germanic and Romance languages, Slavic languages "have retained this property" (ibid.).

In my contribution, I will firstly propose an account in which these valuable theoretical assumptions will be made compatible with a usage-based perspective on language and on language change. With Construction Grammar we have a framework, where all construction types (and thus all word order types) have equal importance, since they reflect semantic, morphosyntactic (grammatical) or pragmatic information. Thus, my second task is to discuss the motivations for argument fronting within and across Slavic languages, as well as the factors blocking the fronting of arguments. This also implies the illumination of the situation in the oldest extant texts. The diachronic investigation is based on corpus data and has been tailored to answering following questions: 1) are we dealing with an instance of constructionalization and 2) which suggestions about what has motivated the constructional change can be made.

Examples:

(1) *Cette couleur est difficile à voir.* [FR]
This problem is tough to solve. [EN]
Dieser Hintergrund ist schwer nachzuvollziehen. [DE]

(2) *Ėtu knigu (*Ėta kniga)* *legko (*legka)* *čitat'.* [RU]
this book.ACC (*NOM) simple.N (*F) read.INF
'This book is simple to read.'
*Tu knjigu (*Ta knjiga)* *je lako (*laka)* *čitati.* [CR]
this book.ACC (*NOM) is simple.N (*F) read.INF
'This book is simple to read.'

(3) *Ego* *xoteli* *pobit'* *raz....* [from ruscorpora.ru]
him.ACC want.3PL.PST hit.INF once
'Once they wanted to hit him…'

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Retension and renewal in grammar and lexicon: basic causative verb patterns in Uralic

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Since a wordlist-based typology of basic valence orientation was proposed in 2004 (Nichols, Peterson Barnes 2004) there has been work on individual languages, some historical comparison using the typological idea (Kulikov 2009; Luraghi 2012; Lavidas & Kulikov 2018), and some work on Indo-European (Grossman & Nikolaev 2018), but no exhaustive survey of a language family, no wordlist-based reconstruction, and virtually no work of this type on Uralic. This paper remedies these gaps with an exhaustive survey of the Uralic languages and dialects for which adequate lexical coverage is available, using an expanded version of the Nichols et al. wordlist, and proposing some major typological and historical trends in Uralic and a position for Uralic in the typological space of valence alternations and the linguistic-geographical space of Eurasia. The project has revealed a number of questions of reconstruction, change, and retention which call for more work, both general and verb by verb, in Uralistics; here we present some of the main ones.

Causative verbs in Uralic inherently index transitivity ambiguously because they are based on derivation lexically encoded derivational information instead of category-based rules characteristic of inflectional morphology. The basic pattern involves derivation from an underived verb stem as North Saami (1–2) (cf. Nickel & Sammallahti 2011: 580–591).

North Saami

(1) *Dat* *mearkkaša* *ahte* *dat* *borrá* *eará* *elli-id…*
it mean.3SG that it eat.3SG other animal-PL.GEN(-ACC)
'It means that it eats other animals.'

(2) *Ma-id* *sii* *galge-t* *bora-hi-t* *mána-i-de?*
What-PL.GEN(-ACC) they must-3PL eat-CAUS-INF child-PL-ILL
'What should they give the children to eat?'

However, the relationship between the basic verb and its causative pair may vary lacking a productive causative or decausative marker in either of them (3–4). In the given case the causativizing strategy of a basic animate verb is based on suppletion and diverges from the basic derivational pattern.

Udmurt

(3) *čapak* *si-s'ky-sa* *puki-s'ko-my* *val*
just eat-REFL-CVB sit-PRS-1PL AUX.PST
'We were just sitting and eating.'

(4) *so* *pinal-z-e* *s'ud-e*
(s)he child-3SG-ACC feed.PRS.3SG

Apart of valency changing operations, causativizing involves other characteristics of transitive clause, such as object marking and the objective conjugation of verbs in individual Uralic languages that have one as Hungarian (5–6) and Ob-Ugric (cf. Dolovai 2001). This, however, is not combined merely with causativizing but is a more general characteristic of transitive clauses.

Hungarian

(5) *Én* *is* *ez-t* *esz-em.*
I also this-ACC eat-1SG.OBJ
'I also eat this.'

(6) *Ők-et* *tiszta* *buzá-val* *e-tet-em.*
they-ACC pure wheat-INS eat-CAUS-1SG.OBJ
'I feed them with pure wheat.'

Diachronically, the Uralic languages show both retension of old suffixal causative derivation, including a wide-spread similarity of proto-language stage causative suffixes displaying *-t-* and parallel affixes in contemporary languages, lexification of unproductive derivational patterns and implementation of secondary means of causativization, such as suppletion or involvement of verb pairs. Despite the assumed stability of causative as a derivational category, the way it is manifested is sometimes blurred by merging with other derivational suffixes or, as in the case of Mari influenced by Turkic languages, in which the number of varying causative suffixes has increased under language contact. This adds the importance of lexically ruled information.

As derivational suffixes often combine with one another, this is illustratively seen in the coaffixation of causatives with other derivational suffixes, most notably bounded (momentanous), indicating a limited action, and reflexive, which may operate as a decausativizing unit. Combining with one of these derivational types is much more common in Uralic than reduplicating a causative suffix.

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Parameters of transitivity - instantiated in Norwegian

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Recognized parameters of the notion 'transitive construction/verb' include – in all cases involving a *subject* and an *object* as direct syntactic arguments:

P1: Degree of effort/dynamics of event – values from 'high' to 'low'.

P2: Referentially distinct participants – values: (a) two distinct individuals; (b) one individual but in different roles; (c) one individual in one role.

P3: Role asymmetry of participants – values from 'high' to 'low'.

P4: Event content realized (a) through one verb exclusively, or (b) through verb plus another predicate.

P5: Each participant being realized – yes or no (the latter: 'implicit argument').

P6: Syntactic object expressing participant – yes or no (the latter: 'expletive object').

As a 'prototypical transitive verb/construction' (cf. Creissels 2016) one may consider (1):

(1) P1:high, P2:(a), P3: high, P4 (a), P5:yes, P6:yes>.

Most transitive constructions in Norwegian are more like (2),

(2) P1:medium-to-low, P2:(a), P3: medium-to-low, P4 (a), P5:yes, P6:yes>.

Verbs with these properties exhibit few cases of multiple valence frames. Multiplicity of valence frames rather obtains with verbs which in one usage have the combination (1). Typical 'other' frames of such verbs include, mentioning the differential property relative to (1):

- P2:(b) (i.e., 'reflexive verbs' like in (3));
- P4:(b) (i.e., 'secondary object' constructions like (4);
- P2:(b) and P4:(b) combined (cf. (5)).

P4:(b) in isolation represents the pattern 'SUBJ V OBJ OBJ-PREDICATIVE', i.e., a predicative following the object and predicated of it – we will refer to this construction type with the abbreviation *ScObPr* ('secondary object predicative'; it is productive in Norwegian, with many subtypes. The predicative can be of any phrase type, and denote either permanent(ly induced) properties or temporary states or processes, including directional motion. Among the meanings that the construction can carry is *causation*, in which case the verb is either a schematic causative verb (like 'make') or a verb denoting the action serving as cause, i.e., with *P1:high*. A noteworthy variant of *ScObPr* is the combination

- P4:(b) and P6:no combined,

an instance of which is (6), a construction type combining a high degree of effort/dynamics with an object void of reference: *det* is here acting like the *det* of presentational constructions in indicating thetic construal of the resulting state, but can be shown to have the coding properties of objects. Thus, this is a construction with the semantics of a 'prototypical transitive' event, whose impact however is only situational, not manifest in any entity.

Causative *ScObPr* often has an incorporated alternative, for 'normal' objects and also for 'expletive' objects as in (7), whereby patterns with *P4:a* rather than *P4:b* are obtained, thus in one respect closer to the 'prototypical' pattern.

We investigate the combinatorial parameters presented over a valence lexicon with 13,000 entries for Norwegian, and state a cross-linguistically comparable language profile with regard to these parameters.

(3) *Hun* *vasker* *seg*
She wash-PRS REFL
PN V PN
'She washes (herself)'

(4) *Vi* *spylte* *huset* *rent*
We flush-PST house-DEF.N clean-N
PN V N A
'We flushed the house clean'

(5) *Hun* *løper* *seg* *glad*
She run-PRS REFL happy.SG.F
PN V PN A
'She washes (herself)'

(6) *Vi* *spylte* *det* *rent* *ute* *og* *inne*
We flush-PST EXPL.N clean-N outside and inside
PN V PN A ADV CONJ ADV
'We flushed so that it became clean inside and outside'

(7) *Vi* *renvasket* *det* *ute* *og* *inne*
We cleanwashed EXPL outside and inside
PN V PN ADV CONJ ADV
'We clean-washed ('it') outside and inside'

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Georgian verbs: Control/volition trumps transitivity

Steve Hewitt, independent

This talk stems from an investigation into why the perfect tenses of agentive verbs in Georgian have "inverse" person-marking in the verb (subject: "oblique" [object] person markers; object: "direct" [subject] person markers) and "inverse" case-array of the verb's arguments (subject: dative; object: nominative), a fact unsatisfactorily dismissed by most authors as idiosyncratic. Georgian has:

4 VERB CLASSES:

1 – agentive: mostly transitive, a few intransitive;

2 – patientive: passive or unaccusative intransitive, some transitive and even doubly transitive;

3 – agentive: unergative intransitive, but many can also be transitive;

4 – affective: with "inverse" person-marking and case-array in all tense series, both transitive and intransitive. The *defining* characteristics of the four classes are morphological rather than syntactic or semantic: 3PL ending in the aorist; formation of the future/conditional subseries; regular or inverse person-marking and case-arrays.

3 TENSE SERIES:

I conative (present/future; imperfect/conditional; imperfect/conditional conjunctive);

II aorist (and aorist conjunctive; also infrequent imperfective aorist and conjunctive);

III perfect (perfect, pluperfect, pluperfect conjunctive).

3 CASE-ARRAYS:

E:	**SUB-ERG**, (DO-NOM), (IO-DAT);	(regular orientation)
N:	**SUB-NOM**, (DO-DAT), (IO-DAT);	(regular orientation)
D:	**SUB-DAT**, (DO-NOM), (IO *-tvis* 'for').	(inverse orientation)

2 SETS OF PERSON-MARKERS ON THE VERB:

direct (subject): *v-* (1SG.DIR);

oblique (object): *m-* (1SG.OBL) (separate subsets for 3rd pers. DO; IO; inverse SUB).

2 "ORIENTATIONS" OF PERSON-MARKING (no ergative person-marking in verb):

regular (SUB-DIR; OBJ-OBL) and

inverse (SUB-OBL; OBJ-DIR).

VERB CLASSES AND CASE-ARRAYS:

Verb Classes 1 and 3 (agentive) – case-shifting:	**N-E-D** (in Tense Series I-II-III);
Verb Class 2 (patientive) – case-stable:	**N** (in all tense series);
Verb Class 4 (affective) – case-stable:	**D** (in all tense series).

Although transitivity is usually crucial to the description of ergative languages, in Georgian, ***verbs in all four verb classes may be either transitive or intransitive; transitivity is thus diagnostic of nothing as far as the functioning of the Georgian verb system is concerned.***

Ergative-marked arguments imply control/volition, which is denied for dative-marked arguments: *tamarma ar daçera es çigni* [Tamar.ERG not X.wrote.Y this.NOM book.NOM] 'Tamar [intentionally] did not write this book.'; *tamars ar dauçera es çigni* [Tamar.DAT not X.has.written.Y this.NOM book.NOM] 'Tamar did not (failed to) write / has not written this book.' Nominative-marked arguments imply no particular salience of control/volition. Class 1 and 3 verbs (agentives) thus vary (at least historically) the control/volition of the subject according to tense series.

The relative control/volition of arguments: in **E case-array**, SUB-ERG has greater control/volition than OBJ-NOM; in **N case-array**, SUB-NOM has greater control/volition than OBJ-DAT; but in **D case-array**, SUB-DAT has less control/volition than OBJ-NOM, as befits affective verbs and the perfect of agentive verbs, which in the negative specifically implies lack of control/volition. The **affirmation of control/volition** ERG vs. the **denial of control/volition** DAT or the **lack of salience of control/volition** NOM thus appear to have general explanatory power with regard to the case-arrays of the arguments of Georgian verbs, in any case more so than transitivity.

Many authors, cf. Harris, believe that Proto-Kartvelian was more purely ergative, and that the N case-array in Tense Series I of agentive verbs was derived from the E case-array by a process of antipassivization. Certainly the fact that most agentive verbs in Tense Series I have an additional "thematic stem" ("present-future stem formant"): *-eb, -ob, -av, -am, -i,* suggests that these forms are derived from the older aorist forms without thematic stems, which for agentive verbs require the E case-array. The E case-array is not now dominant in Georgian, it being limited to agentive verbs in the aorist Tense Series. However, the question remains as to whether ergative alignment in Georgian is recessive or, contrary to general wisdom, possibly emergent as a result of contact with more fundamentally ergative North Caucasian languages. Certainly Mingrelian and Laz, the more evolved sisters of Georgian (and Svan), have expanded the scope of ergative alignment with respect to Georgian, albeit in different directions, which suggests that ergativity might be emergent rather than recessive in Kartvelian: Georgian and Svan may be taken as the older system. In regular (non-inverse) constructions, Mingrelian generalizes E case-array in Tense Series II to both agentive and patientive verbs; Laz generalizes E case-array for agentive verbs to both Tense Series I and II. Furthermore, the ergative case-marker is quite different in Georgian, Svan, and Mingrelian/Laz, possibly suggesting that ergativity may be a relatively recent prehistorical development in Kartvelian. The question of whether ergativity is recessive or emergent in Kartvelian is open.

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Georgian tenses and tense series

Tense Series→	*I - Conative (Present/Future)*		*II - Aorist*		*III - Perfect*
Endings↓	*Imperfective*	*Perfective*	*Imperfective*	*Perfective*	*Perfective*
Non-past	Present	Future	–	–	Perfect
Past	Imperfect	Conditional	Impfv Aorist	Aorist	Pluperfect
Conjunctive	Imperfect Conj.[1]	Conditional Conj.[2]	Impfv Aorist Conj.	Aorist Conj.[3]	Pluperfect Conj.[4]

More traditionally: [1] Present Subjunctive; [2] Future Subjunctive; [3] Optative; [4] Perfect Subjunctive.

Georgian person-marking on verb and case-arrays of verbal arguments

***Reg.* person-marking on verb**		DIR_S subject	(OBL_{DO} direct object)	(OBL_{IO} indirect object)
Case-arrays of arguments	N	NOM-DIR	(DAT-OBL)	(DAT-OBL)
	E	ERG-DIR	(NOM-OBL)	(DAT-OBL)

***Inverse* person marking on verb**		OBL_{IS} inverse subject	(DIR_{IDO} inverse direct object)	[demoted ind. obj.]
Case-array of arguments	D	DAT-OBL	(NOM)-DIR	(*-tvis*$_{IO}$ "for").

Georgian verb classes, orientation and case-arrays by tense series

Class	***Type***	***I Conative (Prs/Fut)***	***II Aorist***	***III Perfect***	***Orient., Case-arrays***
2	*patientive*	regular–N	regular–N	regular–N	reg-N (stable)
1, 3	*agentive*	regular–N	regular–E	inverse–D	reg-N/E/inv-D (shifting)
4	*affective*	inverse–D	inverse–D	inverse–D	inv-D (stable)

Kartvelian verb classes and case-arrays by tense series and language

Tense	**Georgian/Svan**			**Mingrelian**			**Laz**		
Series	*Agentive*	*Patientive*	*Affective*	*Agentive*	*Patientive*	*Affective*	*Agentive*	*Patientive*	*Affective*
I	N	N	D	N	N	D	E	N	D
II	E	N	D	E	E	D	E	N	D
III	D	N	D	D	N	D	D	N	D

Kartvelian case-marking by language

	Old Georgian	**Svan**	**Mingrelian**	**Laz**
NOM	*-i, -y*	*-i*	*-i*	*-i*
ERG	*-man*	*-d*	*-k*	*-k*
DAT	*-s(a)*	*-s*	*-is*	*-is*
GEN	*-is(a)*	*-iš*	*-iš*	*-iš*
INST	*-it(a)*	*-šw*	*-it*	*-ite*
ADV	*-ad(a), -d(a)*	*-d*	*-o*	-

Passive in Old Japanese: a corpus-based study

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It is known from previous studies that morpheme(s) involved in passive constructions in Japanese are highly polysemous. Namely, other than being central in the prototypical active/passive conversion, which involves the back-grounding of the syntactic subject (Ø or demotion to an oblique) and the foregrounding of the syntactic object of an active sentence, passive morphemes *-(a)ye-* and *-(a)re-* in Old Japanese (hereafter OJ, the earliest attested stage of the Japanese language, mainly from 8th century C.E.) also function as potential (or potential passive, cf. Haspelmath 1990) and middle voice (Frellesvig 2010:63). Vovin (2009:828ff.) also discusses of a spontaneous function in addition to the passive and potential one. In comparison, passives in contemporary Modern Japanese (hereafter cNJ), which are formed only with the morpheme *-(r)are-*, are also employed in honorific expressions in addition to passive, potential, spontaneous and the so called 'indirect passive' (1) – also called 'adversative passive' (cf. Wierzbicka 1979) – which is a construction that employs passive morphology but it increases the verb valency (cf. Shibatani 1985:822f.).

(1) *John wa neko ni sakana o tabe-**rare**-ta.*
John TOP cat DAT fish ACC eat-**PASS**-PST
'John was affected by the fact that the cat ate the/his fish.'

In order to obtain a unified functional description of the passive constructions in OJ, the present paper proposes a detailed reanalysis of passive constructions of this stage of the language by using data from the *Oxford Corpus of Old Japanese*[2] (Frellesvig *et al*. 2018). More specifically, I adopt a form to function approach, by focussing only on verbs that are attested in passive form in the corpus. In order to identify the functions of constructions involving passive morphology in OJ, I consider three parameters as the basis of my analysis: (i) in relation to the argument structure: the syntactic and semantic valency displayed by the verbs in both passive and active form; (ii) the semantic properties of the arguments found in these passive constructions, in particular, properties such as animacy and control of the semantic agent in addition to the properties displayed by the patient or theme and (iii) the semantic properties of the said verbs. The analysis focuses mainly on the qualitative aspect, although quantitative data is also provided.

Preliminary results show that verbs attested in passive voice in OJ are in a very limited number, especially when compared to the productivity of passive morphology in cNJ. Moreover, some of the attested verbs do not present a corresponding active form in the corpus. Overall, the function of the set of verbs seems also to vary in relation to the semantic category of the verb. As regards the non-

[2] A new version of the corpus has been released on March 30th, 2018, as the Oxford-NINJAL corpus of Old Japanese (ONCOJ). The online version is accessible at: http://oncoj.ninjal.ac.jp/.

prototypical valency change, only one instance of 'indirect passive' is found in OJ, as shown in example (2).

(2) *awayuki* *ni*
light.snow DAT
*pura-**yete*** *sak-yeru*
fall-**PASS**.GER bloom-STAT
ume *no* *pana*
plum GEN flower (ACC)
kimi-gari *yara-ba*
lord-place send.away-COND
yosope-te-mu *kamo*
compare-PFV-CONJ EMPH
'Maybe by sending you this plum flower, which is blossoming under the falling of this light snow, you will be able to compare (them).'

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Anticausativization and basic valency orientation in Latin

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The anticausative or causative-inchoative alternation (Haspelmath 1987; Alexiadou et al. 2015) relates to the way in which languages encode events that are conceived as brought about by an external volitional entity (e.g. *the boy broke the vase*) as opposed to ones that come about spontaneously (e.g. *the vase broke*). Syntactically, the anticausative alternation often involves a transitivity change: externally caused events are prototypically transitive whereas their spontaneous counterpart is often intransitive (Hopper & Thompson 1980; Næss 2007). Within this framework, Nichols et al. (2004) propose that languages can be classified according to their preferred pattern of encoding such alternations, i.e. their basic valency and its orientation. According to Nichols *et al.* (2004), languages resort to either oriented or non-oriented strategies. Oriented languages can be described as transitivizing or intransitivizing, based on whether the morphologically simpler verbal form indicates the plain or the induced event. Non-oriented languages make extensive use of strategies such as suppletion (e.g. *die/kill*), ablaut (e.g. *fall/fell*), and lability (e.g. *break/break*).

In recent years, the study of basic valency orientation has become a topic of interest in Indo-European linguistics. Beside the modern IE languages originally featured in Nichols et al. (2004), studies focusing on ancient IE languages have appeared, including Old Church Slavic (Nichols 2006), Sanskrit (Kulikov 2009), Hittite (Luraghi 2012), Gothic (Ottosson 2013), Old Norse (Cennamo *et al.* 2015), Proto-Germanic (Plank & Lahiri 2015), and Homeric Greek (Sausa 2016). As argued in these studies, ancient IE languages display a system in which a number of derivational transitivizing strategies coexisted alongside the use of voice opposition, a situation that can be to some extent reconstructed for Proto-Indo-European (Luraghi forthc.).

Our understanding of basic valency orientation in ancient IE languages and PIE can still be profitably enhanced by the study of Latin. In Latin linguistics, valency (cf. Lehmann 2002), as well as causativization (cf. Hoffman 2016) and anticausativization strategies (Pinkster 2015; Cennamo et al. 2015) have already been the subject of dedicated studies, but a comprehensive account of these phenomena in the framework of valency orientation is still lacking. This paper aims at partly filling this gap. Data for the study consists of 18 verb pairs that have been selected on the basis of the guidelines in Nichols *et al.* (2004) and manually retrieved from standard dictionaries of the language (e.g. Glare 2012). To these, other verbs that instantiate the anticausative alternation will be added to further corroborate our results. The selection is restricted to verbs attested in Early and Classical Latin sources. As Tab. 1 shows, for some of the meaning slots more than one Latin verb exists, as in the case of *neco*, *occido*, *caedo*, and *interficio*, all in principle viable candidates for 'kill'. In these cases, the pairs will be selected based on the token frequencies of possible candidates extracted from digital corpora, thus combining typological insights with corpus data (e.g. *Latin Dependency Treebank*). The analysis is

based on parameters such as the animacy of the subject and the lexical aspect of the predicates, in order to detect meaningful distributional patterns in the encoding of the anticausative alternation (cf. Cennamo *et al.* 2015; Luraghi forthc.).

Some preliminary conclusions can already be drawn. A look at the data in Tab. 1 shows that Latin makes use of different strategies in the encoding of the anticausative alternation. In the first place, one detects a tendency for animate verbs to encode the alternation through suppletion, e.g. *neco* 'kill' vs. *morior* 'die' or *disco* 'learn' vs. *doceo* 'teach', and through periphrases, as in *rideo* 'laugh' vs. *risum movere* 'make laugh (lit. move to laughter)'. Active/middle voice alternation is partly at play with inanimate verbs, as in *verto* 'turn (tr.)' vs. *vertor* 'turn (intr.)'. Notably, for these verbs one also finds that voice alternation is in competition with the *se*-reflexive construction, as in *rumpo* 'break (tr.)' vs. *rumpor/se rumpere* 'break (intr.)' (cf. Cennamo et al. 2015). Marginal patterns include the use of *-facio* causative verbal compounds, e.g. *ferveo* 'boil' vs. *fervefacio* 'make boil' (cf. Mocciaro & Brucale 2016), and conjugation class change for *pendo* 'hang (tr.)' vs. *pendeo* 'hang (intr.)'. Transitivizing suffixes, which are typically employed in other IE languages, do not constitute a productive strategy in Latin. Finally, in the corpus investigated, lability, which takes over in Late Latin (Gianollo 2014), does not constitute a widespread strategy yet.

Table 1: Possible candidates for Latin plain vs. induced verb pairs based on Nichols et al. (2004)

ANIMATE SUBJECTS		
MEANING	PLAIN	INDUCED
1 laugh	*rideo*	*risum moveo*
2 die	*morior*	*neco, occido, caedo, interficio*
3 sit	*sedeo, consideo*	*poneo, loco*
4 eat	*edo, vescor*	*alo*
5 learn	*disco*	*doceo*
6 see	*video*	*monstro*
7 be(come) angry	*irascor*	*irrīto*
8 fear, be afraid	*horresco*	*terreo*
9 hide, go into hinding	*se abdere, lateo*	*abdo, condo*
INANIMATE SUBJECTS		
MEANING	PLAIN	INDUCED
10 (come to) boil	*ferveo, coquo*	*fervefacio, coquor*
11 burn, catch fire	*ardeo, uror*	*uro*
12 break	*rumpor, se rumpere*	*rumpo*
13 open	*aperior*	*aperio*
14 dry	*siccor*	*sicco, exhresco*
15 be(come) straight	*erigor, se erigere*	*erigo*
16 hang	*pendeo*	*pendo*
17 turn over	*volvor, vertor*	*verto, volvo*
18 fall	*decido, cado*	*demitto*

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The Functions of RÂ in Rudbâri

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Although all modern Iranian languages have nominative-accusative case marking in present tense, they show diversity in their case systems in past tense clauses. While some of these languages have preserved the older stages of ergative-absolutive case system to various degrees in past clauses, some others have completely changed to nominative-accusative case marking in all tenses. Modern Persian is among the latter group. The path toward an object-marking suffix on the noun in the modern period of this language has been discussed by Bossong (1985) and Hopper and Traugott (2003: 166-168) as the following: benefactive, later indirect, later direct object marker.

The goal of this research is to study the grammaticalization process of "râ" and its cognates in Rudbâri. The evidence for the present study comes from Rudbâri dialect spoken in Rudbâr villages of the Sefid Rud Valley in north Iran. This dialect belongs to the Tatic group of modern Northwest Iranian languages and is classified as transitional to Caspian languages in Stilo (1981: 141). Unlike almost all Tâti dialects which have retained a two-term (Direct/Oblique) nominal case system, Rudbâri has lost most original traces of two-term case, gender, and past tense alignment including ergative-absolutive case marking and object-verb agreement, and like the Caspian languages in its neighboring areas now uses nominative-accusative case marking and subject/agent-verb agreement in all tenses. The postposition "râ" and its variants has become a more widely-used (grammaticalized) postposition in this dialect.

In Anbuhi and Juboni variants of Rudbâri, *râ* (and its colloquial forms *re*, *rə*, *-ə*, *-o*, *-â*) is used in the following senses:

1) Benefactive sense. To show the indirect object to whom something is given. Examples in (1-a, b).

(1) a. (Anbuhi) *ki* *râ* *biyârdi?*
who RÂ bring.PST.2SG
'For whom did you bring (something)?' (Sabzalipour 2011: 108)

b. (Anbuhi) *on* *narri* *râ* *xub-ə.*
that male RÂ good-be.PRS.3SG
'That is good for the male (goat).' (Sabzalipour 2011: 129)

2) Dative sense. With indirect object in ditransitive sentences and with such verbs as "tell". Examples in (2-a, b).

(2) a. (Juboni) *mə* *pul* *â* *mə* *râ* *pas* *ânədiyə*
1SG.GEN money RÂ 1SG RÂ back not.give.PST-3SG
'He/She wouldn't give my money back to me.' (AlizadeJuboni 2011: 103)

b. (Juboni) *doktər* *mə* *râ* *bogut* *har* *ru* *so* *pal* *hav* *boxor.*
doctor.DIR 1SG RÂ tell.PST.3SG every day 3 half pill eat.IMP.2SG

‘The doctor told me to take 3 half pills every day.’ (AlizadeJuboni 2011: 119)

3) Place/time adverbials. Example is given in (3).

(3) (Anbuhi) *šav-ə* *râ* *ziyâd* *bəlând* *bəlând* *gab* *nazan.*
night-OBL RÂ much loud loud speech not.hit.IMP.2SG
‘Don’t talk too loud at night.’ (Sabzalipour 2011: 110)

4) Experiencer subject. Examples are (4-a, b).

(4) a. (Juboni) *diri* *vastə* *bəš-om* *rəsi,* *mə* *râ* *vir* *âšə.*
yesterday must go.PST-1SG wedding 1SG RÂ memory go.pst.3Sg
‘I had to go to the wedding yesterday, I forgot.’ (AlizadeJuboni 2011: 267)

b. (Juboni) *tə* *rə* *gə* *van-om* *mə* *rə* *tav* *daganə.*
2SG RÂ that see.PST-1SG 1SG RÂ fever get.PRS.3SG
‘When I see you I get hot.’ (AlizadeJuboni 2011: 96)

5) Emphatic reflexive sense. Example is (5).

(5) (Juboni) *mo* *me* *re* *âhâm.*
1SG 1SG RÂ come.PRS.1SG
‘I myself come.’

6) Accusative sense to show the direct object of the verb. Examples are given in (6-a, b) and (7-a, b).

(6) a. (Anbuhi) *in* *hama* *re* *xâyi* *baxori?*
this all RÂ want.PRS.2SG eat.PRS.2SG
‘Do you want to eat all these?’ (Sabzalipour 2011: 108)

b. (Anbuhi) *mi* *kotâm* *re* *xarâv* *bâkordənd.*
POSS.2SG hut RÂ ruin do.PST.3PL
‘They ruined my hut.’ (Sabzalipour 2011: 113)

(7) a. (Juboni) *bar* *â* *ugan.*
door RÂ close.IMP.2SG
‘Close the door.’ (AlizadeJuboni 2011: 52)

b. (Juboni) *sar* *sib* *mə* *râ* *pânokord-i*
early morning 1SG RÂ not.awaken.PST-2SG
‘You didn’t awaken me in the morning.’ (AlizadeJuboni 2011: 145)

The most widespread use of *râ* in Rudbâri is its accusative sense. In this sense, the sole means for showing direct objects in this dialect is showing them with *râ*; however, like its neighbors, it observes definiteness-based differential object marking and only specific nouns are marked with this marker and no use of it with indefinite nouns can be seen in the data as example (8-a, b) or (2-b) (‘three half pills’) show.

(8) a. (Anbuhi) *pilla* *dâr-i* *badi-om.*
big tree-IND see.PST-1SG
‘I saw a big tree.’ (Sabzalipour 2011: 50)

b. (Anbuhi) *xoši bâq da angur bəčinə, ba:d angur-o biyârə hamon-i var.*
self-GEN garden from grape pick then grape-RÂ bring.PRS.3SG that-GEN to
'Pick grapes from his garden, then bring the grapes to the same [person].
(Sabzalipour 2011: 126-7)

The question raised by the data is whether Rudbâri, because of the influence of the neighboring Gilaki language with nominative-accusative case marking and S/A-verb agreement in all tenses, extended its use of *–râ* as the original oblique case in Rudbâri vanished, or whether the non-direct object uses of *–râ* reflect an earlier phase of grammaticalization of *–râ* which has been preserved in Rudbâri.

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A resource of semantically motivated predicate-argument structures for Italian

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The usefulness of language resources for linguistic analysis has long been shown (see the outstanding exemplar of the WALS project). In this paper, we focus on the T-PAS resource (Ježek et al. 2014), a repository of Type Predicate-Argument Structures (*T-pas*s) for Italian verbs. The purpose of our presentation is to illustrate the usefulness of the resource for linguistic analysis of verb semantic behavior. To achieve this aim, we will first discuss the methodology underlying the construction of the repository, and discuss its recent extension within the PRIN project "Argument Structure in Flux". Secondly, we will focus on the analysis of a specific verb class, that of perception verbs, as a case study that shows the kind of phenomena that such methodology allows capturing and analyzing.

*T-pas*s (*Typed Predicate-Argument Structures*) are corpus-derived semantic verb patterns with the specification of the expected semantic type for each argument position, such as [ANIMATE] *mangia* [FOOD], [HUMAN] *guida* [VEHICLE], and [HUMAN] *partecipa a* [EVENT]. They are extracted from corpora through manual clustering of concordances in which the verb appears to display the same meaning (out of a sample of 250). Semantic types are assigned based on manual generalization over the list of collocates that typically fill each argument position (e.g. [[EVENT]-obj of *partecipare*] = {gara, riunione, selezione, manifestazione, seduta, cerimonia, conferenza, votazione ...}); the available ones are currently 183 and are organized in a hierarchy called Ontology. The first version of the resource, published at http://tpas.fbk.eu/, consists of 1000 average polysemy analyzed verbs, for a total of 4241 *T-pas*s. The sample of average polysemy verbs has been retrieved from the total set of *lemmi ad alta disponibilità* (high frequency verbs) included in Sabatini and Coletti (2007), according to the following proportions: 10% 2 sense verbs, 60% 3-5 sense verbs, 30% 6-11 sense verbs.

T-PAS adopts semantics as its starting point; it aims at identifying patterns based on the verb's semantics. In this perspective, different syntactic realizations in which the verb meaning remains stable (for example *Luca ha finito di leggere il libro* and *Luca ha finito la lettura del libro*) are coded under the same T-pas, [HUMAN] *finisce* [ACTIVITY]. This is a distinctive characteristics of T-PAS with respect to other resources of argument structures for Italian. The theoretical background is the semantic notion of co-composition outlined in Pustejovsky (1995), according to which arguments are active in defining the meaning of verbs in context; methodologically, the analysis of the corpus is performed following the Corpus Pattern Analysis (CPA) procedure, developed by Hanks and collaborators (Hanks 2013).

In the presentation, in addition to illustrating the resource (content and methodology), we will describe the enrichment we recently carried out in order to cover the whole class of *lemmi fondamentali* (fundamental lemmas, understood as high frequency words used in 86% of texts) of the *Nuovo Vocabolario di Base della Lingua Italiana* (De Mauro, 2016) and the verbs included in the Italian

section (Cennamo and Fabrizio 2013) of the *ValPal* resource (an outgrowth of the Leipzig Valency Classes Project). Moreover, as referenced above, we will present the case study of perception verbs and show the kind of semantic generalizations that can be achieved using the T-PAS resource.

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Shaping the morphosyntax-semantics interface: Affectedness as a key category

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Affectedness, generally understood as change in an event participant, has been central to work on transitivity and lexical aspect (Hopper & Thompson 1980; Jackendoff 1990; Tenny 1994). Verbs entailing high degrees of affectedness are argued to correspond to transitive case frames cross-linguistically (Tsunoda 1985; Malchukov 2005). We will present evidence based on effects in two typologically unrelated languages, Turkish and German, to illustrate that affectedness shapes different morphological realizations of direct objects.

The notion of affectedness refers to arguments of verbs that undergo some kind of identifiable change or transition (Ramchand 2008: 28). A semantic analysis distinguishes (i) the argument undergoing change asserted by the predicate, and (ii) the degree of change that is measured through a scale defining its dimension (Beavers 2011: 351). Based on the specificity of the verb about the endpoint of the transition of its argument on the scale, Beavers (2011) develops an affectedness hierarchy with four degrees. The hierarchy ranges from naturally telic predicates entailing a specific endpoint of the argument's transition on the scale (highest degree of affectedness) to predicates being underspecified for change (lowest degree of affectedness).

Table 1. The Affectedness Hierarchy (Beavers 2011: 358)

quantized change >	non-quantized change >	potential change >	underspecified for change
specific result state	non-specific result state	potential result state	underspecified
break, destroy	widen, cool	wipe, hit	see, follow

Turkish and German enable a systematic investigation of grammatical implications of affectedness. In two distinct ways, both languages show variation concerning the morphological realization of direct objects. Turkish has Differential Object Marking: Direct objects in preverbal position can occur both with and without overt accusative morphology (von Heusinger & Kornfilt 2005). In German, pronominal paradigms of dialects like Bavarian (Weiß 1998) alternate clitic and full pronouns in the position after the finite verb. In both languages, the variation is mainly accounted for by nominal semantic features like specificity (Turkish) or information structural restrictions (Bavarian), while a thorough analysis of verbal features is still missing.

The talk will outline systematic effects of affectedness in both languages. In Turkish, accusative case marking on verbs entailing scalar change of their arguments can be associated with a measuring out and delimiting function (compare Nakipoğlu 2009). In (1a) lack of overt case denotes an indefinite amount of change of the quantity of milk. In (1b) however, the verb interacts with entailments of the overtly case marked DP and denotes a definite, exhaustive change of the theme argument (quantized change), giving rise to a telic interpretation. Hence a continuation of the

event is not felicitous. In contrast, (2) is underspecified for change of the direct object. Here, case marking is insensitive to a continuation of the event and signals specificity.

(1) *içmek*, 'to drink': entails non-quantized change of the direct object

a. *Biraz önce süt iç-ti-m, ve hala iç-iyor-um.*
Just milk drink-PST-1SG and still drink-PST-1SG
'I just drank milk, and I am still drinking (it).'

b. *Biraz önce süt-ü iç-ti-m, #ve hala iç-iyor-um.*
Just milk-ACC drink-PST-1SG and still drink-IMP-1SG
'I just drank the milk, #and I am still drinking (it).'

(2) *gözetlemek*, 'to watch/observe': is underspecified for change of the direct object

Biraz önce bir kuzu(-yu) gözetle-di-m, ve hala gözetli-yor-um.
Just a sheep(-ACC) watch-PST-1SG and still watch-IMP-1SG
'I just watched a sheep, and I am still watching it.'

In Bavarian, affectedness interacts with the morphological realization of clitic vs. full direct object pronouns. With predicates underspecified for change, full pronouns are interpreted as being marked and having a focus inducing function (3). Yet in combination with predicates entailing (non-) quantized change, affectedness triggers the acceptability of full forms, which makes an unmarked reading available (4). The data for Bavarian come from a corpus study and grammaticality judgement task showing significant effects of affectedness in a Linear-Mixed-Effects-Model analysis with R.

(3) *seng*, 'to see': is underspecified for change of the direct object

I hob =n $_{unmarked}$ */ eam* $_{marked}$ *gseng.*
I have him see.PST.1SG
'I saw him.'

(4) *easchlong*, 'to slay': entails quantized change of the direct object

I hob =n $_{unmarked}$ */ eam* $_{unmarked}$ *daschlong.*
I have him slay.PST.1SG
'I slayed him.'

I will argue that affectedness is a key category at the morphosyntax-semantics interface, explaining variation at the level of argument realization in Turkish and German. The work contributes to research on semantically coherent verb classes selecting for differing degrees of affectedness, their grammatical implications and interaction with nominal semantics.

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Inverse person marking system as a result of language contact

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While the person indexation systems of Mayan languages are typically absolutive-ergative, Huastec language (Mayan, Mexico) has developed a non-canonical inverse system. In this language, there are three sets of person markers: set I markers (Ergative) encode the agents of transitive verbs and possessors of nouns; set II (Absolutive) marks the subjects of intransitive verbs and subjects of equative constructions (non-verbal predicates); set III (inverse markers) are used in transitive agreement and encode only one participant, namely, the patient. Here is an example of the HSF person marking system: a 3rd person singular/plural is not marked in its role of patient (1)a; one speech act participant, the patient, is marked on verb by an inverse clitic (1)b:

(1) a. *U* *chuuj* *ti* *we'eel* *nuu'* *ti* *plaasa.*
ERG1 see.COM PREP yesterday there PREP market(Sp)
'I saw him/her/them yesterday at the market.' (AmAR204)

b. ***Tin*** *chuuj* *ti* *we'eel* *nuu'* *ti* *plaasa*.
3>1 see.COM PREP yesterday there PREP market(Sp)
'He saw me yesterday at the market.' (AmAR204)

The Huastec person marking system has been regarded so far as an ergative system with portmanteau personal markers (Robertson 1993; Constable 1989; Edmonson 1988; McQuown 1984), as an ergative system with an embedded inverse alignment system (Zavala 1993), or as a tripartite pattern. Usually it was believed that core language features, like person marking, could not be borrowed, but according to Mithun (2006, 2012) language contact can induce changes in argument indexations systems. It seems that the Huastec inverse marking system is a contact induced change at the syntactic level as a result of a language contact with other Mesoamerican non-Mayan languages (namely, Mixe-Zoquean) it has had at one point in its past. This presentation will offer an insight into the origin of this complex indexation pattern and will discuss the role of the language contact in its developing and formation.

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Gerundial Constructions as Verbal Arguments in the English-Russian Perspective

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Non-finite verbal constructions appearing as verbal arguments are a great challenge for the language processing activities such as human and machine translation, parsing, language acquisition, designing algorithms for machine learning on parallel texts.

The paper focuses on the study of the particular case of non-verbal arguments, i.e. Gerundial constructions (the Gerunds and the phrases headed by the Gerunds) as the verbal arguments in the cross-lingual (English-Russian) situation. The Gerund has a dual nature: it has strong verbal features and at the same time functions as a noun. Thus the Gerunds demonstrate the superposition of categorial features, the verbal being the primary one, and the nominal being the secondary one. However, Gerunds function as nouns. Thus, the gerunds will be subjects, extraposed subjects, subject complements, direct objects, indirect objects, prepositional objects.

In the Russian language the Verbal Nouns are the closest form to the English Gerunds. Nevertheless, our study shows that the most preferable translation variant of the Gerundial constructions from English into Russian involves the translational transformation of the Gerund into the tensed verb form of a subordinate clause of a Russian complex sentence. The second in frequency is the transfer of the English Gerundial construction into the Infinitive phrase in Russian. The translation variants involving the Russian Verbal Nouns are less frequent than the previous two ways of translation:

(1) *I am always ready to learn, but I do not always like being taught*. (Churchill)
Ya vsegda gotov uchit'sja, no mne ne vsegda nravitsja,
I always ready learn [V Reflexive] but me [Prn Dative] not always like [V Reflexive],
kogda menja uchat.
when me [Prn Dative] teach [V 3-d Person Plural].
'I am always ready to learn, but I do not always like when they teach me.'

(2) *Travelling is one way of lengthening life.* (B. Franclin)
Puteshestvovat' - eto odin iz sposobov prodlit' zhizn'.
Travel (Infinitive) this one of techniques lengthen (Infinitive) life.
'To travel is one of the techniques to lengthen life.'

The following goals are pursued in the comparative study of the Gerunds as verbal arguments and their translations in the parallel texts in Russian and English: the establishment of functionally synonymous (or quasi-synonymous) structures cross-linguistically, the development of the linguistic resources for language study and machine learning, upgrading the parsing and generation algorithms for the technology with the strong linguistic approach. The representational decision consists in treating the verbs with gerundial arguments as a system of embedded elementary propositions, and it has been

implemented in the linguistic processors of the Knowledge Extraction and Machine Translation systems.

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Argument Structure and Word Formation.
Looking at Latin Verbs through Valency and Derivational based Resources

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Latin Vallex (LV; Passarotti et al. 2016; http://itreebank.marginalia.it/view/lvl.php) is a lexical resource for Latin consisting in a valency lexicon built in conjunction with the semantic and pragmatic annotation of two Latin treebanks: the *Index Thomisticus* Treebank (Passarotti 2011), which includes works of Thomas Aquinas, and the Latin Dependency Treebank (Bamman & Crane 2006), which features works of different authors of the Classical era.

LV is divided into word entries. Each word entry consists of a non-empty sequence of frame entries relevant for the lemma in question. Each different frame entry corresponds to one of the lemma's senses. Each frame entry contains a description of the valency frame itself and of the frame attributes. A valency frame is a sequence of frame slots. Each frame slot corresponds to one complementation of the given lemma. The morphological features of the frame slots are recorded as they appear in the source data. Attributes are semantic roles ('functors') used to express types of relations between lemmas and their complementations.

Word Formation Latin (WFL; Litta et al. 2016; http://wfl.marginalia.it/) is a word formation-based lexicon for Classical Latin, where derivational and compounding rules are modelled as directed one-to-many input-output relations between lexemes. WFL is accessible via a web application where the relationships between lexemes of the same "word formation family" are represented as the edges in a tree-graph. In this graph, a node is a lexeme, and an edge is the word formation rule used to derive the output lexeme from the input one, together with any affix, if present.

These two resources offer two different points of view on lexical items: valency and word formation.

In this study, we exploit and intersect the lexical properties provided by these two resources to find out whether (and which) lexical sets based on word formation (e.g. groups of entries formed with the same affix) and lexical sets resulting from valency description (e.g. verbs displaying a specific valency frame) share features in both resources. Specifically, we want to verify whether there are affixes that select a specific verbal valency class, and conversely if the members of certain verbal valency classes tend to occur (coincide to?) in specific word formation paradigms. We focus on verbs only, because this is the part-of-speech showing the highest valency variance and thus best represented in LV.

In order to do this, we perform our investigation by intersecting data in two directions: LV to WFL, and WFL to LV.

While going from LV to WFL, we select from LV all those transitive verbs that feature a specific valency frame, such as the one featuring the following attributes of frame slots: Actor, Patient, Direction-from, Direction-to (a set including members like *fero* 'to carry, *duco* 'to bring', *pello* 'to

push/strike' and *mitto* 'to send'). Do the word formation family trees these verbs belong to share properties in terms of common word formation rules? Do these verbs produce derivatives with the same suffixes and type of suffixes?

While going from WFL to LV, we collect from WFL sets of verbs sharing the same derivational pattern. Do these verbs feature the same valency frames in LV? When, and if, they differ, where do they differ?

The overall objective of our work is to show that exploiting different lexical resources helps to organise lexical items into classes not explicitly recorded as such in the original resources, resulting from merging the information these provide. In this respect, we want to provide a case study adding a further argument in support of the necessity of making the variety of lexical resources built so far for Latin as much interoperable as possible.

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Argument structure constructions: polysemy or homonymy

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In the literature on verb argument structure, polysemy is usually viewed as due to extension of constructional patterns to different verb groups (Goldberg 1995), while construction homonymy is virtually ignored. Goldberg (2006: 38) acknowledges the possibility of homonymy: "in fact, there do exist instances of constructional homonymy: a single surface form having unrelated meanings. In order to identify which argument structure construction is involved in cases of constructional ambiguity, attention must be paid to individual verb classes. In fact, in order to arrive at a full interpretation of any clause, the meaning of the main verb and the individual arguments must be taken into account", but does not elaborate further on the issue. In order to explore possible homonymy of argument structure constructions, I concentrate on three constructions of Ancient Greek bivalent verbs: NomAcc, NomGen and NomDat. All three constructions display sub-constructions, depending on whether or not the second argument encodes a spatial relation, cp. (1) and (2). The spatial interpretation of sub-constructions is activated by the verbal meaning, and most often by the occurrence of a spatial verbal prefix, such as *ex-* 'out of' in (2). Hence the three constructions can be viewed as being underspecified for spatial meaning. Spatial sub-constructions can always be substituted by constructions containing PPs that duplicate the verbal prefix (*exérkhomai ex* GEN, rather than *exérkhomai* GEN as in (1)). The non-spatial sub-constructions show a peculiar distribution across verb groups: NomAcc - change of state/position verbs; this is the canonical transitive construction and is highly productive; it may extend to all other verb types. NomGen - low transitivity verbs as in (2) or change of state verbs, indicating partial involvement of the second participant in a situation; the construction is based on the partitive meaning of the I(ndo)-E(uropean) genitive (Conti&Luraghi 2014). NomDat - verbs that indicate situations in which two (groups of) human beings entertain some type of potentially interactive relation (e.g. 'fight', 'meet', 'talk', 'help'); the construction reflects the use of the dative for the encoding of non-agent roles taken by human participants typical of IE languages (Brugmann 1901: 547-559). In addition, example (3) illustrates a third NomDat sub-construction that occurs with verbs of manipulation such as *khráomai* 'use'. Non-spatial constructions display a strikingly similar syntactic behavior, as they can all passivize, as (3)-(6) show. Possible passivization with constructions other than NomAcc develops over time, extending first to the NomGen then to the NomDat construction (Conti 1998). Traditionally, different meanings of the NomGen and the NomDat constructions are explained diachronically as connected to case syncretism (genitive +ablative, dative+locative +instrumental; Schwyzer 1950: 89-90; 138-139). Crucially, however, the information about diachronic developments is not available to speakers. The non-spatial sub-constructions NomGen and NomDat are related to their spatial counterpart in cross-linguistically frequent patterns of polysemy, but this only partly holds for the NomDat (genitive and ablative cf. Nikiforidou 1991; dative and locative cf. Rodriguez Aristar

1996; this leaves out verbs of manipulation). Hence, it looks difficult to relate the sub-construction of verbs of manipulation to the other two NomDat sub-constructions. Moreover, even with the spatial sub-constructions, polysemy does not result from construction extension, as in cases discussed in the literature (e.g. Goldberg 1995), but from the historical merger of different constructions. In my paper I will delve deeper into the meaning of the three constructions and the syntactic differences between spatial and non-spatial sub-constructions, in order to assess whether a polysemy or a homonymy account better accommodates the data.

Examples

(1) *mḗ* *tis* *ídētai* ***exelthṑn*** ***megároio***
NEG INDF.NOM see.SBJV.AOR.MID.3SG go.out.PTCP.AOR.NOM hall.GEN
'If someone saw me going out from the hall.' (*Od.*21.229)

(2) *hḕ* ***potamoû*** ***ērássat'*** *Enipêos* *theíoio*
DEM.NOM.F river.GEN fall_in_love.AOR.3SG E.GEN divine.GEN
'She fell in love with a river, the divine Enipeo.' (*Od.* 11. 238)

(3) *kaì* *sphi* *trixa* *exeurḗmata* *egéneto,* *toîsi*
and 3PL.DAT threefold invention.NOM.PL become.IMPF.3SG DEM.DAT.PL
hoi *Héllēnes* ***ekhrḗsanto***
ART.NOM.PL Greek.NOM.PL use.AOR.MID.3PL
'They invented three things that the Greeks made use of." (Hdt. 1.171.4)

(4) ***hai*** *dè* *es* *tò* *mèn* *epoiḗthēsan*
DEM.NOM.PL.F PTC to ART.ACC PTC make.AOR.P.3PL
ouk ***ekhrḗsthēsan***
NEG use.AOR.P.3PL
'They (the ships) were not used for the purpose for which they had been made.' (Hdt. 7.144.2)

(5) *Dēiókēs* *mén* *nun* *tò* *Me#dikòn* *éthnos* *sunéstrepse*
D.NOM PTC PTC PTC ART.ACC Median.ACC nation.ACC unite:AOR.3SG
moûnon *kaì* ***toútou*** ***êrxe***
alone.ACC and DEM.GEN.N rule.AOR.3SG
'Deioces then united the Median nation, and no other, and ruled it.' (Hdt. 1.101)

(6) ***hupò*** ***toû*** ***Kúrou*** ***Smérdios*** ***árkhontai*** *kaì*
under ART.GEN *C.*:GEN *S.*GEN rule.PRS.M/P.3PL and
hup' *oudenòs* *állou*
under INDF.GEN INDF.GEN
'They are ruled by Smerdis, the son of Cyrus, and by no other.' (Hdt. 3.74.3).

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Cross-Romance variation: alternatives allowed by a (same?) derivational morpheme

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A morpheme derived from the present infinitive form of Latin *-*idiō* (**-idiāre*/*izare*) can be argued to undergo an evolutionary process (after the diachronic discontinuity seen in Latin, where it starts out as lexical borrowing from Greek only to achieve restricted productivity, Cockburn 2012; Tronci 2015), whereby it becomes part of the very core of Romance derivational morphology, displaying qualitative and quantitative productivity. Derivational analogues are found across the board in Romance (Ita. *-eggiare;* Cat./Port/ Prov. *-ejar*; Fr. *-oyer*; Sp. *-ear*; Gal. *-izar,* Friul. *-iar,* Surs. *-egiar,* Cerd.*-iare*) with parallels in Greek (*-ízō*, Necker & Tronci 2012). The process, however, can be argued to have led to different results, producing verbs with sufficiently variable semantic and syntactic properties across Romance. In particular, the role of this morpheme in Italian verb formation poses an empirical question if compared against the more general picture of main Romance languages, but also (synchronically) with respect to Latin. The specific question concerns the fact that, unlike equivalent morphemes like *-ejar* (Portuguese, Catalan), *-ear* (Spanish), and even its Latin predecessor *-idiare*/*-izare*; *-eggiare* is generally dedicated to the formation of unergative atelic verbs with nontrivial semantic implications. The primary assumptions at work here are that: (i) *-eggiare* participates in Italian subsystem of (deadjectival/denominal) verbal derivation as productive verbalizer (vo) drawing consistent and non-trivial structural properties; (ii) these fundamental properties are amenable to one of two forms collapsed in Latin and other Romance languages (unergative *similative essive* ('act/look like √') vs. unaccusative/transitive *fientive* ('become/turn into √'); (iii) this contrast motivates in Italian a nontrivial derivational alternation—producing minimal pairs like (1)—i.e., zero-suffixed forms vs. morpho-tactically transparent forms with *-eggiare*—missing in languages where the morpheme is not committed to similativity/unergativity. Here, we will see **(A)** that the derivational alternative defines a consistent crosscut in meaning, event type and argument structure; but also that a similar split is **(B)** realized via different morphemes (Latin) or **(C)** morphosyntactically trivial in other Romance varieties..

(1) *√white | √flat | √black | √round | √blue*

±telic COS

a. sbiancare | appianare | annerire | arrotondare | azzurrare 'become √(er)'

atelic SIMILATIVE

b. biancheggiare| pianeggiare| nereggiare | rotondeggiare| azzurreggiare be/look{√}(ish)'

(A) Italian variation. *-eggiare* verbs (EVs) are productively formed to convey a state which resembles or is close enough to the property/thing named by the root, but with the strong implication of never reaching such condition (notated as (ish) above) (Carratta & D'Alberti 2013; Necker & Tronci 2012). Previous work: the derivational alternative (1) defines an aspectual contrast correlated with argument structure. ● While non-suffixed verbs show variable telicity depending on the scalarity of the base

property, according to a well-known relation in deadjectivals (Hay et al. 1999 a.m.o.); *-ificare* and *-izzare* (historically related to *-eggiare*) forms break this pattern by producing invariably telic, resultative verbs; in turn, EVs are invariably atelic (independent of root boundedness). While atelicity is expected, inasmuch as stativity is involved, the similative entailment (also in French, Catalan, cf.**(C)**) crucially correlates with lack of property ascription. (2) also shows that telicity is nonconfigurational iff √ is in the correct position (cf. [VP[V_o,√P [DP,√]]]→±TELICITY((2)a); [vP[√P[DP,√], v_o]] ((2)b-c))

● Standard tests (aux. distribution (3), unaccusative/refl. cliticization (4), ne-cliticization (5)) converge with event type tests (lack of habitual reading, scalar reading with *a little bit*, oddity in perfective/ progressive) to show that in EVs unergativity consistently correlates with atelicity and stativity (6)-(7).

(2) a. √LIGHT.3S *schiarire (Italian)* *aclarar (Spanish)*
⇢ *VARIABLE TELICITY:* *schiarire (in/per un'ora)* *'lighten (in/for an hour)'*
b. √LIGHT.IFY.3S *chiarificare* *clarificar*
⇢ *TELIC, RESULTATIVE:* *chiarificare (in/#per un'ora)* *'clarify #for an hour'*
c. √LIGHT.EGGIARE.3S *chiareggiare* *clarear*
⇢ *ATELIC, NONRESULTIVE:* *chiareggiare (#in/per un'ora)* *'be light(ish) #in an hour'*

(3) a. *{ha/*è}* *rosseggiato* */ verdeggiato* */ biancheggiato.*
have is √RED.EGGIARE.PST √GREEN.EGGIARE.PST √WHITE.EGGIARE.PST
b.*{*ha/è}* *arrossito* */ inverdito* */ sbiancato*
have is √RED.PST √GREEN. PST √WHITE. PST .

(4) *La pelle* *{(si)* *arrossa* */* *(*si) rosseggia}.*
the skin INCH √RED.3S INCH √RED.EGGIARE.3S
'The skin reddens'

(5) *Anche* *i* *più* *impudichi* *ne* *{arrossano* */* **rosseggiano}.*
also the more indecent PART √RED.3P √RED.EGGIARE.3P
'Even the most indecent ones go red' (lit. redden)

(6) *{annerire* */* *#nereggiare}* *(completamente/* *gradualmente)*
√BLACK.INF √BLACK.EGGIARE.INF completely gradually
'blacken/look black(ish) (completely/gradually)'

(7) *Il* *vetro* *{ nereggiava* */* *#stava* *nereggiando}.*
the glass √BLACK.EGGIARE.IMP.3S BE.IMP.3S. √BLACK.EGGIARE.GER
'(intended)The glass was looking blackish' (cf. *annerire* in (1) a)'

(B)Latin Variations. Similativity independent of stativity. The alternative takes a different form in Latin. While zero derivatives yield unergatives amenable to adjectival predication (thus contrasting with (1)b), an inchoative variant is realized via the morpheme *-esc* (8) which introduces a similative flavor not seen in Greek (Thompson 2012: 119). Such verbs are, however, atelic/non-resultative (Camps 1969). Again, atelicity correlates with similativity, which in this case yields a nonresultative COS described as mere

'intensification' of the property (hence, closed-scale-rooted *albesco* is as atelic as open-scale *acesco* 'start growing sou(e)r'). However, distribution is far from systematicity: *-sco* is not committed to COS, further studies show stative uses paralleling *-eggiare* (Clarke 1998: 13); and the alternation is not fully productive (9). Moreover, some zero forms render the alternative trivial by yielding inchoative transitive predicates with variable telicity themselves (e.g. *obscuro*) while *-sco* forms are often found in resultative uses (Gaffiot 1934: 94, Dilke 1967). Further, zero forms are productively used for variable telicity COS (Haverling 2000), while *ex-*/*ad-*/*in*-prefixes are associated to resultative predicates (Mateu 2017). Prefixation does not guarantee resultativity, however: *-esco* may override this effect (cf. *inalbesco* 'to begin to grow white' Adam 2015:2012). In turn, *-idiare* (the Latin analogue of *-eggiare*) yields various sorts of denominals (10) (Cockburn 2012) including: similative statives and behavior verbs (*betizo*(√beet-IDIARE)'be/look like a beet'); instrumental or 'manner-incorporation' verbs (LAT*spongizo* 'clean with a sponge'); and inherently telic location/ locatum verbs—which produces important contrasts with both other outcomes in Latin ((10)a) and the more systematic Italian result: cf.((10)b with √graec 'Greek', which gives LAT.*graecissare* and ITA*grecheggiare*, both meaning 'behave as a Greek'. (10)b is also relevant insofar as the split between inchoative/causative COS (cf. *eunuchizo* 'turn into a eunuch') and stative similatives paralleling ((1)b) (*amethystizo* 'be of the color of the amethyst', Cockburn 2012:168) is derivationally trivial in Latin.

(8) a. *albeo,* *rubeo,* *vireo,* *flaveo,* *liveo*
√WHITE.1S √RED.1S √GREEN.1S √YELLOW.1S √BLUE.1S
'be {white/red/green/yellow/blue}' ⇢ atelic NONSIMILATIVE STATE

b. *albesco,* *rubesco,* *viresco,* *flavesco,* *livesco*
√WHITE.SC.1S √RED.SC.1S √GREEN.SC.1S √YELLOW.SC.1S √BLUE. SC1S
'grow (white/red/green/yellow/blue)er'⇢ atelic SIMILATIVE COS

(9) a.**aureo/auresco,* **nigreo/nigresco,* *obscuro/*obscuresco*
√WHITE.1S /√WHITE.SC.1S √BLACK.1S /√BLACK.SC.1S √DARK.1S /√DARK.SC.1S

b. *acuo* *cf. *acuesco* / *exacuo*
√SHARP.1S √SHARP.SC.1S EX.√SHARP.1S
'sharpen' 'sharpen up' 'sharpen up'

c. *candeo,* *albeo* *cf. candesco* */ excandesco,* *albesco* / *exalbesco*
√LIGHT.1S √WHITE.1S √LIGHT.SC.1S EX.√LIGHT.1S √WHITE.SC.1S EX.√WHITE.1S
'be light' 'be white' 'grow light(er)/whit(er)'

(10) a. *aromatizo* *cf. sinapizo*
√SMELL.IDIARE.1S √MUSTARD.IDIARE.1S
'to smell of spices' 'cover with mustard'

b. *latinizare* (Latin) *cf. latineggiare* (Italian)
√LATIN.IDIARE.INF √LATIN.EGGIARE.INF
'turn/translate into Latin' 'resemble a Latin' 'talk using Latinisms'

(C) Cross-Romance variations. While Italian generally preserves the stative-unergative status in EVs—drawing the nontrivial contrast between transitive/unaccusative COS *sbiancare* 'whiten' and the similative, stative-unergative *biancheggiare* 'look white(ish)'—, Spanish and BRPortuguese analogues produce inchoative/causative COS (SP *blanqu**ear**/*BRPRT.*alv**ejar*** 'whiten') with telicity dictated by √, thus collapsing the contrast, noted in Italian, between *-ear/ejar* (*-eggiare* analogues) and zero-suffixed forms. In turn, surveyed Catalan speakers report a nontrivial ambiguity between (a)the atelic, non-resultative unergative paralleling Italian *biancheggiare*, and (b) a transitive/unaccusative COS variant amenable to Sp. *blanquear* or BRPrt. *alvejar* (11). The alternative in argument structure realization would explain divergent behavior like eventual compatibility with ne/se-clitics (attested also by Oltra & Castroviejo 2013 under a D-state analysis), and non-stative patterns like affinity with progressive/perfective tenses (apparently restricted to unaccusative/transitive frames, according to the nontrivial realization of the object in (12), and the unavailability of unergative reading in perfective tenses (13)). If correct, Catalan would anyhow retain the event/argument structure correlation and the consequent crosscut which is derivationally nontrivial in Italian (cf. (11)vs.(1)). French (14) and EUPortuguese allow the alternation, but productivity is visibly lower (cf. Ita. *√ner/√azzurr* in (1)).

(11) a. *La camisa blanqueja.*
the shirt √WHITE.EGGIARE.3S
'The shirt looks white(ish)' *(UNERGATIVE-STATIVE) ⇢ atelic SIMILATIVE*

b. *Ha blanquejat la camisa. / La camisa s'ha blanquejat.*
has √WHITE.EGGIARE.PST the shirt / the shirt INCH.has √WHITE.EGGIARE.PST
'[he] whitened the shirt' / 'the shirt whitened'⇢ ±telic COS

(12) *Estava blanquejant *(diners negre).*
was √WHITE.EGGIARE.GER money black
'(He) was laundering money' (lit. '[he] was whitening black money')

(13) *Ha blanquejat tota la paret.*
has √WHITE.EGGIARE.PST all the wall
ok'[he] whitened the whole wall'/*'The whole wall looked white(ish)'

(14) *blanchir / blanchoyer, rougir / rougeoyer, verdir / verdoyer,*
√WHITE.INF/√WHITE.EGGIARE.INF √RED.INF/√RED.EGGIARE.INF√GREEN.INF/√GREEN.EGGIARE.INF
'turn white/look white(ish)' 'turn red/look red(ish)' 'turn green/look green(ish)'
*noircir /*noiroyer, bleuir / *bleuoyer*
√BLACK.INF/√BLACK.EGGIARE.INF √BLUE.INF/√BLUE.EGGIARE.INF
'turn black/look black(ish)' 'turn blue/look blu(ish)'

In sum. Although the general diachronic evolution of the morpheme has been addressed in detail before (Cockburn 2012; Tronci 2015), a synchronic analysis identifying potential cross-Romance variations is necessary. In Italian, the systematic properties of verbs on *-eggiare* arguably define a

nontrivial alternative for the derivation of deadjectival verbs, at the same time that they point to key contrasts across Romance languages bearing on the semantic/syntactic role of the verbalizer in verb formation process and related phenomena, such as lexically-induced (a)telicity and argument structure.

Ditransitive predicates in Spanish and their translation to Croatian: structures with direct and prepositional object

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Prepositional objects (PO) in Spanish were introduced as verbal arguments by Alarcos Llorach (1968), who separated them from adjuncts or circumstantial complements (CC) and stated their semantic similarity to direct objects (DO). Since then the PO has been a frequent topic in Spanish syntax (see e.g. Serradilla Castaño 1997-98, or Santiago Guervós 2007). Other than the criteria for its identification and the nature of its preposition, a recurrent subject is its relation to other verbal complements. As Alarcos first postulated, the PO could not appear in the same predicate with the DO, because the presence of either one of them marks the predicate as complex or transitive. This incompatibility was later refuted (Bosque 1983) and the notion of double transitivity or ditransitivity began to be used not only to designate the argument structure with both direct and indirect object (IO), but also to signify the combination of direct and prepositional object (see e.g. Cano Aguilar 1987; Santiago Guervós 2007; Candalija Reina 2013).

Croatian grammars (Silić & Pranjković 2007; Katičić 2002) traditionally distinguish between objects on one side (DO and IO) and adjuncts (CC) on the other. Because of the inflexional richness of the Croatian language, where nouns can be marked for seven different cases, the syntactic analysis is usually highly formalized in the sense that the verb requires the case of its object, and the case determines the object type. Even though cases take on certain functions which are expressed by prepositions in Spanish, the prepositions are still very common and their role in the argument structure is still complex. For example, the prepositional phrase can only ever be an indirect object (Silić & Pranjković 2007: 303; Katičić 2002: 136), but the topic of a prepositional phrase with an accusative marked noun is systematically avoided.

We adopt the approach of contrastive analysis from a corpus linguistics perspective as described in, for example, Ebeling (1998) or Gómez Castejón (2012), to explore how these ditransitive predicates in Spanish are translated to Croatian, comparing them both syntactically and semantically in order to identify patterns in their argument structure. We used the ADESSE Database (García-Miguel et al. 2010) to extract Spanish verbs with a ditransitive structure: "active S D R(*prep*)", where S stands for subject, D for direct object, and R for prepositional object with a specific preposition stated for each one. We then proceeded with searching these verbs in a Spanish-Croatian parallel corpus to see their translations. To obtain the Croatian verbs' argument structures, we used CROVALLEX – The Croatian Valency Lexicon of Verbs (Mikelić Preradović 2014). Both databases are also annotated for semantic roles, so we analysed similarities and differences between the two languages in this respect as well.

This research intends to augment a small number of papers which compare Spanish and Croatian on any level, and set the basis for further contrastive analyses of verbs and verbal arguments. Also, these

findings will be useful for the syntactic and semantic annotation of the Spanish-Croatian parallel corpus and hopefully aid in translation between these two languages.

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Argument structure and alignment in the diachrony of Basque

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Basque is a SOV language, ergative, overwhelmingly suffixing and highly agglutinating. As for the verbal morphology, it is mainly analytic: the non-finite form is inflected for aspect and the clitic auxiliary for tense, modality and person. In Modern Basque, there are six types of configurations of argument structure depending on the cases assigned to the arguments: <ABS> (unaccusative), <ABS-DAT> (unaccusative with dative), <ERG> (unergative), <ERG-DAT> (unergative with dative, rare), <ERG-ABS> (transitive) and <ERG-ABS-DAT> (transitive with dative). The arguments are indexed on the verb; four auxiliaries can be distinguished depending on the structure: (i) A auxiliary (single absolutive index), (ii) AD auxiliary (absolutive and dative), (iii) AE auxiliary (absolutive and ergative), (iv) AED (absolutive, ergative, dative). The oldest long texts in Basque date back to the 15th century. Although six centuries of written records is a relatively short period, we can observe some evolutions concerning the argument structure and the alignment patterns of Basque. In this paper, we will present two types of variation observed throughout in the texts and show what they tell us about the evolution of argument structure in Basque and the reconstruction of the proto-language.

First, in Old Basque, the <ABS-DAT> coding frame is more widespread than in Modern Basque. More specifically, it concerns two types of verbs: affective verbs (experiencer in DAT and stimulus in ABS; e.g. *ahantzi* 'forget', *galdu* 'lose', *laket izan* 'please') and aiming verbs (they express a volitional activity directed to a participant without triggering a change of state. The aimer is in the ABS and the aimed object in the DAT; e.g. *behatu* 'listen', *burrustu* 'hit', *atxiki/eutsi* 'hang on to', *itsasi* 'catch', *jarraiki* 'follow', *lagundu* 'help', *oroitu* 'remember', *suplikatu* 'beg'). The coding frame of the latter type changed from the 17th century onwards: in the eastern varieties of Basque, it was replaced by the canonical pattern <ERG-ABS> (and the AE auxiliary instead of A auxiliary), and in the Western dialects by the rare pattern <ERG-DAT> (and the AED auxiliary). In other words, there is an expansion of the ergative encoding in this bipersonal structure by marking the aimer as agentive, an analogical development on the model of action verbs in Eastern dialects and the spread of an unusual coding frame in Western dialects. Besides that, the data of Old Basque show that the argument structure of proto-Basque had to be different, with the ergative encoding limited to prototypical transitives.

Second, as shown by Harris & Campbell (1995) and Creissels (2006, 2008), the reanalysis of of Tense, Aspect and Mood periphrases are one of the causes of the emergence of irregular alignments in the languages. From the 15th century onwards, we observe many cases of alignment variations among the aspectual and modal periphrases in Eastern varieties of Basque. Originally, *behar *edun* 'desire', *nahi *edun* 'want' are formed by a noun and **edun* 'have'. They can take a noun (1-2) or a participial construction (3-4) as a complement. In the 16th-17th centuries, we observe that the construction is

reanalyzed: the past participle of the embedded clause is reanalyzed as the main verb of the construction, and **edun* as its auxiliary. It results on the actualization of the intransitive construction, by encoding the subject in ABS and switching the auxiliary**edun* 'have' with *izan* 'be' (5-6). The same phenomenon is also observed in some aspectual periphrases (e. g. the progressive construction *ari izan*, the gradual construction [present participle + *joan*]). This tendency to avoid accusative alignments seems to be due to the weight of the ergative alignment in the Eastern dialects.

(1) *Ogia* *behar* *dut*
bread.SG.ABS need $AUX_{AE.}$PRES.3SG.1SG
'I need bread'

(2) *Ogia* *nahi* *dut*
bread.SG.ABS want $AUX_{AE.}$PRES.3SG.1SG
'I want some bread'

(3) *Joan* *behar* *dut*
leave.PPL need $AUX_{AE.}$PRES.3SG.1SG
'I have to go'

(4) *Joan* *nahi* *dut*
leave.PPL want $AUX_{AE.}$PRES.3SG.1SG
'I want to go'

(5) *Joan* *behar* *naiz*
leave.PPL need $AUX_{A.}$PRES.1SG
'I have to go'

(6) *Joan* *nahi* *naiz*
leave.PPL want $AUX_{A.}$PRES.1SG
'I want to go'

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Transitivity and argument structure realization in Russian synthetic compounds

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Synthetic compounding is a process involving two word-formation operations: compounding (including an argumental relation between a verbal and a non-verbal element) and deverbal derivation, as in *icebreaker*: *ice* + *break* + *-er*. In most studies on synthetic compounding, it is generally pointed out that, in such compounds, the non-verbal element can be interpreted as the Theme/Patient argument of the underlying verb (cf. Roeper & Siegel 1978; Selkirk 1982; Booij 1988; Kiefer 1993; Scalise 1994; Di Sciullo 2005).

Studies on Russian synthetic compounds point in the same direction, and often assume that the non-verbal element in the first position has the semantic role of Theme/Patient, sometimes that of Instrument (Benigni & Masini 2009), or at most that of Manner (Tagabileva 2013).

A systematic analysis of 831 Russian synthetic compounds with agentive/instrumental meanings based on the word-formation database of the Russian National Corpus has shown that, in fact, the picture is more complicated, and that many more semantic roles are realized by first-position elements in such compounds, as shown in example (1), in which the non-verbal element in the first position has the semantic role of Path.

(1) *mor-e-chod-ec*
sea-LV-go-SUFF
'seaman, lit. one who goes through the sea'

The aim of the present paper is to discuss how argument structure is shaped in Russian synthetic compounds with agentive/instrumental meanings, and to show how its realization is affected by the transitivity/intransitivity of the verbal base. The paper also highlights significant differences regarding transitivity and argument structure realization among rival compound constructions (i.e., involving rival agentive/instrumental suffixes), and demonstrates that different constructions show different preferences in terms of transitivity and argument structure realization.

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The rise of grammatical relations in Austronesian

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The encoding of grammatical relations and transitivity is often seen as key to the organisation of clausal structure in all languages, and so one of the core principles of grammar. Yet our understanding of the diachronic development of such systems is somewhat limited. The Austronesian (AN) language family is an excellent testing ground for exploring patterns of continuity and change in clausal organisation, and in particular the development of grammatical systems that rely on distinctions between different core arguments, e.g. subject and object, and differences in transitivity. In this talk we present our initial hypothesis that within Austronesian, the grammaticalisation of transitivity and grammatical relations was linked to the rise of an association between syntactic prominence and the thematic hierarchy. We illustrate the reasoning behind this hypothesis through three case studies: Äiwoo, Javanese, and the Admiralties languages.

Systems of clausal organisation in AN languages cluster around three distinct types. Languages of the Philippines and Taiwan show symmetrical voice systems in which different event participants can be cast as the most prominent argument of the clause. In these languages, transitivity and grammatical relations are not relevant analytical categories (Himmelmann 2005). Rather, they are pragmatically based and reflect the relative prominence of arguments in the context: the argument construed as most salient in the discourse context is placed in the syntactically most prominent position. In contrast to this, the Oceanic branch of AN shows a clear grammatical distinction between subject and object arguments, and clausal patterns organised around differences in transitivity (Lynch, Ross & Crowley 2002: 49-50). Indonesian-type languages show characteristics of both symmetrical voice and grammaticalised transitivity (e.g. Arka & Manning 1998). Since a symmetrical voice system can be reconstructed for Proto-Austronesian (Wolff 1973), investigating the pathways of change from Proto-Austronesian to the contemporary Indonesian- and Oceanic-type systems provide a window onto the mechanisms and motivations underpinning the grammaticalisation of transitivity and grammatical relations.

In this talk, we illustrate some likely key points in the transition from Philippine-type to Oceanic-type systems through three case studies. One important change is the emergence of applicative morphology, and Javanese, an Indonesian-type language, provides insights into the interaction of applicatives with a symmetrical voice system (Nurhayani 2014). Äiwoo of Solomon Islands is unusual for an Oceanic language in that it shares certain properties of the Philippine-type systems, but displays a clear distinction between core and oblique arguments (Næss 2015), arguably a first step on the path towards a subject/object-based system and so the grammaticalisation of grammatical relations. The Oceanic

languages of Admiralty Islands in Papua New Guinea have an Oceanic-type system; but unlike other Oceanic languages they reflect some of the original voice marking morphology, and so allow for the reconstruction of aspects of the transition from voice-marking to transitivity-marking morphology.

Thus these three case studies serve to illustrate different points along a pathway for the development of grammatical relations and transitivity, and provide the foundation for reconstructing these changes in the AN language family in more detail, and perhaps a more general diachronic model for the development of these aspects of grammar.

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Internal possessors in Differential Object Marking: a diachronic scenario

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The paper offers an historical scenario for the emergence of an unusual pattern of Differential Object Marking (DOM) from the broad perspective of Diachronic Construction Grammar (Barðdal et al. 2015). In a number of languages (all of which happen to be spoken in the Americas), a possessor internal to the object NP can trigger agreement on the verb and the verb hosts applicative-like morphology. This is illustrated by examples (1) and (2) from Mi'gmaq. In (1) the entire possessive phrase is cross-referenced by the object marker on the verb. In contrast, in (2) the 1st person possessor 'my' is indexed on the verb, so (1) and (2) exemplify agreement-based DOM. Crucially, all available evidence suggests that in both instances the possessor is located internally to the NP to which the possessed noun belongs, does not act as the head of its phrase and does not assume an argument status, as is evidenced by the fact that it does not participate in processes such as passivization, as shown in (3). This creates an unusual configuration violating standard locality conditions for agreement/pronominal incorporation in (2).

I propose that the pattern in (2) is an historical innovation and emerged out of canonical object agreement pattern. All languages in question demonstrate applicative constructions shown in (4). In such constructions the beneficiary/recipient corresponds to the applied object; it assumes the primary object status and must trigger regular object agreement. External beneficiary constructions are cross-linguistically known to be ambiguous between the beneficiary and possessive readings (Seržant 2016), so e.g. *She fixes [the net]* ***[for me]***can mean 'She fixes my net for me' or 'She fixes someone else's net for me'. This ambiguitycreates a prerequisite for a structural reanalysis: if the beneficiary is allowed to be coreferential with the implied possessor in at least some of its tokens, this can in time form the "potential for multiple structural reanalysis" (Campbell & Harris 1995), and hence such constructions may in time undergo actual reanalysis.

On this proposal, a clause-level beneficiary gets interpreted as an external possessor. The generalization of the possessive reading is due to its high frequency, since frequency is known to be a primary factor in many observable historical changes (Bybee 2007, 2010; Goldberg 2006, among others). The next step is the reanalysis of constituent structure, in particular, the reanalysis of the external possessor as NP-internal, which in turn led to the realignment of grammatical functions. The driving force responsible for this process is the assimilation to the class of internal possessive constructions, independently present in grammar, through borrowing by partial analogy (Barðdal et al. 2015). Thus, the change from (2) to (4) can be schematically represented along the following lines: *she fixes [for me] [net] > she fixes [my] [net] > she fixes [my net]*. The intermediate stage of this process is observed in those languages where the agreeing internal possessor appears to have optional or covert syntactic representation outside of the possessive phrase. It can correspond to a referential null or pronominal clitic. The former option resembles covert possessor raising and is exemplified by Tseltal and Tzotzil, which, unlike Mi'gmaq, allow the passivization

of the possessive applicative. This suggests that the internal possessor is doubled by a phonologically salient clause-level pronominal. The second option is exemplified by Chimane. In this language a bound clitic coreferential with the possessor can occur externally to the possessive phrase, but only in those constructions in which the verb agrees with the possessor,and it can also be passivized. In either case the external possessor is still present in the clausal structure but it is realized in a phonologically reduced form.

An indirect argument in favour of the scenario sketched above is provided by more familiar languages which do not show agreement with possessors but still exhibit possessor-beneficiary syncretism. Some of them exhibit parallel development from a selected or non-selected beneficiary/goal/recipient argument to a non-argument (possessor).It is widely accepted that internal possessors marked by the dative case or a dative-like preposition are a fairly recent development in Germanic and Slavic: they emerged when the clause-level goal/beneficiary was reanalysed as the internal possessor (Draye 1996; Dahl 2007; Lødrup 2009; Eckhoff 2012; Krapova & Dimitrova 2015, among others). Various stages of this process are still observed across the languages and dialects of both families.

To conclude, the historical analysis proposed here explains the emergence of transitive constructions in which the referential indexing on the verb targets either the object phrase as a whole or the possessor internal to the object phrase, leaving the possessed head noun unmarked. This DOM pattern developedafter a subset of primary applied objects was reanalysed as internal possessors. The reanalysis changed constituency relations, but the referential marking on the verb remainedintact, creating non-local agreement configuration.

Examples

(1) *ges-al-a-t-l* *'nt-gij-l*
love-AN-**3OBJ**-DIR-3-OBV 1POSS-mother-OBV
'She loves my mother'. (Mi'gmaq; Hamilton 2017)

(2) *ges-atm-u-i-t-l* *'nt-gij-l*
love-DFLT-APPL-1OBJ-3-OBV 1POSS-mother-OBV
'She loves my mother.' (Mi'gmaq; Hamilton 2017)

(3) **ges-atm-u-ugsi-eg-p* *'nt-gij-inen*
love- DFLT-APPL-PASS-1PL-PST 1POSS-mother-1PL
'Our mother was loved'. (Mi'gmaq; Hamilton 2017)

(4) *elugw-atm-u-i-t-l* *a'pi-l*
fix- DFLT-APPL-1OBJ-3-OBV net-OBV
'She fixes the net for me'. (Mi'gmaq; Hamilton 2017)

Syntactic Gradience between Finite Clauses and Small Clauses:
Evidence from a Diachronic Change in Genitive Subject Clauses in Japanese

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In generative syntax it is generally assumed that while there are several different sizes of non-finite (including small) clauses (such as CP, TP, AspP, vP, VP/AP) as in (1), finite clauses uniformly have a full-fledged CP structure, whether it is the root, a complement, or a modifier, as in (2a).

(1) a. John found [$_{AP}$ Mary/her out] (cf. Stowell 1983)
b. John saw [$_{AspP}$ Bill/him running] (cf. Felser 1999)
c. John had [vP Bill/him cut his hair] (cf. Ritter & Rosen 1993)
d. John made [TP Bill/him cut his hair] (cf. Ritter & Rosen 1993)
e. John believes [$_{CP}$ Mary/her to be smart] (cf. Saito 2017)

(2) a. [$_{CP}$ [$_{TP}$ NP$_i$-**NOM** [$_{H\text{-}AspP}$ [$_{VoiceP}$ [$_{vP}$ [$_{L\text{-}AspP}$ [$_{VP/AP}$ *t*$_i$ V/A] V/A] L-Asp] v] Voice] H-Asp] T] C] (cf. Pesetsky 1995; Collins 2005; Travis 2010)
b. [$_{DP}$ [$_{TP}$ [$_{H\text{-}AspP}$ [$_{VoiceP}$ [$_{vP}$ [$_{L\text{-}AspP}$ [$_{VP/AP}$ NP-**GEN** V/A] V/A] L-Asp] v] Voice] H-Asp] T] NP D]
c. Universal functional hierarchy: CP > TP > H-AspP > VoiceP > vP > L-AspP > VP/AP

One of the few exceptions to the null hypothesis is Miyagawa (2011), who claims that a finite relative clause with a Genitive subject in Japanese, as in (3a), is TP with a "defective" tense, selected by D, as in (2b) (hence, he argues that an eventive sentence such as (3b) is ruled out).

(3) a. *Shimi-**ga/no*** *tui-ta* *syatu*
stain-NOM/GEN attach$_{intr}$-PAST shirt
'a shirt on which there is a stain'
b. *Totuzen* *shimi-**ga/*no*** *tui-ta* *syatu*
suddenly stain-NOM/GEN attach$_{intr}$-PAST shirt
'a shirt that was suddenly stained' (Miyagawa (2011: 1279))

Extending his hypothesis one step further, in this paper we propose (4a) as a language universal and (4b) as a hypothesis about a diachronic change ongoing for a Genitive Subject Clause in Japanese (GSC), of which (4c) is a consequence:

(4) a. A non-selected clause, whether finite or non-finite, should be syntactically as small as possible, unless positive evidence showing that the clause in question needs a larger structure is sufficiently available for a language learner.
b. The syntactic size of a GSC has been shrinking in view of the principle in (3a) and along the cline in (2c) in the last 100 years, and the younger age groups tend to have a smaller unmarked structure for a GSC.

c. The predicates available in the GSC have been more and more limited to stative verbs and adjectives, excluding an eventive transitive verb, an eventive unaccusative verb and a transitive verb in the passive voice. (cf. Harada 1971)

We claim that (4a) is a kind of economy principle to the effect that functional categories that lack positive evidence for it do not project above the lexical predicate in a non-selected clause, such as (reduced) relative clauses (cf. Williams 1975; Bošković 1997; Ogawa et al. to appear).

We will defend (4b) and (4c) on the basis of the results of an acceptability judgment experiment which targets 600 native speakers of Tokyo Japanese who belong to three age-groups (25-34, 45-54, 65-74). In this experiment, the participants were presented 12 pairs of Nominative and Genitive subject sentences of each of the eventive unaccusative type (=5a), the passivized transitive type (=5b) and 6 such pairs of the stative verb type (=6a) and the adjective type (=6b) and were asked to rate the acceptability of each sentence on a five-point Likert scale. It is assumed in a way compatible with (3a,b) that the GSCs in (5a), (5b), (6a) and (6b) only project up to H-AspP, L-AspP, VP, and AP, respectively, all lacking TP and CP (cf. (2c)).

(5) a. *Boohan kamera-**ga/??no** tuke-rare-tei-ru ie*
surveillance camera-NOM/GEN attach$_{tr}$-PASS-PERF-NONPAST house
'a house to which a surveillance camera has been attached'

b. *Boohan kamera-**ga/?no** tui-tei-ru ie*
surveillance camera-NOM/GEN attach$_{intr}$-PERF-NONPAST house
'a house to which a surveillance camera has attached'

(6) a. *Totte-**ga/no** tui-ta koppu*
grip-NOM/GEN attach$_{intr}$-Past cup
'a cup with a grip on it'

b. *Kao-**ga/no** akai otoko*
face-NOM/GEN red man
'a man whose face is red/flushed'

The results showed (i) that a Genitive subject was always significantly less acceptable than a Nominative one in (5a,b) ($p < .001$), (ii) that a GSC was significantly less acceptable when it was paired with a passivized transitive verb as in (5a), than when it was paired with an unaccusative eventive verb as in (5b) ($p < .001$), (iii) that the younger age group(s) judged the GSCs as significantly less acceptable than the older age group(s) (ps $< .05$), and (iv) that a GSC headed by stative verbs or adjectives in (6a,b) was as acceptable as a Nominative counterpart for all the three age groups.

Our previous work with acceptability judgment task showed (v) that for the younger two age groups, a TP-adverb (e.g. subject-oriented adverb) preceding a Genitive subject as in (7) was significantly less acceptable than a vP-adverb (e.g. manner adverb) counterpart as in (8) (ps $< .05$).

(7) ?*/??*Tanosisooni* *kodomotati-no* *ason-dei-ru* *kooen*
Cheerfully-looking children-GEN play-PROG-NONPAST park
'the park in which children are playing cheerfully'

(8) ??*Geragerato* *kodomotati-no* *waraw-te-iru* *hanasi*
guffaw(aDV) children-GEN laugh-PROG-NONPAST story
'the story against which the children are guffawing'

All these results can be explained under (4a,b). Let us assume, more specifically, that the unmarked structures for a GSC are VP/AP for the youngest age group, vP/VoiceP for the intermediate one, and TP for the oldest one, and that the larger deviance from their unmarked structure for a GSC leads to lower acceptability. Given these assumptions, we can explain why the acceptability rating is (6a,b) > (5b) > (5a)/(8) > (9) and the better acceptability ratings by the older age group(s) . We conclude that "finite" relative clauses for passives, unaccusatives and statives may differ in their syntactic size, even if they commonly lack an external argument.

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Transitivity and Aspect in spoken Russian language

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Analyzing clause and argument structure in spoken English, Thompson and Hopper (2001) came to the conclusion that the degree of transitivity in conversation is very low. They observed that *subjectivity* plays a central role in conversational situations: in intersubjective interpersonal contexts speech participants prefer to talk about their own feelings and attitudes rather than presenting facts, and thus the degree of transitivity of clauses tends to be low.

Among Hopper and Thompson's (1980) parameters that can influence transitivity in a clause, *aspect* plays a central role. Holden (1981) suggests that *aspect* is the most relevant factor for transitivity in Russian, while other parameters, such as *punctuality* or *individuation*, can be seen as influencing the choice of perfective or imperfective aspect.

By combining Hopper and Thompson's Transitivity Theory with Holden's criticisms, the present paper aims to analyze the degree of transitivity in spoken Russian language. I plan to investigate the transitivity of verbs by giving particular attention to aspect and verbal semantics. The data used for the analysis proceed from the spoken section of the Russian National Corpus (*ustnyj korpus*, http://ruscorpora.ru/search-spoken.html) which contains spoken conversations on several topics and of different genres.

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To lie to or to deceive? Possible evidence of (in)transitive alternation in Old Persian

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In the entire Old Persian corpus, only in the Bīsotūn inscription do we find 25 occurrences of verb forms of the root *draṷg-* (Indo-Iranian **d$^{(h)}$raṷg^{h}-* '(be)lügen'), usually translated as 'to lie, to deceive' (cf. Kent 1953: 191; Schmitt 2014: 170, '(be)lügen, trügen'). Despite the relatively small number of occurrences, three different constructions are documented for this verb: a) Nominative (18 occurrences; example 1); b) Nominative-Genitive (2 occurrences; example 2), where the genitive, which in Old Persian is a syncretic case, has a dative function; c) Nominative-Accusative (2 occurrences; examples 3a and 3b).

(1) *haṷ* *adurujiya* *avaθā* *aθanha*
he.NOM lie.IMPF.3SG thus say.IMPF.3SG
'he lied; thus he said' (Schmitt 1991: DB 4.8);

(2) *haṷ* *kārahyā* *avaθā* *adurujiya*
he.NOMpeople.GEN thus lie.IMPF.3SG
'He lied to the people thus' (Schmitt 1991: DB 3.80);

(3) a. *kāram* *avaθā* *adurujiya*
people.ACC thus lie.IMPF.3SG
'To the people thus he lied' (Schmitt 1991: DB 1.78),
cf. Kent (1953: 120), 'thus he deceived the people';
b.*taya* *imaį* *kāram* *adurujiyaša*
because this.NOM.PL people.ACC lie.IMPF.3PL
'because these (men) lied to the people' (Schmitt 1991: DB 4.34-35),
cf. Kent (1953: 131), 'so that these (men) deceive the people'.

Both the genitive/dative and the accusative express the entity to whom one lies or who is deceived. The three remaining occurrences are forms of the participle in *-ta-* (example 4), which are not strictly relevant for the purposes of the present study.

(4) *naįšim* *ima* *vṛnavātaį,*
not=he.ACC this.NOM convince.PRS.SBJV.3SG.MID
duruxtam *maniyātaį*
lie.PST.PTCP.ACC regard.PRS.SBJV.3SG.MID
'(and) this should not convince him, (but) he regard it as false' (Schmitt 1991: DB 4.49-50).

Thus, from a semantic perspective, we can initially classify the verb *draṷg-* as a verb of communication or, more generally, of 'interaction' that usually involves two animate entities and is characterized by a low degree of semantic transitivity.

While the absolute use of the verb *draṷg-* has not attracted the attention of scholars, the coexistence of

the construction with the accusative and with the genitive/dative has been of greater interest, even though a convincing explanation for this data has not yet been provided. Indeed, the various scholars who have considered this issue have either limited themselves to labelling the different constructions as 'transitive' or 'intransitive' (see, among others, Schmitt 1991: 54, fn. 78), without giving a detailed account for the phenomenon, or interpreted this alternation as a case of stylistic variation, without considering either the morphosyntactic level proper, or the semantic one, whether in synchrony or diachrony (Schmitt 2016: 106). This latter reading has been mainly based on information provided by the Elamite and Babylonian versions.

The aim of this paper is to demonstrate that the alternation between Nominative-Genitive(Dative) and Nominative-Accusative constructions is not a mere stylistic variation, but has a valid linguistic basis, and that the two expressions need to be considered as two different argument structure patterns. Various elements seem to lead to this interpretation, although the scarcity of Old Persian documentation in this case does not allow us to formulate a robust hypothesis – or even posit that there is just one plausible hypothesis. Nonetheless, it seems quite reasonable to start from the assumption that the verb semantics and the low degree of transitivity may have played a role in the production of the alternation between the genitive(dative) and the accusative as second argument. This has often been recognised, both at a synchronic and a diachronic level, by typological studies and research on transitivity (see, among others, Tsunoda 1981 and 1985; Næss 2007).

Interestingly, on the genealogical side, comparable constructions in Young Avestan and Vedic evidence a second argument encoded by the accusative (example 5) and the dative (example 6) respectively, suggesting the possibility that the alternation of dative(genitive) and accusative for this verb developed in the Indo-Iranian branch of the Indo-European languages, but was preserved only in Old Persian.

(5) *yōi* *[pauruua]* *miθrəm* *[družiṇti]* (*Yt.* 10.45)
who.NOM.PL before Miθra.ACC betray.PRS.3PL
'who [betrayed] Miθra [before]' (cf. Skjærvø 2009: 127);

(6) *táḿbhyaḥ* *sá* *nír* *ṛcchād,* *yāḥ* ||*1*||
this.ABL.F he.NOM away go.PRS.SBJV.3SG who.NOM
naḥ *prathamò* *'nyò 'nyásmai* *drúhyāt* (*TS* 6.2.2.1-2)
=us.GEN first.NOM one another.DAT be deceitful.AOR.OPT.3SG
'He who first among us will be deceitful to another will suffer loss of these [bodies]'
(cf. Kulikov 2012: 565).

Finally, from an internal diachronic perspective, the various Middle Persian developments from the Old Persian *draṷg-* are classified as transitive or intransitive.

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Transitivity as a Derived Phenomenon: Reconstruction to an Intransitive Absolutive Grammar

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My proposal is that human languages reconstruct back to an intransitive absolutive-like grammar, which provides the foundation and common denominator for all crosslinguistic variation in the expression of transitivity. This proposal is based both on an *internal reconstruction* using syntactic theory, and on *comparative* typological evidence, in an attempt to directly bring together formal, typological, and evolutionary considerations. The internal reconstruction is achieved by peeling off, from the top, the syntactic layers in (1), widely held to constitute the basic (partial) skeleton of the modern sentence, at least in the languages like English. The bottom layer is a Small Clause/Verb Phrase (SC/VP), which typically accommodates a verb and only one argument. On top of SC/VP is the "little v" phrase (vP), an additional verbal layer of structure, which supports transitivity (i.e. the addition of another argument), permitting syntactic differentiation between agents and patients. The TP (Tense Phrase) projects on top of the vP, accommodating the expression of tense and finiteness.[3]

(1) TP > vP > VP/SC (e.g. Chomsky 1995; Adger 2003)

The crux of the proposal is that the original, ancestral grammar was not transitive, but rather that it was characterized by only the VP/SC layer, with no vP (or TP, or any other additional layers). The rationale for this internal reconstruction is straightforward: while vP and TP can only be built upon the foundation of SC/VP, SC/VP itself can be assembled without either a vP or a TP. As will be illustrated with cross-linguistic data, this reconstruction is reinforced by the continued use of root small clauses in certain contexts (e.g. *Point taken*; *Come one, come all*), as well as certain SC compounds (e.g. *cry-baby; scare-crow*), which arguably approximate this ancestral grammar, and which co-exist with their more modern counterparts in a variety of languages. The internal reconstruction method contrasts with the comparative method, which necessarily looks at more than one language in order to reconstruct the language of the common ancestor.[4] It is based on the idea that languages reveal evidence of past changes and stages in their present structures, and that certain kinds of present alternation in a language can be reconstructed back to an earlier stage in which there was no alternation of that kind (see e.g.

[3] While these particular functional layers characterize the analysis of English, and not necessarily other language types, the idea is that if a language has layered syntax, whether with TP/vP or with some other functional layers, such as AspP, the top layers are built upon the foundation of the Small Clause (SC), and not the other way around, meaning that the reconstruction of each such language type would ultimately lead to the bottom SC layer.

[4] As pointed out in e.g. Newman (2014: 13), "although internal reconstruction (IR) is not as well understood nor commonly utilized as the comparative method, it has a long pedigree in historical linguistics. While recognizing the weaknesses of IR, most historical linguists appreciate its value in historical linguistics and would agree with Hock (1991: 550) when he concludes: 'internal reconstruction is an extremely useful and generally quite accurate tool for the reconstruction of linguistic prehistory.'"

Comrie 2002; Heine & Kuteva 2007: 24). In Heine & Kuteva's reconstruction of ancestral proto-vocabulary, the claim is that nouns and verbs were the first categories to emerge, considering that the rest of the categories typically grammaticalize/derive from them. In a comparable fashion, the claim here is that the intransitive SC/VP is to be reconstructed as the ancestral proto-grammar, given that such SCs can be assembled without the other layers, while the other layers need a SC to serve as their foundation.

With an intransitive grammar in which there is room for only one argument, it makes sense to postulate that this argument was absolutive-like, in the sense that it was not grammatically specified as either agent/subject or patient/object, comparable to the example (2) from Tongan, an ergative-absolutive language:

(2) *Oku* *ui* *'a* *Mele.* (Tchekhoff 1973, 283)
PRS call ABS Mary
'Mary calls.' / 'Mary is called.'

From the comparative perspective, this shared original platform provides an excellent common denominator for languages to develop transitivity in different and diverging ways, consistent with "tinkering" processes of evolution discussed below. In this respect, transitivity can be achieved (i) by adding a higher argument (ergative) in Tongan (3), a lower argument (accusative) in English (4-5), or by repeating/reduplicating VP/SC in serial verb constructions such as (6-7) from Gungbe (see also Mithun 1991 for additional but rare options).[5]

(3) *Oku* *ui* *'e* *Sione* *'a* *Mele.* (Tchekhoff 1973, 283)
PRS call ERG John ABS Mary
'John calls Mary.'

(4) *They changed.*

(5) *They changed him.*

(6) *cùá* *ɔ̀i* *ákɔ́* *ǃdì.* (Aboh 2009, 26)
dog catch+HAB chicken eat
'The dog eats a chicken.'

(7) *Àsíbá* *bɛ́* *lɛ́sì* *ɖù.*
Asiba collect rice eat
'Asiba ate a lot of rice.'

This proposal is in the spirit of Mufwene's (2013) idea that language variation in general boils down to different solutions to similar problems in evolution. This reasoning dates back to now famous evolutionary scholar, François Jacob, and his claim (1977) that different tinkerers likely develop

[5] It will also be discussed how ergative languages often show some accusative patterns (split ergativity), and how accusative languages often exhibit absolutive-like patterns in constructions such as middles.

different solutions to similar problems, such as different types of eyes. Evolution is often described as a "tinkering" process, where new, slightly more complex elements are not created from scratch, but by tinkering with the existing ones. According to Jacob (1977), the creative forces of evolution lie in the ability to combine and recombine old material into novelties, in a process that resembles imperfect tinkering, rather than engineering (see also Fitch 2010, 55, who reinforces this view). Comparative evidence from language variation in transitivity readily lends itself to this approach. With rare exceptions, transitive structures typically add only one extra argument/piece. Descriptively speaking, in case of ergative-absolutive patterns, the second, ergative-marked argument is added "higher" than the first argument, while in nominative-accusative patterns, the second, accusative-marked argument is added "lower" than the first argument, as per the discussion below. In languages that have serial verb constructions, we witness multiple intransitive (small) clauses strung together, often just two.

While the addition of the ergative argument on top seems theoretically unproblematic, the addition of the accusative argument (from below) requires more analysis.[6] Nonetheless, this approach is well aligned with the Dependent Case Theory explored initially in Yip, Maling, & Jackendoff (1987) and Marantz (1991), and revived in e.g. McFadden (2004), Baker & Vinokurova (2010), and Baker (2015). According to Marantz (1991: 24), "dependent case is what we will call accusative and ergative… Accusative is the name for the dependent case that is assigned downward to an NP position ... Ergative is the name for the dependent case assigned upward to the subject position ...." In other words, accusative and ergative are cases dependent on the presence of another (first) argument, making it possible and plausible to reconstruct this first argument as the only argument in the ancestral grammar.

It is also of interest that typological research has found it useful to steer away from formulating implicational universals based on transitive structures, such as SOV, SVO, VSO, etc., but to instead break down transitivity into binary chunks, SV/VS and OV/VO, as the latter are better predictors of various correlations (Dryer 1997; Croft 2003). This is yet another argument against treating transitivity as a primitive of grammar/syntax, and in favor of decomposing it/reconstructing it back into smaller structures, with verb and only one argument (at a time). Additionally, it has been reported that early utterances in first language acquisition in a variety of languages may be characterized by an absolutive stage (e.g. predominance of one-argument utterances with either a subject- or object-like argument, the thematic role of which is often ambivalent (cf. also Clancy 1993, for Korean; Ochs 1982, for Samoan). This proposal provides a novel backdrop against which to consider larger questions, such as what all languages may have in common, and what separates them, and why.

[6] One possibility to explore is that accusative structures may derive from serial verb structures (e.g. *Dog catch, chicken eat*) by dropping one of the verbs (*Dog chicken eat*), and by reanalyzing the structure as a single (transitive) clause.

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Voice and basic valency orientation in Totoli

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Totoli is a western Austronesian symmetrical voice language, i.e. it has three basic transitive constructions - an actor voice and two formally distinct but functionally equivalent undergoer voices. Voice alternations in symmetrical languages do not decrease transitivity, but are a means to rearrange the linking of arguments and select different core arguments as syntactic pivots. Nevertheless, even though voice is not a valency-changing process in Totoli, the language is strongly concerned with transitivity.

Like many other symmetrical voice languages outside the Philippines, Totoli exhibits a set of applicative markers that increase the valency and introduce new core arguments to the verb's argument structure. However, unlike most other non-Philippine symmetrical voice languages which have different sets of affixes for voice and applicative marking, Totoli is interestingly different, because it uses the same formants for both these functions. Table 1 illustrates the rather puzzling polysemy of Totoli voice-changing/valency-increasing morphology: The suffixes *-an* and *-i* are part of the applicative paradigm, but they also occur in 'plain', non-applicative voice forms (UV2). Likewise, bare (i.e. non-suffixed) verb forms can be found in both functions, non-applicative undergoer voice (UV1) and applicative undergoer voice.

Table 1: Voice and applicative morphology in Totoli

	NON-REALIS	REALIS
AV	*moN-*	*noN-*
UV1	***Ø***	*ni-* ***-Ø***
UV2	***-i***	*ni-* ***-an***
AV.APPL1	*moN-* ***-an***	*noN-* ***-an***
AV.APPL2	*moN-* ***-i***	*noN-* ***-i***
UV.APPL1	(*po-*) ***-an*** *poN-* ***-an***	*ni-* ***-Ø*** *ni-poN-* ***-Ø***
UV.APPL2	***-i***	*ni-* ***-an***

The suffixes **-an* and **-i* have been reconstructed for Proto-Austronesian as voice markers (Wolff 1996; Ross 2002, 2009). Reflexes of these are attested in various Philippine-type languages as voice markers. In symmetrical voice languages not belonging to the Philippine-type, reflexes of these suffixes occur as applicative markers.

This paper argues that this unusual intertwining of voice and applicative functions can only be understood and disentangled if we acknowledge the basic valency orientation of Totoli and the fact that Totoli is a strongly transitivizing/augmenting language (cf. Nichols et al. 2004), in which most semantically transitive concepts are expressed by derived verbs which in their basic form are

syntactically intransitive. Consider the following example:

(1) *nidabuannmai* *anu* *ulai* *itu*
ni-dabu-**an**=na=mo=ai anu ulai itu
RLS-threw-??=3s.GEN=CPL=VEN FILL from DIST
'(it) was thrown by her over here from that (side)'

A Totoli verb with the affix combination *ni- -an* is ambiguous between a plain undergoer voice and an applicative form. Given that a concept like THROW is semantically transitive, one might be tempted to analyse *nidabuan* in (1) as a plain, transitive undergoer voice form. However, on closer semantic inspection it turns out that *dabu* is an intransitive verb (better translated as 'fall'), as in (2), and the *ni- -an* form in (1) is thus clearly an applicative form.

(2) *nadabumo* *ogomata*
na-dabu=mo ogomata
ST.RLS-fall=CPL tear
'the tears were falling'

We will illustrate that an individual "valency profile" for every verb is necessary to determine whether a form featuring a given suffix belongs to the voice or the applicative paradigm.

Unraveling the history of the Totoli system is complicated by the problem that it is not straightforward to determine which uses reflect older stages and which are innovations.

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Valency Patterns of Old Irish verbs: finite vs. non-finite syntax

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This paper supplies a description of the argument structures and alternations of 16 Old Irish verbs, relying on the general framework of the *Lepzig Valency Patterns Project* (Hartmann, Haspelmath & Taylor 2013). Most of the verbs chosen for inquiry are included in the Project list, but a few were selected because of their frequency and relevance in the Old Irish available corpora.

The patterns were extracted from the following corpora: *Würzburg Glosses* (Kavanagh 2001), *St. Gall Glosses* (Bauer 2015), *Milan Glosses* (Griffith 2013).

For each verb, all attested frames are taken into account, supplying all uncoded and coded alternations (passive). The frames will be compared with those attested with non-finite forms, which, however, in contrast to finite verb forms, cannot code valency alternations, i.e. are not inflected for voice (passive). In fact, non-finite verbal forms in Old Irish are verbal abstracts (Stüber 2017), traditionally Verbal Nouns, and constitute separate lexical entries.

The configurations supplied are simplified versions of the ValPal coding frames, combining basic coding sets and semantic roles (microroles). It should be noted that the criterion for argumenthood in ValPal (Database Questionnaire Manual, § 7.1), and in general criteria for argumenthood, cannot easily be applied to ancient languages, since it involves grammaticality judgements. Besides, Old Irish happens to use forms of the verb as anaphoric forms, making the phrase detachment test suggested in ValPal even less reliable. Therefore, the criteria for inclusion in the argument frames are rather semantic and broad, designed to capture all possible alternations.

The valency patterns attested in the corpora and their frequency, the extent of the macroroles coding overlap across verbs and across constructions, will be taken as evidence for possible coding frames and as a starting point for a sketch of the evolution of Irish valency patterns.

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Valency patterns and alternations in Gothic: A typological and contrastive approach

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This paper explores argument structure properties and valency patterns of Gothic verbs, as compared to the behavior of modern Germanic languages contained in the *ValPal* project (Hartmann et al. 2013; Malchukov & Comrie 2015). On the one hand, this study is typologically-oriented and diachronic, for it applies the methodology developed at the *ValPal* and traces the evolution of valency related phenomena within the Germanic group of languages. On the other hand, the translational nature of the extant Gothic corpus calls for a contrastive approach, which takes into account the long debated issue of Greek source-text's influence onto Gothic morphosyntax (cf. e.g. McKnight 1897; Metlen 1933; Klein 1992a, 1992b; Ferraresi 2005).

The study of transitivity-related formations and constructions has long been a quite established sub-field of Indo-European studies in general and of Germanic studies in particular (cf. e.g. Egge 1887; Karsten 1911; Sundén 1913; Bökenkrüger 1924; Hermodsson 1952; Annerholm 1956; Bammesberger 1965; Krämer 1976; Joseph 1981; Suzuki 1989; Riecke 1996; García García 2005; Ottosson 2008). In recent years, however, such lines of research have met typologically oriented approaches on transitivity phenomena such as valency classes, valency alternations, and basic valency orientation (Nichols et al. 2004; Malchukov & Comrie 2015; Hellan et al. 2017). In particular, the Germanic evidence for the so-called anticausative alternation, its diachrony, and its implications for the reconstruction of Proto-Germanic and Proto-Indo-European basic valency orientation has recently received much attention (Ottosson 2013; Cennamo et al. 2015; Plank & Lahiri 2015; on other Indo-European branches, cf. Nichols 2006; Kulikov 2009; Luraghi 2012, forthc; Sausa 2016). This paper aims to constitute a further contribution in this field.

Our data consists of the occurrences attesting to 82 Gothic verbs in the Bible. Our sample does not entirely overlap with the canonic verbs of the *Leipzig Questionnaire* (Malchukov et al. 2015: 28-29) for the following reasons: (a) a number of verb meanings are not represented in the Bible (e.g. COUGH); (b) a number of verb meanings have been added to compensate this lack (e.g. DRINK); (c) a number of verb meanings are expressed by quasi-synonyms among which it is a hard task to choose the most basic one (e.g. BURN Goth. *tund-nan*, *brinn-an*).

We will show valency classes together with their coding frames, uncoded and coded argument alternations that alter verbal valency, and other types of argument rearranging operations. Valency patterns of Gothic, modern Germanic languages, and Greek will be then compared with each other and framed with our up-to-date general picture of diachronic changes that affected valency phenomena in Indo-European languages (cf. Luraghi forthc., and references therein). Our contrastive approach will help in shedding light on a number of peculiarities of the Germanic languages, including (i) the loss of the middle voice and the functional narrowing of synthetic passives; (ii) the encoding of the

anticausative alternation via *-ja-* vs. *-na-* verbs (as compared with the active vs. middle and suppletive strategies of Greek); (iii) the development of a number of analytic passives.

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Language typology and language contact: motion events in Anglo-French (1066-c15)

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My talk will shed new light on the way syntax can be affected in a long-term linguistic contact situation, especially in a situation in which two typologically distinct languages are involved. Based on new data I will show that Anglo-French (AF), a variety of v-framed Old French (OF) as it was spoken in Medieval England, is much more tolerant towards s-framed patterns in the expression of directed motion events than its continental French counterpart.

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Languages around the world fall into two main typological groups: satellite-framed and verbframed (Talmy 2000). For example, s-framed languages typically allow for a GOAL-constituent introducing the GOAL of directed motion, whereas in a v-framed language, it is not licensed (Acedo-Matellán & Mateu 2013; Stolova 2015). Thus, the meaning of: *She dances into the room* cannot be rendered by the parallel sentence: *Elle danse dans la salle*, because in French this construction can only convey a locative meaning: *She dances in the room*. To achieve a dynamic reading, French resorts to constructions equivalent to English *She enters the room dancing* or *She dances and enters the room*. The languages involved in my study are OF, AF and Middle English (ME). Among these, ME is sframed, whereas OF is v-framed (contra Troberg und Burnett, e.g. 2017). AF, a contact variety of these two languages, tolerates e.g. prepositional GOAL-PPs in the expression of directed motion:

(1) *il munta sun chival e chivaucha a son hostel*
he mounted his horse and rode to his hostel
'he mounted his horse and rode to his hostel' (end 13, ReisEngl 270)

(2) *prist un batel et nagea au roi de France*
took(3SG) a boat and swam to the king of France
'he took a boat and swam to the King of France.'

Equally, the patterns on which OF typically relies for the expression of directed motion events are virtually absent from the AF data (e.g. durative subclauses) or differ considerably from OF (gerundive constructions). Moreover, the features that set AF apart from its continental counterpart correspond to what we would expect in a s-framed language. This is interesting because correct acquisition of target language syntactic structures is notoriously difficult in second language acquisition (Meisel 2009) and has been shown to be affected even in simultaneous bilingualism from birth (Engemann 2016).

Interestingly, these features seem to have been tolerated to a very limited degree later on in the Middle French period (Burnett and Troberg 2017), but they did not implant themselves durably: Modern French is a typical v-framed language.

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Morphological markers of causativization in Hittite

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Hittite, an Indo-European language spoken in Central Anatolia in the 2nd millennium BCE, boasts a wide choice of morphological devices to form a causative stem. These include: a) the infix *-nin-* (PIE *-*né*/*n*-) as in *harnink-* 'to destroy' derived from *hark-* 'to perish'; b) the suffix *-nu-* (PIE *-*néu*/*nu*-) as in *zainu-* 'to make cross' derived from *zai-* 'to cross'; c) the suffix *-e-* (PIE *-*éie*/*o*-) in *wasse/a-* 'to put on, dress'; d) the suffix *-ahh-* (PIE *-eh_2-) as in *kartimmiyahh-* 'to anger, make angry' derived from *kartimmiye*/*a-* 'to be angry' and, finally, e) reduplication as in *ases-* 'to install, settle' derived from *es-* 'to sit'. Furthermore, some of these markers may be combined, as in the case of *asesanu-* and *ases-* 'to settle'. All these markers ultimately go back to PIE, though a causative function cannot be securely reconstructed for most of them. Moreover, certain roots may have parallel causative formations, e.g. *kartimmiahh- and kartimmiyanu-* 'to make angry'.

The paper investigates the distribution of causative markers in Hittite and motivation behind this distribution. It will be argued that there is no discernible difference in semantics of these formations. In certain cases the distribution is clearly diachronic, e.g. *hinganu-* 'to destroy' clearly replaces *harnink-* 'id.' in the course of the 13th century (see Ünal 1984). Another important factor was a high productivity of both *-nu-* and *-ahh-* as factitives due to their participation in the so-called Caland system (on this phenomenon see Rau 2009), i.e. their ability to form deadjectival verbs. The suffix *-ahh-*, originally confined to denominal derivation, at the later stages of Hittite started to be added to verbal stems as well, likely in analogy to the suffix *-nu-* that could form both deverbative and deadjectival verbs already in Old Hittite.

The study is dictionary-based. The analysis of the Hittite causative markers distribution and development is based on Shatskov 2017 and Luraghi 1992 for the nasal infix and the suffix *-nu-*, on Dempsey 2015 for reduplication and on Oettinger 1979 and Kloekhorst 2008 for the other morphemes as well as for the description of the verbal system in general.

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Alternations involving datives in the history of French

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In this contribution, we provide a diachronic analysis of verbs taking indirect objects that alternate with direct objects in French. Our hypothesis is that at least with some verbs the variation between direct and indirect object complementation is not a case of free variation, but correlates with specific meaning components, like e.g. resultativity (since resultatives normally predicate over the direct object). We expect to see such semantic differences reflected in the syntactic constructions in which the verbs appear.

For English, Postal (2010: 105-106) provides a relevant analysis. He points out that alternations of the type illustrated in the examples (1)a and (1)b differ in several respects, among others the impossibility of passivising (1)a.

(1) a. *I wrote the gorillas letters.* → *I wrote the gorillas.* → **The gorillas were written.*

b. *I served the gorillas apples.* → *I served the gorillas.* → *The gorillas were served.*

(Postal:2010)

Unlike the verb *write, serve* in *I served the gorillas* shows "3-object-to-2 advancement", i.e. the direct object ("2 object", in Postal's terms) *the gorillas* has an underlying indirect "3 object", although traditionally both arguments bear the semantic role "goal". This "advancement" requires the deletion of the initial direct object (Postal does not mention that in modern British English (BrE) *I wrote* ***to*** *the gorillas* is the preferred form. According to the *Oxford English Dictionary*, it was perfectly standard in former BrE though.)

We hope that the analysis of French helps us better understand these differences, since French formally distinguishes indirect from direct objects using a prepositional marker (*à*) or a dative clitic. Thus, French has no equivalent for the English double object construction (as in *wrote the gorilla letters*). Nevertheless, some Modern French (ModF) verbs exhibit similar restrictions. The examples in (2) show that verbs of saying like *adresser* 'address' or *commander* 'command' as in (2a) pattern with (1a), whereas verbs of assembling like *monter* 'mount' as in (2)b pattern with (1)b.

(2) a. *Il adresse un message aux soldats.* → *Il adresse les soldats.* → **Les soldats sont adressés.*

Il commande aux soldats d'avancer. → *Il commande les soldats.* → **Les soldats sont commandés.*

b. *Elle monte les roues sur le vélo.* → *Elle monte le vélo.* → *Le vélo a été monté.*

Our diachronic study will reveal that case variation appears to have been more prominent in Old French (OF). The verb *obéir* 'obey' is a well known exception cited in ModF grammars as the only verb that allows for passivisation (3)a although it governs an indirect object. However, marginal occurrences of direct transitive constructions as in (3)b exist.

(3) a. *… d'une administration qui est l'une des rares où* ***les ordres sont obéis***
(Le Monde, 29.3.2001, p. 15)
b. *A plusieurs, on s'est aussi amusé à "trop bien"* ***obéir les ordres*** *…*
(https://zythom.blogspot.de/2014/12/decide-dobeir.html, 21.3.18)

They can be analysed either as variants, i.e. remnants of an older system, or as meaningful oppositions conveying semantic values that are restricted to direct transitive constructions, for example a resultative interpretation. In our contribution we will generalise this assumption and attempt to verify it diachronically.

In Old French, a number of verbs varied between direct and indirect object complements. Troberg (2008: 51-52) lists 20 monotransitive verbs that switched from indirect (dative) to direct (accusative) object, as well as some ditransitives that no longer occur with a direct object. Some of these verbs, like OF *servir*, exhibit dative/accusative variation even in the very oldest texts, e.g. in *Saint Alexis* (1050), as shown in (4).

(4) a. *Li* *serf* *sum* *pedre* *ki* ***la maisnede*** *servent …*
the servants his father who the household.ACC serve.3PL
'The servants of his father who serve the household.' (alexis pb:106 lb:263 1272722143.97)
b. *Il* *nem* *faldrat* *s'il* *veit* *que* *jo* ***lui*** *serve*
he not me fail.3PL.FUT if he sees that I him.DAT serve
'He will not fail me if he sees that I serve him.' (alexis pb:118 lb:495 1272831576.56)

The obvious problem of the analysis will be the semantic interpretation of these occurrences as free variation vs. meaningful opposition. Building on the hypothesis that the realisation of arguments depends on grammatically relevant aspects of meaning (cf. e.g. Levin & Rappaport Hovav 2005), we will correlate the variants with argument-structural alternations, although we do not expect to provide as many relevant indicators as Postal (2010) did for English (for the sake of brevity we only quoted the passive evidence here). This analysis will be based mostly on annotated corpora for OF and strengthened by further evidence provided the construction of borrowed French verbs in medieval English.

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The rise of the reflexive use of Middle English psych verbs under contact influence

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This paper discusses the rise of the reflexive use of Middle English (ME; ca. 1150-1500) psych verbs on the model of Old French (OF; ca. 880-1320) and seeks to contribute to a better understanding of contact-induced changes in the argument structure of English, and in more general terms, to the shaping of transitivity and argument structure over time.

In Old English (OE; ca. 450 to 1150), psych verbs were part of the class of impersonal verbs, i.e. verbs which generally occurred in subjectless constructions in which the finite verb has a third person singular form and where there is no nominative NP controlling verb concord (Denison 1993: 62), for example *him*.EXP.DAT *ofhreow*.SG *þæs*.GEN *mannes*.GEN 'There was pity in him for the man' (Allen 1995: 68); see also Möhlig-Falke (2009). In the course of time, this property was lost which quite a number of authors attribute to the loss of case marking (see e.g. Denison 1993, Allen 1995). In OE, the reflexive use of verbs was generally expressed by a personal pronoun, a morphologically marked reflexive pronoun did not exist (Mossé 1991: §120). Either the personal pronoun served this function alone or self was added (cf. Visser 1963: §159,§426, van Gelderen 2002). In the course of the ME period, the paradigm of reflexive pronouns developed systematising the reflexive use of verbs. Some authors attribute this development to French influence: Einenkel (1916: §50), Mustanoja (1960: 502-3) and Visser (1963: §328) assume that these constructions are calques of French expressions or built in analogy to French reflexive verbs. Fischer (1992: 237-8) makes another interesting observation: citing Van der Gaaf (1904) she notes that reflexive verbs copied from OF built impersonal constructions in ME (although it was on the decline at this time). The reason for this was that these speakers/writers were not familiar with the French reflexives that obligatorily showed a reflexive pronoun (e.g se desperer 'to despair'). In OE the 'reflexive' pronoun had its own semantic role (*And þa Pyhtas heom abædon wif æt Scottum* 'And the Picts asked for wives for themselves from the Scots', (Chron.B(Plummer)15)) whereas in OF they did not (true reflexives). She gives some examples which demonstrate the ambiguous use of the OF copied verbs (*First a man shal remembre hym of his synnes*, CTX.133 (12:133); *. . . that me remembreth of the day of doom. . . ,* CTX.159 (12:159)). She states that "there was felt to be a relation between impersonal constructions and these French reflexive constructions" (p. 238).

Basing ourselves on the psych verbs attested in the lemmatised version of the Penn-Helsinki Parsed Corpus of Middle English (PPCME2), in the Tobler-Lommatzsch dictionary of Old French (TL) and the Middle English Dictionary (MED), a comparison of OF psych verbs and their copied ME equivalents revealed that (i) the majority of these verbs show a reflexive use in OF (e.g. sostenir, solacier, desperer, apaiser), (ii) a number of the copied verbs show it as well (e.g. sustenen, solasen, despeiren, appesen). In the paper, we will investigate the systematicity of the copying of the reflexive

argument structure of OF verbs to ME, its spread to ME psych verbs that previously did not show it, and the extent to which the reflexive use of OF verbs led to impersonal constructions in ME.

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Transitivity markers in West Himalayish (Tibeto-Burman)

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In various Tibeto-Burman (TB) languages, verbal morphology is sensitive to distinctions in terms of transitivity. These distinctions are most obvious in languages with complex agreement systems, in which intransitive and transitive verbs commonly follow different inflectional patterns, e.g. Japhug (Jacques 2004: 337–338). However, transitivity distinctions can also manifest themselves in other ways. In Dolakha Newar, for example, intransitive and transitive verbs are subject to different morphophonological alternations (Genetti 2007: 167, 177–186), while in Classical Tibetan, transitive verbs show more complex stem alternations than intransitive verbs (Beyer 1992: 164).

Adopting a functional-historical framework, this talk discusses a type of transitivity distinction that is attested in certain West Himalayish (WH) languages (a small subgroup of TB languages spoken in the North Indian Himalayas), but otherwise appears to be rare in TB. The relevant transitivity distinction is expressed by a set of suffixes that occur between verb stems and inflectional endings and serve the purpose of indexing a verb's transitivity class, which may either be "intransitive" or "transitive". The morphological pattern is illustrated with data from Bunan in examples (1) and (2) below.

(1) *bjak-**k**-ek*
hide-**INTR**-PRS.EGO.SG
'I am hiding myself.'

(2) *jok-**tɕ**-ek*
buy-**TR**-PRS.EGO.SG
'I am buying (something).'

The first part of the talk will offer a brief synchronic overview of transitivity markers in the WH language Bunan, with a special focus on their functional motivation. It will be argued that the function of these markers can be most adequately characterized by means of a scalar, semantic notion of transitivity (see Hopper & Thompson 1980; *inter alia*). In a second part, the talk will go into the diachronic evolution of these morphemes. Based on comparative data from various WH languages, it will be argued that the transitivity system illustrated in (1) and (2) began to develop when a former object agreement marker *-*tɕ* was reanalyzed as a marker of transitive verbs in the course of a "metanalysis" (Croft 2000: 130), viz. the swapping of "contextual and inherent semantic values of a syntactic unit."

The relevant metanalaysis can be conceptualized as follows: An object agreement marker can only occur in combination with predicates that can take an object argument and, accordingly, display a comparatively high degree of transitivity, both from a syntactic and a semantic point of view. A high degree of transitivity is thus a contextual semantic feature of an object agreement marker. If the object agreement marker frequently occurs in contexts in which it does not index a specific object (e.g. in a

citation form), its original primary function of indexing the presence of an object argument may gradually become obscured. At the same time, the originally contextual semantic feature of indexing a high degree of transitivity may become more salient and eventually become the primary function of the morpheme. Due to the univerbation of a formerly periphrastic construction, this transitive marker subsequently came to contrast with the reflex of a converb marker *-*k(a)*, which was subsequently reanalyzed as a marker of intransitive verbs. The paper thus offers new perspectives on transitivity in TB languages by describing a lesser-known morphosyntactic manifestation of transitivity and shedding light on its diachronic origins.

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Alignment in Coptic:
competing paradigms of transitivity, information structure and semantic functions

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The aim of the present contribution is to arrive at a synthesis of my earlier studies of alignment in Coptic (Afro-Asiatic), Zakrzewska (2006), (2015) and (2017), and to provide explanations for the peculiarities observed, also in the context of alleged Greek influence. The questions to be addressed are how the individual strategies of argument marking relate to one another and how argument expression interacts with the rules for constituent ordering. My explanations are inspired by two related theories: Functional Grammar (Dik 1997) and Functional Discourse Grammar (Hengeveld & Mackenzie 2008). The contribution is based on my original research of a corpus of narrative texts written in Bohairic, one of the two main literary varieties of Coptic (Hyvernat 1886/1977).

As for the marking of the first vis-à-vis second argument, I intend to demonstrate that there are two competing paradigms of transitivity in Bohairic, differentiated by their semantic underpinning, distribution and frequency. The two paradigms are formally differentiated by different strategies for argument expression: head marking on the one hand and dependent or double marking on the other (ex. 1 below):

(3) *a=u-er-basanizin* ***mmō=ou*** *a=u-hit=****ou*** *e-pi-šteko*

PERF1=3PL-do/CONS-torture **ACC=3PL** PERF1=3.PL-throw=**3.PL** ALL-SDEF.M-prison

'They tortured them (and) threw them to the prison' (*AM*, 287).

In traditional descriptions of Coptic, the head marking strategy, being a strategy inherited from the earlier stages of Egyptian, is presented as a 'natural', self-explanatory option. Dependent marking by means of prepositions, on the other hand, an innovation of Coptic from the diachronic point of view, is treated as a special strategy that needs to be explained.

In this presentation, I will argue that, in spite of the high token frequency of head marked subjects and objects, it is the dependent marking strategy which is the dominant one, that is the one with a higher type frequency. The head marking strategy, on closer examination, may be motivated by factors related to information structure. Significantly, this strategy is preferred for the expression of non-topical first arguments and highly topical second arguments.

As regards the realizations of the second vis-à-vis third argument, I will discuss the factors that determine the selection of a particular prepositional marker. For example, the originally allative preposition *e-* 'flags' non-prototypical semantic features of the respective referents, such as non-human or nonspecific Recipients:

(4) *phē eta=f-erpke-ti* ***nō=ten*** *n-tai eksousia*

DEM.SG.M REL=3SG.M-also-give **DAT=2PL** ACC-DEM.SG.F power

nthof eth-na-ol=s nten=thēnou

he REL-FUT1-withdraw=3SG.F from=2PL

nte=f-tēi=s ***e-ke-ouai***

CONJ=3SG.M-give=SG.F **ALL-other-one**

'(Christ, the true God) who also has given this power to you (…), it is Him who will withdraw it from you (…) and give it to another one' (*AM*, 211).

Similar alternations have been characterized as Differential Object Marking (e.g. Delbeque 2002; Roegiest 2007, among many others) and Differential Goal Marking (Kittilä 2008). In Coptic, these alternations are partly grammaticalized and reflect a preponderance of the so-called characterizing function of case marking over the discriminating function.

Finally, the order of constituentds in Bohairic Coptic appears to reflect not so much the syntactic functions of the constituents as their scope: Predicate > Second Argument > Third Argument > First Argument.

A possible structural explanation of the Coptic phenomena is the absence of a canonical passive and the consequent shift from morphosyntactic to representational alignment. The discriminating function of case marking becomes functionally less essential in these circumstances, making room for the increasing role of the characterizing function. Moreover, the head marking strategy can be seen as a kind of substitute for passivization.

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Passive constructions in Uralic: a special case of contact-induced development

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Some Uralic languages exhibit passive constructions formed with finite passive derivatives (see the summary in Salo 2015). In such derivatives, we find passive markers originating from one of the following sources: the Proto-Uralic (P-U) stative marker **w*, the P-U reflexive **j* and various causative markers (for a more detailed description of these affixes see Collinder 1965).

In Ob-Ugric and Northern Samoyedic languages, we find widespread use of surprisingly uniform "pragmatic" passive constructions, although formal expression of voice markers is different. In my talk, I will briefly discuss the origin and use of passive markers in Ob-Ugric and Northern Samoyedic. Afterwards, I will describe the features that are common for passive constructions in these languages and consider possible reasons for such development.

In Mansi (<Ob-Ugric), passive derivatives are formed with the marker *-we-* <**w*, see example (1) from Upper Lozva Mansi. In Khanty (<Ob-Ugric), which is the closest relative of Mansi, there are virtually no reflexes of **w* (see Kulonen 1989 for discussion). In Samoyedic, reflexes of **w* are only found in some intransitive stems, for example, Enets *toro-* 'close' vs. *toru-* 'be closed' (see Gusev 2010).

The Khanty passive suffix (see example (2) from Obdorsk Khanty) originates from P-U reflexive **j*, Kulonen (1989) states that the Proto-Khanty suffix had the form **aj*. In Mansi, we only find traces of **j* in non-finite forms, while in Samoyedic the reflexive conjugation seems to employ the same marker (see Helimski 1982).

In Northern Samoyedic, we find affixes with passive/causative polysemy (e.g. Nganasan *-ru* < Proto-Samoyedic **rå*, see Helimski 1982). In Enets (see example (4) from Forest Enets) and Nganasan (see example (3)), their development results in the same passive constructions as in Ob-Ugric (see Siegl 2014; Leisiö 2009). Nenets attests a few examples of passive uses of the same marker (see Salminen 1998), although this construction seems not to be productively used anymore. Passive/causative polysemy is common around the Northern Samoyedic area as well (see Nedjalkov 1993 and Robbeets 2007 for Tungusic and Turkic examples).

Passive constructions in these languages share many common features. First, Ob-Ugric and Northern Samoyedic languages employ finite derivatives in passive constructions (in contrast to participial passives). Moreover, almost all[7] the languages in question exhibit lative marking of the Agent (see examples (1), (3), (4)). In these languages, both transitive and intransitive verbs may be freely passivized and virtually any constituent may be promoted to the subject position (Patient, Location, Recipient etc.). Even discourse functions of such passive constructions seem almost identical (the choice of voice depends mainly on the topicality of the Agent).

[7] In Khanty, we find the innovative use of the locative case in such constructions (for details see Filchenko 2006).

We argue that this development is a result of areal influence. Although the main contacts in this area are Khanty/Mansi and Khanty/Nenets, a broader Ugric-Samoyedic mutual influence is plausible (see Helimski 2003). Most probably, the development of passive constructions occurred in all Ob-Ugric and Northern Samoyedic languages as a contact-induced phenomenon (see Aikhenvald 2011 on such areal influence). However, later the wide use of pragmatic voice drastically decreased in Nenets. This explains why extraordinarily similar constructions are now attested in areas with no direct contact with each other (Mansi&Khanty vs. Nganasan&Enets).

Examples

(1) *ti xāp anum-**n** wār-**we**-s*
this boat I-**LAT** make-**PASS**-PST[3SG]
'This boat was made by me'. (author's own fieldwork data)

(2) *kul'-**na** joxt-s-**a***
devil-**LOC** come-PST-**PASS**[3SG]
'A devil came to him'. (Nikolaeva 1999)

(3) *d'ü-t'enï-nə kəmə-**ru**-h^{u}aða-nə ŋul'aðə-**ndə***
dream-LOC-POSS.1SG take-**PASS**-EVID-1REFL wolf-**LAT**
'In my dream, I was taken by a wolf'. (Tereshenko 1979)

(4) *bunki-**d** sarkra-**r**-ii?*
dog-**LAT**.SG bite-**PASS**-1SG
'I was bitten by a dog'. (Siegl 2014)

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