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Preface

The purpose of this note is to guide the reader through the current fascicle of the JLR containing a selection of papers presented at the workshop "Beyond Lexicon: diachronic language contact on the structural and systemic level". The workshop was convened by Federico Giusfredi and took place in Verona on 21-22 April 2017. This is an appropriate occasion to express gratitude to the convener and everyone who assisted him in the organization of this academic event.

The papers published in this issue address contact phenomena that are widely spread across time and space. In geographic terms, we can describe the areas taken into account imagining lines stretching from Italy to the Levant and Near East in the south-west and from the Baltic to the Caspian Sea in the northeast, the Anatolian plateau remaining in the middle. The chronology spans from prehistory to the second millennium BC in the areas where Semitic and Indo-European languages came to be spoken, covers the period from the Middle Ages onward with the emphasis on Baltic, Slavic, and Uralic languages, while instances of contemporary contact are addressed with reference to three situations involving speech communities in Armenia, Belarus, and Italy.

The study of language contact in and through Ancient Anatolia played a significant role in the agenda of the Verona workshop. This was not only due to the professional interests of its convener but also a consequence of the unusual richness of the available empirical data, compared with the situation in other regions in the second millennium BC. This is why we must particularly welcome the paper by Paola Cotticelli and Federico Giusfredi, devoted to this geochronological domain. The co-authors go beyond discussing what has been discovered, suggested, or hypothesized in terms of contacts between Anatolian early Greeks, or perhaps the substrate shared with the Greek language. The main contribution of this article lies in the domain of assessing the methods of the discipline, their terminology, past applications, and present outcomes. Cotticelli and Giusfredi plead for a research path delineated by the application of cross-linguistic typology of contact effects, specifically as it pertains to the extinct languages. In particular, one should always keep in mind that intensive bilingualism represents a necessary prerequisite for contacts at the structural level. Therefore, if independent evidence for bi- or multilingualism is absent, the hypothesis of structural interference should be carefully evaluated against alternative scenarios. The postulation of ancient linguistic areas should be based on the holistic examination of the common features, as was done in the instance of the better-assured areas on the contemporary linguistic map, for example, Standard Average European. The temptation of over-emphasizing atomic areal isoglosses must be resisted.

The paper by Gianguido Manzelli adduces abundant empirical data for the purpose of exploring contacts between Finnic and East Slavic languages. The starting point of the discussion is the construction *I have a headache* (Russ. *у меня болит голова*). The analysis of this construction is conducive to raising more general questions about the distribution of dative vs. accusative experiencer, or the typology of predicative possession. Alongside the discussion of Finnic-Slavic interaction, Manzelli does not neglect the possible influence of Standard Average European. In particular, he observes that Finnish has a number of different constructions for "having a headache" and one of them displays close resemblance to its English counterpart. Therefore, the emerging picture suggests multidirectional influences, where no particular direction should be over-emphasized. Another important feature of the paper under discussion is the attention paid to cognitive schemes, which moves its focus from language contacts as such to the domain of cognitive and cultural interference.

Another study concerning an even larger area and longer period of time is presented in the contribution by Carlotta Viti. Here a particular structural feature, the coding strategy of low transitivity, is investigated from the typological and geolinguistic viewpoints. After defining the two main structural models at play, namely the coding through verbal and nominal/pronominal forms, Viti demonstrates the geographically coherent character of their distribution through antiquity on the map of the Indo-Mediterranean region. The northern and western areas witness the noun-coded strategy, the southern and eastern ones prefer verb-coding. The persistence of this pattern prompted the author to enquire whether the pre-historical Indo-European migrations across Eurasia went hand in hand with profound structural changes, presumably triggered by language shift.

The contribution of Andrea Scala tackles problems at the intersection of phonology and contact linguistics. The focus is on phonological rules that are borrowed from a co-territorial language, a phenomenon that has received scarce treatment in the study of language in contact. The three case studies involve Abruzzian Romani, the Armenian dialect of Karchevan, and Belarus Yiddish. The author confirms that borrowing of phonological rules demands pervasive bilingualism and addresses its specific sociolinguistic correlates. Highly non-trivial is the conclu-

sion that this process does not depend on lexical loanwords or even the identity of phonetic units involved. The data discussed by Scala speak in favour of borrowed rules formulated in terms of phonological features, which in turn provides a welcome confirmation of cognitive reality behind such units.

Thus, a common feature of all the papers that we offer to the reader's attention is the combination of empirical research on specific communities or regions with drawing broader implications for the theory of language contact, cognitive linguistics, or the reconstruction of prehistoric ethnolinguistic configurations. We hope that this collection will stimulate further cooperation between contact linguists and specialists in the adjacent fields.

Alfredo Rizza & Ilya Yakubovich

Предисловие

Целью настоящей заметки является ознакомление читателя со специальным выпуском ВЯР, содержащим публикации избранных докладов, представленных на коллоквиуме "Beyond Lexicon: diachronic language contact on the structural and systemic level", посвященном языковым контактам. Коллоквиум был организован Федерико Джусфреди и проведен в Вероне 21–22 апреля 2017 г. Мы выражаем благодарность организатору коллоквиума и всем тем, кто помогал ему в проведении данного мероприятия.

Статьи, опубликованные в данном выпуске, обсуждают контактные явления, далеко отстоящим друг от друга в пространстве и во времени. С географической точки зрения можно описать затронутые территории, вообразив две линии на географической карте, одна из которых протягивается из Италии к Леванту и Ближнему Востоку, а вторая от Балтийского к Каспийскому морю, тогда как Анатолия попадает в пространство между этими границами. Хронология статей охватывает интервал между доисторическим периодом и II тыс. до н.э. в связи с контактами древних индоевропейских и семитских языков, период от средневековья до настоящего времени в отношении контактов между балтийскими и славянскими языками и современный период в применении к языковым ситуациям в Армении, Беларуси и Италии.

Обсуждение языковых контактов в Анатолии бронзового века играло важную роль в коллоквиуме, организованном в Вероне, не только в силу профессиональных интересов его организатора, но также и вследствие уникальности доступных эмпирических данных по сравнению с другими регионами во II тыс. до н.э. Поэтому данный выпуск открывается статьей Паолы Коттичелли и Федерико Джусфреди, посвященной языковой ситуации в древней Малой Азии. В статье суммируются открытия и гипотезы, относящиеся к языковым контактам между анатолийцами и микенскими греками, а также, возможно, их общим языковым субстратом. Основная научная новизна данной статьи относится, однако, к сфере оценки применявшихся методов, терминологии, и надежности результатов. Коттичелли и Джусфреди высказываются в пользу исследовательской парадигмы, в основе которой лежит применение общей лингвистической типологии, в особенности типологических данных других древних языков, к изучению данной языковой ситуации. В частности, следует иметь в виду, что контакты на структурном уровне предполагают реконструкцию интенсивного двуязычия, поэтому при отсутствии независимых доказательств дву- или многоязычия в соответствующем регионе следует осторожно подходить к допущению структурной интерференции, рассматривая также альтернативные гипотезы. Реконструкция древних языковых союзов должна быть основана на всеобъемлющем анализе их общих черт, как это и происходило в случае наиболее надежных языковых союзов на современной лингвистической карте, например, языков среднеевропейского стандарта.

В статье Джангвидо Мандзелли приводится обильный эмпирический материал с целью описания контактов между прибалтийско-финскими и восточнославянскими языками. Отправной точкой дискуссии является конструкция *У меня болит голова*. Анализ данной конструкции ведет к обсуждению более общих проблем, таких как распределение дативного и аккузативного экспериенцера или типология предикативной посессивности. Наряду с обсуждением контактов между прибалтийско-финскими и славянскими языками Мандзелли уделяет должное внимание обсуждению влияния среднеевропейского стандарта. В частности, он отмечает, что финский язык обладает рядом различных конструкций для выражения головной боли, и одна из них близко напоминает английскую конструкцию *I have a headache*. Поэтому вырисовывается ситуация с многосторонними влияниями, ни одному из которых не следует отдавать особого предпочтения. Важной особенностью данной работы является внимание к когнитивным схемам, что смещает ее фокус от языковых контактов как таковых к когнитивным и культурным контактам.

Еще более обширная географическая зона и длительный исторический период охватывает работа Карлотты Вити. В ней исследуется с типологической и геолингвистической точки зрения определенный функциональный параметр, а именно кодирование низкой переходности. Определив две основные структурные модели для выражения данного параметра, глагольное и именное кодирование, Вити демонстрирует географически когерентный характер их распределения на карте индо-средиземноморского региона в древний период. Для северных и западных регионов характерно именное кодирование, тогда как южные и восточные области предпочитают глагольное кодирование. Устойчивость данного распределения приводит автора к выдвижению гипотезы о том, что древние индоевропейские миграции сопровождались структурной перестройкой, вероятно обусловленной языковым сдвигом.

Статья Андреа Скала обсуждает проблемы, находящиеся на стыке между фонологией и контактной лингвистикой. Ее центральной темой является заимствование фонологических правил между языками, используемыми на одной и той же территории. Эмпирическим материалом для обсуждения данной проблемы, не получившей должного освещения в предшествующих работах по языковым контактам, служат фонологические системы цыганского диалекта Абруцци, армянского диалекта Карчевана и белорусского варианта идиша. Автор подтверждает гипотезу о необходимости интенсивного двуязычия для заимствования фонологических правил и обсуждает социолингвистические корреляты данного процесса. Наиболее нетривиальным оказывается, однако, вывод о независимости данного феномена от лексических заимствований и об отсутствии требования к фонетической идентичности сегментов. Данные, приводимые Скала, скорее, говорят о том, что заимствованные правила должны быть сформулированы в терминах фонологических различительных признаков, что, в свою очередь, дает новое подтверждение когнитивной реальности, стоящей за данными абстрактными единицами.

Суммируя вышеизложенное, общим знаменателем всех работ, предлагаемых вниманию читателя, является комбинация эмпирических исследований, посвященных отдельным сообществам или регионам, с более широкими импликациями для общей теории языковых контактов, когнитивной лингвистики или реконструкции этнолингвистических конфигураций в доисторическую эпоху. Мы надеемся, что данное собрание статей будет стимулировать дальнейшее сотрудничество между лингвистами, исследующими проблемы языковых контактов, и специалистами в смежных областях.

Альфредо Рицца и Илья Якубович

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Ancient Anatolian languages and cultures in contact: some methodological observations[1]

In this paper, we will review the methodological and theoretical frameworks that have been developed to deal with the study of language contact and linguistic areas. We have tried to apply these methods to ancient contexts to check the existence of conditions for identifying language areas. Finally, we will provide examples of the combined linguistic and cultural-historical approach to ancient contact areas for phenomena in reciprocal direction, with particular reference to the case of the Aegean and Ancient Near Eastern context of Ancient Anatolia.

Keywords: Anatolian languages, language contact, cuneiform, cultural contact, linguistic areas.

1. Language contact, linguistic area and other related concepts

In the last years, several scholars have discussed the contact between Ancient Anatolian languages and some neighboring ones, including Greek and a number of Ancient Near Eastern ones, as indicative of a "linguistic area", due to the fact that more general cultural contact between language groups is a sign of the presence of linguistic areas. In order to successfully assess these approaches, it is appropriate to take into consideration the linguistic framework of reference.

In the 1920s, Trubetzkoy (1928)[2] proposed the expression *Sprachbund*, "language league", to describe the fact that unrelated languages could converge at the level of their structures following intense contact. He took as example the almost prototypical area of the Balkans. The concept of *Sprachbund* has been coined to underline the evidence that languages can share similarities even though they are not genetically related. In this sense, Trubetzkoy suggested that the different languages of the southern Balkans showed grammatical resemblances that could not be attributed to shared genealogical heritage, but must be due to convergence.[3] Grammatical correspondence in structure, not phonetic form, and relative paucity of shared basic vocabulary were the features of such a *Bund*. As regards the scientific background, it should also be mentioned that, already in the 19th century, some proposals within the cultural anthropology defined cultural areas, known as *Kulturkreis*; consider for instance Frobenius 1898, further developed in Graebner 1905.[4]

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[1] Sections 1 and 2 have been authored by Paola Cotticelli-Kurras; sections 3, 4, 5 have been authored by Federico Giusfredi, while both authors have written section 6. F. Giusfredi's research is a result of the project PALaC, that has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement n° 757299).

[2] Trubetzkoy's concept of *Sprachbund* coined in 1928 in *Proposition 16* was modeled on Russian языковой союз (yazykovoy soyuz, "language union").

[3] See V. Chirikba 2008: 26, who mentioned in this context also Baudouin de Courtenay (1904) and Schuchardt (1928: 212).

[4] It is not clear whether these ideas, later known under the rubric of cultural diffusionism, influenced linguistics at the time, but it is clear that later work on linguistic areas by scholars in the United States (Sherzer 1976,

One decade later Jakobson (1938: 353) emphasized that the languages in a linguistic area possess 'remarkable resemblances' among one another in syntax or morphology, while language families share common grammatical morphemes and words that indicate genetic heritage from a common ancestor. Weinreich (1958), the father of contact-linguistics, proposed the expression "convergence area" focusing on the geographical dimension of the phenomenon, which appears to be similar to the later "linguistic area" rather than to the more language-oriented label of *Sprachbund*.[5] As the notion of "linguistic area" was further developed, a number of definitional and theoretical issues came up, eliminating the possible difference between the concepts of *Sprachbund* and linguistic area. During most of the 20th century, the view arose that there were regions which showed as linguistic areas and others which did not. Since the early work of Trubetzkoy, a number of other regions were unveiled, in which contact between languages has led to convergence, and the general field of areal linguistics has developed accordingly.[6]

Nowadays, "linguistic areas" are defined[7] as social spaces (regions, countries, (sub-)continents) in which languages from different families have influenced each other significantly, leading to striking or remarkable structural resemblances across genealogical boundaries. This definition is used as a synonym to the former expression *Sprachbund*. According to Aikhenvald's definition (2006: 11–12 but cf. also Velten 1943 and Emeneau 1956), we would have no difference between a linguistic area and a *Sprachbund*.[8] Campbell (1985: 26–29) provides an extensive survey of the literature on defining a linguistic area. It is also noteworthy that Joseph (1999), discussing the Balkan *Sprachbund*, wrote in footnote 3: "I use *Sprachbund* as a technical term rather than any of its clumsy and infelicitous possible translations such as "linguistic union" or "language league"; "linguistic area" is sometimes used in English, but "convergence area" probably comes closest to being a suitably apt term."

At the beginning of the 1990s awareness grew that many linguistic patterns and features, both typological and historical, could and should be studied from an areal perspective. This areal shift led to a reconceptualization of many of the issues involved in areal linguistic studies. Even though the notion of "linguistic area" has been criticized in the strict sense, the areal perspective keeps gaining ground in the study of the distribution of linguistic features. "Con-

cited under North America) was very much influenced by parallel work on culture areas (Kroeber 1939). See also Friedman 2000.

[5] Weinreich (1979: 1) recognizes the origin of language contact and of the language contact-induced linguistic change in the bi- or multilingual individual. To this regard, we affirm that some authors use the term grammatical replication, rather than borrowing. This is a distinction that was proposed by Weinreich, when he used the term "borrowing" for the transfer of substance or "matter, is, phonological or phonetic material or sound-meaning elements like loanwords and so on. "Replication," by contrast, concerns "patterns," structure, or meaning without phonetic substance.

[6] Trubetzkoy (1931: 233–234) clearly stated that a possible model of explanation such as the substrate theory or the "influence of a leading language" should not be employed too hastily. The idea of mechanisms of borrowing (even deep grammatical ones) was not unknown to him. Many contemporary authors do not speak directly of "language contact", but prefer the general terms "loan", "convergence", "diffusion", to clear the mechanism of diffusion of features in areas.

[7] Linguistic Areas (Rik van Gijn, Pieter Muysken, 2016, LAST MODIFIED: 30 August 2016, DOI: 10.1093/obo/9780199772810-0133, last view 07.06.2018.

[8] Aikhenvald 2006: 11f.: "a linguistic area (or *Sprachbund*) is generally taken to be a geographically delimited region including languages from at least two language families, or different subgroups of the same family, sharing traits, or combinations thereof, most of which are not found in languages from these families or subgroups spoken outside the area [...]. The stronger linguistic areas are those whose shared traits can be shown to be diffused — and cannot be ascribed to a common ancestor, to chance or to universals."

vergence" is the result of the diffusion of the phenomena that spread out through language contact. Friedman (2000) provided historical background on Trubetzkoy's sources and on the development of the concept in 20th-century linguistics and, due to the discovery of more and more linguistic areas worldwide, the topic has generated a vast literature. As regards the necessity to define the diagnostic traits that designate a linguistic area, we share the so-called "circumstantialist" approach[9] by a "listing approach" of factors, and we note that each effort to define what constitutes a feature can be very complex. In particular there is much debate about what specific criteria must be fulfilled in order for the term "linguistic area" to be justified.[10]

While earlier approaches were mostly structural and historical, recent works in areal linguistics try to give an answer to the questions how languages actually converge and what are the mechanisms promoting or blocking this type of convergence. Therefore, it is worth to notice that languages do not converge by themselves. It is the unconscious behavior of speakers, their bilingualism, or more generally the mechanism of contact between (geographically contiguous) speakers that produces this effect. Schaller (2012: 206) underlines in the same way the importance of a speakers community which provides this contact.[11]

If, however, it is possible to define a linguistic area on the base of multiple shared features and of social circumstances of speaker contacts that facilitate convergence, it is still difficult to agree in deciding which features count. This fact explains why each research has to set up a list of shared traits for each area and to specify the number of languages that are involved. To this regard, we note that Thomason (2001) wrote in her *Introduction*: "subsuming two-language contact situations under the rubric 'linguistic area' would mean that almost every contact situation in the world that involves significant structural interference would be a linguistic area; and although there are important similarities between interference in two-language contact situations and interference in more complex contact situations, there are also important differences." For this interpretation, we refer further to Friedman (2006: 657): "[...] a sprachbund is understood as [...] different languages sharing grammatical and lexical developments that result from language contact rather than a common ancestral source", and, again (Friedman 2006: 669): "Although the lexicon is the most salient surface manifestation of linguistic influence, words can travel between languages without the aid of communal multilingualism, whereas the diffusion or convergence of grammatical structures is a more complex process that requires at least a core community of bi- or multilingual speakers".

The research question we would like to address in the next pages is to what extent and with what limitations we may apply these concepts and definitions to the case of contact-scenarios of the ancient world, with special focus on the case of pre-classical Anatolia.

2. The main traits of a linguistic area

As a next step, we need to proceed by comparison and examine some more or less established examples of linguistic areas by looking at their definitions and characterizations based on the number of languages, on the number and type of shared features, as well as to outline the

[9] S. Campbell 1985: 26–29.

[10] Recent summaries of the problems include Dahl 2001, Thomason 2001, Stolz 2002, Campbell 2006, Matras / Sakel 2007.

[11] "Unter bestimmten historischen, sozialen, kulturellen und vergleichbaren Bedingungen und als Ergebnis von sprachlichen bzw. ethnokulturellen wechselseitigen Kontakten können Sprachgruppen entstehen, die als „Sprachbund" bezeichnet werden."

methodology used to identify a *Sprachbund* (cf. Thomason & Kaufman 1988, Thomason 2001, Matras 2009), in order to check if these parameters can be extended to the Anatolian situation.

When reading some statements about the Ancient Anatolian region, especially as regards the Aegean interface, as constituting a proper "linguistic area", it becomes immediately evident that such a concept should be defined based on both geographical and chronological parameters before trying to evaluate the *comparanda* in the right way. Thus, the emergence of a linguistic area is particularly striking when it includes languages belonging to genealogically unrelated groups (as in the case of South Asia), but this is not a necessary feature even to identify a *Sprachbund*. The Balkan languages, for instance, are all Indo-European, but they belong to different groups within Indo-European (Romance, Slavic, Greek, Albanian), and not all languages of these groups belong to the Balkan linguistic area. Therefore, virtually no one questions the validity of the Balkan *Sprachbund*. The situation, though, is always quite complicated if one deals with genetically related languages, because, the closer they are to each other, the more we have to consider the (possible) parallel independent developments (also explainable on the typological level), or the presence of common inherited features, or, again, a genetic common development (in a proto-historical time) such as a shared feature, or, finally and as a sort of last resort, the existence of contact-induced shared structures.

In this sense, it is necessary to clearly define a set of parameters, including: how many languages have to be involved, how many structures have to be shared, and, again, what kind of structures make up what we wish to label as a linguistic area. As a final step, in order to successfully apply the methodology to the ancient world, we need to analyse the historical information and the *corpora* in order to understand what kind of relation existed between the languages (i.e. *substratum*, *superstratum*), and, last but not least, to investigate the direction of the change.

In order to describe areal similarities, in section §1 we have tried to review some statements by those authors who, in the last decades, tried to define the concepts of "linguistic area" and "language league" as well as the different types of language contact. In the next pages, we will instead consider some literature dealing with concrete analysis of some of these settings. According to Haspelmath (2001b: 1492), a linguistic area can be recognized *ex negativo* "when a number of geographically contiguous languages share structural features which cannot be due to retention from a common proto-language and which give these languages a profile that makes them stand out among the surrounding languages. There is thus no minimum number of languages that a linguistic area can comprise."[12]

Before listing and discussing some of the so-called shared traits between the Anatolian and the Greek linguistic systems beyond lexicon (cf. below, section §3), it is important to provide a frameset of the main traits of shared features that may or may not define a linguistic area. Schapper (2015)[13] provided a useful outline, according to which there would, indeed, be broad agreement about the features that define a robust linguistic area: *distinctiveness*, *consistency*, *demarcation* of features, and, occasionally and even though genealogical unrelatedness is not obligatory, also *cross-familial presence*.[14]

[12] A similar definition is to be found in earlier works like those by Campbell, Kaufmann & Smith-Stark, 1986; Emeneau 1956; Sherzer 1973.

[13] Schapper (2015) introduces new parameters and features.

[14] "*Distinctiveness*. Accidental similarity between languages can occur where a feature is cross-linguistically widespread and sharing such a feature does not necessarily signal any kind of historical connection between languages. Worldwide some linguistic features are common, while others are rare. As such, a feature that frequently occurs outside of a linguistic area has lower distinctiveness and accordingly provides weaker evidence for a linguistic area. The rarer a feature is cross-linguistically the higher its distinctiveness and the greater its value in defining a linguistic area.

In the following table, we try to get more to the point and to sketch the distribution of some of the main traits in the history of the discussion about the concept of linguistic area, as they were outlined in the previous pages:

Table 1. Relevant areal features according to some influential scholars.

Features	Sapir 1921	Boas 1929	Trubetzkoy 1928, 1931	Greenberg 1953	Nichols 1992, 2003	Croft 2005
Phonetic units[15]	+	+				
Sound correspondences				+		
Lexical units	+	+	+			
Morphological units	–	+	+			
Grammatical units	–	+	+	+		
Form-only-criteria						+
Meaning-only-criteria				+		
Head/dependent-marking					+	
Alignment					+	

The table represents only a selection of significant contributions in the discussion on the intriguing topic on how to define a linguistic area. It is important to notice that the considered traits or parameters have changed over time. The breaking perspective is to be found in the interpretation of convergent similarities in the correspondence of categories, not in their (mor-

Consistency. Innovative linguistic features do not spread among the languages of a linguistic area evenly; some features spread farther than others, and if the feature originates in different places within the area there will inevitably be different patterns of spread. As such, not all languages within a linguistic area need exhibit all the features that are said to define the area. However, the higher the consistency with which languages in an area display a feature, the stronger the support for the area provided by that feature. Conversely, a feature displayed by a smaller proportion of languages in an area has lower consistency and provides weaker evidence for the area than do those of higher consistency.

Demarcation. Shared structural features that characterize a particular linguistic area do not have to be confined to the area. This is for two reasons. Firstly, a language may have a feature that is inherited from an earlier ancestral language and this feature may be still present in its sister languages outside the area. In that case, the feature is obviously not confined to the linguistic area, but may be still used as diagnostic of the linguistic area as long as it can be shown to have spread widely from the first language(s), which had inherited the feature to other unrelated languages in the area. Secondly, speakers of some languages within a linguistic area are likely to have contacts beyond the boundaries of the area, and by that means there may be some restricted diffusion of the features to languages outside the area. So, the clearer the demarcation a feature shows within a linguistic area (that is the less leakage beyond the area), the stronger the support for the area provided by that feature.

Cross-familial presence. The languages in a linguistic area need not be unrelated. However, with related languages, distinguishing changes due to drift from changes due to contact may be very difficult. Where languages are unrelated, it is easier to establish which features are the result of borrowing and diffusion rather than inheritance. It follows that the more unrelated families a feature appears in, the clearer it is that the feature has diffused and the better it is as a diagnostic for area."

[15] The members of a *Sprachbund* can fulfill the criteria of cogency (e.g. systematic correspondence of sounds) only in part, or in some cases not at all. Birnbaum (1965: 13) offered here more precise observations and considers the belonging of more languages of a *Sprachbund* to a same family as irrelevant, in case that "(dass), diejenigen strukturellen Züge, welche sie gerade als Mitglieder jenes Sprachbundes kennzeichnen, nicht auf der genetischen Verwandtschaft beruhen."

phological) form, as it was postulated first by Greenberg. Greenberg describes four possible sources to identify the source of similarities in form–meaning pairings in the languages involved, for the method of language classification. Two of them are non-historical and two are historical (Greenberg 2001: 133). The two non-historical sources are accident (chance), which Greenberg calls 'convergence', and (sound) symbolism. The two historical sources are borrowing and common origin, the last being the goal of a genetic classification of languages. To this regard, we will focus on some observations by Croft as the editor of Greenberg's *Genetic Linguistics*, who points out in the *Introduction* (2005: XIX) some relevant parameters to identify the differences between borrowings and inherited traits, like: "borrowing of cultural vocabulary [being] more likely than borrowing of core vocabulary", "degree of similarity" of the shared forms, identification of a "single source of borrowing", "semantic clustering" of shared structures in specific areas of the lexicon, "special sound correspondences" and "grammatical analyzability" indicating borrowing from the source language.

Coming to another parameter in the Table 1, we illustrate some examples of "form-only criteria", quoted later by Croft (2005: xxiii), as for instance the availability of similar phonemes or classes of phonemes, the use of suffixes or prefixes, the order of the words, etc. On the contrary, "meaning-only-criteria" are for instance the similarities in the gendre-classes of nouns or in the tense and aspect systems of the verbs, or the substitution of the infinitive through dependent clauses introduced by different conjunctions. As far as Greenberg's position is concerned, the following quotation is illuminating (Greenberg 2005: 7–8): "Resemblance in meaning only is frequently the result of convergence through limited possibilities. Important and universal aspects of human experience, such as the category of number or a system of classification based on sex or animacy in the noun or one of tense or aspect in the verb, tend to appear independently in the most remote areas of the world and can never be employed as evidence for a historical connection."

The parameters have been enlarged extending them to detailed analysis of other areas, like in Nichols (1992) or in Matras (2007). The set of parameters is thus expanded according to Nichols 1992: 254f.[16]

It remains, however, a general question to be answered: what traits (phonological / phonetic, morphologic, etc.) should be preferred, in other words what traits better predict whether an intense linguistic exchange has taken place or takes place? Are there traits that are more evident than others, for instance because they are more difficult to borrow or because they are particularly infrequent? How can we distinguish between shared and inherited traits?

[16] "Where interactions among these features are concerned, head / dependent marking has the greatest autonomy and the greatest ability to predict other features: it influences complexity (dependent marking is associated with high complexity), alignment (dependent marking is associated with ergative alignment, head marking with stative-active and hierarchical), and word order (verb-initial order is associated with head marking, absence of a basic word order with absence of dependent marking, and verb-medial and verb-final order with dependent marking). Ergativity and high complexity are associated; this is the only universal correlation not involving head/dependent marking, and even it may be an incidental result of the association of both ergativity and high complexity with dependent marking. Head/dependent marking is correlated with alienable/inalienable possession (head-marking morphology, especially nominal morphology, strongly favors inalienable possession), noun-classes (outlier languages are likely to have head-marking morphology), plurality neutralization (head-marking languages are likely to have plurality neutralization), case (by definition), and perhaps nonfinite verbs. Alignment has some association with gender classes and (indirectly) inalienable possession, and clear association with some aspects of valence-changing morphology. While head/dependent marking has the greatest grammatical autonomy and is the best structural predictor, alignment has the greatest genetic stability. All features surveyed here have sufficient stability and persistence of one kind or another to make them useful as typological markers."

In order to better assess the possible patterns of areas involving ancient Anatolia, which will be discussed in sections §§ 3–4, it is wise to briefly check the consistency of the theoretical models outlined above against the parameters established for a well-known area, the Standard Average European one (SAE).

The parameters of SAE-features listed by Haspelmath (2001: 1492) are the following ones:

1) definite and indefinite articles,
2) postnominal relative clauses with inflected, resumptive relative pronouns,
3) a possessive perfect ("have"-perfect) formed with "have" plus a passive participle,
4) a preponderance of generalizing predicates to encode experiencers,
5) a passive construction formed with a passive participle plus an intransitive copula-like verb,
6) a prominence of anticausatives in inchoative-causative pairs,
7) dative external possessors,
8) verbal negation with a negative indefinite,
9) particle comparatives in comparisons of inequality,
10) equative constructions based on adverbial-relative clause structures,
11) subject person affixes as strict agreement markers, and
12) differentiation between intensifiers ("emphatic reflexives") and reflexive pronouns.[17]

None of these criteria relies on lexical borrowing, and all of them belong to the sphere of form-meaning couples and, more specifically, they concern grammatical, morphological and syntactic patterns. Of course, the boundaries between features that are absorbed by language contact and genealogically inherited ones can be identified relatively well for those linguistic areas in which the (hypothetical) proto-languages of specific idioms are successfully reconstructed. Haspelmath (2001) faces, in this case an ideal situation, which made the identification of areal features relatively plain, as all members of his SAE-league are documented extensively and for a long period, and they are Indo-European, so that some data that regard the possible structure of Proto-Indo-European are actually available. Haspelmath (2001) can therefore prove in many cases that a feature is very likely an innovation with respect to former Proto-Indo-European structures.

If, on the other hand, one turned for instance to an alleged Anatolian-Greek area, the set of innovative features would be difficult to define because of the genealogical relationship between the Anatolian languages and Greek. Since there are no *a priori*-criteria that can be easily generalized for the declaration of a *Sprachbund*, our conclusion is that the common features need to be identified case by case. We conclude the methodological overview of this paper by recalling some of the key arguments that describe a convergence area in a more general fashion.

Weinreich (1958: 379), discussing the Caribbean and Balkan areas, simply spoke of languages that had undergone intense convergent development building a "convergence area". The definitions by later authors are unclear and vague, but consistently underline some important points to differentiate the types of processes leading to similarities. Campbell et al. (1986: 530) state: "[...] linguistic areas are characterized by a number of linguistic features shared by various languages — some of which are unrelated, or are from different subgroups within a family [...]", and Friedman adds that (2006: 657) "[...] a sprachbund is understood as two or more geographically contiguous and genealogically different languages [...]."

Masica (1976: 3) also noted that "[...] linguistic areas — [are] zones within which the processes of convergence are seen to operate with special strength and urgency, presumably be-

[17] This is not the only catalogue that has been proposed to define Europe's linguistic unity; for a survey of alternative lists, see Heine and Kuteva 2006.

cause conditions — cultural, political, or whatever — have been particularly favorable for mutual fertilization among the languages within them."

In order to characterize the origin of areal phenomena, and to distinguish them from other similar contact-patterns, the following considerations by McMahon, Matras, Vincent (2006: 669) can be very helpful, and we feel that they should also be regarded to as a fair description and summary of what should be looked for when a candidate linguistic area has been identified and needs to be investigated:

— The shared traits cannot be typical of the majority of languages of the world;
— The majority of the languages in the area should show the shared trait;
— Other branches of the language family to which the league-languages belong, or other neighboring languages should not show the shared trait;
— the trait must not be a very easy one to emerge in a language, in other words, marked structures count more;

After defining the theoretical framework and having provided a couple of examples from modern linguistic areas, it is now time to move to the problem of applying such a model to the object of study we are interested in: the case of ancient Anatolia. When comparing the observations made so far with the evidence we possess for language contact in antiquity, we will show that some traits that would not constitute conclusive evidence in the general framework have often been overemphasized. It will thus be clear why Calvert Watkins, a pioneer of the areal approach to the ancient Anatolian corpus languages, when speaking of an Anatolian-Greek area,[18] also affirmed: "The history in Indo-European, where the formation of diffusional linguistic areas is on the one hand relatively rapid (a matter of half a millennium or less), and on the other coexists with normal and relatively rapid genetic differentiations and the formation of species. I believe the Indo-European examples show that both contact-induced linguistic change (i.e. diffusion) and system-internally driven linguistic change can occur with equal abruptness and rapidity—thus both counting as 'punctuation Language areas do not necessarily last, cf. second-millennium Anatolia, and note that the features diffused from Western Anatolian to Greek were not 'areal' features." (Watkins 2001: 62).

3. Features of the Aegean interface area

Geographically speaking, Anatolia represented a bridge that connected the Aegean world to the Ancient Near East. Therefore, it is understandable that the interference between the languages of the Hittites and Luwians, on the one hand, and the languages of the Aegean, on the other, has received scholarly attention.

[18] Focusing on the so-called Greek-Anatolian area, Calvert Watkins (2001) recently reintroduced the concept of *linguistic area* to describe some language relations in the Anatolian region that became evident after the recognition of the increasing importance of the Luwians and their relations to other people. The "Ahhiyawa question" and the clear relation between the Greek culture and Greek-Mycenaean world on the one hand, and the Anatolian one on the other go back to the nineteen-twenties. Kretschmer first, and then Forrer, sketched some aspects of the relationship between the two culture, especially as regards the onomastic and toponomastic systems. To this respect, the historical and archaeological debate that followed these discoveries may not be neglected, not only as regards the "Ahhiyawa" (Achaeans), but also on the identification of Wilusa, the state in North-West Anatolia, with Troy (see Heinhold-Krahmer 2013). Regardless of some problematic details, however, this scenario of certain cultural contacts provides the historical setting for possible language contacts in the area.

Still, before observing the features that emerge on the two sides of a putative Greek-Anatolian linguistic area and before considering the possible match with the expected shared featured in contact-areas as outlined above in § 2, a couple of observations are in order even from a historical and geographical perspective. First of all, our understanding of the ancient world improves over time, and this is a fact that the study of language-contact as well as of any other specific aspect of antiquity may no longer neglect. In particular, since the 1960s the historical geography of pre-classical Anatolia and of the cultures and peoples that inhabited it has improved dramatically. We are now much more confident in understanding:

1. The rather small geographical limits of the diffusion of the Hittite language;
2. The approximate position and width of the cultures that spoke other Indo-European and non-Indo-European languages of Anatolia[19];
3. The complex pattern of linguistic interference that must have existed starting with the age of the Old Assyrian colonies (cf. Goedegebuure 2008), resulting in the penetration of cultural (and linguistic?) elements in the Hittite Kingdom;
4. The importance and large diffusion of the different varieties of Luwian (and other Luvic languages) in Western and Southern Anatolia, that was still unrecognized in the studies published in the final decades of the 20th century;
5. The connection between the Anatolian cultures and the other cultures of the Ancient Near East (Hurrian language and culture, several Semitic ones), which from several perspectives outsizes the actually documented cultural connections between Anatolia and the West.

As for point 1, it is reasonable to assume that the Hittite language was originally spoken in a rather limited area located between Northern Cappadocia and the central course of the river Kızılırmak, an area that coincided with most of the one that hosted the Old Assyrian colonies prior to the formation of the Hittite Kingdom proper.[20] Obviously, in the centuries between 1600 and 1200 ca. BCE, the Hittite state became an increasingly influent kingdom and, eventually, an empire. Still, the Hittite language did not become an international language (except for the core Anatolian region),[21] and it was rather the other neighboring languages that influenced it both on the lexical and on the properly structural levels, with several attested reflexes of the Luvic lexicon and morpho(phono)logy and many "technical" loans (and translation calques) from Hurrian and from the Mesopotamian languages. It must be stressed that the two main Indo-European languages spoken in Hattuša, Hittite and Luwian, tended to strongly converge at least locally in the Late Hittite period, and the existence of some kind of Standard Average Anatolian employed in the capital city of the Empire is quite conceivable. At the same time, as regards points 2 and 3 of the above list, our knowledge of the Luvic languages and cultures of Anatolia has improved dramatically. While Hittite was a rather limited language from the perspective of its geographical diffusion, the different varieties of Luwian, as analyzed in Yakubovich's extensive monograph (2010), were spoken in a very large area of Western and Southern Anatolia, from the Eastern coasts to Cilicia, where the so-called Luwian dialect of Kizzuwatna was in intense and morphologically productive contact with Hurrian.[22] These two

[19] Including the Luvic languages (Bronze and Iron age Luwian, Iron age Lycian A and B, Iron age Lydian, and a few minor languages by number of attestations, e.g. Carian, Sidetic, Pisidian; outside of the Anatolian group, Phrygian is also an Indo-European language of the Iron age that was spoken in the area).

[20] For a general overview on the period of the Assyrian colonies in Anatolia, see Bryce 2005, Chapters 2 and 3.

[21] In general, the *lingua franca* of the Ancient Near East, used in the international correspondence and in diplomacy, was Akkadian. In the Anatolian area proper, Hittite was indeed an official language of some importance, but the most widespread idiom was in all likelihood Luwian.

[22] Cf. Yakubovich 2010, 48–53.

considerations evidently call for a methodological revision of several contact-related theories that have been proposed in the 20th century. In particular, these points can be exemplified by taking into consideration the evidence for contact phenomena at the Western frontiers of the Anatolian world. These will need to be compared with the criteria for the definition or areal scenarios as outlined above in § 1 and § 2.

After an initial review of the available literature, the hypotheses can be divided into two main groups. Hypotheses of direct Greek-Hittite contact must be stricken whenever they imply phenomena that go beyond the isolated lexical and phraseological events, because no geo-historical contiguity existed that can motivate league-like explanations.[23] Lexical loans certainly existed: these include culture-words or *termini technici* (e.g., Gr. *kyanos* "blueish pigment": Hitt. *kuwannan-* "copper(?)", cf. Giusfredi 2017); phraseological loans have always been identified (cf. Dardano 2013). However, these are non-systematic events that lie on Gusmani's (1986) microphenomenic level, and, in the case of literary *topoi*, they depend on cultural contact rather than on linguistic one. Structural phenomena, on the other hand, cannot be safely reconstructed. If one considers the geographical position of Luvic, the areal features discussed e.g. by Romagno (2016; we also add the extension of *-ske-* to non-present verbal stems, that will be rediscussed later in this paper) seem unlikely to be shared by Greek and Hittite because of contact:

Table 2. Putative Greek-Hittite shared features and Luwian, classified basing on the types as they were defined in § 2.

Type	Hittite	Luwian	Greek	Table 1 feature type
Assibilation prs3sg	affrication	No	Eastern only	Morphological units
Modal particles	yes	No	Yes	Grammatical units
Inanimate-only allative	yes	no allative	Yes	Form and meaning criteria
Absolute participle	yes	yes	Yes	Grammatical units
Past *-sk(e)-* forms	yes	different morpheme	Homer, rarely Herodotus	Morphological units

In general, it takes some commonsense to realize that all of these allegedly contact-shared phenomena admit other types of explanation, which should be preferred since the areal geo-historical situation makes systemic interference highly unlikely. As for the putative match of the Hittite 3 person singular present *-zi* and Eastern Greek *-si*, independent phonetic change should be assumed. The use of particles to express modality certainly exists in both Hittite and Greek, as shown by these examples, also quoted by Romagno (2016):

[1] ma-a-an -uš -kan ^{m}ḫu-uz-zi-ya-as ku-en-ta
PTCL they.ACC.PL PTCL Huzziyas.NOM kill.PST3SG
nu ut-tar iš-du-wa-ti
CONN thing.N/A.SG be.known.MED.PST3SG
"Huzziya would have killed them, but the matter became known"[24]

[2] τὸ γὰϱ ἔϱυμα στϱατοπέδῳ οὐκ ἂν ἐτειχίσαντο
the indeed wall.N/A.SG camp.GEN not PTCL build.AOR3PL
"indeed, they would not have built the wall for the camp"[25]

[23] For a very different approach that leads to opposite conclusions, cf. Romagno 2016.

[24] KBo 3.1+ ii 11f. Text in Hoffmann 1984.

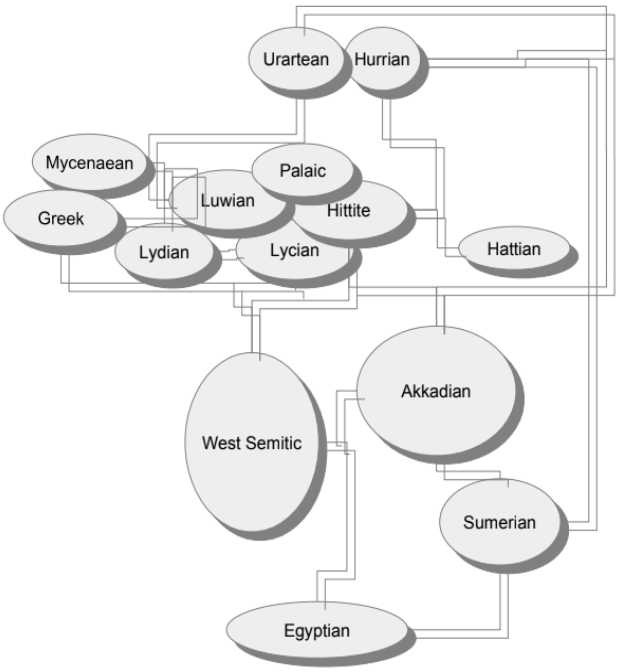
[25] *Thuc.* I, 11.1.

Still, this the presence of this kind of particles hardly an isolated feature inside the Indo-European, and it is also typologically quite common. Not uncommon are also the presence of inanimate-only allative (allative being a directional case) and the absolute use of the participle. As regards the presence of past *-sk(e)-* forms, we will argue later that this is probably a simple case of common morphological inheritance.

All these considerations make the case for a Greek-Hittite area of structural interference very weak,[26] no matter how tempting it is to assume that, in presence of historical contact, intensive cultural contacts must have taken place.

As a final methodological consideration on the cultural-historical side, indeed, it is always of the utmost importance not to confuse generic cultural contact — including the circulation of specific phraseologies and literary *topoi*, cultic and religious praxis, etc. — with language contact proper. Language and cultural contact imply each other in an asymmetric fashion, with the former implying the latter. Furthermore, even in case some hypothesized structural contacts that would have involved the Western cultures of Anatolia (that, unlike the Hittite ones, shared important geographical borders with the Aegean) appeared theoretically convincing, the single hypotheses would need to be very carefully assessed, to avoid an excess of confidence based on mere similarity. For instance, a connection between the Luwian "sentence particle" *-tar* and some Homeric words (*autar* and *atar*) has been proposed,[27] but the attempt was mostly based on the similarity of the segments, while the rather clear semantics of Luwian *-tar* — a second position Wackernagel particle that adds a directional and telic nuance to the sentence predicate — plays little or no role in the equation, which, therefore, becomes much less likely (cf. Giusfredi 2014 for further discussion; also Inglese 2017 with only a marginal attempt at supporting this putative connection).

4. Generalized Pre-classical Anatolian Area and the ANE



The net of languages that played a role in the Anatolian cultural and linguistic environment in the Late Bronze and Early Iron ages can be defined as the set of languages that either are documented in the Anatolian archives or left a tangible trace of interference in the available corpora.

Apart from the Western peripheries — which, as stated above, and judging from the perspective of language interference, were in constant but rather loose linguistic and cultural contact with the Anatolian world — the context of this complex scenario is mostly Near Eastern and strongly connected with the other epigraphic communities of the Cuneiform *koinè*.

The Ancient Near Eastern cultures and languages that were involved in a complex net

[26] For similar conclusions on the putative Aegean-Hittite area, see also Hajnal 2017.

[27] Watkins 1995, 151; also Katz 2007; Dunkel 2008; Giusfredi 2014; Inglese 2017.

of contacts with the Anatolian ones are many: the genealogical affiliations of the languages, the cultural and political balances of the Mesopotamian, Syrian and peri-Anatolian worlds, the dark corners that we cannot explore because of the limits of the historical documentation, all contribute to producing a multivariate scenario. At the same time, any descriptive approach that tried to explore the peculiarities of single languages and cultures neglecting the very existence of loose boundaries, busy gateways and long-lasting *adstrata* would be destined to miss the target.

In general, the correct approach towards the study of ancient cultural and linguistic contacts, in Ancient Anatolia as in any other scenario, can be summarized as follows:

- no single direction should be over-emphasized: conventional boundaries, e.g. the East/West interface, are no historical objects, but rather *historiographic conventions*;
- as a consequence, every potential direction of contact should be assessed analytically: some may prevail by number of documented traces, other may be barely apparent, but an approximation should not imply neglecting the complexity of the object of study;
- the importance of nets of contact patterns should not be underestimated because a canon of sources privileges the hypothesis that a given culture or language was "dominant";
- the importance of nets of contact patterns should not be overestimated because of some sort of scientific bias.

In the specific case of pre-classical Anatolia, the existence of contact patterns with the Aegean area is historically and linguistically proven;[28] on the other hand, it represented only one of the directions of cultural interference that involved the Hittite and Luvic world. From the perspective of language contact, while to some extent Bronze Age diplomatic practices required the Mycenaean and the Hittite world to be in contact with each other, in most cases the degree of linguistic interference has been exaggerated in the scientific literature. On the other hand, studies dedicated to the linguistic contact between pre-classical Anatolian and the neighboring Ancient Near Eastern cultures have received only moderate attention.

Nevertheless, the Bronze Age Anatolian cultures, and more precisely the one(s) that culminated with the Hittite kingdom, were in close relationship with a cultural *koiné* that included the Akkadian and Hurrian cultures of Mesopotamia and the Semitic ones of central and northern Syria. The very writing system and scribal tradition used by the Hittites derived from the (ultimately) Sumerian ones of southern Mesopotamia, mediated, in a still partly unclear fashion, by the Semitic world. Already in the formative phase of pre-Hittite Anatolia, when Old Assyrian colonies were established in Cappadocia (ca. XX–XVIII centuries BCE), the documents attest the existence of a complex net of cultural and linguistic borrowings (cf. Dercksen 2007; Goedegebuure 2008) that involved the Hittite, the Luwian, the Hattian and the Assyrian components of a varied demographics, with an impact on the linguistic scenario that still requires further investigation. Even later, during a mature historical phase of the Hittite kingdom, the Hurrian, Luwian and Akkadian components became more and more relevant, but in different specific ways, with Hurrian and Luwian influencing the Hittite religious culture and Akkadian, the *lingua franca* of the ancient Near East affecting the Hittite scholarship and scribal code (on the Hittite-Akkadian relationship, cf. e.g. the works by Dardano

[28] This is not the place to dwell on an exhaustive list of the sources, data and theories pertaining to the Aegean Anatolian cultural contacts. It will be sufficient to quote two recent works that contain reference to the relevant literature published in the past: Melchert (in press) on the Mycenaean-Hittite political contacts; Beckman, Bryce and Cline 2011 for the historical sources and an overview on the Ahhiyawa problem.

2012). Also during the Iron ages, with a brand new political balance and cultural scenario, the cultures and languages of Anatolia maintained their position of a bridge between the Aegean and the Syro-Mesopotamian worlds, while the North-West Semitic cultures of the Phoenicians and of the Aramaeans also entered the scene.

Assuming the 4th century and the hellenization of Anatolia as the terminus ante quem, the correct perspective of a contact-oriented study of the Ancient Anatolian world needs to take as an object a large net of cultures that evolved and changed over almost 16 centuries of documentary history.

5. Anatolian and the neighbouring languages

As previously stated, lexical borrowings and micro-phenomenic interference phenomena are not enough do define a proper linguistic area, let alone a language league. While in the case of the contacts with the Aegean world the relative lack of data makes every possible information extremely evident (and potentially valuable), inside the cultural *koinè* of the Ancient Near East there is a large amount of documentation that requires to be examined. Still, even in the promising environment represented by the Ancient Near Eastern cultural and linguistic context of the Anatolian world, phenomena that go beyond the level of lexical interference have been only sparsely identified. This does not mean that interference areas did not exist: language contact was at work in several areas of the peri-Anatolian world. Most likely, however, the phenomena were generally localized, limited to specific interface areas, and looked more like multilingual towns or regions than like large areas comparable with the SAE. Apart from this, when dealing with pre-classical corpus languages, some further methodological criteria need to be spelled out and added to the identification of the features listed above in § 2. The issues that need be resolved in each case are the following:

- Assessment of the systematicity of a given pattern in the affected corpora.
- For unsystematic contact-related events (evidence of contact that is limited to single documents): can they still be used to evaluate some aspects of the cultural and linguistic environment that produced them?
- For systematic contact-related events (regular events concerning Phonological, Morphological, Grammatical and Syntactic Units as outlined in § 2): if they occur in related, albeit different, languages, do they depend on contact, or is the possibility of typological convergence or inheritance from a common forefather not excluded?
- Do the patterns of interference really depend on linguistic contact, or are there other types of contact that may explain them, e.g. cultural contact, contact between literatures, epigraphic and graphemic contact between different epigraphic communities?

We will now proceed to illustrate these issues and the way they can be solved, using examples taken from documented cases of contacts between Anatolia and the surrounding cultures.

5.1. The Luwian-Hittite interference area during the Bronze Age

A systematic event in language contact should comply to all of the following parameters:

1) the change must involve a relevant feature as the ones outlined above in § 2, table 1;
2) the change must be apparent in the language, and not only in specific manifestation of diaphasic types (in other words, contact between literatures or ritual practices does not imply that loans, calques or larger structures were actually part of the *langue*);

3) the change must replicate specific sub-structures (a single substantive that changes theme to imitate the morphology of a model language is a micro-phenomenon; if the change targets a specific set of cases matching the mechanics of the model language, it is more likely to be systematic).

These requirements can be well illustrated by considering some features of the Luwian-Hittite bilingual environment that Yakubovich reconstructed when studying the sociolinguistics of Bronze age Luwian, using the texts from the archives of the Hittite capital city. In his monograph of Luwian, Yakubovich (2010, 358ff.), basing on previous work by Rieken (e.g. 1994, 2006), identified several possible indications of linguistic contact in the certainly multilingual and multicultural setting of Late Hittite Hattuša. One of them was the so-called *clitic reduplication*. While both Hittite and Luwian featured a left-periphery of the clause-architecture that contained a rigidly configurational chain of Wackernagel clitics (including quasi-connectors, informational markers, a direct-speech particle, pronouns and sentential adverbial particles), the order in which some specific clitic pronouns must appear is different in the two languages. In some Late Hittite documents (notably CTH 106, the treaties between Tudhaliyas IV and the kings of Tarhuntassa, 13th century BCE)[29] and in some Late Hittite copies of older texts (the laws, CTH 291–2)[30], some scribes, evidently influenced by Luwian, or being native Luwian speakers themselves, wrote the clitic pronouns that had a different collocation in the chain in the two languages twice: once in the expected Hittite position, once in the slot they would occupy in Luwian.[31]

[3] *UL*=**at**=si={y}**a-at**=kan2 ar-ha da-an-zi
not=**it**=her=**it**=PTCL away take.PRS3PL
"Don't they take **it <it>** away from her?" [32]

[4] n=**a-at**=si={y}**a-at** GAM-an *NI-EŠ* DINGIR*LIM* GAR-ru
CONN=**it**=him=**it** under oath put.MED.IMP3SG
"**It <it>** must be put under oath for him" [33]

This phenomenon would qualify as a case of contact-induced change involving grammatical units. However, while it certainly depends on the multilingual environment of the late capital city of the Hittite kingdom, its *systematicity* should be carefully evaluated. Apart from being sporadic, it regards single instances of mistaken management of a part of speech. As such, it may very well depend from the inaccurate competence of single scribes, who in all likelihood were Luwian speakers. This does not imply that a change occurred in the Hittite spoken by Hittite native speakers.

While one may argue that this problem exists for every possible trace of contact in the documentation of a corpus-language, there are cases in which the true impact of a change appears much more likely. Drawing once again from the observations made by Rieken (1994) and Yakubovich (2010) on the Hittite-Luwian multilingualism and interference in the Late Hittite phase, it is appropriate to mention two other cases of contact-induced change: the extension of the *i*-mutation from Luwian to Hittite and the simplification of the paradigm of the Hit-

[29] Texts in Otten 1988; Van den Hout 1995. Other cases – some of which graphemically problematic – are sparsely attested in other texts, generally datable to the imperial age (cf. Yakubovich 2010, 358ff.).

[30] Text in Hoffner 1997.

[31] Rieken 1994 and 2006; Yakubovich 2010.

[32] KBo 4.10 obv. 8. Text in Van den Hout 1995: 100ff.

[33] KUB 26.12 obv. 43. Text in Miller 2013: 282ff.

tite noun with loss of the morphological opposition between nominative and accusative. Both belong to the category of contact-induced change affecting morphological units.

Summarizing in a few words the results of decades of studies, one may describe the Luwian *i*-mutation as a morphological change that turned the thematic vowel of the nominative and accusative *generis communis* of Luwian *a*-stems stems into an /*i*/; it also affected consonantal stems by addition of a thematic /*i*/. This change, regular and systematic in Luwian, is correlated with the *a*/*i*-thematic shift in Late Hittite (Rieken 1994) and was very likely a case of influence of Luwian on Hittite. From a cognitive perspective it probably depended on a reanalysis of the thematic vowel as a part of the proper ending of the most frequently employed cases of the inflection (nominative and accusative), and on an extension of the reanalysed ending to regularize the paradigms.

As for the lack of opposition between nominative and accusative in some Late Hittite forms, it is a consequence of the non-opposition of the two cases in the Luwian paradigm, that made the nominal endings of the common gender substantives interchangeable in Hittite as well.

These forms of influence of the Luwian nominal system on the Hittite one are significantly different from the case of clitic reduplication. First of all, while the changes are not compulsory for all nouns, their extension to Hittite seems to be more widespread. Furthermore, their integration in the language system seems to be proven by the fact that also in Hittite the selected themes and cases for the shifts are, indeed, the same as in Luwian. This is what is meant here when referring to the regular replication of (sub-)structures.

5.2. Syntactic similarities in Near Eastern bilingual documents: the Hurro-Hittite bilinguals and a Greek-Phoenician one in early Hellenistic Cyprus

In some cases, features that may be induced by contact emerge in specific documents that remain isolated inside of a corpus. This type of patterns, which I would define as "document-level" types of interference, is especially frequent in the bilingual or multilingual inscriptions and monuments. Contrary to the traditional approaches, not all multilingual texts should be studied by trying and identifying the "original version" as opposed to the "copy" or "translation". Bilingual and multilingual documents are very different from each other, and their nature depends on the context and way of composition. If we consider, for instance, the Hurro-Hittite bilingual, the question for the original version is highly relevant (and rather easily answered, apart from sporadic passages that may present anomalies, the Hittite version is a translation of a Hurrian original).[34] This bilingual contains possible traces of syntactic interference, including the unusual position of words and constituents (examples [5a-b], with VO order in both Hurrian and Hittite, cf. Melchert 2015) and constituents or uncertainties in the use of hypotaxis, which would qualify as shared grammatical traits as outlined in § 2, table 1.

[5a] ku-u-le-eš an-ti ti-i-ib-ša-a-ri
leave aside that(?).story.ABS
"Leave that story aside!"

[5b] ar-ha da-a-le-es-tén a-pa-a-at ut-tar
away leave.IMP2PL that.N/A.SG story.N/A.SG
"Leave that story aside!"[35]

[34] For an introduction see Neu 1996, in pc. 13–16. On the specific issue of translation practices, cf. Rizza 2007 with further references.

[35] KBo 32, 14+ i 23/ii 23.

However, the text was the product of the philological work of a scribe or, more likely, a group of scribes, or perhaps the result of a more complex tradition that produced a Hittite version of a Hurrian myth. As such, it cannot be immediately compared to other types of multilingual documents, as, for instance, bilingual epigraphs.

We shall exemplify this by moving towards the Western boundaries of the Ancient Near Eastern world and towards the "latest" boundary of the period under investigation. If one considers the Phoenician-Greek bilingual CIS I, 95 from Cyprus (recently republished by Amadasi Guzzo 2015)[36], with a dedication to Athene/ʿnt, one will notice that the Phoenician text mimics the order of constituents (or: written words?) of Greek and tries to translate a typical Greek formula (ΑΓΑΘΗΙ ΤΥΧΗΙ), but, at the same time, the Greek text was clearly written by someone who either omits or misplaces some Greek words or confuses the dative and genitive in at least one occurrence.

[6a] ΑΘΗΝΑΙ ΣΩΤΕΙΡΑ<Ι> ΝΙΚΗ<Ι> ΚΑΙ ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ
A.DAT Saviour Victory and king.GEN.SG P.GEN
ΠΡΑΞΙΔΗΜΟΣ ΣΕΣΜΑΟΣ ΤΟΝ ΒΩ[ΜΟ]Ν ΑΝΕΘ[ΗΚ]ΕΝ ΑΓΑ[Θ]ΗΙ
P.NOM S.GEN the.ACC altar.ACC put.AOR3SG good.DAT.SG
ΤΥΧΗΙ
luck.DAT.SG
"To Athene Savior Victory and <u>of(sic!)</u> King Ptolemy Praxidemos of Sesma the altar posed for good luck"

[6b] L'NT 'Z ḤYM W L'D MLKM PTLMYŠ
'nt.to force living.PL and lord.to king.PL P.
B'LŠLM BN [S]SMY YQDŠ [']T MZBḤ [L]MZL N'M
B. son S. dedicate.PST3SG[37] OBJ.PTCL altar luck.to good
"To 'nt *force of the livings*" and Ptolemy Lord of the Kings B'LŠLM son of SSMY posed the altar *for good luck*"

It is fairly clear that in this case the question for the "original" version is pointless: in a multicultural environment such as Ptolemaic Cyprus in the late 4th or, more likely, 3rd century BCE, where the political *élite* was Greek, the text was not written and then translated, but simply written as a bilingual in the first place. The poor result, from a linguistic perspective, is, however, a reflection of the cultural and linguistic environment in which it was produced. The scribe was probably a Phoenician speaker with a rather poor competence of Greek, who had to use both languages for political reasons.

While both the unusual patterns one finds in the bilinguals produced in the scribal offices of the Hittites and the ones found in CIS I, 95 qualify as "document-level" phenomena of replication of grammatical units, they do differ quite significantly depending on the context of their production. The role of Hurrian on the production of abnormal patterns in the Hittite version of the Hurro-Hittite bilingual does not mean that the scribe was competent in Hurrian or lived in a Hurro-Hittite mixed environment: it was the original text that interfered. On the other hand, the Cyprus epigraph is not the product of a scribal tradition and of the work of a scribal office, and therefore it certainly testifies at least to the existence of a multicultural and multilingual area (which, however, is not enough to prove linguistic areality *stricto sensu*).

[36] Cf. also Giusfredi 2018, for a discussion on the linguistic and cultural environment in which the text was composed.

[37] More precisely, *yipi'l* causative to *QDŠ*.

5.3. *-sk(e)-* "past" forms in Anatolian and Greek

When proper cases of linguistic interference do emerge, our only partial knowledge of the ancient linguistic environment poses another problem. In case the languages that interact are genealogically related, before assuming that a common trait is induced by contact it is necessary to exclude inheritance by a common forefather and independent endolinguistic change. An example is the existence of the Indo-European morpheme *-sk(e)-*, which produces iterative and imperfective finite verbal forms in Anatolian and *derived* verbs that have a full present and preterite paradigm. In Classical and *koinè* Greek the same morpheme has a more limited set of functions. Homeric Greek, however, allows for unusual unaugmented past aorists with *-sk(e)-* and for unaugmented imperfects:[38]

[7] ἄλλοτε δ᾽ ἀγνώσασκε
again PTCL not.recognize.AOR.*SKE*.3SG
"she kept not recognizing (him)"[39]

[8] σιδηρείῃ κορύνῃ ῥήγνυσκε φάλαγγας
of.iron.DAT.SG mace.DAT.SG break.IMP.*SKE*.3SG army.ACC.PL
"with an iron mace he used to destroy the armies"[40]

The second type (present with *-sk(e)-* and secondary endings) also occurs twice in Herodotus, who was notoriously a half-Carian citizen of Halikarnassos.

[9] τῷ μούνῳ Ξέρξης δῶρα πέμπεσκε
art.DAT.SG alone.DAT.SG X.NOM gift.N/A.PL send.IMP.*SKE*.3SG
"To him only Xerxes kept sending gifts"

Also basing on this, it has been suggested to explain the unexpected *-sk(e)-*aorists and imperfects as an influence of Anatolian (either as a form of induction of morpheme or as a case of modification of the semantics of a commonly inherited element). Also regarding the semantics there are traces of similarity and/or convergence: Daues (2009) has convincingly shown that the *-sk(e)-* forms in both language systems occur in specific syntactic patterns that may point to a function related to "backgrounding" informational status. As already stated, however, while *cultural* contacts existed there is no geographical contiguity between Hittite and Mycenaean/Greek, and the Luvic languages of Western Anatolia, once again, do not share the use of the *-sk(e)-* morpheme with Hittite, which makes an area of structural influence very unlikely.[41] A better course is still to assume that *-sk(e)-* had multiple original functions, and that the survival of the *-sk(e)-* past forms in Homer was, at least in part, also a literary solution to metric and stylistic requirements, that eventually entered as an exquisite archaism in Herodotus.[42] Common inheritance should always be ruled out before assuming patterns of language contact that are historically unlikely.

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[38] Risch 1974: 276ff.; Puhvel 1991; Zerdin 2002; cf. Also Siehler 1995, 505f. for the very peculiar case βοσκέσκοντο in Od. 12.355, that evidently shows a first degrammaticalized suffix followed by a second repetition of the derivational morpheme. For a list of forms, see Daues 2009, 83f. Note the presence of the /a/ in σπείσ**α**σκε, that indicates that the sigmatic aorist root must be °-σ**α**, from *-*sh*$_2$, with the *h*$_2$ belonging to the theme and not to the personal endings.

[39] *Odyssey* XXIII.95.

[40] *Iliad* VII.141.

[41] In Luwian, the isofunctional suffixes seem to be *-ssa-* and *-zza-*; cf. Melchert 2003 and Yakubovich 2015.

[42] Cf. also Daues 2009, 86, with reference to an unpublished MA thesis by V. Francione.

5.4. Graphemic contact and epigraphic communities

Since ancient languages are only attested in written records, a very important point is to correctly identify proper phenomena of contact-induced language shift, and to successfully tell them apart from phenomena in which the contact regarded writing systems rather than the languages they encoded, and thus influenced the epigraphic act of composing a text. This issue is strictly related to the distinction between true contact and document-level phenomena; however, the perspective here is magnified, and a proper analysis can, in this case, provide further insight into the way writing systems evolve.

An example of graphemic interference has been provided by Rieken and Yakubovich (forthcoming) in their talk "Contacts between Scripts in Bronze Age Asia Minor" (Chicago, March 2017). Since the order of compound logographic elements in Cuneiform Luwian does not reflect the usual order of constituents in Anatolian, but rather the one of Sumerian, modifiers (in the example in [11], genitives) follow their heads nouns ([11]) instead of preceding them ([10]).

[10] tappasassinzi tiyamassinzi massaninzi
sky.of.NOM.PL earth.of.NOM.PL god.NOM.PL
"The gods of sky and earth"[43]

[11] ^{D}IŠKUR AN
Storm-god sky
"Storm-god of the sky"[44]

This pattern extends to the rendering of a limited number of compound logograms in the Hieroglyphic Luwian writing system, in which the logography is not based on the use of Sumerian signs, which implies that the only possible explanation for the convergent pattern is a merely *graphemic* influence of Cuneiform on the Hieroglyphic scribal praxis. Consider the following examples: [12], being partly phonographic, renders the real Luwian order of words, while [13], being completely logographic, has the inverted order.

[12] Halpawanin(URBS) (DEUS)TONITRUS-na
Aleppo.of.ACC.SG Storm-god
"The Storm-god of Aleppo".[45]

[13] (DEUS)TONITRUS *HATTI*
Storm-god Hatti
"The Storm-god (of) Hatti"[46]

6. Provisional conclusion

In text-languages, language-contact manifests itself in several, complex and sometimes blurry ways; nevertheless, it is one of the strongest indicators of cultural contact and one of the most reliable sources for an investigation of the Ancient world. Therefore, the potential of the analysis of ancient patterns of linguistic interference reaches far beyond the strictly linguistic perspective of Indo-European reconstruction: loanwords travel easily, but less easily than single pieces of archaeological evidence, while structural morphosyntactic patterns and traits are

[43] KBo 22, 254 vo. 10.

[44] KUB 35, 133 ii 27.

[45] TELL AHMAR 5, §3.

[46] SÜDBURG §2.

only borrowed in situation of close cultural contiguity. Furthermore, far from being an optional approach to the analysis of ancient corpora, it is an unavoidable level on analysis: all that is contact-induced cannot be explained otherwise. Neglecting this fact would inevitably lead to a partial and incomplete picture of the past.

Nevertheless, the types of phenomena that are encountered in the corpora are much more difficult to identify and assess than in modern languages: speakers cannot be interviewed, and the exact interpretation of unusual patterns in written documents will always rely on comparison and will always require independent verification. In order to provide such verification, after the methodological steps outlined in this paper have been duly followed, any results of language-contact analysis will require to be matched against other pieces of historical evidence (historical and cultural geography, data deriving from the contents of the documentary sources, archeological evidence), in an epistemological circle in which all fields of the science of antiquity provide each other with substantial feedback.

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Паола Коттичелли-Куррас, Федерико Джусфреди. К методологии изучения контактных связей между древними анатолийскими языками и культурами

В статье дается обзор теоретических и методологических установок, разработанных для исследований в области языковых контактов и ареальной лингвистики, и проводится попытка применить эти методы к контексту древних языков с целью выявить условия, при которых можно говорить о языковых ареалах в древности. Авторы приводят несколько примеров того, как с помощью комбинирования лингвистической и культурно-исторической методологии можно обнаружить древние ареалы взаимонаправленных языковых контактов, в основном применительно к древней Анатолии в контексте Эгейского и древнеближневосточного регионов.

Ключевые слова: анатолийские языки, языковые контакты, клинопись, культурные контакты, языковые ареалы.

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Predicative possession and a possible contact-induced phenomenon among Finnic and East Slavic languages: having a headache between the Baltic Sea and the sources of the Volga River

Predicative possession is a much studied topic but much must still be done if one takes into account the extension of this kind of predication to certain semantic areas such as experiential constructions. This paper has the modest ambition to explore the possibility of using the expression of having a headache in Finnic and East Slavic languages as an interesting piece of evidence to be seriously considered as regards the vexed question of the origin of the adessive-like possessor in Russian.

Key-words: predicative possession, experiential constructions, Finnic languages, East Slavic languages, language contact.

1. Introduction[1]

The inspiration for this article were two papers by Ilya A. Seržant (Seržant & Bjarnadóttir 2014; Seržant 2015) where the Baltic, Russian and Finnic experiential expressions for having a headache or something similar played a key role. I am not concerned here with the morphology of verbal forms, brilliantly analyzed in the aforementioned papers, i.e. the presence of an "unexpected" **-o-* grade in the verbal base and a stative marker **-ē-* in Baltic and Slavic (Lithuanian *sk-a-ud-ė-ti* 'ache', Latvian *s-ā-p-ē-t* 'idem', Russian *b-o-l'-e-t'* 'idem', Seržant & Bjarnadóttir 2014: 221–235; Seržant 2015: 332, footnote 5, 334). Rather I am interested in the Experiencer expressed by an "adessive-like PP [Prepositional Phrase]" (Seržant 2015: 328) as in Russian **у меня** болит голова / ***u menjá*** *bolít golová* 'I have a headache' compared with the adessive case of Estonian ***mul*** *valutab pea* 'idem' and Finnish ***minulla*** *särkee pää* 'idem' (Seržant 2015: 333), i.e. with the same structure used in the standard predicative possession, cf. Russian **у меня** (есть) новый дом / ***u menjá*** *(est') nóvyj dom* 'I have (got) a new house' and Estonian ***mul*** *on uus maja* 'idem' and Finnish ***minulla*** *on uusi talo* 'idem'. While Seržant and Bjarnadóttir have focused their attention on the dative (DAT) constructions which one finds in the Baltic languages such as Lithuanian and Latvian and in one Finnic language such as Livonian[2],

[1] I am very grateful to Paola Cotticelli Kurras and her staff for their hospitality during the conference "Beyond Lexicon: Diachronic language contact on the structural and systemic level" in Verona (Italy) where I presented a provisional version of this paper (22th of April, 2017). In that occasion I got acquainted with Ilya Yakubovich: I am grateful to him and to George Starostin for their hospitality in this journal. Moreover, I am indebted to an anonymous reviewer for signalling some shortcomings in my paper and suggesting to mention an important volume such as Bricyn et al. eds. (2009). Abbreviations are written according to the Leipzig Glossing Rules (https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf) with some adaptations.

[2] "Livonian, in turn, has a dative case in *-n* in its Curonian dialect (historically stemming from the genitive and essive) and a second dative in *-l* in the Salis dialect representing a merger of the former adessive and allative case […] Morphologically different cases that are inherently linked to the semantic domain of dative case will be

spoken in the Courland peninsula in days gone by[3], my aim was and is to enlarge the frame and collect more data from all the sources available to me. My first step was a paper written in Italian I presented during a meeting of Slavists ("Linguistica slava 6") on the island of Procida (Gulf of Naples) in 2016 (Manzelli 2017). In the title of that paper I contrasted Russian ***u menjá*** *bolít golová* 'I have a headache' with Bulgarian *bolí* ***me*** *glaváta* 'idem' because all the South and West Slavic languages have an Experiencer in the accusative, unlike Russian, Belorussian (Belarusian) and Ukrainian (Belorussian admits also a dative Experiencer, Ukrainian admits both a dative and an accusative Experiencer as in Middle Russian, see, for Ukrainian, Seržant & Bjarnadóttir 2014: 231). I considered this fact a good starting point to scrutinize the old issue[4] of whether the adessive-like prepositional phrase for the possessor in East Slavic predicative possession is due to a Finno-Ugric (more precisely: Finnic / Baltic-Finnic / Balto-Finnic)[5] influence or vice versa[6]. Whereas Seržant took into account the Baltic (Lithuanian and Latvian) and the East Slavic languages (Old Russian, Middle Russian, Modern Russian, and Ukrainian)[7] and three Finnic languages (Livonian, Estonian and Finnish), I extended my research to more minor Finnic languages, such as Votian or Votic, Ingrian[8], Karelian Proper (North Karelian and South Karelian, the latter also around Tver), Olonets/Aunus Karelian or Livvi (between Lake Ladoga and Lake Onega, towards Lake Ladoga), Ludic Karelian (between Lake Ladoga and Lake Onega, towards Lake Onega) and Veps or Vepsian (in the area south of Lake Ladoga, Lake Onega and Lake Beloye)[9]. In this paper I have had to sacrifice my ambition to include more languages (such as other Finno-Ugric languages, more Indo-European groups such as the Germanic group as well as the Indo-Iranian macro-group – represented by Romani and Ossetic –, and finally, the Turkic languages of the Volga-Kama region), i.e. the languages spoken (or once spoken) in the huge area stretching from the Baltic Sea to the Black Sea.

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referred to in this chapter as DAT in order to highlight the structural correspondences across these languages and leave aside the morphological discrepancies." (Seržant 2015: 327). One could argue about the definition of Salis Livonian *-l* as a second dative because it preserved the *-l* element meaning 'next to', cf., e.g. Finnish adessive *-lla/-llä*, allative *-lle* [lle?], and ablative *-lta/-ltä*, clearly exhibiting the sequence of two suffixes, thus adessive *-lla/-llä* is the outcome of *-l-* + *-na/-nä* essive or generic locative as in *kotona* (*koto-na*) 'at home' (see, e.g., Judakin 1997: 42) etc. As for the problem of a dativa genitive in old Finnish (16th c. CE) see Inaba (2015) and section 6.

[3] The last speaker of Livonian (with Livonian as L1), Grizelda Kristin (Latvian Kristina), née Bertholde, died in Canada in 2013 at the age of 103. Her cousin Viktor Berthold (Latvian Viktors Bertholds) had already died in Courland (Kurzeme) in 2009. The other Livonian variety mentioned by Seržant (2015: 327, 328), the Salis (Latvian Salaca) dialect was still spoken by 22 persons at the mouth of the river Salis in 1846 (Décsy 1965: 77). That variety perhaps disappeared in the 1860s, see Winkler & Pajusalu (2009) and Grünthal (2015).

[4] The issue was debated in the 1960s by Veenker (1967), Décsy (1967), and Kiparsky (1969), and mentioned as a highly controversial question in the volume specifically devoted to contact linguistics by Thomason & Kaufman (1988: 238–246), see also, for the lack of a verb 'have' in the Baltic *Sprachbund*, Thomason (2001: 110).

[5] English also *Fennic languages*, German *ostseefinnische Sprachen*, Russian прибалтийско-финские языки / *pribaltíjsko-finskie jazykí*, Hungarian *balti finn nyelvek*, Finnish *itämerensuomalaiset kielet*, Estonian *läänemeresoome keeled*.

[6] Winkler (2003: 205) and Honti (2007: 29) are very skeptical about the connection between the Russian adessive-like PP and the Finnic adessive as a contact-induced phenomenon but they do not exclude the possibility of a Russian influence on the Finnic languages!

[7] As regards "dative-like marked experiencers in a subject-like position" Seržant (2015: 325) makes mention of Scandinavia, (Low) German, Polish and Belarusian.

[8] Though pertaining to two different Finnic subgroups, Votian (Votic) is a southern or western Finnic language while Ingrian is a northern or eastern Finnic language, both are or, better, were spoken in Ingria (Swedish *Ingermanland*, Estonian *Ingeri*, Finnish *Inkeri*, Russian Ижора / *Ižóra*), the region between Estonia and Saint Petersburg.

[9] The first document written in a Finnic language (probably a form of Karelian), dating back to 1240–1260 ca., was found among the birch bark letters discovered in old Novgorod (*grámota* 292), see Xelimskij (2000b: 342–344).

2. The historical framework

Roman, Byzantine, Persian and Arabic sources give us only scanty details as regards what happened in the first millenium CE in the area of the Volga basin. More detailed, but starting only from the 9th century, is the so-called Russian Primary Chronicle (known in Russian as Повесть временных лет / *Póvest' vremennýx let* 'Tale of past / bygone years', earlier as Несторова летопись / *Néstorova létopis'* 'Nestor's Chronicle'). Actually, we do not have the original copy but only later compilations such as the *Laurentian Chronicle* written by the monk Lavrentij in 1377 and the *Hypatian Chronicle* (end of the 1420s). However, as for the ethnic makeup of eastern Europe, the Russian chronicles provide a lot of interesting and valuable information. A good example is the following passage (*Hypatian Chronicle* 1908: col. 4r):

> Въ Афетовї же части сѣдить Русь. Чюдь. и вси ꙗзыцѣ Мерꙗ Мурома. Всь. Мордва. Заволочьскаꙗ Чюдь. Пермь. Печера. ꙗмь. Югра. Литва. Зимигола. Корсь. Сѣтьгола. Либь. Лꙗховѣ же и Пруси. и Чюдь присѣдать к морю Вꙗрꙗскому.

Transliteration (my italics):

> V" Afetovï že časti sědiť Rus'. *Čjud'*. i vsi językově *Merę Muroma*. *Vs'*. *Mordva*. Zavoločʹska *Čjud'*. *Perm'*. Pečera. *Jęm'*. *Jugra*. Litva. Zimigola. Kors'. Sěť'gola, *Lib'*. Lęxově že i Prusi. i *Čjud'*. prisědęť k morju Vęręskomu.

English translation (based on the *Laurentian Chronicle*,[10] Finno-Ugric names in italic characters):

> In the share of Japheth lies Rus', *Chuď*, and all the gentiles: *Merya*, *Muroma*, *Ves'*, *Mordva*, *Chud'* beyond the portages, *Perm'*, Pechera, *Yam'*, *Ugra*, Litva, Zimegola, Kors', Let'gola and *Liv'*. The Lyakhs, the Prussians, and *Chud'* border on the Varangian Sea[11].

Leaving aside for the moment the ethnic interpretation of *Rus'* '(Old) Russians', in this passage most of the ethnonyms and place names are Finno-Ugric, such as *Čjud'*, Chud[12], probably here both Ingrians and Votes, *Merę* (i.e. Merja), Merya or Merians, an extinct ethnos living in the area of Moscow[13], *Murom*, Muromá, another extinct ethnic group living in the Oka basin, *Vs'*, Ves, i.e. Veps or Vepsians[14], *Mordva*, i.e. Mordvins (today speakers of Erzya and Moksha), *Perm'*, Finno-Ugric place name (etymologically connected with the Permian linguistic group now represented by three official languages: Komi or Komi-Zyrian, Permyak

[10] Even though the *Laurentian Chronicle* is the oldest extant manuscript, it is less detailed and sometimes more corrupted than the later *Hypatian Chronicle*. It seems to me that Cross & Sherbowitz-Wetzor (1953) took into account the Hypatian variants because they have *Liv'* for the Livonians, but the Laurentian version has Любь (*Ljub'*) instead of Либь (*Lib'*).

[11] Cross & Sherbowitz-Wetzor (1953: 52). A Czech translation of the same passage by Karel Jaromír Erben (published in 1867 and in second edition in 1954) is found in Blažek et al. (2011: 206): "V Jafetově pak části sedí Rusi, **Čudi** a tito národové: **Mera**, **Muroma**, **Vesi**, **Mordva**, Závlačská Čuď, **Permi**, Pečera, **Jami**, **Ugra**, Litva, Ziměgola, Krsi, Letigola, **Livi**; Lechové pak a Prusi. **Čudové** přísedí k moři Varažskému" (authors' bold).

[12] According to Kallio (2015: 91–93, footnotes 15–16) the popular derivation of Russian Чудь / *Čud'* from Gothic *þiuda* 'people' must be abandoned in favour of a Norse origin (Runic Swedish *þiuþ*, Old Norse *þióð* 'people') and even a chain like the following one could be conceived: East Norse *þjūð > Chud *cuuti 'people' > Russian Чудь / *Čud'* 'Chud'.

[13] According to Tkačenko (2007: 56–58, 115, 122 and 283–284) the name of Moskva River (Russian Москва-река / *Moskvá-reká*), hence the name of Moscow (Москва / *Moskvá*), is due to Merja **moska* or **moskə̂* or **mosko* 'hemp', cf. Erzya мушко / *muško* 'idem', Moksha мушка / *muška* 'fibre; bundle of hemp fibres', Mari муш / *muš* 'hemp, bundle of hemp fibres'.

[14] Notice that also the Vepsian language was called in Russian чудский / *čúdskij* up to the October Revolution, see the first Vepsian glossary by Uspenskij (1913).

and Udmurt), *Jęm'*, place name, probably Finnish *Häme* (Tavastia)[15]. *Jugra*, ancestors of Hungarians, Mansi (Voguls) and Khanty (Ostyaks), the latter now living only beyond the Urals along the Ob River, and *Lib'*, Livonians, ancient inhabitants of Latvia (see section 1.). The other ethnonyms regard mainly the Baltic group, *Litva* (Lithuanians), *Zimigola* (Semgallians), *Kors'* (Curonians), *Sět'gola* (uncorrect initial consonant *S* for *L* of Lettigallians or Latgalians), *Prusi* (extinct Baltic Prussians), while *Lęxově*, Lyakhs, are the ancestors of the Poles. The Varangian Sea[16] is the Baltic Sea named after the North Germanic people of the Varangians (Varyags, Vikings), ancestors of the Swedes.

As for the origin of the name *Rus'* a simple sentence in the Primary Chonicle (*Hypatian Chronicle* 1908: col. 9v) is telling:

и бѣша оу него Словѣни. и В(а)рѧзи. и прочии прозвашасѧ Русью.

Transliteration:

i běša ou nego Slověni. i V(a)ręzi. i pročii prozvašasę Rus'ju.

English translation (based on the *Laurentian Chronicle*):

The *Slavs, Varangians, and others* who accompanied him, *were called Rus'*. (Cross & Sherbowitz-Wetzor 1953: 61).

The real meaning of *Rus'* is much debated by historians, see, for instance, Duczko (2004), Lind (2006), Plokhy (2006) and Puzanov (2007). Unfortunately, sometimes historians are not able to distinguish *Finnic* as a linguistic group from *Finnish*, a language belonging to the group of the same name. On the Finnic side it is sure that Finnish *Ruotsi* and Estonian *Rootsi* mean 'Sweden', but Ingrian distinguishes *rõtsi* 'Lutheran' from *rõtsa* 'Russian (person)', while Karelian *ruottši* means both 'Finn' and 'Lutheran' and Ludic *ruotš* has a gamut of meanings including 'Lutheran', 'Finland' and 'Sweden', and so on (see SSA III: 108 where the etymon is Old Swedish *rōþs-*)[17]. The name for Russia is in Finnish *Venäjä*, in dialects *Venät*, *Venäh* and *Ven*(*n*)*ää*, cf. Estonian *vene* 'Russian (person)' and *Venemaa* 'Russia', from Germanic **veneđ-*, already attested in Tacitus (*Venethi*), see SSA III: 426, and Bjornflaten (2006: 73), i.e. a widespread Indo-European ethnonym, still surviving in place names such as *Venezia* 'Venice' in Italy and *Vendée* in France[18].

The confusion between the ethnic groups can also be seen in the name given to the Votes, cf. Finnish *vatja*, Votic *vad'ja*, Estonian *vadja* 'Votian language'. If Jorma Koivulehto is right in hypothesizing **vakja* from Baltic **vākį̄ā* 'lännessä oleva maa [a land lying in the West]' (SSA III: 418), the Finnic words correspond to Latvian *Vācija* and Lithuanian *Vókia* 'Germany', whereas according to Fraenkel (1965: II, 1272, s.v. *Vókia* 'Deutschland'), Finnish *Vuojola* and Estonian *Oju-* or *Ojamaa* 'Gotland (island)' come from the same Baltic root. In this regard place names are a very important clue to earlier ethnic and linguistic situations or to the results of foreign

[15] Finnish *Häme* corresponds to Lappish (Sami) *sabme* 'lappalainen, lapin kieli [Lapp, Lappish language]' but a Baltic source is unlikely (SSA I: 207). Archaeology and historical information can demonstrate that most of Finland was originally a Sami territory.

[16] Cf. Arabic بحر ورنك *baḥr Warank* 'Baltic Sea' in the Iranian polymath al-Bīrūnī (973–1050 CE), see, e.g., Pinto (2016: 28).

[17] A well-informed and innovative approach to the origin of *Rus'*, compared with Byzantine Greek Ῥῶς / *Rhôs* and Semitic (Arabic, Syriac) forms etc., is found in Danylenko (2004) but the question is still open. Roberge (2010: 420) mentions for *rus* only Finnish *Ruotsi* 'Sweden' and Old Norse *róðr* 'rowing'.

[18] The name of *Veneti* has been particularly studied by Italian linguists such as Giacomo Devoto (1897–1974), Giovan Battista Pellegrini (1921–2007), and Aldo Luigi Prosdocimi (1941–2016), see Ramat (2005).

influence. The old capital of Finland carries the name of *Turku* (Swedish Åbo), a fine example of Slavic influence because of Old Russian търгъ / *tŭrgŭ* 'market' > Modern Russian торг / *torg* 'barter' (Vasmer 1958: III, 123–124, s.v. то́рг), cf. the Finnish common noun *turku* 'market place' (a sophisticated and poetic word, Papp 1978: 882)[19]. What is remarkable is the Finnish preservation as *u* [u] of Slavic *jerŭ*, i.e. **ŭ* (Cyrillic ъ), both strong (> Russian *o*) and weak (> Russian zero) as in common nouns such as Finnish *lusikka* 'spoon' from Old Russian лъжька / *lŭžĭka* > Modern Russian ложка / *lóžka* 'idem'[20] with loss of weak *jerĭ*, i.e. **ĭ* (Cyrillic ь) –, while strong *jerĭ* became *e* in Russian –. Its counterpart is the Russian river name *Msta* (tributary of Lake Ilmen, Novgorod Oblast) from **Mŭsta* < Finnic *musta* (Finnish *musta*, Estonian *must*) 'black' (Vasmer 1955: II, 168, s.v. Мста; Xelimskij 2000a: 330)[21].

In this historical context it is worth mentioning the figure of Alexander Yaroslavich Nevsky – Russian Александр Ярославич Невский / Aleksándr Jaroslávič Névskij (1221–1263) –, Prince of Novgorod, Grand Prince of Kiev and Grand Prince of Vladimir. He gained his Finnic sobriquet Невский / *Névskij* thanks to his victory against a Swedish invasion in the Neva battle (1240) at the confluence of the rivers Izhora and Neva. Izhora (Old Russian Ижера / *Ižera*) was at the same time the name of a river and that of the Finnic population (Ingrians) who supported the young Prince Alexander, while Swedes counted on auxiliary troops recruited among Tavastians (i.e. the inhabitants of Häme in Finland). The Russian nickname *Névskij* is based on the name of the famous river (Russian Нева / *Nevá*) now crossing Saint Petersburg: its etymology is clearly Finnic[22], cf. Finnish *neva* 'open treeless marsh; river' and Karelian *neva* 'water, body of water (lake, river, sea)', see SSA II: 215. Two years later Prince Alexander defeated the German (and Danish) Livonian Knights who were supported by Chud (i.e. Estonian) infantry in the Battle on the Ice (1242), on Lake Peipus, actually, on the lake named Lämmijärv in Estonian ('warm lake' – Russian Тёплое озеро / Tëploe ózero – between Lake Peipsi – Russian Чудское озеро / Čudskóe ózero – and Lake Pskov): also on that occasion Prince Alexander could count on the help of Finnic troops in the service of the Republic of Novgorod[23].

3. Predicative possession

From a typological point of view the reference text for possession is now Heine (1997) who has distinguished 8 cognitive schemata on the basis of a 100 language sample. At least 3–4 schemata conform to the possessive constructions which can be found in the area under scrutiny: (1) the Action Schema, namely "X takes Y" with X possessor and Y possessee (Heine 1997: 47–50), in other words the use of a *have*-verb like Russian иметь / *imét'* 'to have'; (2) the Location Schema, "Y is located at X" (Heine 1997: 50–53), cf. Russian у / *u* + GEN of the possessor; (3) the Goal Schema, "Y exists for/to X" (Heine 1997: 59–61)[24] when the possessor is in a DAT form, cf.

[19] SSA III: 335; Bjornflaten (2006: 63); Kallio (2006: 155).

[20] SSA II: 113; Xelimskij (2000a: 330); Kallio (2006: 155); Koivulehto (2006: 180), Dolgorukova (2015: 7, 9, 12, 13, 18, 23. 41).

[21] In 2015 the fourth volume of Субстратная топонимия Русского Севера / *Substratnaja toponimija Russkogo Severa* (Substratal toponymy of North Russia) edited by A. K. Matveev (1926–2010) appeared posthumous (Matveev 2015). The previous volumes were published in Ekaterinburg in 2001, 2004 e 2007. See also Saarikivi (2006).

[22] For other opinions see Kallio (2015: 89–90, footnote 12).

[23] As for Alexander Nevsky see Pašuto (1995).

[24] Russian ***u menja*** *mašina* 'I have a car' is mentioned in Heine & Kuteva (2005: 230) but not in connection with Finnish.

the Russian experiential expression **мне** холодно / ***mne*** (1SG.DAT) *xólodno* 'I'm cold'[25] or, better, for concrete possession, Latvian ***man*** (1SG.DAT) *ir jauna māja* 'I have a new house' (litt.: 'to.me is new house'). The substantial volume (830 pages) by Stassen (2009) is specifically devoted to predicative possession (with indefinite possessee) on the basis of a sample of 420 languages. Stassen halves Heine's schemata reducing them to 4 (Locational Possessive, With-Possessive, Topic Possessive, Have-Possessive) and in the Locational Possessive he brings together both static cases such as locative, adessive and inessive, and dynamic cases corresponding to dative and allative (Stassen 2009: 48–54), in other words including Heine's Goal Schema. But I argue that the distinction between ADESS and DAT (merged by Leon Stassen and by Ilya A. Seržant as well) is crucial as regards the predicative possession in Finnic and Russian[26].

4. Predicative possession in the Slavic languages

A typological discussion about predicative possession in Slavic languages as regards the relationship between *be*-verbs and *have*-verbs was initiated by Isačenko (1974)[27]. All Slavic languages possess the modern forms of Proto-Slavic **jĭměti* (**jьměti*, Trubačev 1981: VIII, 226–227; Derksen 2008: 211–212) 'to have' (originally 'to take, to hold'), but in Russian the use of иметь / *imét*' is limited to abstract possession (Timberlake 1993: 875; Timberlake 2004: 311–312), and "is also a useful alternative to locative possessives under special syntactic conditions where the latter option is impossible, e.g. imperative sentences and infinitives embedded under volitional and modal verbs" (Koptjevskaja-Tamm & Wälchli 2001: 676). Thus, Old Russian имѣти / *iměti* 'to have' has become Modern Russian иметь / *imét*', Belorussian мець / *mec*' (Mayo 1993: 934–935) and Ukrainian мати / *máty* (Shevelov 1993: 987–988), but a sentence expressing concrete possession as Russian **я имею** новый дом / ***ja iméju*** *nóvyj dom* 'I have a new house' is unusual in respect of **у меня** (есть) новый дом / ***u menjá*** *(est') nóvyj dom*, while in Belorussian **я маю** новы дом / ***ja máju*** *nóvy dom* and in Ukrainian **я маю** новий будинок / ***ja máju*** *novýj budýnok* are just as acceptable as Belorussian **у мяне** (ёсць) новы дом / ***u mjané*** *(ësc') nóvy dom* and Ukrainian **у мене** є новий будинок / ***u méne*** *je novýj budýnok*[28], respectively[29]. In a paper of hers McAnallen (2009: 133) mentions the three constructions for expressing predicative possession: (1) Old Church Slavonic (OCS) *iměti*, Czech *mit*, Polish *mieć* etc. 'to have', (2) *u* + GEN and (3) DAT. As for *u* + GEN McAnallen gives four examples, one in OCS,

[25] Romanian ***mi****-e frig* 'I'm cold' is a perfect equivalent to Russian (with Romanian *mi* 1SG.DAT), while Italian ***ho*** *freddo,* French ***j'ai*** *froid,* Catalan ***tinc*** *fred,* Spanish ***tengo*** *frío,* Galician ***teño*** *frío* exhibit the *have*-strategy and Portuguese *estou* ***com*** *frio* (litt.: 'I stay **with** cold') has a comitative solution. This kind of expressions were studied by our misfortunate colleague Regina Pustet (1963–2013) in a paper devoted to the syntax of temperature predications (Pustet 2015).

[26] The adessive construction in Russian is mentioned by Stassen (2009: 8, 51, 282), together with or independently from the similar Finnish and Estonian constructions (Stassen 2009: 39, 51, 129, 297).

[27] See Dingley (1995); Danylenko (2002); Clancy (2010).

[28] In Ukrainian the original distinction between the prepositions **у** / *u* ("adessive", from Proto-Indo-European **au*) and в / *v* ("inessive/illative", from IE **ņ*) got lost already in the 14th-15th c. (Slyn'ko 1980: 243), cf. **в Ольги** немає грошей / ***v Ól'hy*** *nemáje grošéj* 'Ol'ha has no money', as in **в мене** є… / ***v méne*** *je* …'I have …' (Pugh & Press 2005: 111), beside **у мене** є брат / ***u méne*** *je brát* (Zahnitko 2001: 276) 'I have a brother'.

[29] Notice that the Ukrainian short existential є / *je* 'there is' is pratically compulsory. In Belorussian the rules connected with the conditions for the presence or absence of the existential ёсць / *ësc*' are quite complicated according to Krivickij et al. (1978: 314–317). As for the conditions of omission or not of the existential есть / *est*' in Russian see Isačenko (1974: 56–58) and Timberlake (2004: 313–315).

one in Old Czech and two in Old Russian (one from the Primary Chronicle – therefore not in pure Russian – and the other from a Novgorodian birch-bark letter). I think that the most interesting example is a passage in OCS from Matthew 18:12 ("if a man owns a hundred sheep") where for the possessor *Codex Assemanianus* (Glagolitic, 11th c.) has *u* + GEN in *ou etera čl*(*ově*)*ka*, but *Codex Marianus* (Glagolitic, beginning of the 11th c.) has a possessive DAT: *eterou čl(ově)kou* (McAnallen 2009: 133 and footnote 3). However, Vaillant (1977: 126, § 1342) considered *u etera člověka* a locative noun phrase, and he translated the sentence into French in this way: "s'il y a chez quelque homme 100 brebis" (but see Grgović-Major 2011: 43, footnote 32), cf.[30]:

аще	бѫдетъ	оу	етера	чл҃ка	р҃	овець
ašte	*bǫdetŭ*	*ou*	*etera*	*čl*(*ově*)*ka*	*.r̃.*	*ovecĭ*
if	be.PRF-3SG	at	certain-GEN	man-GEN	100	sheep-GEN.PL

'if a man owns a hundred sheep'

Grgović-Major (2011: 47) gives an example of *u* + genitive in Old Serbian "but it was a peripheral predicative possession patterning"[31]. Julia McAnallen has collected more data in her PhD dissertation (134 pages), discussing the issue of internal development vs. language contact for the expression of predicative possession and dealing with details (e.g. verb agreement or animacy) which are here disregarded (see data in many languages, not only in Finnic, Baltic and all the Slavic languages, in McAnallen 2011: 128–134). Stern (2011) has dealt with language contact in the East and the Northeast of Europe: starting from Veenker (1967) he mentions seven structural features which can be due to a Finnic influence on East Slavic, including the adessive construction for the expression of possessivity, cf. Russian ***u menja*** *knig-a* (book-NOM) and Finnish ***minulla*** *on kirja* 'I have a book' (Stern 2011: 382, bold is mine). Stern (ibidem) compares and contrasts Russian with Ukrainian, which allows a broader use of a *have*-verb, thus, Ukrainian exhibits ***u mene*** *knyh-a* (book-NOM) alongside ***ja ma-ju*** (have-1SG.PRS) *knih-u* (book-ACC). In another dissertation and in a forthcoming article of his the young Thai scholar Chingduang Yurayong has focussed on hypotheses concerning the origin of the possessive predication of the type with adessive-like possessor in Russian (scrutinizing the birch bark documents found in Novgorod), wondering whether (1) it is an original Slavic construction (as in Isačenko 1974), or (2) it is due to a Finnic substratum (as in Veenker 1967 and Kiparsky 1969), or (3) a contact-induced change according to the "Refrigerator Theory" (Finnish *jääkaappiteoria*, Yurayong 2013: 27), cf.:

> Dingley (1995) applies to this question Gunnar Jacobsson's *Refrigerator Theory* (Germ. *Kühlschranktheorie*). This concept of contact-induced change means certain language features have been preserved or literally "frozen" in a safe cold place, that is, in neighbouring languages. According to Dingley — and later also McAnallen (2009) and Grković-Major (2011) — the original Proto-Slavic PredP [= Predicative Possession] looked similar to Modern Russian at least until 6th century. Then, East Slavs who encountered Finno-Ugric people took along with them the old construction, which happened to be similar to that in Finno-Ugric languages. On the eastern side of the Baltic Sea, the original construction was safely protected from the innovation of multifunctional *habeo*-verb, which took place in the nuclear Europe and in which the other Slavic sister languages have participated. As a result in those Slavic languages, the original locative PredP was replaced by the *habeo*-verb, which has become the primary choice today. (Yurayong, forthcoming, ms. p. 5)

[30] Reading of the Old Cyrillic script (transliterated from Glagolitic) and glossing are mine. The same sentence is mentioned in Latin transcription by McAnallen (2011: 4).

[31] Browne (1993: 370) claims that in Serbo-Croatian *u* + GEN with the meaning of 'in the possession of' "is now rare" (even with a locational value), cf. ***u lȃži*** *su krȁtke nȏge* (proverb), litt.: 'a lie has short legs' (i.e. 'the truth eventually comes out') and ***u Mȉlicē*** *(su) dȕge trȅpavice* (folk poetry) 'Milica has long eyelashes'.

According to Timberlake (2014: 1680) the first evidence of *u* + GEN to express concrete possession is found in Novgorodian Russian, cf. **у кого** конѣ / ***u kogo*** *koně* […] 'some people have horses […]' (*grámota* 242), whereas the *have*-verb (i.e. имееши / *imeeši*, 2SG.PRS 'you have') seems to be used only once in a text partially influenced by Church Slavonic (*grámota* 752)[32]. The Russian *u* + GEN construction could be of "West Finnic" origin but Timberlake (2014: 1681) is puzzled by its widespread diffusion, not only in the northern Russian dialects, but in the southern dialects as well, and in the literary language. In the same volume Haarmann (2014: 1196–1197) considers it likely that the *u* + GEN possessive construction is the outcome of a Finno-Ugric substratum in a social framework of extensive bilingualism. Finally, a balanced judgement about this issue is found in Mazzitelli (2015), a monograph devoted to predicative possession in Belarusian (Belorussian) and Lithuanian where the question of the origin of the East Slavic adessive possessor is taken into account.

5. Predicative possession in the Finno-Ugric (Uralic) languages

As for predicative possession the members of the Uralic language family are predominantly *be*-languages with some amazing exceptions (i.e. the Siberian Ugric and Samoyedic languages). Adnominal (attributive) and predicative possession in Uralic languages are especially dealt with by Kangas-Minn (1984), Winkler (2003), Kozmács (2006), and Honti (2007), briefly by Abondolo (1997: 33) and Laakso (2011: 194–195)[33]. As already mentioned above (section 1, footnote 6) as regards the relationship between Russian *u* + GEN and Finnic ADESS (Finnish *-lla/-llä*) both Winkler (2003: 205) and Honti (2007: 29) are sceptical, though they do not exclude a possible Russian influence on the Finnic languages. In the case of inanimate possessors Finnish opts for the inessive case, cf. ***autossa*** (INESS) *on neljä pyörää* 'the car has four wheels' (Karlsson 1999: 69), whereas Estonian admits the adessive case also with inanimate possessors, e.g. ***autol*** (ADESS) *on neli ratast* 'the car has four wheels' (Erelt 2003: 94). However, Yurayong (forthcoming, ms. pp. 8–9) points out that an inanimate noun, for example institution, may obtain possessive function in the adessive, but location in the inessive (Table 1, glosses by the author):

Table 1

Finnish

*Suome**lla***	*on*	*hyvä*	*koulutusjärjestelmä*
Finland.ADESS	be.3SG	good	educational_system

'Finland (as a state) has a good educational system.'

vs.

*Suome**ssa***	*on*	*hyvä*	*koulutusjärjestelmä*.
Finland.INESS	be.3SG	good	educational_system

'In Finland there is a good educational system.'

Aet Lees has made an interesting analysis (based mainly on Biblical texts) comparing case alternations in 5 Finnic languages (Estonian, Finnish, Karelian, Livonian and Vepsian), see possessive clauses and experiential clauses (with examples for hunger and thirst) in Lees (2015: 361–373, 373–375).

[32] The Novgorodian document (*grámota*) number 242 is found in the D25 section in Zaliznjak (2004: 673–674), therefore it is a late document (from the 1420s), while the love letter in *grámota* 752 (A11 section) dates back to 1080–1100 or to 1100–1140 (Zaliznjak 2004: 249–254). Yurayong (2013) gives reliable statistics concerning the distribution of ADESS, *have*-verb and DAT possessive constructions in Novgorodian Russian.

[33] For in-depth reflections about language contact situations involving Finno-Ugric see Laakso (2010).

6. Dative in Finnish?

In my paper (Manzelli 2017: 194, footnote 11) I touched upon the question whether an experiential construction such as Finnish ***minun*** *on jano*[34] 'I'm thirsty' really corresponds to the Genitive Schema, "X's Y exists" (Heine 1997: 58–59), just because *minun* has the same form as the genitive of *minä* (1SG) 'I' as in ***minun*** *talo**ni*** 'my house (litt.: of-me house-my)'. The existence of the Finnish expression ***Jumalan*** *kiitos* 'thanks (*kiitos*) God (*Jumala*)' casts doubt as to whether *-n* is a real GEN[35]. On that occasion I mentioned only the English version of Hakulinen (1961: 68–69), but here much more can be said. In his Finnish grammar Bubrix (1955: 13) wondered about the meaning of expressions such as ***minun*** *on kiire* = Russian **я** спешу / *ja spešú* 'I'm in a hurry' – quoted also by Inaba (2015: 232) – without mentioning the synonymous Finnish ***minulla*** *on kiire* (Lehtinen 1962: 122), which is a perfect predicative possessive sentence in Finnish (cf. Italian ***ho*** *fretta* – a *have*-verb expression – vs. French *je* ***suis*** *pressé* – a *be*-verb expression where *be* is a copula –'I'm in a hurry'). Bubrix (1955: 14) also mentions a sentence in the language of Finnish poetry where *-n* is equivalent to allative *-lle*, Finnish *anna kättä* ***käyvän miehen*** = Russian дай руку **идущему человеку** / *daj rúku* ***idúščemu čelovéku*** 'give a hand **to the walking man**', in Standard Finnish *anna kättä* ***käyvälle miehelle*** (*miehe-lle* is the allative case of *mies* 'man'). This topic has recently been dealt with in a substantial book of 413 pages written in Finnish by the Japanese researcher Nobofumi Inaba, *Suomen datiivigenitiivin juuret vertailevan menetelmän valossa* (The roots of the Finnish datival genitive in the light of the comparative method). Inaba (2015: 26–43) takes into consideration four possibile hypotheses for the origin of the anomalous Finnish *-n* on the basis of the previous literature: (1) a genitive-instructive connective; (2) a derivational suffix for adjectives; (3) an apocopated locative; (4) a lative. Inaba does not only deal with the Finnish datival genitive but also with similar cases in Livonian, South Saami (Lappish), Mordvinian and Mari, and Swedish. The real origin of the Finnish datival genitive *-n* is not relevant for our purpose, what is impressive is the old Finnish (16th c.) rendering of a famous Biblical sentence (i.e. Matthew 22:21):

Greek	Ἀπόδοτε οὖν τὰ Καίσαρος **Καίσαρι** καὶ τὰ τοῦ Θεοῦ **τῷ Θεῷ**
	Apódote oûn tà Kaísaros ***Kaísari*** *kai tà toû Theoû tôi* ***Theôi***
Latin	*Reddite quae sunt Caesaris* ***Caesari*** *et quae sunt Dei* ***Deo***
English	*Render* ***unto Caesar*** *the things that are Caesar's, and* ***unto God*** *the things that are God's*
Russian	итак отдавайте кесарево **кесарю**, а Божие **Богу**
	iták otdavájte késarevo ***késarju****, a Bóžie* ***Bógu***

translated into Finnish by Mikael Agricola (*Se Wsi Testamenti* 'The New Testament', 1543, published in 1548) in this way[36]:

Finnish	*Andaca* ***Keisarin*** *mite* ***Keisarin*** *tule / ia* ***JVMALAN*** *mite* ***JVMALAN*** *tule*[37]

[34] In this case Estonian exhibits the use of adessive: ***mul*** *on janu* ≠ Finnish ***minun*** *on jano* (Alvre 1993: 60).

[35] I could have been misled by my mother tongue because the equivalent to Finnish ***Jumalan*** *kiitos* is in Italian *grazie* ***a Dio*** (litt.: 'thanks **to God'**), i.e. giving rise to a DAT interpretation, but cf. also the Hungarian translation *hála* ***Istennek*** (*Isten-nek* DAT of *Isten* 'God') in Papp (1978: 268). Moreover, the Finno-Ugric ACC marker **-m* has become *-n* in Finnish, i.e. perfectly identical to the GEN marker *-n* (hence the definition of genitive-accusative used by some linguists for Finnish *-n* as a case marker). However, Nobofumi Inaba (see below in this section) gives ***Jumalalle*** *kiitos* (*Jumala-lle*: allative of *Jumala* 'God') as an equivalent to ***Jumalan*** *kiitos* (Inaba 2015: 34).

[36] Mark (12:17) in Inaba (2015: 358 (128)).

[37] All the forms in old Finnish are datival genitives because the counterpart of the verb *antaa* 'to give' is the verb *tulla* 'to come' (*mite* ***Keisarin*** *tule* = litt.: 'what **to Caesar** comes').

whereas in a Finnish translation published in 1992 one finds:

Finnish *Antakaa siis **keisarille**, mikä keisarin on, ja **Jumalalle**, mikä Jumalan on*[38]

Thus, it seems to me that for experiential constructions such as Finnish ***minun** on nälkä* 'I'm hungry' there exists the possibility that the present day genitive could have originally been the "datival genitive" studied by Inaba (2015). This impression is strengthened by the fact that Finnish has a construction such as ***minun** tulee nälkä* 'megéhezem, megéheztem [I get hungry, I got hungry]' (Papp 1978: 475) with *tulee* 3SG(PRS) of *tulla* 'to come', a motion verb which seems to be constructed with a DAT (cf. Italian ***mi** viene fame* and Albanian ***më** vjen uri* 'I get hungry', with *venire* 'to come' and *vij* 'idem', respectively[39]) instead of a GEN, cf. the corresponding use of ALLAT in Kven (Kainu), the Finnish dialect spoken in Norway, as in ***Liisale** tuli kylmä* (Söderholm 2017: 133) 'Liisa got cold', alongside the ADESS in ***minula** oon vilu* (Söderholm 2017: 447) 'I'm cold'[40]. Thus, the sentence ***minun** on kiire* 'I'm in a hurry' could be considered the antecedent to Finnish ***minulla** on kiire* 'idem', cf. Estonian ***mul** on kiire* 'idem' (Alvre 1993: 60), expressions which formally are based on the structure of the standard predicative possession.

7. Having a headache (and other experiential feelings)

Having a headache is an experiential situation, an experience of pain. In the semantic role of Experiencer is an animate being (mainly human) whereas in the case investigated the Stimulus is frequently omitted (because obvious or insignificant or obscure), i.e. the Stimulus is something causing the head or a different body part to ache. Languages express experiential situations in different ways, and the same language may change the structure of the sentence to express a painful feeling (or a feeling in general) in the course of time, as happened in Russian.

8. Having a headache in the Slavic languages

Proto-Slavic **bol'ěti* (Trubačev 1975: II, 187–189) or **bolěti* (Derksen 2008: 51) 'to ache'[41] was a verb that required an ACC Experiencer, an archaic syntactic feature of Indo-European origin (cf. Latin ***mē** pudet* 'I feel ashamed'[42]). All the Slavic languages (except Modern Russian and, possibly, Belorussian) preserve this ancient construction, cf. Table 2[43]:

[38] Matthew (22:21) in Xramcova (2012: 26).

[39] Both Italian *mi* and Albanian *më* are DAT forms of 1SG personal pronouns, cf. Fedriani, Manzelli & Ramat (2013: 401).

[40] For 'I'm cold' cf. Finnish ***minulla** on kylmä* (Papp 1978: 562) or ***minun** on kylmä* (Papp 1978: 322) and Estonian ***mul** on külm* (Saagpakk 1992: 389).

[41] As for the etymology of Proto-Slavic **bolěti* see also Javorskaja (2009: 413–417). In Russian болеть / *bolét'* has two different paradigms, a full-fledged inflected form (3SG болеет / *boléet*) 'to be ill' (practically unknown to Belorussian and Ukrainian) – cf. Russian я болею гриппом / *ja boléju grípom* 'I have the flu' – and an impersonal form (3SG болит / *bolít*) 'to ache, hurt', shared with all the Slavic languages, including Belorussian and Ukrainian.

[42] See, e.g., Chiara Fedriani in Fedriani & Manzelli (2014: 73–78).

[43] References omitted for the main Slavic languages. Jakuškina (2009: 135) mentions Czech, Slovak, Polish, Slovene, Serbo-Croatian, Macedonian and Bulgarian (главата **ме** боли / *glaváta **me** bolí*); Javorskaja (2009: 415) has the same examples.

Table 2

Bulgarian	*bolí*	***me***	*glaváta* / боли **ме** главата
Macedonian	***me***	*bóli*	*glávata* / **ме** боли главата
BCS[44]	*bòlī*	***me***	*gláva* / боли **ме** глава
Slovene	*gláva*	***me***	*bolí — bolí **me** gláva*
Czech	*hlava*	***mě***	*bolí — bolí **mě** hlava*
Slovak	*bolí*	***ma***	*hlava*
Rusyn	***méne***	*bolýt'*	*holová*[45]
Upper Sorbian	***mje***	*hłowa*	*boli*[46]
Polish	*boli*	***mnie***	*głowa*[47]
Kashubian	***mńe***	*głova*	*boli*[48]

Alongside this old structure the West and South Slavic languages can use the *have*-strategy as in Standard Average European, cf., e.g., Czech ***mám*** *bolesti hlavy* 'I have a headache' (Seržant 2015: 341), and Slovene ***imám*** *glavoból* 'I have a headache' (Pirnat-Greenberg 2012: 213). Ilya A. Seržant in Seržant & Bjarnadóttir (2014: 229–233) has shown the evolution of the cases required by the verb for 'to ache' from Middle Russian (with an ACC Experiencer) to Modern Russian (with an ADESS Experiencer). Krys'ko (2006: 118–119) offers the following examples from Middle Russian to Early Modern Russian: охъ охъ голова **мя** болить / *ox" ox" golova **mja*** (ACC) *bolit'* (15th c.) 'ouch! ow! my head hurts', много **ми** болить д҃ша / *mnogo bo **mi*** (DAT) *bolit' d(ou)ša* 'indeed my soul is aching very much', and аще **у кого** болить зоубъ / *ašče **u kogo*** (ADESS-like PP) *bolit' zoub"* 'if someone has a toothache'. Miklosich (1868–1874: 383), among a lot of examples, gives "kleinrussisch" ("Little Russian", i.e. a variety of Ukrainian) *hołovka **mja*** (ACC) *bołyt*. An ACC-Experiencer is still admitted in Ukrainian, cf. **мене** болить голова / ***mené*** *bolýt' holová* (Javorskaja 2009: 415), or **тебе** болять зуби / ***tebé*** *boljáť zúby* (Zimovec 2009: 67) 'my teeth ache'[49]. Moreover, Belorussian, Ukrainian, and Baltic Russian admit the use of a DAT-Experiencer, cf. Belorussian **мне** балиць галава / ***mné*** (DAT) *balíc' halavá* (Koščanka et al. 2010: 81) 'I have a headache', Ukrainian **мени** болить голова / ***mení*** *bolýt' holová* (Zimovec 2009: 67)[50] 'I have a headache', cf. Ukrainian *bolila **meni*** (DAT) *holova* 'I've got headaches' (Seržant & Bjarnadóttir 2014: 231), and Baltic Russian ***mne*** (DAT) *galava balit* 'I have a head-ache' (Čekmonas 2001: 121). Finally, for expressing a headache, Modern Russian admits only the predicative possession with the Experiencer in "adessive state", a construction which exists also in Belorussian and in Ukrainian as an alternative strategy (Table 3):

[44] BCS = Bosnian-Croatian-(Montenegrin)-Serbian.

[45] Transcarpathian Rusyn for 'I have a headache' (Magocsi 1979: 71).

[46] Bjarnat Rewerk in Budanowa (1990: 67, s.v. *boleć*): Upper Sorbian is spoken in Upper Lusatia (Oberlausitz in German), which is part of Saxony (Germany).

[47] Polish *mnie* could be a DAT because *mnie* is simultaneously GEN, DAT (= *mi*), and ACC (= *mię*), but it is sufficient to take into account a 3SG.M personal pronoun to remove any doubt that the Experiencer is an ACC: *boli **go** głowa* 'he has a headache'.

[48] Kashubian (Cassubian) is a member of the Lechitic subgroup of West Slavic alongside Polish and Silesian. It is spoken in the present Pomeranian Voivodeship (capital Gdańsk) in Poland. Kashubian data from Sychta (1967: I, 55, s.v. *bolec*; 326–327, s.v. *głova*).

[49] As for Ukrainian Zimovec (2009: 67) mentions also **моя** голова болить / ***mojá*** *holová bolýt'* which corresponds exactly to English ***my*** *head aches*.

[50] According to Javorskaja (2009: 415, footnote 4) the use of DAT in Ukrainian as an alternative construction to express having a headache could be due to a Germanic influence (Yiddish or German).

Table 3

Russian	**у меня** болит голова / ***u menjá*** *bolít golová*
Belorussian	**у мяне** балиць галава / ***u mjané*** *balíc' halavá*
Ukrainian	**у мене** болить голова / ***u méne*** *bolýt' holová*
	'I have a headache'

9. Having a headache in the Finnic languages

All the Finnic languages, except Livonian, use the predicative possession pattern (with possessor bearing the ADESS suffix) to express a headache or other physical pains (Table 4)[51]:

Table 4

Livonian (Kettunen 1938: 468, in simplified transcription)

mi'n	*ambõd*	*va'llõbõd*
1SG.DAT	tooth-PL	hurt-PL.PRS

(German:) 'mir schmerzen die zähne' ('my teeth hurt')

Estonian

mul *valutab pea* (NOM)	(Seržant 2015: 333)
mul *on peavalu* (NOM)	(Alvre 1993: 344)[52]

Võro

mul *käsi* (NOM) *halt'*	(Käsi & Neetar 2011:70)[53]
'my hand hurted'	

Votian

milla *vaivattaap pää* (NOM)	(Adler et al. 2012: 1455)
mill *vaivattaap päätä* (PART)	(Adler et al. 2012: 352)[54]

Ingrian

miul *pakottaa hampahia* (PL-PART)	(Nirvi 1971: 371b)[55]
'my teeth hurt'	
miul *kivistaa kurraa kättä* (PART)	(Laanest 1997: 74)
'my left hand hurts'	

[51] Except in the case of Livonian the sentences have no interlinear glosses in order to save space and only the noun for 'head' or for another body part is followed by the case abbreviation in brackets. The meaning is 'I have a headache' except when differently translated.

[52] Alternative expressions in Estonian are ***mu*** ('my') *pää* (= *pea*) *valutab* (Saagpakk 1992:1060, s.v. *valutama*) and *pää on haige* 'I have a headache' (Saagpakk 1992: 696, s.v. *pää*), litt.: 'head is ill' (without Experiencer).

[53] Võro or South Estonian (Vastseliina dialect) ***mul*** *käsi halt'* means 'at-me hand (*käsi*) hurted', with *halt'* = *halut'*, imperfect of *halutam*(*m*)*a* = North Estonian *valutama* 'to hurt'. Inge Käsi collected the data, Helmi Neetar edited them.

[54] NOM of 'head' in western Votian of Itšäpäivä (Adler et al. 2012: 1455, s.v. *vaivattaassa*), cf. PART in eastern Votian of Luuditsa ***mill*** *vaivattaap päätä* (Adler et al. 2012: 352, s.v. *kaihota*) and eastern Votian of Liivtšülä ***mil*** *vaivatap päätä* (Adler et al. 2012: 728, s.v. *miä*).

[55] See *paGottā* in central Ingrian of Metsäkülä in the Soikkola peninsula (Russian Сойкино / *Sójkino*) in simplified script. I am grateful to Manuel Barbera (university of Turin) for his kind help on this point. The following example from Laanest (1997: 74, s.v. *kivistaaG*) is in the eastern Ingrian of Hevaha (Russian Коваши / *Kovaší* or Коваш / *Kováš*).

Finnish
minulla *särkee pää* (NOM) (Seržant 2015: 333)

Karelian Proper
miula *piätä* (PART) *kivistäy* (Karlova 2011: 102)
miula *on piä* (NOM) *kipie* (Karlova 2011: 102)

Livvi Karelian
minul *kivistäy piädy* (PART) (Filippova 2009: 51)[56]

Ludic Karelian
millai *oŋ kibed vatš* (NOM) (Kujola 1944: 128a, 239b)[57]
'my stomach hurts'

Vepsian
minai *kibištab pän* (ACC) (Brodskij 2008b: 97)[58]

As highlighted, all of the Finnic languages except Livonian have the Experiencer in the adessive case, notwithstanding the fact that the formal differences could make someone suspect it is not always as glossed (for instance, Vepsian *minai* is an adessive form vs. *minei* which is the dative form of the first person singular of the personal pronoun). Actually, Finnish presents a lot of alternative expressions, not only with the Experiencer in the adessive case. Finnish is closer to English *I have a headache* when it employs *päänsärky* 'headache', a nominal compound word with *pää-n* 'head-GEN' + *särky* 'pain', instead of using the verb *särkeä* 'to ache', 3SG *särkee* 'it hurts'. The sore body part (the head) can bear a possessive suffix (*-ni* 1SG 'my'), possibly reinforced by the GEN of the personal pronoun (*minu-n* 1SG-GEN 'of me'), almost always in the partitive case (*-tA*), i.e. *pää-tä* 'head-PART', and *pää-tä-ni* 'head-PART-POSS1.SG'. Moreover, there is a series of synonymous verbs for 'to ache, to hurt' (and also *olla kipeä* 'to be sore'), cf. Finnish ***minulla*** *särkee pää* (NOM), ***minulla*** *särkee päätä* (Seržant 2015: 333), (colloquial:) ***mulla*** *särkee pää* (NOM), ***minulla*** *on päänsärkyä* (PART), ***minulla*** *särkee päätä* (PART), ***minun*** (1SG-GEN) *päätä* (PART) *särkee*, *päätä**ni*** (PART-POSS.1SG) *särkee*, *päätä**ni*** (PART-POSS.1SG) *kivistää*, *päätä**ni*** (PART-POSS.1SG) *pakottaa*, *päätä**ni*** (PART-POSS.1SG) *porottaa*, ***minun*** (1SG-GEN) *päätä**ni*** (PART-POSS.1SG) *särkee*, *päätä**ni*** (PART-POSS.1SG) *on kipeä*[59]. As for the use of cases in Finnish Sulkala & Karjalainen (1992: 178) report an interesting couple of examples in the semantic area of pain: Finnish *pojan* (GEN) *käsi on kipeä* 'the boy's hand [*käsi*] is sore' vs. ***po-jalla*** (ADESS) *on käsi kipeä* 'the boy has a sore hand' (*poja-n* is the genitive case and *poja-lla* the adessive case of *poika* 'boy'). In her study of case marking in Estonian and Lithuanian Birute Klaas took into account also German, Finnish and Russian as regards experiential clauses expressing cold, heat, merriness and well being. As for having a headache Klaas (1997: 58–59) added Estonian *ema* (GEN) *pea* (NOM) *valutab* 'mother's head is aching', thus implicitly introducing the concept of inalienable possession, but this kind of clause does not belong to the

[56] Cf. (without Experiencer) Livvi *keroi* (NOM) *on kibei* = Russian горло болит / *górlo bolít* (Bojko & Markianova 2011: 32, s.v. *болеть* 2) 'throat hurts' (litt.: 'throat is sore (ADJ)' in Livvi) vs. *piän* (ACC) *kivistäy* = Russian голова болит / *golová bolít* (Bojko & Markianova 2011: 70, s.v. *голова*) 'head hurts'.

[57] Ludic dialect of Nuomoil = Naamoila (here in simplified script) translated into Finnish *vatsa**ni*** *on kipeä* ('my belly is sore') by Kujola but litterally the Ludic sentence means 'at-me is sore belly'.

[58] Cf. ***minai*** *pän kibištab* translated into Russian у меня болит голова / *u menjá bolít golová*, but litterally у меня голову болит / *u menjá gólovu bolít* in Brodskij (2008a: 212).

[59] My main source is the Finnish-Hungarian dictionary by Papp (1978: 271, s.v. *kipeä*; 278, s.v. *kivistää*; 520, s.v. *pakottaa*; 583, s.v. *porottaa*; 622, s.v. *pää*; 790, s.v. *särkeä*).

pattern here analyzed because *ema pea* 'mother's head' is a single noun phrase functioning as a subject.

10. Other experiential constructions and the like

Other experiential constructions expressing physical feelings such as 'to be cold' (cf. Finnish ***minulla*** *on kylmä* 'I am cold'), or, more generally, predicative expressions of abstract possession, e.g. 'to be in a hurry' (cf. Finnish ***minulla*** *on kiire* 'I am in a hurry', translatable into Spanish ***tengo*** *prisa* or Catalan ***tinc*** *pressa,* litt.: 'I have haste') have been seen above (section 6. and footnotes 34 and 40). Finnic and East Slavic have more than one alternative to express feelings such as, e.g., hunger, thirst, cold, heat, and sleepiness. For reasons of space here only examples in Finnish and Russian are shown for just one feeling, 'to be hungry' (Table 5):

Table 5

Finnish			
minulla	*on*	*nälkä*	(Papp & Jakab 1985: 183)
1SG-ADESS	be.3SG	hunger	
minun	*on*	*nälkä*	(Papp 1978: 475)
1SG-GEN[60]	be.3SG	hunger	
*ole**n***	*nälissä**ni***		(Papp 1978: 475)
ole-n	näl-i-ssä-ni		
be-1SG	hunger-PL-INESS-POSS.1SG		
*ole**n***	*nälkäinen*		(Papp & Jakab 1985: 183)
be-1SG	hungry		
Russian			
я	голоден		
ja	*golóden*		
1SG.NOM	hungry		
я	хочу	есть	
ja	*xočú*	*est'*	
1SG.NOM	want-1SG	to.eat	
мне	хочется	есть	
mne	*xóčetsja*	*est'*	
1SG.DAT	want-3SG-REFL	to.eat	

Table 6 (hopefully, a complete picture) is a synthetic report of the use of cases expressing the Experiencer for five physical feelings (to be hungry etc.) in six Finnic languages and in the East Slavic languages.

It is clear that the East Slavic languages (and Livonian) do not utilize the ADESS-like PP for any of the five physical feelings, in contrast with Estonian (5 times out of 5), Finnish (4 out of 5), Karelian Proper (4 out of 5), and Livvi Karelian (3 out of 5). Vepsian is close to the sister Finnic languages but replaces the adessive case with the allative case in 3 expressions out of 5. For these feelings the extension of the ADESS Experiencer is totally in favour of the Finnic languages whereas the East Slavic languages exhibit a complete absence of ADESS-like PP constructions.

Finally, another example of abstract possession (for a reduced sample of languages), i.e. the expression of age, shows a peculiar situation (table 7).

[60] But see section 6. as regards Finnish *-n* as a "dative genitive".

Table 6. Five feelings in Finnic and East Slavic languages

	hungry	thirsty	cold	hot	sleepy
Livonian	NOM	NOM	DAT	DAT	DAT
Estonian	**ADESS**	**ADESS**	**ADESS**	**ADESS**	**ADESS**
	NOM	NOM	—	—	NOM
Finnish	**ADESS**	**ADESS**	**ADESS**	**ADESS**	PART
	GEN	GEN	GEN	GEN	—
	NOM	NOM	NOM	—	NOM
Karelian	**ADESS**	**ADESS**	**ADESS**	**ADESS**	PART
	NOM	PART	—	—	—
Livvi	**ADESS**	NOM	**ADESS**	**ADESS**	NOM
	NOM	PART	—	—	—
Vepsian	NOM	NOM	—	—	PART
	ALLAT	—	ALLAT	ALLAT	—
Russian	NOM	NOM	—	—	NOM
	DAT	DAT	DAT	DAT	DAT
Belorussian	DAT	DAT	DAT	DAT	DAT
	NOM	—	—	—	—
Ukrainian	NOM	NOM	DAT	DAT	NOM

Table 7

Finnish	—	*ole**n***	*kaksikymmentä*	*vuotias*[61]
		be.1SG	20	year-ish
Livvi	***minul***	*on*	*kaksikymmen*	*vuottu*[62]
	1SG-ADESS	be.3SG	20	year-PART
Vepsian	***minei***	*om*	*kaks'kümne*	*vot*[63]
	1SG-DAT	be.3SG	20	year-PART
Russian	**мне**	—	двадцать	лет
	mne	—	*dvádcat'*	*let*
	1SG.DAT		20	year.GEN.PL
	'I am twenty years old'			

In this case the possessive construction exhibited by Livvi Karelian is surprising, while Finnish uses an adjectival predication and Vepsian shares a dativ al subject with Russian.

11. Conclusions

The topic scrutinized, having as its background the problem of the relationship between the Finnic languages and Russian, is by no means a simple issue. I examined the data in order to add one more piece (the expression of having a headache already studied by Ilya A. Seržant from another perspective) to the mosaic of possible correspondences among languages in con-

[61] Cf. Alvre (1993: 87).

[62] Filippova (2009: 20).

[63] Cf. Brodskij (2008b: 33).

tact which belong to different language families. A thorough treatment of the subject would require an entire book or more than one volume. Many scholars who dealt with the theme of predicative possession in the aforementioned languages have reached a conclusion I could share, namely that every language has made a contribution to the growth of a "new" kind of expression. How it happened is difficult to discover. A Location Schema to express a possessor is a quite trivial possibility[64], less trivial is the extension of the predicative possession at issue (with the possessor in "adessive state") to experiential constructions. I think that somewhere at some time a speaker began to treat having a headache as a kind of possession, mainly because one's head is an inalienable body part. Was that speaker's L1 Russian or a Finnic language? Or was he/she bilingual? Difficult, if not impossible, to ascertain. Bilingualism and even plurilingualism was and is largely widespread near the Baltic Sea (and the same holds true for the Volga-Kama Basin and the Pontic area). As for Russian we have documents (in Russianized Old Church Slavonic but also in "pure" Novgorodian Russian) dating back to the 11th century CE, while, leaving aside the short "Karelian" birch bark document from Novgorod (13th c.), a real documentation of a Finnic language, namely Finnish, begins with the Lutheran clergyman Mikael Agricola's *ABCkiria* (modern Finnish *ABC-kirja*), a primer printed in 1543. There is a gap of half a millenium between East Slavic and Finnic languages as regards their written documentation, and this is a real handicap for a serious comparison. As was remarked in section 6. Agricola's language in his New Testament (*Se Wsi Testamenti*, 1548) shows important differences in respect of the present-day language as the "dativa l genitive" studied by Inaba (2015). Some differences could especially affect experiential constructions, which are not well attested in that kind of religious literature. Thus, I think that the adessive possessor in Finnish was less widespread in the 16th century than nowadays (and what about in the first millenium CE?). Such a statement does not solve anything, but it is at least an honest approach to such problems. Research must go on examining more constructions before making a reasonable assessment about the whole question regarding the linguistic relationship between the Finnic and the East Slavic languages.

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[64] Whoever denies that the Russian adessive-like possessor has something to do with a Finnic interference can rely, e.g., on the scanty evidence of the same structure in South Slavic languages. But one could observe that an adessive solution (with a real adessive case!) is present also in Hungarian, a distant relative of the Finnic languages. However, the Hungarian construction is confined to temporary possession (as for temporary or physical possession, see Stassen 2009: 16–17, 19–26, 45, 63–64, 100, 164, 201, 210, 212, 238, 244, 288, 291, 300, 313, 316, 329, 331–332, 435, 466, 562, 564, 590–591, 596, 621, 635, 660, 721). Cf. Hungarian *nincs most pénz* ***nálam***, translated into Finnish with ***minulla*** *ei ole nyt rahaa mukana* (Papp & Jakab 1985: 576) 'at the moment (*most* / *nyt*) I have no money (*pénz* / *rahaa* PART) **with me** (*nálam* ADESS / *minulla* ADESS… *mukana* 'together (here, there)')'. The Hungarian standard predicative possession involves a DAT possessor (left out if the possessor is a non emphatic personal pronoun) + a coreferential possessive suffix, e.g. (***nekem***) *sok pénz****em*** *van* (litt.: '(**to-me**) much money-**my** there.is') 'I have/own a lot of money'.

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Джангвидо Мандзелли. Предикативные посессивные конструкции как контактно-обусловленное явление в прибалтийско-финских и восточнославянских языках: как болит голова между Балтийским морем и истоками Волги

Несмотря на то, что предикативные посессивные конструкции в целом довольно хорошо исследованы, в этой области еще остается немало вопросов, особенно при изучении того, как они соотносятся с экспериенциальными конструкциями. В настоящей статье на конкретном примере таких конструкций (выражение идеи головной боли в прибалтийско-финских и восточнославянских языках) проводится попытка разрешить «больной» вопрос о происхождении адессивно-посессивной конструкции в русском языке.

Ключевые слова: предикативные посессивные конструкции, экспериенциальные конструкции, прибалтийско-финские языки, восточнославянские языки, языковые контакты.

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Borrowing of phonological rules: case studies from Romani, Armenian and Yiddish and some general reflections

Borrowing of phonological rules is a topic that has received scant attention outside the domain of language learning. If transferring of L1 phonological rules in L2 utterances is a banal phenomenon, more interesting is the case in which phonological rules borrowing affects a still well preserved minority language, innovating its syntagmatic phonology. In these cases the intra-communitarian language of a minority community adopts, partially or totally, the phonological rules of the inter-communitarian language, i.e. of the language of the majority community. The article discusses several examples of phonological rules borrowing, notably two Italo-Romance phonological rules borrowed in Abruzzian Romani, Turkic vowel harmony in the Armenian dialect of Karchevan and Belarus *akanie* in Belarus Yiddish. After discussing the rules and the way they have been imported, the article proposes some general reflections about the structural and sociolinguistic background of the phenomenon.

Keywords: phonological rules, linguistic borrowing, Romani, Armenian, Yiddish, language contact

In the studies concerning the outcomes of language contact, the borrowing of syntagmatic phonology, that is the borrowing of phonological rules, seems to be a rather peripheral topic. In the perspective assumed in this paper borrowing of phonological consists in the imitation of the phonological rules of another language outside the process of language learning. In fact the presence of L1 phonological rules in utterances in L2 is a banal phenomenon, while those cases in which phonological rules are transferred from a co-territorial language on the first language of a community are much more uncommon and intriguing. As every phenomenon of innovation borrowing of phonological rules represents a chapter of language change, and therefore a topic to be inscribed in the domain of historical linguistics; however, the number of cases described so far is relatively scant (Campbell 1976, 1998: 74; Thomason 2001: 87, 2006; Matras 2009: 229–230; Savoia 2008: 43–46) and it is quite probable that a broader collection of empirical data can enable some general considerations about the inner working of the transfer of phonological rules from a language to another one in a plurlingual repertoire. The cases we will deal with in this article come from Abruzzian Romani (Abruzzo and Molise, Middle Italy), from the Armenian dialect of Karchevan (Republic of Armenian, Syunik Province) and, although very concisely, from Yiddish as spoken in Belarus. In all these cases new phonological rules, once unknown to Romani, Armenian and Yiddish, have been acquired via contact from other languages and are now applied to inherited lexicon.

1.0. Abruzzian Romani between conservation and innovation

Abruzzian Romani is the Indo-Aryan language that has been spoken in Italy by the Roma communities of Abruzzo, Molise and the surrounding areas form the 16th century circa. In these centuries of permanence in Middle Italy Abruzzian Romani speakers have developed

a long and deep history of bilingualism, with a linguistic repertoire consisting mainly of Romani (Indo-Aryan) and Abruzzese (Italo-Romance). At the present time, however, a significant number of Abruzzian Roma can be considered trilingual, since the last generations have acquired also a more or less ample knowledge of the regional variety of Italian spoken in Abruzzo and Molise. Up to present day, Abruzzian Romani preserves its role of intra-communitarian and identity language very well, while the function of inter-communitarian code is obviously fulfilled by the Italo-Romance branch(es) of the repertoire, especially by Abruzzese. The vitality of Abruzzian Romani has been repeatedly highlighted, especially in comparison with the clear condition of decadence of other Romani varieties, closely related to it, spoken in Southern Italy, such as Calabrian Romani (cfr. e g. Soravia 1978: 4; 2009: 75). Abruzzian Romani still counts some thousands of native speakers and the sources available for its study are not few, however many structural and lexical aspects of this Romani variety remain almost unexplored. In this contribution I will use three different sources on Abruzzian Romani:

1) the very abundant data collected by Ugo Pellis in 1932 in Annunziata di Giulianova (close to Teramo, Abruzzo), point 603 of ALI (Atlante Linguistico Italiano). Ugo Pellis data consist of a rich collection of lexical items and of some sentences labelled as "translations" (Pellis 1936).
2) the documentation (oral texts and lexical list) published by Morelli-Soravia 1998
3) the questionnaire of the *Romani Morpho-Syntax Database* (RMS) recorded by means of two different informants in Campobasso, Molise (http://romani.humanities.manchester.ac.uk/rms/).

A noteworthy characteristic of Abruzzian Romani is represented by the high degree of retention of Indo-Aryan features extensively shared among the Romani dialects and therefore ascribed to Early Romani: especially phonological units and the lexical layers common to all Romani varieties have undergone very slight innovations, which are also scant in number. Also the majority of morphological units and processes are still preserved, except for nominal declension, which has been lost. For these reasons Abruzzian Romani can be considered a rather conservative dialect, if compared with other Romani dialects spoken in Europe. In the opinion of Yaron Matras Abruzzian Romani, Dolenjska Romani (spoken in Slovenia, Croatia and Italy), as well as British, Iberian and Epirotic Romani can be considered as a "series of peripheral dialects" forming "relic areas" (Matras 2005: § 7) in the classification of Romani dialects. Of course Abruzzian Romani also shows a set of innovations which characterize it in comparison with other Romani dialects; a significant amount of these innovations concerns phonological rules, which actually correspond to those of Abruzzese dialects spoken in Abruzzo and Molise and in all probability have been borrowed from them in a century long history of contact. The outcome is rather unusual: an Indo-Aryan language, which preserves the majority of its original features, but which shows strong innovations in the phonological rules, which have been massively imported by Italo-Romance (Abruzzese) co-territorial varieties. In the next pages the following abbreviations will be used to refer to the different sources for Abruzzian Romani:

Pe = Pellis 1936 (tr. = translations)

RMS 7 = http://romani.humanities.manchester.ac.uk/rms/ female informant (IT-007 Molise)

ARms = Morelli-Soravia 1998

Other Romani dialects: PS = Piedmontese Sinti, LS = Lombard Sinti, CR = Calabrian Romani (as spoken in Reggio Calabria), KL = Kalderashitska, WR = Welsh Romani.

1.1. Two phonological rules borrowed from Abruzzese

Among the phonological rules that Abruzzian Romani has probably borrowed from Abruzzese (Scala 2018), two cases will be discussed, notably the propagation of /u/ and the devoicing of /d/ after stressed vowel. Both rules are of some significance for the history of Abruzzian Romani and, more in general, for phonological contact theory as well. The model for these innovations is represented by rules which are active and widespread in Abruzzese, but which are totally unknown to Romani varieties other than Abruzzian Romani. The source and the direction of the borrowing is therefore clear and sure. Moreover, the two borrowed rules which will be discussed seem to be cross-linguistically rather uncommon, so that a polygenetic and independent origin of these rules in Abruzzese (and in other Southern Italo-Romance dialects) and in Abruzzian Romani has to be excluded as quite improbable.

1.1.1. Insertion of non-etymological [w]/[ʷ] as result of /u/ propagation

The propagation of /u/ is a phenomenon which can be described as the insertion of a non-etymological [w], sometimes to be interpreted as the second part of a complex articulation [...ʷ], after the onset of a syllable, when the preceding syllable, within the phonological word (i.e. also a syllable of a previous proclitic word), contains /u/ (cfr. Tuttle 1985, who provides to the phenomenon the very personal label of "assimilazione permansiva"). Such a process is well documented and still widely active in many Southern Italo-Romance dialects (Savoia 1987; Rizzi-Savoia 1993; Schirru 2008 and 2012–2013), but outside these dialects the only similar process of propagation which has been signaled so far appears in Birom (Tuttle 1985: 29), a language spoken in Nigeria (classification: Niger-Kordofanian group, Niger-Congo sub-group, Benue-Congo branch, cfr. Turchetta 2008: 492).

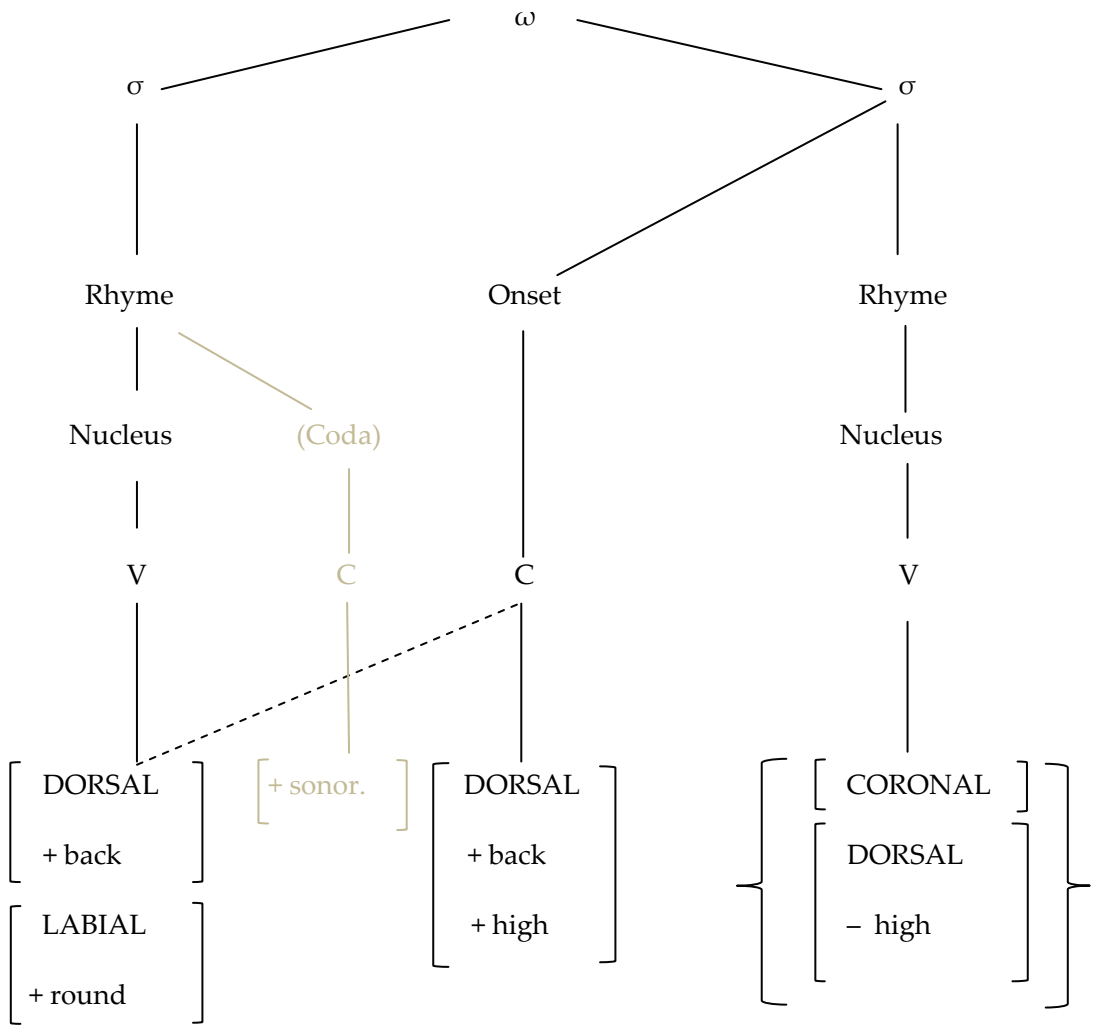
The process can be exemplified by the Southern Italo-Romance type ['ka:nə] "dog" vs [lu 'kwa:nə] "the dog": the insertion of a non-etymological [w] in [lu 'kwa:nə] depends on the presence of a /u/ in the preceding syllable within the phonological word; as for Abruzzian Romani the /u/ propagation is well attested to in all the available sources. The examples listed below allow us to individuate the underlying phonological rule (cfr. also Scala 2015 and 2018):

1. [u 'kwaʃtə] "the stick" (Pe 543), but [ni 'kaʃtə] "a stick" (Pe 3077), cfr. conservative Romani *kašt* (OIA *kāṣṭha* "piece of wood")
2. [u 'kwe:rə] "the house" (Pe 1497), but ['ke:rə] "house", conservative Romani *kher* (OIA *gṛha* "house", with some phonetic difficulties, Pkr. *ghara*)
3. [u 'gwa:tə] "the shirt" (Pe 634), but [ni 'ga:tə] "a shirt", conservative Romani *gad* (OIA *gātrā* m. "limb, member of body" and *gātrikā* "girdle" both phonetically and/or semantically problematic, Hi. *gātī* "rural clothing")
4. [ʃuŋ'gweskərə] "parsley" (Pe 1969), conservative Romani *sung-/šung-* (OIA *śiṅghati* "to smell", Pkr. *suṁghai* "id.")
5. [tu 'xwa:sə] "you (sg.) eat" (Pe tr. 2), but [mə 'xa:və] "I eat", (Pe tr. 1) conservative Romani *xa-* "to eat" (OIA *khādati* "to eat", Pkr. *khāaï* "id.")
6. [u 'xwe:rə] 'the donkey' (Pe 1619), but ['xe:rə] 'donkey' conservative Romani *xer* (OIA *khara* "donkey")
7. [so kwiɲ'ɲe:n a'idʤə] 'what did you buy yesterday?' (RMS 7 550), but [kiɲ'ɲe:nə] 'you (pl.) bought', conservative Romani *kin-* "to buy" (OIA *krīṇāti* "to buy")
8. [ni kaʃu'kwo] "a piece of money" (RMS 7 709), perhaps a wordplay based on Abruzzese *sórdə* "money" and "deaf", conservative Romani *kašukó* "deaf" (OIA *karṇa* "ear" + *śuṣka* "dry")

And yet [u kwarmu'so] “the rat” (Pe 854), but [ni karmu'so] “a rat” (Pe 853); [u kwe'ra:lə] “the cheese” (Pe 881), but ARms [ki'ra:lə], CR [ke'ra:lə] “cheese”; [u dʤu'kwe:lə] “the dog” (Pe 2978), but ARms CR [dʤu'ke:lə] “dog”; [u kwa'ro] “the thorn” (Pe 3085), but RAms [ka'ro] “thorn”; [adu'kwammə] “it hurts me” (Pe tr. 53) but ARms [duk'kammə] “id.”; [dʤuŋgwa'lo] “ugly” (Pe 3336), but ARms CR [dʤuŋga'lo] “id.”; [u xwab'be] “the “food” (RMS 7 787), but CR [xa'be] “food”; [u xwa'ro] “the dagger” (Pe 2623), but LS ['xaro] “id.” etc.

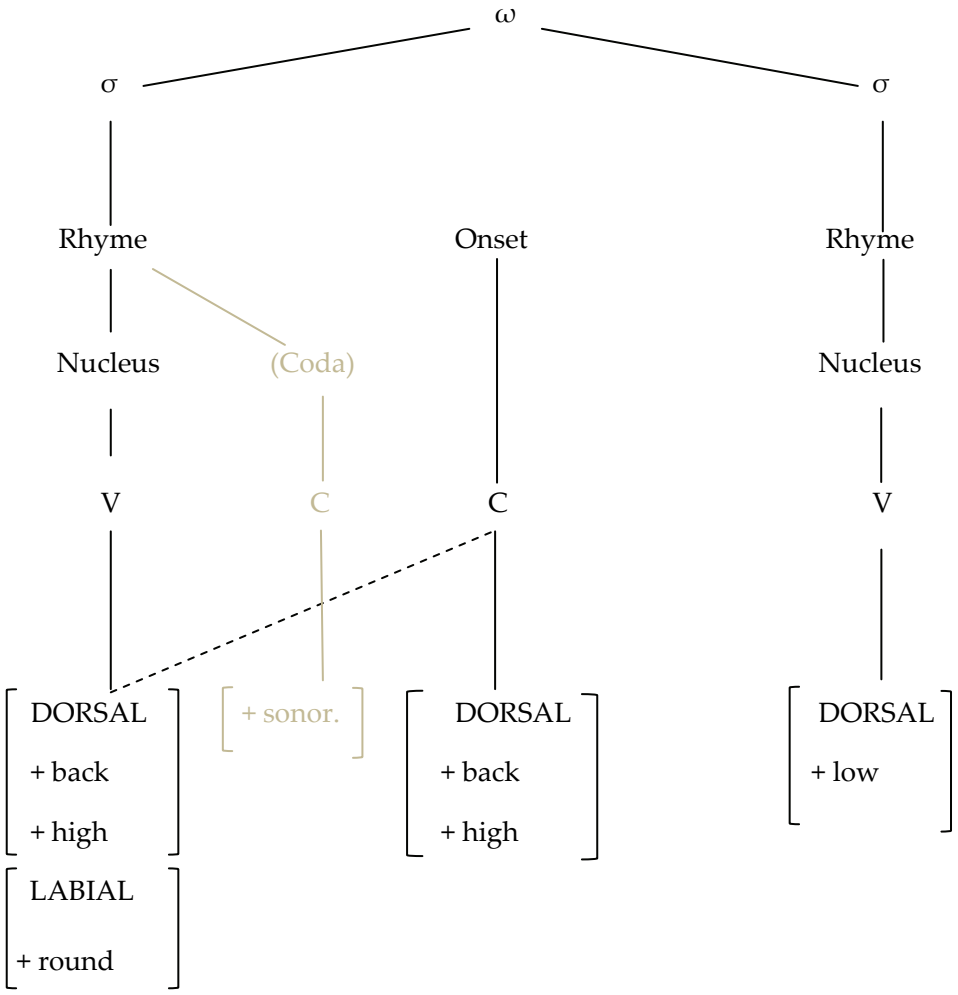
In Abruzzian Romani the propagation of /u/ targets syllables with a velar stop or a velar fricative in the onset and all vowels except /u/ in the nucleus. As the examples clearly show, propagation is possible both with intra-lexical trigger (cfr. [ʃuŋ'gweskərə] “parsley”, [dʤuŋgwa'lo] “ugly” etc.) and extra-lexical trigger (cfr. [u 'kwe:rə] “the house”, [u 'gwa:tə] “the shirt” etc.), within the phonological word. The phonetic outcomes [kw], [gw] and [xw] can be perhaps better interpreted as rounded velar sounds [kʷ], [gʷ] and [xʷ], that is as a single phonic unit, because in Abruzzian Romani [w] does not belong to the phonemic inventory and, as phonetic unit, it represents only a non-mandatory allophonic realization of /v/, cfr. *u vast* “the hand” realized both [u vast] and [u wast]. Starting from this consideration and from the examples listed above, the rule operating behind propagation in Abruzzian Romani can be represented as in table 1:

Table 1. /u/ propagation rule in Abruzzian Romani



As said above, the rule is unknown to other Romani dialects, and it is clearly borrowed from Abruzzese. Even Calabrian Romani, a sub-branch of Southern-Italian Romani (Soravia 1978), historically very close to Abruzzian Romani and probably representing a mere sub-branch of it, does not know such a rule. In Abruzzian Romani however trigger vowels and target syllables are slightly different respect to Abruzzese. The rule, which applies to Abruzzese and Molisean dialects (Schirru 2008: 294), is described in table 2:

Table 2. /u/ propagation rule in Abruzzese



In Abruzzese the only trigger is /u/ and its propagation affects syllables beginning with a velar stop and having /a/ in the nucleus. A different set of triggers that includes also /i/ (propagated as [j]/[Cʲ]) and a richer set of vowel targets can be found elsewhere in some other Southern Italio-Romance dialects and we do not know whether such a more complex situation was present in the past in Abruzzese too. In Abruzzian Romani propagation is triggered by /u/ and /o/ as well (cfr. n. 7), i.e. by all [+ back] and [+round] vowels and targets also syllables whose nucleus contains /i/ (cfr. n. 7), /e/ (cfr. nn. 2, 4 and 6) and /o/ (cfr. n. 8). A very important fact in this process of rule borrowing is represented by the difference between the set of velar obstruents in the phonological inventory of the model and replica languages. The phonological inventory of Abruzzian Romani includes a fricative velar phoneme /x/, unknown to Abruzzese, which is targeted by the propagation rule (cfr. nn. 5 and 6). This situation is noteworthy: the rule has been borrowed with reference to the features acting in the allophonic process and not with direct reference to the phonological units of Abruzzese; if so, we would

not expect that the rule can target a phoneme unknown to Abruzzese, such as /x/ is. The borrowed rule not only affects a velar phoneme absent in the Abruzzese phonemic inventory, but also occurs before vowels, such as /e/ and /i/, which exist in Abruzzese, but are extremely rare after /k/ and /g/ on account of the Romance palatalization of velar stops before front vowels. In the dialects of Abruzzo and Molise the Romance palatalization has extensively changed the Latin sequence CE, CI, GE, GI in /ʧe/, /ʧi/, /ʤe/, /ʤi/, so that words beginning with /ki/, /ke/, /ge/, /gi/ are particularly scant and in the majority of cases they are pronouns in which the trigger /u/ is not present or not possible (this is the case with the article *u*, which very often acts as propagation trigger before nouns, but which cannot be placed before pronouns). The extension of the rule to syllables containing /o/ in the nucleus completes the set of targets in Abruzzian Romani, excluding only the nucleus /u/. In fact the rule works with all triggers having the features [+back] and [+round] and affects all syllables whose onset contains an obstruent [+back] and [+high], including /x/, a phoneme, as said before, unknown to Abruzzese. As for the nucleus of the targeted syllable, the propagation rule has just one restriction: it does not apply if the vowel of the nucleus is /u/ that is a vowel having the same features [+back], [+high] and [+round] of the outcome [w]/[…ʷ]. In this process too loanwords from Abruzzese do not seem to play any significant role, because they could not offer a model for the form assumed by the rule in Abruzzian Romani, both in terms of targets and of triggers. The imitation of Abruzzese /u/ propagation merely represents an application of an Abruzzese phonological rule to the Abruzzian Romani phonemic inventory via phonological features and not via phonological units. The extension of the rule to targets and triggers which do not operate in Abruzzese is very clear in this sense and is likely to depend on the transfer of a rule on the lexicon of Abruzzian Romani and not on a rule extrapolation from the Abruzzese lexical items affected by propagation. Such a transfer can be possible only to bilingual speakers who have unified and generalized a phonological rule across the two codes of their bilingual competence.

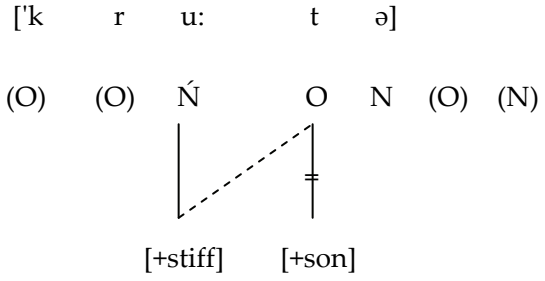
1.1.2. Devoicing of /d/ after stressed vowel

Devoicing of /d/ regularly happens in Abruzzian Romani when this phoneme occurs after a stressed vowel. Examples such as ['tu:tə] “milk” (Pe tr. 38 and 43), ['da:tə] “father” (Pe 14, tr. 48 and 49), ['ga:tə] “shirt” (Pe 634 and 635), ['du:tə] “light” (Pe 806 and 1507), ['vo:tərə] “bed” (Pe 833 and 1064), ['kli:tə] “key” (Pe 1087) are very eloquent. All these words present a non-etymological [t], as shown by the comparison with the equivalent words in other Romani dialects: cfr. KL [tʰud] “milk”, PS [dad] “father”, [gad] “shirt”, [dud] “light”, ['vodro] “bed” and LS ['klidi] “key”. In the light of these data there is no doubt that [t] has to be considered as secondary and limited, in the whole Romani dialect landscape, only to Abruzzian Romani. Interestingly devoicing of /d/ after stressed vowel is well documented in co-territorial Abruzzese dialects too. The phenomenon is clearly observable in cases such as ['kru:tə] “raw” < Lat. CRŪDU(M), ['pe:tə] “foot” < Lat. < PĔDE(M), ['ri:tə] “to laugh” < Lat. *RĪDĔRE (Cl. Lat. RĪDĒRE), ['ni:tə] “nest” < NĪDU(M) and in many other examples (Giammarco 1960: 47–48; Rohlfs 1966–1969: § 216; Bigalke 1996: 19–20). When the stress is on the vowel which follows /d/ the underlying phoneme surface as voiced in the most of Abruzzese dialects, cfr. e.g. in Pescara ['no:tə] “knot” < Lat. NŌDU(M) vs [nu'du:sə] “knobby" < Lat. NŌDŌSU(M), in Introdaqua (Province of L’Aquila) ['kre:te] “I believe” < Lat. CRĒDO vs [kre'du:tə] “believed” < Lat. *CRĒDŪTU(M), in Penne (province of Pescara) ['ve:tə] “you (sing.) see” < Lat. VĬDĒS vs [ve'dɔ] “to see” < Lat. VĬDĒRE etc. The presence of an alternation between the devoiced allophone after stressed vowel and the voiced one after unstressed vowel and especially in pre-tonic position implies

the existence of a phonological rule still operating in synchrony and not a phonetic change already achieved and penetrated in the underlying lexical representation. Only in few Abruzzese dialects the devoiced variant has been lexicalized and the rule has ceased to operate. Some years ago Leonardo Savoia has proposed an interesting explanation for a very akin phenomenon observable in the dialect of Andria (Northern Puglia). Savoia explains the loss of sonority after stressed syllable as an extension to the subsequent /d/ of the feature [+ stiff vocal folds]. This feature would depend on the high tone of the stressed vowel (Savoia 2014: 249–257). If vocal folds remain stiff during the realization of /d/, they do not allow the activation of the laryngeal mechanism. The consequence is a loss of sonority in the consonant.

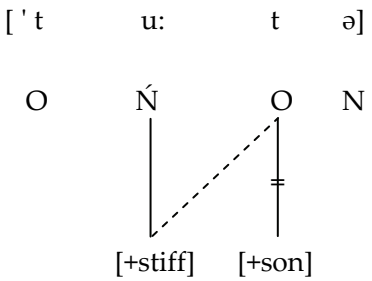
Taking Abruzzese ['kru:tə] < Lat. CRŪDU(M) "raw" as an example, the rule can be represented as in table 3:

Table 3. /d/ devoicing rule in Abruzzese



In Abruzzian Romani (see table 4) the rule is mandatory, cfr. e. g. the form which surfaces as ['tu:tə] "milk". The word in Early Romani was *thud* as confirmed by the most conservative variety of Romani (cfr. KL [t^{h}ud]) and by the etymology (cfr. OIA *dugdha* "milked, milk", Pkr. *duddha*; the Romani form supposes aspiration metathesis **dhudda*):

Table 4. /d/ devoicing rule in Abruzzian Romani



This rule cannot have been extrapolated by Abruzzian Romani speakers from Abruzzese loanwords. A sequence V́ + [t] in Abruzzese words would have represented a model well known to Romani and would have been reproduced without any difficulty and, above all, without introducing any new phonological rule. Indeed, in Abruzzian Romani there are many words, belonging to pre-Romance lexical layers, in which the sequence V́ + [t] is etymological, cfr. [b'bu:tə] "much" (OIA *bahutva*), ['ka:tə] "scissors" (Pkr. *kattiya*), ['ʃu:tə] "vinegar" (OIA *śukta*), ['dze:tə] "oil" (Arm. *jēt'*). Only synchronic alternations between [d] and [t], caused by the shift of stress position in Abruzzese verbal paradigms and nominal derivation, can have offered a model for this rule of devoicing, which has been transferred to Abruzzian Romani. Alternations between [t] and [d]/[dd], like in [fi'ri:tə] "window", pl. [fərid'dja] (from Gr. θυρίδι, cfr. Scala 2006–2007: 49) testify that the rule /d/ → [t] / V́___ is fully active in Abruzzian Romani, irrespective of the real presence of a high tone in the stressed syllable of the replica-

language. A rule based on a phonetic feature, in this case the feature [+ stiff vocal folds], may be extended to another language by bilingual speakers, becoming a mere distributional rule. In the case of Abruzzian Romani, devoicing of /d/ after stressed syllable preserves the relation between input and output that we find in Abruzzese, but does not necessarily preserve the phonetic motivation underlying to the rule in the model language.

2.0. The borrowing of epenthetic vowel harmony in the Armenian dialect of Karchevan

The Armenian dialect of Karchevan (Republic of Armenian, Syunik Province; for a description of the dialect cfr. Mowradyan 1960) presents a system of vowel harmony which we may assume as imported by Azerbaijanian, a Turkic variety with which Armenian speakers of Karchevan have been in contact for centuries. Alternations based on vowel harmony are unknown to Proto-Indo-European, to Old Armenian and to the majority of Armenian dialects, but in some minor dialects vowel harmony was and is well rooted. The phenomenon shows a scattered geographical distribution — from Cilicia (e. g. Marash and Zeythun cfr. respectively Galustean 1934 and Ačaŕyan 2003: 144–146) to Northern Iran (e.g. Maragha, cfr. Adjarian 1929: 81–82 and Łaribyan 1953: 361) — which suggests to consider this phonological feature as a polygenetic innovation acquired via contact. After all, in this area, Armenian is not the only language showing such an innovation: vowel harmony systems can be found also in some varieties of Greek spoken in Anatolia (Dawkins 1916: 67–68; Thomason-Kaufman 1988: 218), in some Iranian dialects such as Tati (Yar-Shater 1969: 54–55) and in some Lezghian dialects (Johanson 2006), among them Budukh (Alekseev 1994: 263), Kryts (Saadiev 1994: 410) and Khinalug (Kibrik 1994: 373), all in contact with Azerbaijanian. Also the contact between some Eastern Armenian dialects and Azerbaijanian has been very intense. It could be useful to remind that at the begin of the nineteenth century only 17.6% of the inhabitants of Eastern Armenia was Armenian, the remainder of the population being composed by Turks and Kurds (Bournoutian 1996: 78–79).

As shown by Bert Vaux, Armenian dialects display three different types of vowel harmony: root harmony (i.e. harmony of the lexical morpheme), affixes-harmony, and epenthetic vowel harmony (Vaux 1998: 151). These different domains can be connected as follows:

1) affixes-harmony implies root-harmony (cfr. the dialects of Agulis, Karchevan, Maragha, Meghri, Shamaxi, Tigranakert, Xoy). Here the domain is the morpho-syntactic word.
2) epenthetic vowel harmony, a post-lexical phenomenon, usually implies the harmony in the morpho-syntactic word (Maragha, Karchevan, Shamaxi), so the domain becomes the phonological word. The only exception is represented by the dialect of Marash with root-harmony and epenthetic vowel harmony, but without affixes-harmony.

These relations between the domains seem to indicate that the most prototypical, although not exclusive, target of the harmony is the morpho-syntactic word or the phonological word.

In Karchevan's dialect vowel harmony affects the lexical morpheme, the affixes and the epenthetic vowel. This latter, that in the majority of Armenian dialects surfaces as [ə] shows different colours in the dialect of Karchevan, according with the features of the preceding vowel. In Azerbaijanian we find the same phenomenon, but the outcomes of these two vowel harmonies (the Turkic one and that of the Armenian dialect of Karchevan) are different.

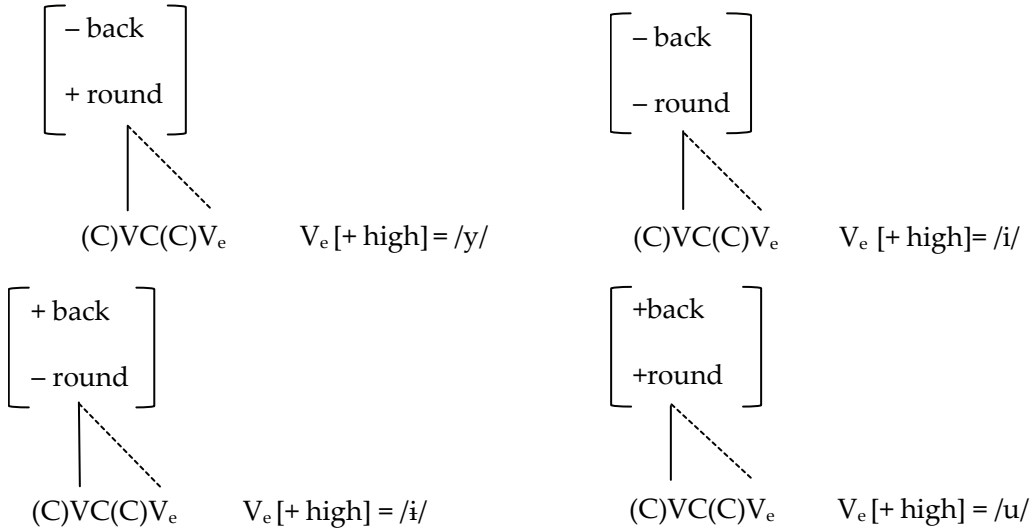
2.1. Phonological inventories and rule borrowing

In Azerbaijanian epenthetic vowel surfaces as following:

after /o, u/ → u [son] “end” [son**u**n'ʤu] “last”; [o'tuz] ‘30’ [otuz**u**n'ʤu] “30th”
after /a, ɨ/ → ɨ [dox'san] “90” [doxsan**ɨ**n'ʤ**ɨ**] “90th”; [al'tmɨʃ] “60” [altmɨʃ**ɨ**n'ʤ**ɨ**] “60th”
after /ø, y/ → y [dørd] “4” [dørd**y**n'ʤy] “4th”; [yʧ] “3” [yʧ**y**n'ʤy] “3th”
after / æ, e, i/ → i [sæ'ksæn] “80” [sæksæn**i**n'ʤi] “80th”; [beʃ] “5” [beʃ**i**n'ʤi] “5th”; [bir] “1” [bir**i**n'ʤi] “1st”

As it can be observed Azerbaijanian epenthetic vowels are pre-specified for the feature [+high] and receive the specifications [αround] and [αback] of the previous vowel, according to a pattern similar to what we found in other Turkic varieties and that we can represent as in table 5:

Table 5. Epenthetic vowel harmony in Azerbaijanian



This harmony is based on the following vowel inventory (Khalilzadeh 2013):

	[– back]		[+ back]	
	[– round]	[+ round]	[– round]	[+ round]
[+high]	i	y	ɨ	u
[-high]	e,æ	ø	a	o

In the Armenian dialect of Karchevan (Vaux 1998: 165–171) vowel harmony, borrowed by contact with Azerbaijanian, operates in the domain of the phonological word. The phonological system of the dialect of Karchevan is however different from that of Azerbaijanian and could be represented as follows (Vaux 1998: 166):

	[– back]		[+ back]	
	[– round]	[+ round]	[– round]	[+ round]
[+high]	i	y		u
[-high]	e,æ, (ɛ)	ø	a	o

Limiting the analysis to epenthetic vowels, it is possible to infer the vowel harmony rules acting in this domain for example by observing the allomorphs of definite article. Definite article in Armenian varieties is postposed since the time of Classical Armenian (CA). In Modern Armenian varieties article's underlying form can be considered /-n/ and it usually surfaces as [-n] in two cases: after vowel (1), after consonant in a word that precedes another word beginning in a vowel, more explicitly in the context -C__#V- (2). After final consonant before pause (3) or before a word beginning in consonant (4) the article surfaces as [-V_e], phonetically represented by [-ə], because of a rule that deletes word-final /-n/ in unstressed syllable (Vaux 1998: 257–258). This distribution rule operates both in Standard Western Armenian (SWA) and in Standard Eastern Armenian (SEA). In CA allomorphs were partially different: the outcome [-n] had the same distribution than in modern varieties, while the contexts (3) and (4) triggered a surface form [-ən] with no deletion of /-n/. In modern standard varieties article's surface form in (3) is [-ə] without exceptions, but the surface outcome becomes more complex in those dialects whose vowels are sensitive to vowel harmony. Further confirmations of the vowel harmony process that affects epenthetic vowels in harmonic Armenian dialects can come also from words in which a consonant cluster requires the insertion of an epenthetic post-lexical vowel. This post-lexical vowel is regularly [ə] in CA, SEA and SWA, but, like in the case of the article, it receives different colours in harmonic dialects. Karchevan's dialect is a good example of dialect in which vowel harmony affects epenthetic vowels, that regularly surface in the following way:

after /o, u/ → [ə]
['oʁdzə] "the snake" (CA ['aʊ̯dzʰən], SEA ['odzə]), ['ʃonə] "the dog" (CA ['ʃunən], SEA ['ʃunə]), ['mutsə] "the big one" (CA ['mɛtsən], SEA ['metsə])

after /a/ → [ə]
['hakʰə] "the foot" (CA ['otnən] SEA ['votkʰə]), ['maɾdə] "the person" (CA ['maɾdʰən], SEA ['maɾtʰə]), ['kʰaɾə] "the stone" (CA ['kʰaɾən], SEA ['kʰaɾə])

after /ø, y/ → [y]
['bødz**y**ɾ] "high" (CA ['bʰaɾdzʰəɾ], SEA ['baɾtsʰəɾ]), ['byɾd**y**] "the wool" (CA ['bʰuɾdʰən], SEA ['buɾtʰə]), ['bytʰ**y**] "the thumb" (CA ['boi̯tʰən] SEA ['bui̯tʰə]), [myɾ'ʤʰym**y**] "the ant" (CA [meɾ'ʤimnən], SEA [məɾ'ʧʰunə])

after /e,æ, (ɛ), i/ → [i]
['beh**i**] "the spade" (CA ['bʰahən], SEA ['bahə]), ['ʃen**i**] "the village" (['ʃenən], SEA ['ʃenə] "the village"), ['mæŋgʲæʁ**i**] "the sickle" (CA [maŋ'gʰałən], SEA [maŋ'gaʁə]), ['væɾd**i**] "the rose" (CA ['vaɾdʰən], SEA ['vaɾtʰə]), ['aχpiɾ**i**] "the brother" (CA [ɛɬ'bʰai̯ɾən], SEA [jeχ'pʰai̯ɾə]), [bʰi'ɾindzʰ**i**] "the rice" (CA [bə'ɾindzʰən], SEA [bə'ɾintsʰə])

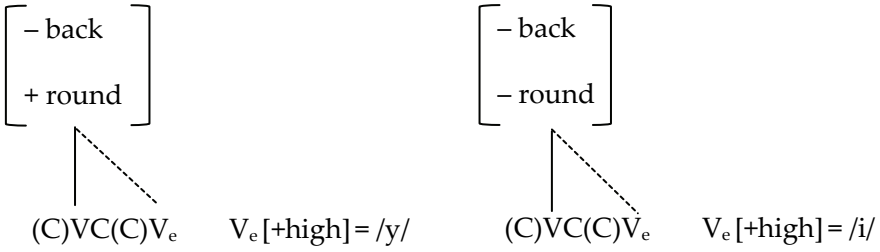
The case is interesting, because the vowel harmony of Karchevan's dialect does not fully correspond to that of Azerbaijanian from which however it has been imported.

The Azerbaijanian model shows a rigid distribution of vowels in which after /o/ and /u/ the epenthetic vowel surfaces as [u]; this regularity is not present in the dialect of Karchevan, although the phonemic inventory of this dialect includes a surface phonic unit [u]. If the borrowing of vowel harmony rule were based on the imitation of the vowel sequences admitted in the surface units of the model language, without any relation with the underlying phonological processes, this difference would be impossible to explain.

There are two remarkable facts: the dialect of Karchevan presents in its phonemic inventory a phonological unit which surfaces as [u] and which is identical to the Azerbaijanian model. However this unit does not surface as outcome of vowel harmony after /o/ and /u/. Moreover after /a/ we find the epenthetic vowel [ə], a vowel devoid of phonological value, and consequently not involved in vowel harmony.

The hypothesis I would like to purpose is that, in a perspective of deep and pervasive bilingualism, the borrowing of vowel harmony does not depend on the phonetic units of the donor language and of the recipient language, but on the phonological features which are active in the rule and in the phonemic inventories. The rule has not been transferred from Azerbaijanian to Karchevan's dialect through loanwords, that is it has not been extrapolated from Azerbaijanian lexical borrowings, but it may have been imported in the Armenian dialect of Karchevan in its combinatory form, based on features and not on units. An autosegmental representation of vowel harmony in the dialect of Karchevan is given in table 6:

Table 6. Epenthetic vowel harmony in Karchevan's dialect



Outcomes of epenthetic vowel harmony in Karchevan are pre-specified for the feature [+high]. The only feature which is transferred to the harmonic vowels is the value [αround] in the domain [-back]. Only front vowels take part into the harmony.

In this framework, the most relevant facts are that back vowels do not trigger harmonic processes and that there is no trace of an output [u] after /o/ and /u/. In these differences between the dialect of Karchevan and the Azerbaijanian model, a crucial role is played by the absence of a central vowel such as /ɨ/ or /ə/ (in terms of harmony a vowel [+back] [+high] [–round]) in the phonemic inventory of the dialect of Karchevan. The back vowel series lacks a unit having the features [+ high] [– round] and consequently the only vowel [+back] [+high] is /u/, which in the harmony can be considered as not specified for the feature [round]. So the harmony rule assigns a default pre-specification [+high] and then a further specification [+back]; in this domain the rule should specify the value [αround], but the phonological system of the dialect of Karchevan does not permit the conclusion of the process with the specification of the value [round], because the only one vowel [+high] and [+back] does not participate to a system of phonological oppositions implying the specification of the value [αround]. Probably, as a result of this, the whole class of back vowels is excluded from harmony.

In this perspective, epenthetic vowel harmony in the dialect of Karchevan would be the outcome of the borrowing of a Turkic rule, a rule which operates as selection of features and not as selection of units. The phonological system of the recipient language, for its different configuration, especially for the lack of a phonological unit combining the features [+back] [+high] [-round], produces an output which is different from that of the model, though applying the same rule.

3.0. Akanie in Belarus Yiddish

A third example of phonological rule borrowing can be found in Yiddish as spoken in Belarus. The data available in the bibliography about this case are very exiguous, nevertheless it deserves at least a hint for its clarity: according to Uriel Weinreich Belarus Yiddish presents a rule according to which etymological /o/ surfaces as [a] in pre-tonic syllable (Weinreich 1958:

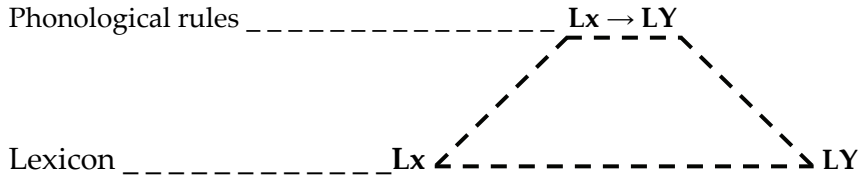
371–377; cfr. also Reershemius 2007: 247–248). The rule, traditionally called *akanie*, is clearly of Slavic origin and it is well rooted in Belarus and in Russian (Cantarini 1979: 188–192; for Russian cfr. e.g. Jones-Ward 1969: 50–52). Belarus *akanie* is strongly impacting on phonological distribution of the sounds, implying the neutralization of /o/, /a/ (and /e/ as well; in this case the rule is called *jakanie*) in unstressed syllable (Cantarini 2001: 177). This neutralization is recorded in the Belarus orthography as early as in the 15th-16th century (Alonso de la Fuente-Majtczak 2015: 23). This rule of neutralization in Belarus Yiddish acts also on non-Slavic words, cfr. [xa'lile] "God forbid!" (other Yiddish dialects [xo'lile]) and [a'kɔrʃt] an emphatic particle usually placed after an imperative (other dialects [o'kɔrʃt]). Unfortunately Weinreich does not give further examples, but the two words discussed are already significant. The case of pre-tonic /o/ changed in [a] in Yiddish native words is conceivable only as a result of a contextual dephonologization via contact, induced by the borrowing of a Slavic phono-prosodic rule. Pre-tonic /o/ has resisted for centuries in the Yiddish dialects and it is probable that only a new rule, acting on the phonemic underlying features, can have changed it. In this case too, the role of the loanwords seems to be not very relevant, because pre-tonic [a] was already present in Yiddish and therefore Slavic loanwords having [a] in this position could not produce a process of neutralization. The fact that Slavic loanwords in Yiddish do not show [o] in pre-tonic position would not be enough to modify the pronounciation of every pre-tonic /o/ in etymologically non Slavic words. Only the imitation of a phonological rule can explain this phonological innovation and the model for such an innovation is clearly available in Belarus phonology, but not in the surface representation of the Belarus lexicon.

4.0. Phonological rule borrowing: external and internal dimensions

All the afore-mentioned phonological rules are the result of a process of innovation in the languages they affect and have been imported from co-territorial languages in a contest of long and deep bilingualism. Phonological rule borrowing, such as that observed in Abruzzian Romani, in the Armenian dialect of Karchevan and in Belarus Yiddish, seems more likely when the lexicon of the two languages present in the repertoire of a community is totally different and when the social power and the social meaning of the two languages in contact are strongly divergent. Some other similar cases, such as Albanian dialects (Arbëresh) in Southern Italy (Savoia 2008: 43–46) and Romani of Finland (Scala in press), seem to confirm this trend. If a bilingual community entrusts a strong role of identity-marker to a language, from a cognitive point of view, the lexicon represents the most salient and accessible way of marking distance and of highlighting a different identity. If the lexicon of the intra-communitarian language is radically different to that of the inter-communitarian one, the phonology of the two languages can more easily undergo unification, by extending the model of the inter-communitarian language to both languages. On the contrary, when in a bilingual community the intra-communitarian and the inter-communitarian languages share a very similar lexicon, each phonetic detail which differentiates the two languages is carefully preserved and respected in the pronunciation; this situation is clearly observable in a lot of small communities in Italy, where the local Italo-Romance dialect, which is perceived and preserved as the intra-communitarian code, differs from neighbouring dialects or from the koine-dialect only by virtue of its phonetic features.

This sociolinguistic generalization could be represented as in tables 7 and 8. When the intra-communitarian language is strongly identitarian and the lexicon of the two languages is very different, then phonological rules can converge (table 7).

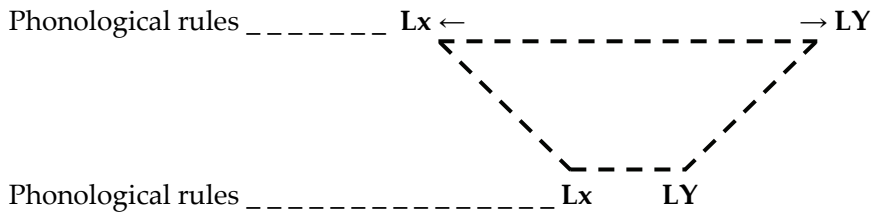
Table 7. When the lexicon is different, phonological rules tend to converge



(legenda: Lx = minority intra-communitarian language, LY = co-territorial language of the majority community)

On the contrary, if the lexicon of the two languages is very similar, phonological rules convergence is generally avoided (table 8):

Table 8. When the lexicon is strongly similar, phonological rules remain different



In this second case, even small phonetic details, which are often outcomes of phonological rules, remain distinct and do not tend to converge. The prerequisite of such dynamics — as said before — is that the intra-communitarian language maintains for a long time its identitarian function.

Returning to a system perspective, it has to be highlighted that in most cases the rules described above can be considered only as processes acting on phonological features and not on phonic units. The case of /u/ propagation is very significant: in Abruzzian Romani the phenomenon presents a set of possible target onsets that is ampler than in Abruzzese propagation, also including a phonological unit such as /x/, which is unknown to the Abruzzese phonemic inventory. The phonological rule has been borrowed from Abruzzese and selects syllables whose onset has the same features as the model, but in Abruzzian Romani, because of the difference between the two phonemic inventories, it captures more units. This evidence actually seems to minimize, if not exclude, the role of the borrowed lexicon in the process of rule imitation. Also the rule which produces devoicing of /d/ after stressed vowel in Abruzzian Romani is very meaningful and cannot have been induced through lexical loanwords. The output of this rule in Abruzzese is a sequence of sounds well known to Abruzzian Romani, which in its traditional lexicon presented many cases of etymological /Ývt/. Such sequence, generated in Abruzzese by an allophonic process, could have been integrated into Abruzzian Romani without any difficulty, but also without inducing any new phonological rule. On the whole, the role of the Abruzzese lexical loanwords as a vehicle for the borrowing of phonological rules into Abruzzian Romani does not seem to be particularly relevant. In fact loanwords seem to act as vehicles for new phonemes (Gusmani 1982; Stolz 2008: 21), rather than as inductors of new phonological rules, with the exception perhaps of stress patterns (Thomason 2006: 671). In Abruzzian Romani it is hard to find a phonological rule which is not shared with Abruzzese. In this perspective it may be assumed that Abruzzian Romani speakers, who have all been bilingual with Abruzzese for centuries, currently manage a set of phonological rules which serves two different languages and is applied to two different phonemic and lexical inventories.

The case of the epenthetic vowel in the Armenian dialect of Karchevan can be considered in the same light. The idea that vowel harmony has been borrowed via lexicon presents the

crucial difficulty that after /o/ and /u/ epenthetic vowel harmony regularly occurs in Azerbaijanian, but not in Karchevan's dialect. Surface vowel inventories are identical, but underlying phonemic inventories are different and that changes the output of the harmony. In this case too, a rule borrowing based on combination of features and not on the surface units of the lexicon is the only viable hypothesis.

Finally, also the Belarus Yiddish phono-prosodic rule which produces a neutralization of /o/ and /a/ in pre-tonic position, seems to represent a further case of phonological rule that cannot have been imported via lexical borrowings, being the pre-tonic [a] already existing in Yiddish.

As said at the beginning of this article, phonological rules borrowing outside the domain of language learning has been so far a relatively unexplored topic in historical linguistics. Consequently the case-studies and the general reflections presented in this paper represent only a first attempt to define the inner (structural) and external (sociolinguistic) dynamics which enable the borrowing of phonological rules in native languages. A process of innovation in which the acquiring of loanwords does not appear to be such a relevant precondition as the contact between two different phonological competences co-existing in the same bilingual speakers.

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Андреа Скала. Заимствование фонологических правил: общие соображения и конкретные исследования (на примере цыганского, армянского и идиш)

Проблема заимствований фонологических правил в научных исследованиях в основном ограничена областью языкового обучения. При этом воспроизведение фонологических правил языка 1 в высказываниях на языке 2 — довольно обыденное явление; намного интереснее случаи, когда заимствование фонологических правил приводит к перестройке синтагматической фонологии хорошо сохранившегося малого языка. В таких случаях мы наблюдаем, как язык внутреннего общения конкретного этнического меньшинства частично или полностью перенимает фонологические правила, характерные для языка внешнего общения (т. е. языка национального большинства). В данной статье исследуется ряд примеров таких заимствований, включая два италороманских фонологических правила, заимствованных в цыганский язык области Абруццо; сингармонизм тюркского типа в карчеванском диалекте армянского и белорусское аканье в белорусском идиш. Анализ правил и возможных путей их заимствования завершается общими рассуждениями на тему структурного и социолингвистического характера этого явления.

Ключевые слова: фонологические правила, языковые заимствования, цыганский язык, армянский язык, идиш, языковые контакты

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Historical language contact between Indo-European and Semitic in argument structure and in clause organization

This paper discusses some aspects of the functional competition between nominal morphology and verbal morphology to express low transitivity in different IE languages with respect to other areally contiguous language families. In West and North IE (Celtic, Germanic, Baltic, Slavic), experience predicates often select oblique experiencers, which are also common in Finno-Ugric. In West and North IE, the inherited middle conjugation is decaying or lost altogether, replaced by structures based on the reflexive pronoun. By contrast, in South and East IE (Anatolian, Greek, Early Indo-Iranian and Tocharian), the middle inflection is still productive and represents the main strategy to encode experience predicates, in addition to denominal verb formations; in these languages, oblique experiencers are much more rare than in West and North IE. South and East IE languages have striking correspondences with Semitic, which is also poor in oblique experiencers and in impersonal constructions in its earliest varieties. In Ancient Semitic, the experiencer is regularly the subject of the clause, while low transitivity is expressed by a highly articulated verbal morphology. Accordingly, the preferred use of verbal suffixes or of oblique cases to express low transitivity — both inherited from PIE — tend to be reinforced in different IE areas by the contact with different language families where these strategies are also more or less productive.

Keywords: experience predicates, non-canonical subject marking, middle conjugation, Indo-European, Semitic, Binyanim

1. Introduction

The topic of the present paper is historical language contact between Indo-European (IE) and Semitic (SEM) on a structural and systemic level, with particular attention to problems of argument structure and clause organization.

Intensive cultural contact is acknowledged between IE and SEM in religion, myth, magic, literature, art, law, material artefacts, etc. (Burkert 1984; 2003; 2004; Kingsley 1995; West 1999; Marek 2010). In historical linguistics, however, contact between IE and SEM is not much studied: it is mainly restricted to lexical borrowings, and even in this domain it is quite controversial. In particular, although less than 40% of the Ancient Greek lexicon is of IE origin (Morpurgo-Davies 1986), SEM borrowings are commonly accepted only for nouns of concrete objects patently derived from the East (Masson 1967), and for the rest they often compete with a Pre-Greek etymology (cf. Beekes 2014).

This scarce attention to structural contact in IE and SEM studies may be due to the fact that language change is usually ascribed more to internal than to external factors and that the Comparative Method, based on the regularity of sound laws, excludes contact from the possibilities of linguistic reconstruction to begin with (cf. Schleicher 1861; Brugmann 1897–1916; Paul 1920; Meillet 1925). Given the fundamentally communicative function of language, however, contact is rather a natural condition of language, and internal and external factors often interact (cf. Weinreich 1977; Thomason & Kaufmann 1988; Dixon 1997; Aikhenvald & Dixon 2007; Thomason 2001; Heine & Kuteva 2003; 2005; Matras 2009; Ansaldo 2013; Bakker & Ma-

tras 2013). Actually, some problems of the Comparative Method were already pointed out in the past by Schmidt's (1872) Wave Theory and by Schuchardt's (1922) research on dialectology, and nowadays there is a rich literature on the possible ways to complement the Comparative Method with insights of areal linguistics and on the interaction between inheritance and contact factors (Baldi 1990; Polomé & Winter 1992; Fox 1995; Durie & Ross 1996; Aikhenvald & Dixon 2001; Watkins 2001; Harrison 2003). My aims will be here, in general, to contribute to the quite neglected dialogue between IE linguistics and SEM linguistics in the study of structural features, and specifically to show how grammatical patterns inherited from PIE may have been reinforced in some southern and eastern IE languages by adstrate factors with SEM languages.

2. Coding low transitivity in Indo-European

2.1. Forms and functions of low transitivity in IE

From a functional point of view, low transitivity is represented by situations with a non-agentive primary argument or a scarcely affected secondary argument. Experience predicates, for example, that is, predicates expressing knowledge, opinion, desire, perception, likes and dislikes, are commonly considered to be typical examples of low transitivity (cf. Hopper & Thompson 1980; Tsunoda 1985; Næss 2007; Kittilä 2009). From a formal point of view, the non-agentive nature of the primary argument is often expressed in languages by "non-canonical subject marking", that is, by non-nominative/non-direct cases (cf. Klaiman 1991; Aikhenvald et al. 2001; Bhaskararao & Subbarao 2004; de Hoop & de Swart 2009). This may include both impersonal constructions (1a) and personal constructions with a nominative secondary argument (1b). By contrast, the use of a nominative/direct case for the experiencer represents "canonical subject marking" (2).

(1a) Ger. ***Mir*** *ist kalt* (impersonal non-canonical subject marking)
(1b) Ger. ***Mir*** *gefallen Blumen* (personal non-canonical subject marking)

(2a) ***I*** *am cold*
(2b) ***I*** *like flowers*

For experience predicates, Ancient Indo-European had various strategies at its disposal, such as oblique cases and the middle inflection. This has been acknowledged since Delbrück (1897), and non-canonical subject marking represents one of the main strands of current IE historical syntax (see the numerous publications by Johanna Barðdal and Þórhallur Eythórsson on this topic). It is not equally acknowledged, however, that such noun-coded and verb-coded strategies of low transitivity have different relevance and may have a complementary distribution in the different IE languages according to areal patterns, as I have shown in a previous paper on the areal diffusion of IE experience predicates (cf. Viti 2016a), and as I shall try to show here.[1]

[1] On the competition between noun-coding and verb-coding in languages, cf. Capell (1965). A proviso is in order at this point: canonical and non-canonical marking often co-occur in the same language: German, for example, also attests canonical structures such as *ich mag Blumen* and, in Swiss German, *ich habe kalt / warm* (the latter is a clear calque from French *j'ai froid / chaud*). Thus, canonical and non-canonical marking have to be considered properties of constructions, rather than of languages. Nonetheless, as in the case of many other grammatical features, a certain syntactic pattern may prevail in a language, which allows us to draw some isoglosses. Clearly,

2.2. IE areas with prevailing noun-coded strategies: North and West

Non-canonical subject marking has been reported to be very productive in some Germanic languages such as Icelandic, German and various early Germanic languages such as Gothic and Old English, unlike Modern English and Modern Scandinavian languages (cf. van der Gaaf 1904; Elmer 1981; Ogura 1986; Sigurðsson 1989; Allen 1995; Möhlig-Falke 2012). Non-canonical subject marking is also typical of Celtic, of Baltic and of Slavic: any school grammar of these languages teaches how to transpose many Modern English sentences expressing feelings into constructions with oblique experiencers. The domination of oblique experiencers in Celtic, Baltic, Slavic and (some languages of) Germanic has been amply shown both by Bossong's (1997) seminal paper on the marking of the experiencer and by language-specific studies on non-canonical marking, from which examples (3)–(6) are drawn. That is, noun-coded strategies of non-canonical subject marking prevail in the West and in the North of IE.

(3) Icelandic (North Germanic; Andrews 2001: 88)
mig *iðrar* *þes*
me:ACC regret this:GEN
"I regret this."

(4) Irish (Goidelic Insular Celtic; Noonan 2004: 70)
tá *dúil* ***agam*** *ann*
be:PRS desire at:1.SG in:3.SG.M
"I desire it."

(5) Lithuanian (Eastern Baltic; Holvoet 2013: 265)
vaikams *patinka* *ryškios* *spalvos*
child:DAT.PL like:PRS.3 lively:NOM.F.PL colour:NOM.PL
"Children like lively colours."

(6) Russian (East Slavic; Guiraud-Weber & Kor Cahine 2013: 9)
Irine *ne* *do* *smexa*
Irina:DAT NEG PREP laugh:GEN
"Irina does not feel like laughing."

Baltic and Slavic non-canonical marking, in particular, is commonly considered to have been influenced by contact with Finno-Ugric, where constructions with oblique experiencers

drawing isoglosses and tendencies implies, by definition, a simplification. This often leads some scholars, especially in conservative circles of IE studies, to refuse *any* tendency in the name of some alternative minor — often even exceptional — patterns. This is methodologically wrong. Establishing tendencies is of fundamental importance in order to identify a certain ratio in linguistic data that are so heterogeneous in attestation age, genre and style — otherwise one only performs a listing and compilation of features. Tendencies are commonly accepted in general linguistics (as well as in English linguistics, German linguistics, Romance linguistics etc.). Tendencies are the basis of *any* science. When one observes that a minor pattern is also attested in a language, the right methodology is not to refuse the tendency as if anything were equally possible — which is not — but rather to detect the different domains of use of the competing constructions. The rare use of oblique experiencers in Ancient Greek, for example, seems to be related to predicates of negative experience more often than to predicates of positive experience, for which in Viti (2017) I have suggested some cognitive motivations. In this sense, a general and a specific approach are by no means mutually exclusive, but rather complement each other. My observations are therefore meant to be tendencies. They will not be contravened by some exceptions — even sound laws have exceptions — but only by the identification of a stronger tendency and of a better generalization.

are also very common (cf. Stolz 1991), cf. (7). This isogloss is therefore distributed across two different language families sharing the same northern areal.

(7) Finnish (Uralic; Sands & Campbell 2001: 291)
minu-sta *ruoka* *maistu-u* *hyvä-ltä*
1SG-ELA food:NOM taste-3SG good-ABL
"The food tastes good to me."

I find it noteworthy that the West and the North of IE represent precisely those areas where the PIE middle conjugation is most in decay. In Celtic, for example, the middle conjugation is often replaced by the active (cf. Thurneysen 1946: 328; a similar phenomenon of active pro deponent occurs in Early Latin). Similarly, in Baltic and Slavic, as well as in Germanic, the inherited middle conjugation also tends to be lost and replaced by new and more transparent structures based on the reflexive pronoun, as Meillet repeatedly observed:

> Le germanique a encore simplifié le système verbal en éliminant l'opposition des désinences actives et des désinences moyennes. Suivant le rapport de l'action exprimée avec le sujet, on employait en indo-européen les désinences actives ou les désinences moyennes : l'actif gr. *leípō* signifie « je laisse », le moyen gr. *leípomai* « je laisse pour moi » ou « je suis laissé ». Le germanique a connu cette opposition; le gotique l'emploie encore au présent, où les anciennes désinences moyennes expriment le passif : *bairiþ*, qui répond à skr. *bhárati* « il porte », a ce même sens; *bairada*, qui est à rapprocher de skr. *bhárate*, gr. *phéretai* « il porte pour lui » et « il est porté », signifie « il est porté ». Les autres dialectes germaniques ont perdu la flexion moyenne du présent. Au prétérit, le gotique même ignore les désinences moyennes. (Meillet 1913: 126–127)

> Les désinences moyennes ne sont pas conservées en slave. Une partie de ce que l'indo-européen exprimait à l'aide de ces désinences est rendu par l'addition de l'accusatif *sę* du pronom réfléchi inaccentué […] Le lithuanien a l'équivalent exact de ce procédé, avec une autre forme du réfléchi, le datif *si*, inaccentué. Le scandinave et les langues romanes offrent des faits analogues. (Meillet 1934: 328; cf. Stang 1966)

Crucially, the term "middle" is used in the present paper from a *formal* point of view, as is common practice in IE studies, to denote a verbal conjugation characterized by a set of specific endings, which has been partly inherited from PIE and partly refashioned in the various languages (cf. Stempel 1996), as illustrated in Table 1.[2] The term "middle" is here *not* used, instead, in a functional sense to denote any strategy expressing the involvement of the subject's referent in the event (e.g. the reflexive strategy in Romance languages), as is usually the case in typological studies.

As can be seen in Table 1, the fact that Latin, Old Irish and Gothic use the same set of middle forms as primary and secondary endings may be also considered, in my opinion, a manifestation of the minor productivity of the middle inflection in these languages as compared to Hittite, Old Indian, Ancient Greek and Tocharian, which I will discuss in the next section, where middle endings are formally more differentiated.

2.4. IE areas with prevailing verb-coded strategies: South and East

In Southern and Eastern IE languages such as Hittite, Old Indian, Ancient Greek, Classical Armenian and Tocharian, the middle conjugation is still quite productive and frequently used in texts in a variety of situations characterized by low transitivity (cf. Neu 1968; Schmidt 1974;

[2] This does not imply that the middle conjugation always has distinctive endings — rarely grammatical categories are so monofunctional in IE or in any language. The partial use of equal endings for active and middle does not impede to identify a middle conjugation. Of course, the consideration of a verb as active or middle follows dictionaries and grammatical practice.

Table 1 (from Clackson 2007: 144)

Hittite	Toch. A	Sanskrit	Greek	Latin	Old Irish	Gothic
Primary endings						
1. *-ha(ri)*	*-mār*	*-e*	*-mai*	*-r*	*-ur*	*-da*
2. *-ta(ri)*	*-tār*	*-se*	*-oi*	*-ris*	*-ther*	*-za*
3. *-(t)a(ri)*	*-tär*	*-te*	*-toi*	*-tur*	*-thir*	*-da*
4. *-wasta*	*-mtär*	*-mahe*	*-metha*	*-mur*	*-mir*	*-nda*
5. *-tuma*	*-cär*	*-dhve*	*-sthe*	*-mini*	*-the*	*-nda*
6. *-anta(ri)*	*-ntär*	*-nte*	*-ntoi*	*-ntur*	*-tir*	*-nda*
Secondary endings						
1. *-hat*	*-e*	*-i*	*-mān*	*-r*	*-ur*	*-da*
2. *-tat*	*-te*	*-thās*	*-o*	*-ris*	*-ther*	*-za*
3. *-at*	*-t*	*-ta*	*-to*	*-tur*	*-thir*	*-da*
4. *-wastat*	*-mät*	*-mahi*	*-metha*	*-mur*	*-mir*	*-nda*
5. *-tuma*	*-c*	*-dhvam*	*-sthe*	*-mini*	*-the*	*-nda*
6. *–antat*	*-nt*	*-nta*	*-onto*	*-ntur*	*-tir*	*-nda*

Gonda 1979; Allan 2003).[3] The middle is also the main strategy to code experience predicates — although it is by no means the only strategy employed with that function: since Hopper & Thompson's (1980; 1984) seminal studies, it has been acknowledged that denominal formations, for example, as well as nominalizations and non-finite forms in general, are cross-linguistically associated with a low level of transitivity and with a backgrounding function in discourse, while finite verbs derived from a genuine verbal root and characterized by a perfective aspect, a telic actionality and an active voice tend to code prototypical transitivity and focused information. This is confirmed by IE data, where denominal formations and middle inflection often share the same function of experience predicates. Desiderative suffixes, as well as inchoative suffixes, also represent typical markers of low transitivity in IE. Despite their heterogeneous morphology, experience predicates in languages such as Hittite (8), Old Indian (9), Ancient Greek (10), Classical Armenian (11) and Tocharian (12) do not usually employ the strategies of oblique primary arguments as in non-canonical marking.

(8) Hittite: *allaniya-* "sweat", EGIR-*an ar-* "take care" (lit. "stand behind"), *kattan arḫa ar-* "not to take care, neglect", *aršana-/aršaniya-* "be angry", *auš-* "see", *auš-* + *-za-* "dream", *-kan … parā epp-* "touch", *genzu dā-* "have pity", *genzu ḫar(k)-* "love", *genzuwāi-* "be compassionate", *duškiya-* "be happy", *ḫaš(š)ik(k)-* "be satisfied", *ḫā-* "believe", *ilaliya-* "desire", *anda impāi-* "be worried", *išpāi-/išpiya-* "be satiated with food", *išta(n)ḫ-* "taste, degust", *ištamaš-* "hear", *appan kappuwāi-* "take care", *karpiya-/karpeš-* "be angry /

[3] The productivity of the middle inflection in Hittite, Old Indian, Ancient Greek, Classical Armenian and Tocharian is meant here in comparison with the use of the middle conjugation in *other* languages such as Germanic, Baltic and Slavic as illustrated in §2.3 — not in comparison with the use of the active conjugation, which in general tends to be used at the expense of the middle in any early IE languages. Moreover, this does not imply that the middle conjugation is equally productive in the various Southern and Eastern IE languages: in Classical Armenian, for example, the middle is less used than in Indo-Iranian and in Ancient Greek, as I illustrated in Viti (2016a). According to my data, Tocharian is the early IE language where the middle is the most productive, cf. Viti (2016b).

become angry", *kartimmiya-/kartimmeš-* "be angry / become angry", *katkattiya-* "tremble", *kištanziya-* "be hungry", *laḫlaḫḫiya-* "be excited", *lelaniya-* "be angry", *malāi-* "agree", *malik(k)-* "become weak", *ni(n)k-* "be satiated with drink, become inebriated", *appan pāi/kattan appa pāi-* "take care", *paškuwāi-/arḫa paškuwāi-* "neglect, forget", *peššiya-* "ignore, forget", *šā-* "be angry", *šak(k)-/šek(k)-* "know", *tarra-* "become weak", *tar(r)iya-* "to strive, endeavor", *ušk-* "see", *maḫananda ušk-* "miss", *uwa-* "see", *wars-/waršiya-* "be quiet, be content", etc. (cf. Tischler 1977–; Puhvel 1984–; Kloekhorst 2008; Luraghi 2010; Cotticelli & Rizza 2010; 2013)

(9) Old Indian (here verbs are quoted in the 1st person in order to show that they are not impersonal): *icchāmi* "I wish, I like", *īkṣe* "I see", *īrṣyāmi* "I envy", *ucyāmi* "I am pleased", *ohe* "I consider", *kupyāmi* "I am angry", *krudhyāmi* "I am angry", *kṣudhyāmi* "I am hungry", *cakṣe* "I see", *cāyāmi* "I note", *cikemi* "I note", *cetāmi* "I perceive", *jase* "I am exhausted", *jihremi* "I am ashamed", *juṣe* "I enjoy", *jānāmi* "I know", *tṛpṇomi* "I am pleased", *tṛṣyāmi* "I am thirsty", *trasāmi* "I am terrified", *druhyāmi* "I am hostile", *dveṣmi* "I hate", *dīdhye* "I think", *dhyāyāmi* "I think", *paśyāmi* "I see", *prīṇe* "I am pleased", *prothāmi* "I snore", *bodhe*, *budhye* "I am awake, I am aware, I understand", *bibhemi* "I fear", *bhuñje* "I enjoy", *mādyāmi*, *mādye* "I am exhilarated, I am glad", *manye* "I think", *mode* "I am merry", *muhyāmi* "I become unconscious, I am dazed", *mardhāmi* "I neglect", *mṛśāmi* "I touch", *mṛṣye* "I do not pay attention, I forget", *yasyāmi* "I exert myself, I strive after", *raṇāmi* "I rejoice", *rame* "I rejoice", *rejāmi*, *reje* "I tremble", *lubhyāmi* "I desire", *vaśmi* "I desire", *vāñchāmi* "I desire", *vedmi* "I know", *vepe* "I tremble", *vemi* "I enjoy", *vrīḍe* "I am ashamed", *vṛṇe* "I choose", *venāmi* "I long", *lajje* "I am ashamed", *ā-śaṃse* "I hope, expect", *śāmyāmi* "I toil at, I fatigue, become tired", *śīye* "I am cold", *śocāmi* "I am sorry", *śrāmyāmi* "I am weary", *śṛṇomi* "I hear", *spṛśāmi* "I touch", *spṛhayāmi* "I am eager, I envy", *smarāmi* "I remember", *vi-smarāmi* "I forget", *svede* "I sweat", *haryāmi* "I am gratified", *hṛṇe* "I am angry", *harṣāmi* "I am excited", etc. (cf. Grassmann 1873; Monier-Williams 1899)[4]

(10) Ancient Greek: *ágamai* "I wonder, I feel envy", *aganaktéō* "I feel a violent irritation", *agapáō* "I am fond of", *adéō* "I am sated", *adēmonéō* "I am sorely troubled", *ázomai* "I stand in awe, in holy fear", *aidéomai* "I am ashamed", *aisthánomai* "I perceive, apprehend by the senses", *aíō* "I perceive by the hear", *akakhízō* "I trouble, I grieve", *akoúō* "I hear", *aiskhúnomai* "I am ashamed", *algéō* "I feel bodily pain", *alúō* "I am deeply stirred, excited", *háptomai* "I touch", *ákhnumai* "I suffer", *ákhthomai* "I am sorry", *bdelússomai* "I am disgusted", *blépō* "I see", *boúlomai* "I will", *geúomai* "I taste, enjoy the taste of", *deídō*/*dédia* "I fear", *dérkomai* "I see", *dipsáō* "I am thirsty", *éldomai* "I wish", *eleéō* "I pity", *elpízō* "I hope", *éramai* "I love", *eudaimonéō* "I am happy", *ekhthaírō* "I hate", *thaumázō*, *thambéō* "I wonder, I am astonished"; *kámnō* "I am weary", *lupéomai* "I am sorry", *mémphomai* "I am unsatisfied", *miséō* "I hate", *noéō* "I perceive, observe, think", *oiktírō* "I pity", *oíomai* "I think", *olophúromai* "I am sorry, I lament", *horáō* "I see", *osphraínomai* "I perceive by smell, I smell" (trans.), *peináō* "I am hungry", *hrigóō* "I am cold", *tingánō* "I touch", *philéō* "I love, regard with affection", *phobéomai*

[4] On the scarce productivity of oblique experiencers in Old Indian, cf. Hock (1990). It must be noted that the common use of dative subjects, also beyond the domain of experience predicates, is a later phenomenon in the history of Indo-Aryan, which is also typical of Dravidian and in general of India as a language area (Masica 1976: §6; 1991: 339ff).

"I fear", *khaírō* "I am happy", *khóomai* "I am angry", *psaúō* "I touch", etc. (cf. Liddle & Scott 1843)[5]

(11) Classical Armenian: *barkanam* "I am angry", *garšim* "I am disgusted, fed up", *gitem* "I know", *gt'am* "I have pity", *džowaranam* "I have trouble, I am angry, perplexed", *erazim* "I dream, fancy", *erknč'im* "I fear, I am frightened, I tremble", *zarmanam* "I wonder, I am astonished", *złǰanam* "I repent, regret", *xandam* "I envy", *xorhim* "I think, meditate, reflect, judge, imagine", *carawi em* "I am thirsty", *kamim* "I want, wish, intend", *karcem* "I mean, believe, presume, suspect", *lsem* "I hear, listen, understand", *hamberem* "I am sorry, I suffer, undergo", *hototim* "I smell, sniff", *čašakem* "I taste, experience", *maxam* "I am jealous", *moṙanam* "I forget, I am unmindful of", *msim* "I am cold", *yagenam* "I am sated", *yišatakem* "I remember, call to memory", *ołormim* "I am moved to compassion", *sartnowm* "I am shocked at, I become sick", *sirem* "I love, I like", *tesanem* "I see, perceive, observe, consider", *p'ap'agem* "I wish, desire, long for", *k'ałc'nowm* "I am hungry", etc. (cf. Bedrosian 1879)[6]

(12) Tocharian B: *āñm-ᵃñ̃ñ-* "wish, desire", *ārt(t)⁽ᵃ⁾-* "love", *ārtte tärkᵃ-* "neglect", *ālᵃ-sk-* "be sick", *aik-* "know, recognize", *kātk-* "rejoice, be glad", *kāwᵃ-* "desire, crave", *kän⁽ᵃ⁾-* "be fulfilled", *kärs⁽ᵃ⁾-* "know, understand", *epiyac kälᵃ-* "remember", *kläṅk-* "doubt", *klyaus-* "hear, listen", *kwipe-ñ̃ñ-*, "be ashamed", *täk-* "touch", *täṅkw-ᵃñ̃ñ-* "love, have compassion for", *trik⁽ᵃ⁾-* "go astray, be confused", *pälkᵃ-* "see, look", *pälskᵃ-* "think", *pärsk⁽ᵃ⁾-* "fear", *pārāk⁽ᵃ⁾-* "be glad, prosper", *pruk⁽ᵃ⁾-* "overlook, neglect, ignore" (CAUS), *plānt⁽ᵃ⁾-* "rejoice, be glad", *mān(t)s⁽ᵃ⁾-* "be sorry", *märs⁽ᵃ⁾-* "forget", *mrausk⁽ᵃ⁾-* "feel disgust, feel an aversion to the world", *yäk⁽ᵃ⁾-* "neglect, be careless about", *yärp-* "take care of", *yāṅk⁽ᵃ⁾-* "be deluded", *ykāṃṣ-ᵃñ̃ñ-* "be disgusted, feel revulsion", *lare-ñ̃ñ-* "love", *lāre yām-* "love", *läk⁽ᵃ⁾-* "see, look", *wärpᵃ-* "feel, suffer, enjoy", *wär⁽ᵃ⁾-/wärsk-* "smell", *winᵃ-ñ̃ñ-* "enjoy, find pleasure in", *wīna yām-* "find pleasure", *onmiṃ yām-* "repent", *aiśai yām-* "take care", *särk⁽ᵃ⁾-* "take care", *siyᵃ-* "sweat", *si-n-* "be depressed", *soy-* "be satisfied", *sklok-ᵃñ̃ñ-* "be despairing", *skw-ᵃñ̃ñ-* "be happy", *swār⁽ᵃ⁾-* "find pleasure in", etc. (cf. Krause & Thomas 1960; Pinault 2008; Malzahn 2010; Adams 2013)

As can be seen, experience predicates in these languages are often in the middle conjugation, as in Old Indian *juṣe* "I enjoy". Sometimes they have an active voice with a denominal formation, as in Old Indian *kṣudhyāmi* "I am hungry" from *kṣudh-* f. "hunger", or a related morphology, as in the case of the suffix *-ya-*, which in Vedic often expresses unaccusative predicates, that is, intransitive predicates with a non-agentive primary argument (cf. Dahl 2010: 109; Kulikov 2012). Sometimes they are full-fledged active verbs, as in Old Indian *śṛṇomi* "I hear". In any case, they consistently select a nominative primary argument: oblique experiencers are rare and dispreferred to nominative experiencers in these languages, where the problem of non-canonical subject marking is in fact less investigated. Accordingly, the use of verbal or nominal morphology to express the low transitivity of the clause is a syntactic iso-

[5] The typical use of nominative experiencers in Ancient Greek is not in contrast with constructions where the oblique primary argument of the clause is triggered by different syntactic and semantic factors which have nothing to do with experience predicates, such as a partitive reading of the NP or a negative polarity of the clause; on these Ancient Greek constructions see Conti (2008; 2009; 2010).

[6] In this case, too, my argumentation is not contradicted by oblique primary arguments in constructions other than experience predicates, as in the well known Classical Armenian periphrastic perfect with a genitive agent; see Benveniste's (1952) classical paper on this structure, and more recently Kölligan (2013).

gloss across the ancient IE languages, which separates the Northern and Western areas from the South and the East. I discussed this point in Viti (2015: §3.5; 2016a).

3. Coding low transitivity in Semitic

3.1. Productive canonical marking in Ancient Semitic experience predicates

The morphosyntactic pattern of the Southern and Eastern IE languages has striking correspondences in the geographically contiguous area of Ancient SEM, where the issue of non-canonical subject marking has not been explored in depth. SEM languages, which have reduced case inventories or no cases at all,[7] are quite poor in impersonal constructions, at least in their most ancient varieties. In Ancient SEM, the experiencer is regularly coded as the grammatical subject of the clause by means of the nominative case and verbal agreement, as we can see in the following examples drawn from Biblical Hebrew (13) and from Akkadian (14). It must be stressed that the use of non-canonical subject marking in some modern SEM languages such as Modern Hebrew (Ivrit) is a later development (cf. Glinert 1989: 160).

(13) Biblical Hebrew (cf. Gesenius' dictionary)

rāʾā	"see"	(NOM experiencer)
šāmaʿ	"hear"	(NOM experiencer)
yādaʿ	"know"	(NOM experiencer)
ḥāšaḇ	"think"	(NOM experiencer)
zāḵar	"remember"	(NOM experiencer)
šāḵaḥ	"forget"	(NOM experiencer)
ḥālam	"dream"	(NOM experiencer)
rāʿēḇ	"be hungry"	(NOM experiencer)
ṣāmēʾ	"be thirsty"	(NOM experiencer)
ḥālā	"become ill"	(NOM experiencer)
ʿāyēf, yāḡēaʿ	"be tired"	(NOM experiencer)
yārēʾ	"fear"	(NOM experiencer)
qāṭ	"be disgusted"	(NOM experiencer)
ḥāpēṣ	"like"	(NOM experiencer)

(14) Akkadian (cf. von Soden's dictionary)

êdum	"know"	(NOM experiencer)
šemûm	"hear"	(NOM experiencer)
puqqum	"to notice"	(NOM experiencer)
qâlum	"to take care"	(NOM experiencer)
šalāmum	"to be(come) healthy"	(NOM experiencer)

[7] Proto-SEM had only three morphological cases, that is, a nominative, a genitive and an accusative, expressed in the singular by the endings *-u*, *-i*, *-a*, respectively (while in the plural and in the dual the genitive and the accusative fall together). These three cases are well preserved in Classical Akkadian (which additionally has a locative in *-u* and a dative-adverbial in *-iš*), in Ugaritic (as well as in other North-West SEM varieties such as Amorite and the language of the Tell Amarna glosses) and in Classical Arabic. The other early SEM languages have reduced this inventory (Ethiopic, for example, only has nominative and accusative) or have lost cases altogether (as in Biblical Hebrew and Phoenician, as well as in modern Arabic dialects), cf. Moscati (1964: 84ff); Weninger (2010: 165ff); Goldenberg (2013: 130ff) and Hasselbach (2013).

šebûm	"to be(come) sated"	(NOM experiencer)
takālum	"to trust"	(NOM experiencer)
zêrum	"to hate"	(NOM experiencer)
padāqum	"be worried"	(NOM experiencer)
marāṣum	"be ill"	(NOM experiencer)
ḫadûm	"be happy"	(NOM experiencer)
adārum, palāḫum	"fear"	(NOM experiencer)

Sometimes the canonical type is so pronounced in SEM that experience predicates select not only a subject experiencer but also a direct object as a stimulus, with a resulting transitive construction that matches the typical expression of predicates denoting activities.

(15) Biblical Hebrew (North-West Semitic, Canaanite; Goldenberg 2013: 168)
wə-ḵi'ăsáttā *ṣārāṯ-āh* *gam* *ká'as*
and-anger:PRF.3SG.F rival-her also anger
"Her rival (co-wife) also angered her."

3.4. Verb-coded low transitivity in Ancient Semitic

In SEM languages, the low transitivity of the clause is rather expressed by the highly articulated verbal morphology through verbal derivation, both in different vowel patterns of the simple stem and in its derived conjugations by various affixes expressing changes in valency (cf. Brockelmann 1908: 504–544; Moscati 1964: 122–131; Lipiński 2001: 386ff; Dichy 2007). The simple or basic stem (called *qal* "light" in the Hebrew grammatical tradition) usually expresses an action with the vowel pattern *a-a-a* (Ar. *qatala* "he killed") and a state when an *i* or a *u* occupies the position of the second vowel. In particular, the pattern *a-i-a* expresses a transient state (Ar. *salima* "he is well"), while the pattern *a-u-a* expresses a permanent state (Ar. *ḥasuna* "he was beautiful", Heb. *qāṭon* "he was small"). This variation of the simple stem according to functions of action or state is well preserved in Arabic, where an apophonic passive with the vowel pattern *u-i-a* is also productive (e.g. *qutila* "he was killed") and is also attested in North-West SEM as well as in Akkadian.

In the domain of verbal derivation, at least five types of derivate formations are widely attested with similar functions across the different SEM languages and may therefore be also reconstructed for Proto-SEM. A valency-decreasing function, in particular, is associated to forms such as the stem with a lengthened first vowel, the stem with a prefix *n-* and the stem with a prefix *t-*. The stem with a lengthened first vowel, especially attested in Arabic and in Ethiopic, mainly has a reciprocal function, as in Ar. *qātala* "he fought" vs. *qatala* "he killed". The stem with a prefix *n-* mainly has a passive or reflexive meaning, e.g. Akk. *na-prusu* "to be separated" from the root *prs* "separate". Similarly, a passive, reflexive or reciprocal meaning is expressed by the stem with a *t-* affix, which may show metathesis with the first radical and therefore be infixed, as in Akk. *mitḫuru* "to meet" from *mḫr*. By contrast, a valency-increasing function is expressed both by a stem with a doubled second radical and by a stem with a prefix *š-*, *h-*, '. In particular, a stem with a doubled second radical iconically expresses a causative, factitive or intensive function, e.g. Akk. *ibluṭ* "he lived" vs. *uballiṭ* "he made to live", Ar. *qattala* "made kill", Heb. *qiṭṭel* "id." A causative meaning is also evident in the stem with the prefixes *š-*, *h-* and ' of which *š-* prevails in Akkadian and Ugaritic (cf. Ug. *lḥm* "eat" > *š-lḥm* "cause to eat, feed"), while *h-* is dominant in Hebrew and Old Aramaic and ' in New Aramaic and in Classical Arabic.

Although experience predicates are mainly expressed by valency-decreasing strategies such as the *a-i-a* and *a-u-a* patterns of the basic stem and the derived stems with lengthened first vowel, with a prefix *n-* and with a prefix *t-*, some experience predicates are also coded by valency-increasing strategies. We have, for example, experience predicates with a doubled second radical such as Ar. *ṣaddaqa* "consider true", Ar. (Tlemcen) *amman* "to trust", *eyyes* "to doubt", Ar. (Iraqi) *wenna* "comprehend". Brockelmann (1908) explains this pattern as a form of inner causative meaning: "*Seltener als beim eigentlichen Kausativ findet sich hier die sogenannte innerlich-kausative Bedeutung, bei der das Objekt nicht die von einem andern auszuübende Tätigkeit, sondern ein Zustand des Subjekts selbst ist*" (p. 509). In my opinion, however, these experience predicates have the same morphology as causative verbs because their meaning of estimation and propositional attitude entail a semantic component of awareness and control.

These basic patterns may be complemented with other stems in the different SEM languages, where different grammatical traditions have also developed their own terminology and root templates. This does not obscure the morphological and semantic correspondences among the different patterns, as in the Hebrew Binyanim:

Hebrew Binyanim		
Qal	basic stem	(Akk. G-Stamm)
Nif'al	decreasing transitivity	(Akk. N-Stamm)
Pi'el	increasing transitivity	(Akk. D-Stamm)
Pu'al	passive	
Hif'il	increasing transitivity	(Akk. Š-Stamm)
Hof'al	passive	
Hitpa'el	decreasing transitivity	
Hitpolel	decreasing transitivity	

Functions of decreasing transitivity, in particular, may be expressed in Hebrew by the constructions called Nif'al and Hitpa'el, which basically function as the middle voice in IE, as well as by Pu'al and Hof'al, which are basically passive.

4. Contrastive syntax: Biblical Hebrew and Ancient Greek vs. Gothic

Differences and similarities between IE and SEM argument structure can be identified in a contrastive syntax based on the translations of the Ancient and New Testament, which is a largely unexplored field. In analysing the translation of the Hebrew Bible in the Greek Septuaginta, I found that experience predicates expressed in Biblical Hebrew by means of the *qal* or of valency-decreasing types of *binyanim* find natural correspondences in Ancient Greek constructions with the middle conjugation or with denominal verbal derivation; in both languages, we therefore have a nominative experiencer in this case. By contrast, in examining how the same predicates are translated from the Greek Gospel into Gothic, I observed that Greek middle or denominal forms are often rendered by means of non-canonical marking. If we take the predicate of physical experience BE THIRSTY, for example, we can observe that the Ancient Greek denominal formation *dipsáō* (from *dípsa* f. "thirst"), cf. (17)–(18) is on the one hand the target structure of the Biblical Hebrew *ṣāmē'* (a *qal* stative verb), here in (16), and on the other the source structure of the Gothic *þaúrsjan*, an active verb which may govern an accusative experiencer, here in (19).

(16) BE THIRSTY in Biblical Hebrew
*wa-**yiṣmā'*** *šām* *hā-'ām* *lam-mayin*
and-be.thirsty:IPF.3PL there ART-people for.ART-water
"The people there were thirsty for water." (*Šimôt* 17.3)

(17) BE THIRSTY in the Greek translation of the Septuagint
edípsēsen *dè* *ekeî* *ho* *laòs* *húdati*
be.thirsty:AOR.IND.3SG PTC there ART people:NOMwater:DAT
"The people there thirsted for water." (*Exodus* 17.3)

(18) BE THIRSTY in New Testament Greek
eán ***tis*** ***dipsâi*** *erkhéstō* *prós* *me* *kaì* *pinétō*
if anyone:**NOM** be.thirsty:PRS.SUBJ.3SG go:PRS.IMP.3SG to me:ACC and drink:PRS.IMP.3SG
"If anyone is thirsty, let him come to me and drink." (*NT*, John 7.37)

(19) BE THIRSTY in the Gothic translation of the Gospel
jabai ***ƕana*** *paursjai,* *gaggai* *du* *mis*
if someone:ACC be.thirsty:PRS.OPT.3SG go:PRS.OPT.3SG to me:DAT
jah *driggkai*
and drink:PRS.OPT.3SG
"If anyone is thirsty, let him come to me and drink." (NT, John 7.37)

A similar situation may be observed with predicates of psychological experience. The predicate BE ASHAMED, for example, is expressed in Ancient Greek by the middle form *aiskhúnomai* (21)–(22) and in Biblical Hebrew by the valency-decreasing binyanim Hitpolel *ʾeṯbošeš* (20). In Gothic, instead, we have *skama*, an active verb selecting an accusative reflexive pronoun (23), cf. also Latin *me pudet* (active with ACC experiencer).

(20) BE ASHAMED in Biblical Hebrew
wa-yihyû *šənêhem* *'ărummim* *hā'ādām* *wə-'ištô* *wə-lo* ***yiṯbošāšû***
and-were both nude:PL ART-Adam and-wife.his and-NEG be.ashamed:PRS.3PL
"And the two were naked, both Adam and his wife, and were not ashamed." (*Bəre'šît* 2.25)

(21) BE ASHAMED in the Greek translation of the Septuagint
kaì *êsan* *hoi* *dúo* *gumnoí,* *hó* *te* *Adam*
and be:IPF.3PL ART:NOM.M. two naked:NOM.M.PL ART:NOM.M.SG PTC Adam
kaì *hē* *gunè̀* *autoû,* *kaì* *ouk* ***ēiskhúnonto***
and ART:NOM.F.SG woman:NOM.SG his and NEG be.ashamed:IPF.3PL
"And the two were naked, both Adam and his wife, and were not ashamed." (Genesis 2.25)

(22) BE ASHAMED in New Testament Greek
epaiteîn ***aiskhúnomai***
beg:INF be.ashamed:PRS.IND.1SG
"I am ashamed to beg." (*NT*, Luke 16.3)

(23) BE ASHAMED in the Gothic translation of the Gospel
bidjan ***skama*** ***mik***
ask:INF shame:PRS.IND.1SG me:ACC
"I am ashamed to beg." (*NT*, Luke 16.3)

5. Conclusions

We may conclude that the nominal strategies of non-canonical subject marking and the verbal strategies of the middle inflection often *compete* in IE to express situations of low transitivity with experience predicates. From an areal perspective, I have identified a Western and Northern "dative case area" and an Eastern and Southern "middle verb area", on the basis of the constructions that are more productively used with this type of predicates. It must be emphasized that my observations are meant to be tendencies, which of course does not exclude occasional overlaps, and that the middle is not the only device expressing low transitivity; denominal verbs are also often employed with this function.

I suggest that both inherited morphosyntactic patterns of oblique cases and middle inflection are differently *reinforced* — not created — by the contact with different language families. On the one hand, the Northern and Western IE branches of Baltic and Slavic match with Finno-Ugric in their use of oblique cases to encode the primary argument in situations of low transitivity, at the expense of their old middle conjugation. The same situation is found in further Northern branches such as Germanic and Celtic. In Finno-Ugric, the use of verbal voice is also quite unproductive. On the other hand, Southern and Eastern IE languages, such as Ancient Greek, Hittite and Indo-Iranian, match with Ancient Semitic in their typical use of nominative experiencers accompanied by verbal morphology with a detransitivizing function. A similar situation is found in further Eastern branches such as Tocharian.

Diachronically, a convergence in grammatical change also appears. In Southern IE languages, the dative decays: it is already lost in Persian from its earliest documentation and is merged with the locative in Hittite; it disappears in the history of Greek as well as in Middle Indian; in the East, Tocharian also lost the PIE dative. In Semitic, the dative is absent to begin with. All this shows how competing constructions, which may be more or less productive in different languages, may also be subject to *adstrate* influences, and how syntactic isoglosses may cut across different language families.[8]

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[8] In order to avoid misunderstandings, it is important to stress that shared patterns between IE and SEM are here *not* considered to be inherited from a putative overarching language family. I personally do not believe in Nostratic theories or in similar macro-families. In any case this issue is immaterial to the present paper.

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Карлотта Вити. Древние языковые контакты между индоевропейскими и семитскими языками в области аргументной структуры и устройства клаузы

В статье обсуждаются некоторые аспекты функциональной конкуренции между именной и глагольной морфологией применительно к выражению низкой переходности в разных индоевропейских языках (с учетом данных по языковым семьям соседних ареалов). В западных и северных индоевропейских ветвях (кельтские, германские, балтийские, славянские языки) экспериенциальные предикаты часто согласуются с косвенными экспериенцерами, что также свойственно финно-угорским языкам. В этих группах унаследованные формы медиального залога обычно выходят из употребления; на их месте оказываются новые структуры, образованные на базе возвратного местоимения. Напротив, в южных и восточных ветвях (анатолийские, ранние индоиранские, тохарские языки) медиум остается продуктивной и, как правило, главной стратегией кодирования экспериенциальных предикатов; в этих языках косвенные экспериенцеры встречаются гораздо реже, чем в северных и западных. Южные и восточные индоевропейские языки обнаруживают разительные корреляции с семитской семьей, древнейшие языки которой также не поощряют ни косвенных экспериенцеров, ни безличные конструкции. В древних семитских языках экспериенцер обычно оказывается субъектом клаузы, а низкая переходность выражается сложными средствами глагольной морфологии. Мы считаем, что выбор для обозначения низкой переходности глагольных суффиксов или косвенных падежей (обе стратегии унаследованы от праиндоевропейского состояния) в разных ареалах распространения индоевропейских языков во многом зависит от контактов с другими языковыми семьями, в зависимости от того, насколько та или иная стратегия в них продуктивна.

Ключевые слова: экспериенциальные предикаты, необычное маркирование субъекта, медиальный залог, индоевропейские языки, семитские языки, глагольные породы