

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 Eythórssón 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 Bosson'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)

miġ íðrar 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 hyvää-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 préterit, 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 *se* 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. <i>-ha(ri)</i>	<i>-mār</i>	<i>-e</i>	<i>-mai</i>	<i>-r</i>	<i>-ur</i>	<i>-da</i>
2. <i>-ta(ri)</i>	<i>-tār</i>	<i>-se</i>	<i>-oi</i>	<i>-ris</i>	<i>-ther</i>	<i>-za</i>
3. <i>-(t)a(ri)</i>	<i>-tār</i>	<i>-te</i>	<i>-toi</i>	<i>-tur</i>	<i>-thir</i>	<i>-da</i>
4. <i>-wasta</i>	<i>-mtār</i>	<i>-mahe</i>	<i>-metha</i>	<i>-mur</i>	<i>-mir</i>	<i>-nda</i>
5. <i>-tuma</i>	<i>-cār</i>	<i>-dhve</i>	<i>-sthe</i>	<i>-mini</i>	<i>-the</i>	<i>-nda</i>
6. <i>-anta(ri)</i>	<i>-ntār</i>	<i>-nte</i>	<i>-ntoi</i>	<i>-ntur</i>	<i>-tir</i>	<i>-nda</i>
Secondary endings						
1. <i>-hat</i>	<i>-e</i>	<i>-i</i>	<i>-mān</i>	<i>-r</i>	<i>-ur</i>	<i>-da</i>
2. <i>-tat</i>	<i>-te</i>	<i>-thās</i>	<i>-o</i>	<i>-ris</i>	<i>-ther</i>	<i>-za</i>
3. <i>-at</i>	<i>-t</i>	<i>-ta</i>	<i>-to</i>	<i>-tur</i>	<i>-thir</i>	<i>-da</i>
4. <i>-wastat</i>	<i>-māt</i>	<i>-mahi</i>	<i>-metha</i>	<i>-mur</i>	<i>-mir</i>	<i>-nda</i>
5. <i>-tuma</i>	<i>-c</i>	<i>-dhvam</i>	<i>-sthe</i>	<i>-mini</i>	<i>-the</i>	<i>-nda</i>
6. <i>-antat</i>	<i>-nt</i>	<i>-nta</i>	<i>-onto</i>	<i>-ntur</i>	<i>-tir</i>	<i>-nda</i>

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”, *laḥlahḥiya-* “be excited”, *lalaniya-* “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-/arḥa 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”, *maḥananda 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”, *ikṣe* “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”, *trṇomi* “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”, *vṛiḍe* “I am ashamed”, *vṛṇe* “I choose”, *venāmi* “I long”, *lajje* “I am ashamed”, *ā-śamse* “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”, *sprśāmi* “I touch”, *sprhayāmi* “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”, *ekththairō* “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”, *hriḡōō* “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”, *khōomai* “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”, *złjanam* “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”, *moranam* “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'atc'nowm* “I am hungry”, etc. (cf. Bedrosian 1879)⁶

(12) Tocharian B: *āñm-āññ-* “wish, desire”, *ārt(t)^(ā)-* “love”, *ārtte tärk^ā-* “neglect”, *āl^ā-sk-* “be sick”, *aik-* “know, recognize”, *kātk-* “rejoice, be glad”, *kāw^ā-* “desire, crave”, *kān^(ā)-* “be fulfilled”, *kārs^(ā)-* “know, understand”, *epiyac käl^ā-* “remember”, *klānk-* “doubt”, *klyaus-* “hear, listen”, *kwipe-ññ-* “be ashamed”, *täk-* “touch”, *tānikw-āññ-* “love, have compassion for”, *trik^(ā)-* “go astray, be confused”, *pälk^ā-* “see, look”, *pälsk^ā-* “think”, *pārsk^(ā)-* “fear”, *pārāk^(ā)-* “be glad, prosper”, *pruk^(ā)-* “overlook, neglect, ignore” (CAUS), *plānt^(ā)-* “rejoice, be glad”, *mān(t)s^(ā)-* “be sorry”, *mārs^(ā)-* “forget”, *mrausk^(ā)-* “feel disgust, feel an aversion to the world”, *yäk^(ā)-* “neglect, be careless about”, *yärp-* “take care of”, *yānk^(ā)-* “be deluded”, *ykāñš-āññ-* “be disgusted, feel revulsion”, *lare-ññ-* “love”, *lāre yām-* “love”, *lāk^(ā)-* “see, look”, *wärp^ā-* “feel, suffer, enjoy”, *wār^(ā)-/wārsk-* “smell”, *win^ā-ññ-* “enjoy, find pleasure in”, *wīna yām-* “find pleasure”, *onmiñ yām-* “repent”, *aišai yām-* “take care”, *särk^(ā)-* “take care”, *siy^ā-* “sweat”, *si-n-* “be depressed”, *soy-* “be satisfied”, *sklok-āññ-* “be despairing”, *skw-āññ-* “be happy”, *swār^(ā)-* “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)

<i>rā'ā</i>	“see”	(NOM experiencer)
<i>šāma'</i>	“hear”	(NOM experiencer)
<i>yāda'</i>	“know”	(NOM experiencer)
<i>ḥāšab</i>	“think”	(NOM experiencer)
<i>zākar</i>	“remember”	(NOM experiencer)
<i>šākaḥ</i>	“forget”	(NOM experiencer)
<i>ḥālam</i>	“dream”	(NOM experiencer)
<i>rā'ēb</i>	“be hungry”	(NOM experiencer)
<i>šāmē</i>	“be thirsty”	(NOM experiencer)
<i>ḥālā</i>	“become ill”	(NOM experiencer)
<i>āyēf, yāgēa'</i>	“be tired”	(NOM experiencer)
<i>yāre'</i>	“fear”	(NOM experiencer)
<i>qāṭ</i>	“be disgusted”	(NOM experiencer)
<i>ḥāpēš</i>	“like”	(NOM experiencer)

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

<i>ēdum</i>	“know”	(NOM experiencer)
<i>šemûm</i>	“hear”	(NOM experiencer)
<i>puqqum</i>	“to notice”	(NOM experiencer)
<i>qâlum</i>	“to take care”	(NOM experiencer)
<i>šalāmum</i>	“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).

<i>šebûm</i>	“to be(come) sated”	(NOM experiencer)
<i>takālum</i>	“to trust”	(NOM experiencer)
<i>zêrum</i>	“to hate”	(NOM experiencer)
<i>padāqum</i>	“be worried”	(NOM experiencer)
<i>marāšum</i>	“be ill”	(NOM experiencer)
<i>hadûm</i>	“be happy”	(NOM experiencer)
<i>adārum, palāhum</i>	“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-ki’āsāttā *šārāt-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. *hasuna* “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 infixal, as in Akk. *mithuru* “to meet” from *mhr*. 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. *qitṭel* “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 *šāmē'* (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 dípsâi erkhéstō prós me kai 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 huana 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 *ʿetbošēš* (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 šanêhem ʾarummim hāʾādām wə-ʾištô wə-lo yiṭbošāšû
 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." (*Bəreʾšit* 2.25)

(21) BE ASHAMED in the Greek translation of the Septuagint

kai 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
kai hē gunē autoû, kai 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

epaitēn 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