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THE SEMANTICS OF THE VILAMOVICEAN VERBAL SYSTEM (PART 2: EXPLANATION AND MODELING)

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Abstract

The present study – divided into two papers – provides an analysis of the semantics of the Vilamovicean verbal system within a cognitive and grammaticalization framework. On the one hand, the author offers a detailed description of the entire semantic potential of all the verbal constructions available in the language and, on the other, provides an explanation for the senses conveyed by each one of these forms – more specifically, it is demonstrated that the semantic sphere of every gram can be explained and, hence, unified by making use of typologically common evolutionary scenarios, viz. paths. Consequently, the author shows that the entire Vilamovicean verbal system can be modeled as a recursive process of grammaticalization “waves” whereby older and newer forms evolve along a set of identical paths. This paper constitutes the second part of the series. It provides an explanation of the semantic potentials offered by the Vilamovicean verbal formations and designs a cognitive-grammaticalization model of the entire verbal system of this language.

1. The point where we left our discussion

In the first – previously published – article of the series of two, we provided a meticulous taxonomy of all the contextually induced senses (related to the domains of taxis, aspect, tense and mood) which are conveyed by the fifteen verbal grams in the Vilamovicean language. This detailed empirical study enabled us to determine the precise range of the semantic potential (polysemies) of these constructions.

Complying with the cognitive understanding of the meaning, the further analysis of the Vilamovicean verbal system will consist of the following. In compliance with the relatedness principle, in the present article, we will offer a unification of the components of each polysemy, demonstrating that the semantic sphere of every gram can be explained by making use of certain evolutionary paths. Put differently, the senses of each construction will be related and the gram viewed as a homogenous whole by using universal clines as linking templates. In order to validate all the linkages – which otherwise constitutes hypotheses derived from a synchronic variety of uses – every map will be grounded in diachronic facts. Namely, we will show that the input expression that underlines the form and thus the entire cline is cognitively compatible with the path and with all the senses arisen along it: simply, it motivates the polysemy by following the meaning extensions predicted for the trajectory in question.¹ As a result, we will demonstrate that the entire Vilamovicean verbal system may be explained as a recursive process of creation of grams which evolve along determined paths. Thus, the clines not only will enable us to portray the semantic potential of the verbal formations but also to model the whole verbal organization as “grammatical waves” moving along a few evolutionary trajectories.

2. Explaining the polysemies

Having presented the semantic potential of the Vilamovicean verbal grams, we may now proceed to explain each one of these polysemies, depicting them as portions of determined evolutionary paths. Given the nature of the polysemous compositions described in the first article, it is possible to group the meaning of all the constructions in four classes: grams which follow an imperfective path (2.1), an anterior path (2.2), a future path (2.3)² and a modal path (2.4).

2.1. Imperfective path layers

The inventories of senses conveyed by the Praesens and Progressivum can be grasped in their totality and explained as manifestations of the imperfective cline.

¹ As explained previously, mappings which are based on a synchronic inventory of senses and on typologically “universal” paths are nothing more than plausible hypotheses. In order to be corroborated, these hypotheses must be confirmed by concrete diachronic proofs. The best and most relevant of them is the identification of a lexical input that could motivate the entire path and, thus, all the senses which are available along it. Depending on the age of a given form (i.e. the time where it was constructed), this input may be recent (for instance, West-Germanic), older (Proto-Germanic) or very remote (Proto-Indo-European). Put differently, the question of how far back we must go in order to identify the input locution directly depends on how old a given Vilamovicean form is. Due to the “age” of some constructions, in our diachronic “verification”, it will sometimes be necessary to step back to very remote times.

² As explained, future paths are closely related to modal paths. More specifically, various future grams originate in expressions of agentive modality. In this manner, the four genuine modal clines lead not only to the formation of grammatical moods but also to the creation of future tenses.

Put differently, it is possible to match these constructions with determined portions of the imperfective path.

As explained in section 3.1 in the first article of the series, the Praesens expresses all types of present actions and states: progressive-continuous, iterative-habitual, durative and gnomic. By doing so, it covers the entire imperfective path: it spans from the stage of a progressive till the phase of gnomicity. Furthermore, given that it also conveys nuances of ability or dispositionality, most probably arisen from habitual and gnomic senses offered by the gram, it testifies a typical case of a modal extension of habituais (cf. the modal ability path from habitual inputs). Furthermore, due to the fact that Indo-European presents are typically admissible within a future time frame, the imperfective path of the Vilamovicean Praesens is not restricted to the present temporal sphere but has also occurred with a future temporal reference. Yet again, the gram extends over the entire cline that, in the future time frame, additionally includes a stage of perfectivity. In this manner, the construction expresses all types of future events and activities: both imperfective (progressive-continuous, iterative-habitual and durative) and perfective (punctual and unique). Furthermore, certain “subjunctive” functions in final, purposive and optative subordinate clauses correspond to a modal contamination and expansion of an originally indicative present to modal contexts. Additionally, since the rule of *consecutio temporum* is not observed in the Vilamovicean language, the formation is employed as a relative present after introductory verbs with a past tense meaning.

The identification of the Vilamovicean Praesens gram with the imperfective path coincides with a similar mapping posited for the English Present (Bybee 2010: 183–187, 190) and for cognate formations in other Indo-European languages (Dahl 2000a). All such presents derive from the Proto-Indo-European (PIE) Present gram, the morphology of which – already fully synthetic in Proto-Indo-European – have various roots, such as reduplication, affixes (for example, **n(V)* or nominal derivation with **-je-*, **-jo-* developed into **(i)ja* in Proto-Germanic), a stative morpheme **eh₁* and other modifications of the stem etc. (Von Kielne 1969: 238–240, 260–261, 265–268; see also Hirt 1921, 1932; Meillet 1964; Shields 1992: 23–83; Beekes 1995; Tichy 1998; Szemerényi 1999). Although some of the semantic (lexical) properties of the original inputs are still discussible (because they are too remote historically), others due to their cross-linguistic typicality are fully compatible with the imperfective cline. This especially holds for the PIE reduplication and nominal (both Proto-Indo-European and Germanic) derivations (on a possible lexical origin of the PIE present and their cognitive sources typical for grams of the imperfective path, see Shields 1992: 23–83). The semantic potential of the Praesens is best understood as a manifestation of the imperfective cline located in the present and future time frame, from which the modal ability cline emerged (the transposition of the cline into the past time frame in depending contexts is a later phenomenon probably caused by the Polish influence). Similarly typologically emblematic are modal (syntactically dependent) uses of such an imperfective-path formation since they reflect a common modalization of diachronically advanced presents. In consequence, the synchronic state of the gram may geometrically be portrayed in the following manner:

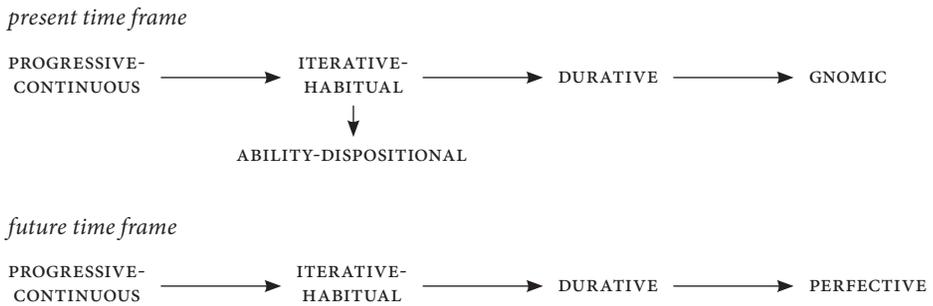


Figure 1. Dynamic space of the Praesens³

The Progressivum is another gram that evolves along the imperfective path and, hence, whose semantic potential can be grasped in its totality by means of this developmental template. However, in contrast to the Praesens, it is a young gram which only covers initial stages of the cline: with the auxiliary in the Praesens, it expresses present (and, less frequently, future) progressive actions and continuous situations (see Figure 2, below), while with the auxiliary in the Praeteritum, it provides analogical progressive and continuous uses, albeit limited to a past time frame.

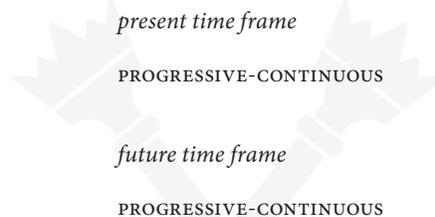


Figure 2. The dynamic space of the Progressivum with the auxiliary in the Praesens

2.2. Anterior path layers

The semantic potential of another group of grams (Praeteritum, Perfectum and Resultativa) can be mapped by means of the anterior path. As indicated in section 3.2 in the first article of the series, the Praeteritum typically expresses past events, either recent (immediate, hodiernal and hesternal) or general and remote. In its past tense function, the construction introduces both perfective (entire, unique or punctual) events and imperfective (progressive-continuous, iterative-habitual and durative) activities. Furthermore, the Praeteritum provides various typical perfect uses: it is frequently employed with the force of an experiential perfect and anti-perfect, and less commonly (although not infrequently) as a resultative perfect. On the other hand,

³ The arrows represent conceptual and historical extensions. In this figure, we have omitted the values that have been acquired due to the process of modal contamination. It should be noted that both present and future senses of the Praesens could – at different stages of the evolution – have prompted the use of the formation in modal contexts.

the value of an inclusive perfect fails to be conveyed by the Praeteritum. Due to the lack of the consecutio temporum rule, the gram is also used as a pluperfect. As a result, the semantic space of the formation spans various regions of the anterior path: from the resultative perfect stage to the phase of an imperfective past which enables us to group the past tense (perfective and imperfective) uses under the label of a simple past. It is important to note that the most prototypical values cover the section of the cline from the experiential perfect to the end of the trajectory. It is thus an advanced anterior-path gram which has preserved its more original dynamic perfect senses with a noticeable exception of the inclusive perfect value.

Both the formal origin of the gram and the understanding of old synthetic past tenses in other PIE languages (i.e. formations that are, to a degree, genetically related to the strong Germanic Preterite, see for instance, the Perfectum in Latin and its successors in Romance Languages; cf. Maslov 1988; Dahl 2000a) are fully compatible with the posited cline.⁴

According to the most accepted hypothesis, the Common Germanic strong Preterite derives from the PIE Perfect (cf. Bammesberger 1986; Krahe 1994: 223; Hewson, Bubenik 1997: 218; Tichy 1998). More specifically, the bases of the *ablauting* pattern, as well as the singular endings and the reduplication (in cases where it survived) are clear vestiges of the PIE Perfect, itself being originally a resultative proper category, as documented by Homeric Greek (Perel'muter 1988; Tichy 1998; Szemerényi 1999).⁵ However, still in the case of strong verbs, the plural forms and the plural ending might likewise have come from the athematic root Aorist, a type of a perfective past tense.⁶ Thus, instead of being derived only from the PIE Perfect, the Common Germanic Preterite could in fact be a descendant both of the Perfect and Aorist.⁷ While the strong Preterite derives from PIE formations, the weak (i.e. dental) Preterite is a Proto-Germanic innovation. Of course, this innovation itself has its roots in certain PIE forms. The dental suffix is based on the verb **dō-* from the PIE *d^heh₁-* (cf. Grimm 1819; Scherer 1868; Kluge 1879; Loewe 1894; Von Friesen 1925; Sverdrup 1929; Krahe 1969; Tops 1974; Lühr 1984; Bammesberger 1986). From a formal

⁴ Maslov (1988) directly classifies the Preterite in Germanic languages (as well as its cognates in other tongues) as a first resultative round in the Indo-European family. The second round corresponds to the creation and expansion of the periphrastic possessive HAVE or predicative BE resultatives/perfects.

⁵ The resultative origin of the PIE perfect may be seen in the verb Greek *οἶδα* (see also Pokorny 1959: 1125; Meid 1971: 19; Szemerényi 1980: 272) and other Preterite-Present verbs. Even if they stand formally in the Preterite, they display exclusively present stative meanings (Rix 1976: 240). The original Proto-Indo-European meaning of the perfect **uoidh₂e* was 'I have seen' (cf. Latin *videre*), and thus corresponds to the present stative subjective resultative (Meid 1971: 19; Birkmann 1987: 67) are examples of the simultaneous path of resultative proper constructions (on the simultaneous path, see Andrason [forthcoming]).

⁶ The importance of the Aorist in the formation of the Common Germanic Preterite was already emphasized by Prokosch (1939). The plural endings of the strong Preterite are most probably descendants of the PIE secondary endings that characterized the PIE Aorist (*me/mo/mē, te/tē, and ŋt*; Tichy 1998: 78).

⁷ The loss of the reduplication in the immense majority of verbs might have stimulated the formal merger with the athematic root Aorist.

point of view, the singular forms of the weak Preterite are reflexes of the PIE Aorist of this root, i.e. $*-dē-$ < $*d^heh_1-$. However, if the Gothic forms are original, the plural forms derive from the PIE reduplicated Imperfect $*-dēōdō-$ / $*-dēōd-$ < $*d^he-d^hoh_1-$ / $*d^he-d^hh_1-$ (cf. the PIE Present $*d^hé-d^hoh_1-mi$, $*d^he-d^hh_1-més$; Lühr 1984; Bammesberger 1986: 86).⁸ On the whole, the Common Germanic Preterite is an amalgam of inherited or innovative forms that have their roots in the PIE Perfect and Aorist, as well as Imperfect. The progression on the anterior cline accomplished by the PIE Perfect and Aorist led to the formal and semantic merger of the two grams into a new Germanic category which – in accordance with a further advancement on the cline – also incorporated certain forms and values of the Imperfect when this category was lost.

It should be noted that given a profound advancement of the Vilamovicean Praeteritum on the anterior path, it is not surprising that the gram has abandoned the sections of the cline responsible for the resultative proper and inclusive perfect stages (which constitute the most original steps of the trajectory).⁹ As a result, the entire semantic potential of the Praeteritum may be depicted in the following manner:



Figure 3: Dynamic space of the Praeteritum

⁸ Contrary to the above presented view, Lühr (1984: 49) affirms that the entire paradigm of the weak Preterite has its roots in the PIE imperfect (or injunctive) and the lack of the reduplication may be explained by the phenomenon of haplogy. Consequently, Lühr (1984: 49) posits the following evolution: pre-Proto-Germanic $*solpā d^héd^hōm$ > Proto-Germanic $*salbōdōm$. The vowel $*ē$ in the 2nd and 3rd person singular is an analogical development (cf. the imperfect of the thematic verbs in *-es* and *-et*). Thus, the PIE imperfect $*solpāiēs$ coexisted with the dialectal Germanic innovation $*solpā d^héd^hoh_1$. Due to the analogy with the imperfect *-ēs* the $*o$ acquired the quality e : $*solpā d^héd^hoh_1$ → $*solpā d^héd^hēs$, and then gave regularly in Germanic $*salbōdēz$. One should also notice that there are theories which openly reject the periphrastic origin of the weak Preterite. According to their proponents like Collitz (1912), Jasanoff (1978) and Hollfield (1980) the weak Preterite had its sources in the 3rd person singular of the pre-Proto-Germanic middle perfect in $*-ōi-$. Additionally, according to the Behaghel-Wackernagel theory (Tops 1974: 44, 66–68), the Preterite morpheme t has its origin in the 2nd person singular of the PIE Aorist middle *-th₂ēs* (see also Streitberg 1896; Streitberg 1915; Sievers 1924; Sehr 1944) However, these hypotheses remain controversial and are not widely accepted. Finally, it is important to notice that not all the forms of the weak Preterite are originally innovative periphrases with the verb $*dō-$. For instance, the Proto-Nordic type *worhtō* or Gothic *waurkta* were constructed directly from the participial stem in *-to-*: PIE $*ur̥g-to-$ > Proto-Germanic $*wurhta-$ (cf. the Latin suffix *-tu-s* as in *cenātus*). Subsequently, due to the analogy with the regular class $*walidōn$ (Preterite) – $*walidā-$ (Past Participle), the participle begun being conjugated as if it were a regular verb.

⁹ Thus, the fact that the Praeteritum fails to express the sense of an inclusive perfect does not necessarily mean it to be a Polish influence but may also correspond to a regular typological phenomenon whereby highly advanced anterior-path grams gradually lose their more original values.

The Perfectum is another gram whose semantic potential may be mapped and chained by means of the anterior cline. As a typical present perfect, it has a strong value of current relevance and most commonly expresses the sense of a resultative perfect. Less commonly, but, by no means infrequently, the gram provides values that correspond to more advanced stages of the cline, i.e. the senses of an experiential and indefinite perfect and the value of a definite past (recent, general or remote). As a definite past, it typically introduces perfective events, although it may infrequently be employed with a durative or habitual force. Less common, but still well documented, are values which match the very initial phases of the anterior trajectory: existential possessive resultative proper and inclusive perfect. The Perfectum may likewise be used in a future time frame. In such cases, the Perfectum expresses the senses of a resultative future, future perfect or immediate future – this fact reflects a typical development of anterior-path grams within a future temporal sphere (cf. the future perfect path in section 2.3.2 in the first article of the series). Additionally, since the rule of *consecutio temporum* fails to be respected, the gram is very commonly used as a pluperfect after introductory verbs employed with definite past senses. Finally, because of a modal contamination, the dominant semantic portion of the gram that covers the present perfect stages on the cline justifies its use as a perfect subjunctive in optative, final or purpose clauses. In conformity with this evolutionary scenario, present perfect or present resultative grams, when modalized, typically deliver real factual moods, such as present subjunctive and future subjunctive.

The Vilamovicean Perfectum, as its homologues in other Germanic languages (except Gothic that lacks this category), is a prototypical HAVE/BE perfect built on resultative participles and possessive (*hon* ‘have’) or predicative (*zājn* ‘be’) verbs (cf. Hewson, Bubenik 1997; Drinka 2003: 114–105, 116).¹⁰ Thus, it is an exemplary perfect formation that originated in resultative proper sources (either possessive or predicative) and that, in some Germanic languages, has greatly progressed along the path, acquiring senses corresponding to more advanced stages of this trajectory (Maslov 1988: 72–73, 76; Nedjalkov 1988: 411; Hewson, Bubenik 1997; Heine, Kuteva 2006).

The original resultative sense clearly stems from the value offered by the participle that already in Proto-Germanic indicated a resulting state of an underlying transitive object or intransitive subject. These Proto-Germanic resultative participles (in modern daughter languages, typically, classified as past participles) are, in turn, successors of the PIE **-no-* and **-to-* verbal adjectives (Benveniste 1948: 167–168; Bammesberger 1986: 161; Szemerényi 1999: 323; Drinka 2003: 107).¹¹ The initial – and still

¹⁰ The Germanic HAVE/BE Perfect is a typological homologue of the Romance Perfect such as *he hecho* in Spanish or *j'ai fait* and *je suis allé* in French (cf. Dahl 2000a; Squartini, Bertinetto 2000: 403–439).

¹¹ The **no* (> **na*) participles in Germanic are reflexes of the PIE **e/o-no* forms. This means that the element **-no-* was linked to the root by means of a vowel **o* or **e*. Accordingly, PIE **-o-no-s* gave Proto-Germanic **anaz* and PIE **-e-no-s* evolved into **-inaz*. On the other hand, the **-to-* could be added to the verb either directly or by using a linking vowel PIE **e/i*

accessible – present temporal value of the construction derives from the auxiliary verb. More specifically, the Praesens of *hon* ‘have’ originated in the innovative perfect $*kh_2péh_1-$ ‘I have seized > I have’ of the PIE root $*keh_2p-$ ‘to seize’. The Praesens of the verb *zājn* is clearly a descent of the PIE Present of the ancient root $*h_1es-$ ‘be’ and (in case of forms with *b-*) of the form $*b^huh_2-ǵe/o-$ (from the root $*b^h_1ueh_2-$), which, before the Proto-Germanic time, developed into $*b^h_1ǵe/o-$ (Von Kienle 1969: 307–308; Lühr 1984; Rix et al. 2001: 98, 214).

The semantic potential of the Vilamovicean Perfectum may graphically be represented in the following manner:

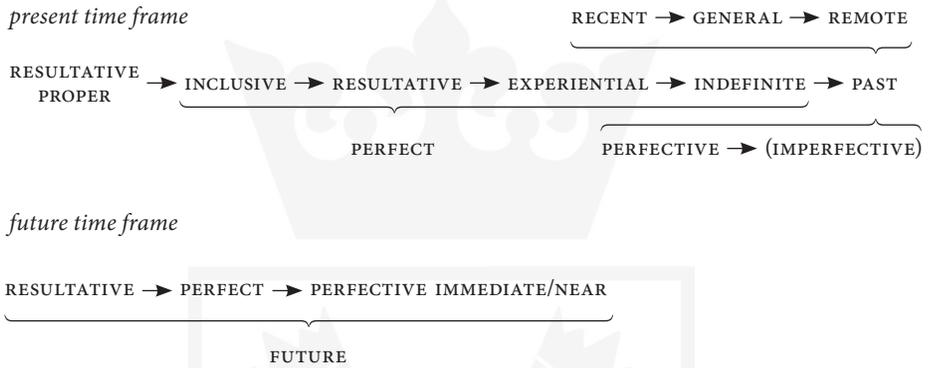


Figure 4. Dynamic space of the Perfectum¹²

The Plusquamperfectum is a “sister”-construction of the Perfectum. It clearly shares its origin with the Perfectum with the distinction that this time it is the Praeteritum form of the two possible auxiliaries that is employed in the initially resultative periphrasis. It is thus an exemplary anterior-path gram whose introductory verbs “placed” the original locutions – and, hence, its semantic potential portrayed as a path – in an explicit past temporal sphere. In accordance with this subtype of the anterior path, the gram provides the sense of past resultativity or past anteriority, being also able to express non-perfectal remote past events.

(> Proto-Germanic $*i$) or $*ā$ (> Proto-Germanic $*o$) as in Gothic *hafts* (< Proto-Germanic $*hafta-$ < PIE $*kap-to-$), English *cost* (< Proto-Germanic $*kusta-$ < PIE $*g'us-to-$). It should be noted that the suffix $*-na-$ was generalized with strong verbs (cf. Gothic *budans*, Old Saxon *gi-bodan*, Runic *bodinaR*, and Old Icelandic *boðinn*) while the suffix $*-ða-$ (from $*-to-$) was used with weak verbs (see Gothic *domida*, Runic *dōmidaR* and Old Icelandic *dæmðr*). On the origin of the participle, see Bammesberger (1986: 101–103).

¹² For the sake of clarity and simplicity, the senses, which are acquired due to the modal contamination and non-observance of the *consecutio temporum* rule, are not included in this chart. In our model, we take the resultative (PIE Perfect) or perfective past (PIE Aorist) as conceptual centres of the map. The space related to the imperfective value is thus understood as an advanced stage of the anterior path. This advancement, in turn, explains the merge with and reuse of forms that derive from the PIE Imperfect. Thus, in the formation of the Germanic Preterite various processes took place: (i) the PIE Perfect advanced on the path and merged with the Aorist; (ii) the PIE Imperfect was lost as a category, (iii) the Perfect-Aorist “hybrid” further progressed on the cline and absorbed the senses previously carried by the Imperfect.

2.3. Future path layers

The semantic potential of two Vilamovicean verbal grams (Futurum I and Futurum II) may be chained and mapped by means of a future path originated in modal expressions.

As indicated in the first paper of the series, the Futurum I expresses all types of future activities. It functions as an imperfective (progressive, continuous, iterative, habitual and durative) and perfective future, being also used as a future perfect. Furthermore, in conditional protases, it provides a value of real factual modality. Moreover, the gram conveys other typically modal nuances: it expresses the idea of certainty (epistemic necessity), imperative necessity (when directed to the 2nd person), and, as a type of subjunctive, appears in subordinated optative, final or purpose clauses. In the 1st person singular, it may also carry a sense of intention. Finally, due to the lack of the *consecutio temporum* rule, this construction may be employed as a future in the past, giving rise to modal nuances of possibility and probability.

From this review of the components of the semantic space covered by the Futurum I, it is evident that one is dealing with a future path which crosses and connects the domains of futurity and modality (i.e. with a future cline that derives from an agentive modal expression). The Vilamovicean gram – as its German cognate – is historically based upon the verb *wada*, a successor of the Proto-Germanic predicate **werþanan* ‘become, happen / will be (and also possibly, have to)’. Unfortunately, the developmental trajectory of the *werden* construction in German has been quite controversial (Dahl 2000b: 322; Hilpert 2008: 132) although two main hypotheses prevail. According to the most accepted position, the German *warden* future is classified as a manifestation of the predestination cline, built on a verb with the meaning of becoming. In this case, the original sense is that of predestination derived from an inchoative value of the underlying predicate (Bybee, Perkins, Pagliuca 1994: 262). An almost identical path has been proposed by Heine (1995: 126–127), who derives the construction from the verb of change *werden* generalized as an inchoative marker and later as an expression of intentional nuances. This intensional use, in turn, gave rise to the sense of futurity (cf. Hilpert 2008: 7, 139). *Grosso modo*, Heine (1995) agrees with the obligation/predestination path posited by Bybee et al. (1994) although seems to emphasise the relevance of an intentional sense in the development of future nuances (cf. Hilpert 2008: 139). The other proposal reconstructs a slightly different evolution according to which the rise of the future sense of the *werden* construction has been prompted by its “aspectual” value (Diewald, Habermann 2005; Hilpert 2008). Consequently, the formation never developed obligation or intensional sense (Diewald, Habermann 2005: 235) but followed the evolution of aspectually based futures (cf. Bybee, Perkins, Pagliuca 1994). Accordingly, one deals with a typological parallel of grams such as the Scandinavian futures formed with the verb *komma* ‘to come’, a prospective expression built on the predicate *beginnen* ‘begin’ in Modern German (Dahl 2000b: 324; Hilpert 2008: 140), and especially *become* type of futures (Dahl 2000b: 322–323; Dahl 2000c: 351–360).

Given the fact that the Futurum I and Futurum I Perfectum sometimes fail to provide any future senses but, on the contrary, exclusively convey the idea of

epistemic necessity or high degree of probability referred to a present or past event (corresponding to the English expression *he must be doing / he surely does* or *he must have done / he surely did*)¹³ and given that a cognate verb in Icelandic (i.e. *verða*) in the Present tense typically denotes not only futurity (Icelandic *hann verður glaður* ‘he will be glad’) but also present necessity (*hann verður að fara* ‘he has to go’), the obligation/predestination cline posited by Bybee et al. (1994: 252–253) seems to be more plausible. Since the ideas of obligation, agentive or epistemic necessity and certainty accompany the *wada* formations in Vilamovicean and in other Germanic languages, it is likely that these constructions – and the introductory verb upon which they are based – are conceptually related to the domain of obligation.¹⁴ However, it should also be noted that the sense of agentive obligation is unavailable in Futurum I, although the gram may still express epistemic obligation and imperative necessity. Nevertheless, prototypical uses (at least in main clauses) of this formation correspond to future tense values with subtle modal nuances of epistemic possibility and probability. Finally, the use in depending clauses as a subjunctive reflects a further expansion of the category, following the future cline. In such cases, being employed as a mood (i.e. in explicit modal contexts such as conditional protases or final clauses), in conformity with the typological scenario, it functions as a real factual mood. Consequently, the semantic potential of the Futurum I may dynamically be depicted by making use of the obligation/predestination path in the following manner:

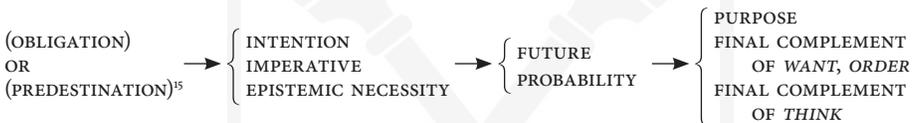


Figure 7. Dynamic space of the Futurum I

The components of the polysemy offered by the Futurum I Perfectum may be chained – and thus the entire semantic space of this form explained – by making use of an analogical path with the distinction that this time it derives from a future and anterior cline simultaneously (or, in other words, the gram and its semantic potential result from a future cline applied to a resultative construction). Hence, the gram expresses the idea of future resultativity (future resultative proper) and

¹³ In this case, one would be dealing with a modal path that originates in agentive expressions of obligation, just like the English formation with *must*. Other typological parallels may be found in Romance languages (cf. Spanish *debió salir / debe haber salido* ‘he must have left’) and Slavic languages (*musiał umrzeć* ‘he must have died’).

¹⁴ It must be noted that the obligation and predestination paths are highly similar. They merge after the stage that corresponds to their inputs. Furthermore, certain futures that seem to be based upon a verb with the meaning of ‘becoming’ in fact correspond to older obligation periphrases. Thus, the two inputs, i.e. obligation and predestination, feed the same cline (Bybee, Perkins, Pagliuca 1994: 263).

¹⁵ The senses in parentheses are lost.

future anteriority (future perfect). Furthermore, following the extensions typical for future perfects, the construction conveys the ideas of future certainty, future imminence and proximity with no resultative/perfectal nuances. Additionally, due to the modal contamination as well as following the direction of typical modal extensions (cf. Figure 7, above), the gram expresses perfect (anterior and immediate) subjunctive senses in optative, final or purpose clauses. Finally, the modal nuance of epistemic obligation and high degree of certainty in reference to past activities (Futurum I Perfectum portrays them as certain or highly likely) is probably a vestige of the original sense of obligation/predestination of the auxiliary verb *wada*.

The Futurum II may be understood as a more conservative portion of the obligation future cline. Just like Futurum I, this gram introduces both perfective and imperfective future activities but regularly displays significantly stronger shades of modal meaning. It frequently expresses optative, volitional (intention in the case of the 1st person) and generally epistemic nuances (epistemic necessity and probability). Especially evident are deontic modal tones (agentive, speaker-oriented and hearer-oriented obligation) which clearly reflect the lexical meaning of the introductory verb *zula* ‘need, have to, must’. As usual, since the *consecutio temporum* rule is absent, the construction can denote future events introduced from a past perspective, giving rise to values of prospective obligation or necessity. The formation may appear in final subordinated clauses with a subjunctive force. It is evident that the Futurum II derives from an auxiliary with the value of agentive obligation. All the senses acquired by the construction stem from a regular development along the obligation path, which was prompted by the modal verb *zula*. As a result, the semantic space of the Futurum II may be geometrically portrayed in the following way:



Figure 8. Dynamic space of the Futurum II

2.4. Modal contamination path layers and their “varieties”

The semantic potential of the last group of Vilamovicean verbal constructions may be understood as a cluster of processes related to a modal contamination and its expansion – both conceptual and historical. More specifically, the semantic space of such grams can be viewed as an identification of originally non-modal formations within a given modal environment, imposed upon by a specific lexeme or morpheme (modal contamination path: from past to real counterfactuality and from pluperfect to unreal counterfactuality), and as their subsequent spread to other modal milieus (optative path: from optative to subjunctive and conditional).

The Coniunctivum I is a formation that, as already mentioned, remains rare in the Vilamovicean language, being formed only from a few verbs (from the

two auxiliaries *zâjn* ‘be’ and *hon* ‘have’ as well as from certain modal predicates). The forms of this construction are most commonly found in conditional protases, where the gram regularly introduces real counterfactual conditions or suppositions. This real counterfactual sense is also present in less frequent uses in main clauses where the construction introduces real unlikely wishes or real improbable events and situations. In the former case, it approximates a real counterfactual optative while in the latter (especially common in apodoses), it functions as a real counterfactual conditional. Finally, the gram may convey milder or polite orders and requests.

The Vilamovicean Coniunctivum I derives from the Proto-Germanic real counterfactual optative **bēr-ī-(b)*, a hybrid born from the Proto-Germanic Preterite (an amalgam and re-use of the PIE Perfect, Aorist and, in a lesser degree, Imperfect) and a successor of the PIE optative morpheme **-ih₁-*,¹⁶ for instance: **(b^he-)b^hŕ-yē-t* > Proto-Germanic **bur-jē* > Gothic *beri* (Von Kienle 1969: 305; Bammesberger 1986: 106). The lexical source of the PIE optative in **-ieh₁- / -ih₁-* is still debatable and the exact origin of this category remains obscure (Brugmann 1904: 551–552; Meillet 1964: 223–234; Shields 1992: 115–120). Whatever the source of the element **-ieh₁- / -ih₁-* was, according to the most assumed view, in late PIE, the optative principally expressed wishes and only secondarily allowed the idea of potentiality – thus, the optative value constitutes the cognitive (conceptual and historical) center of the semantics of this gram and its successors (Hahn 1953: 138; Shields 1992: 115–119; see also Kerns, Schwartz 1971; Neu 1976).¹⁷

The diachronic reconstruction of the Germanic construction that developed into the Vilamovicean Coniunctivum I (a cognate of the past subjunctive in German or Icelandic) demonstrates the following: the Coniunctivum I combines the reflex of the PIE optative suffix together with the Preterite stem of a respective verb. It is an optative of the Preterite or, more properly speaking, of a PIE Perfect and Root Aorist that had developed past senses along the anterior path. In accordance with a general tendency during the modalization of indicatives, when the Preterite was employed in the modal environment (imposed by the successor of the PIE optative suffix), it was reinterpreted as a counterfactual real optative mood (Jasanoff 1991: 86–87, 90 and 93). In other words, the Germanic Past Subjunctive (a mood of counterfactuality) etymologically reflects the optative of the PIE Perfect and Aorist that, in this family, was used not only as a perfect but also as a simple past tense and that, due to its optative context, was transformed into a real counterfactual modal gram (Jasanoff 1991: 94). As a result, the optative modal meaning most probably constitutes the conceptual and cognitive nucleus of the map and, thus, the subjunctive (in protases) and conditional (in apodoses) senses correspond to later extensions. In other words, since this commonly accepted reconstruction of the Germanic Past Subjunctive accounts

¹⁶ The morpheme **-ih₁-* corresponds, in turn, to the grade zero of the optative suffix **-ieh₁-*.

¹⁷ Of course, the entity **-ieh₁- / -ih₁-* may have derived from an agentive modal source and thus the entire Germanic locution would be a summation of the modal contamination and a genuine modal path.

only for the optative real counterfactuality acquired along the modal contamination path, its subjunctive and conditional uses must have arisen due to another evolutionary scenario.

The real counterfactual subjunctive (in protases) and conditional (in apodoses) values may be chained to the optative center by means of the so-called “optative cline”. Accordingly, the counterfactual real optative sense expanded to other modal milieus, especially to conditional periods giving rise to typical subjunctive (in protases) and conditional (in apodoses) uses (for a typologically analogical development in Latin see Jasanoff 1991 and in Semitic languages Andrason 2013). Finally, the use of the gram as a vehicle of mild or polite orders and requests reflects a further extension of the real counterfactual optative value, additionally prompted by the conditional force of the construction. Since the modalization processes affected the gram that had developed along the anterior path and acquired the stage of a definite past tense, the modal outcome was – as expected – subjunctive and conditional real counterfactuality. *Summa summarum*, the semantic potential of the Coniunctivum I may receive the following geometric representation:

(PAST (< PERFECT / AORIST) + MODALITY (OPTATIVE ENTITY < *-EH₁-))

REAL COUNTERFACTUAL OPTATIVE → $\left\{ \begin{array}{l} \text{R-C}^{18} \text{ CONDITIONAL PROTASES} = \text{R-C SUBJUNCTIVE} \\ \text{R-C CONDITIONAL APODOSES} = \text{R-C CONDITIONAL} \\ \text{MILD REQUEST AND ORDERS} \end{array} \right.$

Figure 9. Dynamic space of the Coniunctivum I

The Coniunctivum I Perfectum is a perfect or *surcomposé* variety of the Coniunctivum I. Since the Coniunctivum I was reinterpreted as a real counterfactual modality (optative, subjunctive and conditional), its *surcomposé* variant (viz. the Coniunctivum I Perfectum, which would correspond to a modalization of a pluperfect as the language developed a new BE/HAVE perfect) yielded, in accordance with a typological tendency, unreal counterfactuality. Thus, it is not surprising that the gram expresses counterfactual and unreal (past) activities and situations. It is found both in main clauses, introducing counterfactual wishes and, in conditional protases and apodoses, denoting counterfactuality with respect to already past events, most typically unreal.

The Coniunctivum II is an “analytic” or periphrastic variety of Coniunctivum I. Its rise and regularization is clearly related to the disappearance of the Coniunctivum I for a vast majority of verbs. Although this construction is evidently posterior to the Coniunctivum I, the semantic potential of the Coniunctivus II – and hence its path representation – may be viewed as analogical to that established for the Coniunctivum I. This analogy, however, does not have to copy a historical expansion: the semantics of the Coniunctivum I was merely transposed upon the Coniunctivum II. The map of the Coniunctivum II is rather a semantic “calque” of the map

¹⁸ The abbreviation R-C stands for ‘real counterfactual’.

posited for the Coniunctivum I.¹⁹ Namely, the gram is found in conditional periods, protases and apodoses, where it introduces counterfactual (contrary to reality), but real (still possible) conditions and hypothetical actions. It also occurs in main clauses expressing real unlikely (counterfactual) wishes (optative).

Similarly, the Coniunctivum II Perfectum is an “analytic” or periphrastic counterpart of the Coniunctivum I Perfectum. Accordingly, in conditional protases and apodoses, it conveys the idea of unreal counterfactuality (unreal counterfactual subjunctive and conditional) while in optative contexts, it introduces unreal, unlikely wishes. However – and this constitutes its own semantic legacy stemming from the lexical origin of the gram – the Coniunctivum II Perfect may also be used as a future perfect in the past, comparable with the English expression *he wanted to have done (he would have done) it by the following Monday*. The fact that the gram is a periphrasis whose morphological nucleus is the verb *wje* with a counterfactual real sense justifies another aberrant function of the Coniunctivum II Perfectum whereby this formation expresses unlikely real events that will precede other future activities. By doing so, it approximates the Futurum I Perfectum with the distinction that Coniunctivum II Perfect offers nuances of unlikelihood and improbability. This suggests that the Vilamovicean form still – to a degree – preserves less advanced senses of the modal cline and a type of an original conditional perfect is understood not only as an expression of counterfactual unreality (past conditional) but also as a vehicle of counterfactual (resultative or perfectal) reality. As a result, the Vilamovicean locution *yhy wje hon dos gymaht* may introduce unreal counterfactuality (“past conditional” such as *I would have done it*) and real resultative/perfectal counterfactuality (“perfect conditional” similar to *it could be that (in the future / by tomorrow) I would have done it*).

3. A model of the Vilamovicean verbal system

Given the empirical evidence (i.e. the review of the semantic potential of various verbal grams) and its interpretation in accordance with typologically plausible conceptual-diachronic templates that convert such polysemous structures into well-organized and internally ordered maps, it is possible to design the following global picture of the Vilamovicean verbal system.

One group of formations travels along the anterior path. The difference among them mainly reflects the advancement or conservatism on this cline. The Praeteritum is the most advanced gram (perfective and imperfective definite past) which has lost the most original portions of the trajectory (present resultative proper and inclusive present perfect).²⁰ The Perfectum is an advanced construction (up to the stage of the

¹⁹ Although the auxiliary stands in the Coniunctivum I and hence reflects the Proto-Germanic hybrid built on the PIE optative and the PIE Perfect and Aorist, the entire periphrasis is a later phenomenon.

²⁰ Additionally, the gram cannot be used as a resultative future, future perfect or simple future (cf. the Perfectum, below).

perfective past)²¹ which still preserves the values located on the initial fragment of the cline (present resultative proper and inclusive perfect).²² The advancement of the *zājn* Resultativum is similar to the progression of the Perfectum: the locution spans the anterior path from the present resultative proper stage to the perfective past section, although the resultative proper sense is significantly more frequent than in the case of the Perfectum. The *blājn* Resultativum is a conservative (i.e. non-advanced) formation whose value typically corresponds to the initial phase of the cline (present resultative proper). Consequently, we may understand the four grams as waves following the corridor “pre-established” by the anterior path. Each wave has reached and lost different sections of the cline. This advancement and/or conservatism primarily stems from the distinct ages of these constructions: the oldest (the Proto-Germanic Praeteritum) is the most advanced, the younger (the Old West and North Germanic Perfectum) is less advanced and more conservative, and, finally, the youngest (the *blājn* Resultativum) is the least advanced and the most conservative. Additionally, the Plusquamperfectum and the *wada* Resultativum are relatively advanced formations that cover the entire anterior path in the past and future time frame. The interaction of the anterior-path grams may be illustrated by the following figure:²³

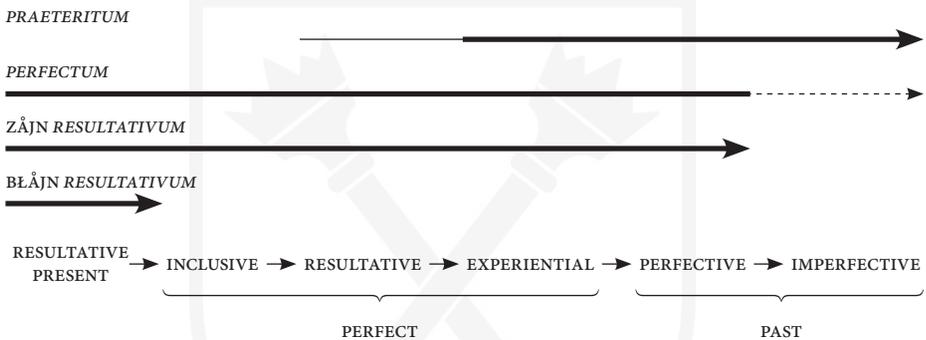


Figure 10. Waves of the anterior-path grams²⁴

A similar interaction may be detected between the constructions that evolve along the imperfective path. The most advanced one (the Praesens) covers the entire cline from the progressive stage to the gnomic phase, giving also rise to modal senses (due to the modal track of habituais and modal contamination). The Progressivum,

²¹ The imperfective past usage is very scarce.

²² Additionally, the gram can be employed as a resultative future, future perfect and simple future which distinguishes it from the Praeteritum (cf. the Praeteritum, above).

²³ The Plusquamperfectum and *wada* Resultativum are ignored in this chart because their development concerns a past and future time frame, respectively.

²⁴ For the sake of simplicity, the stages of an indefinite perfect as well as values related to the progress in temporal distance (recent, general and remote) have been omitted. All of these senses are conveyed with an equal frequency by the Praeteritum and Perfectum. In the presentation of the semantics of the grams, the wide arrows symbolize that a given sense is common, the slim arrows means that a sense is less common and the dashed arrows suggest that a sense is highly uncommon. The arrows that link the stages of the universal cline do not represent any propensity or rarity.

on the contrary, is a highly conservative formation which principally occupies the initial sections of the cline (progressive and continuous). Again, the difference in the advancement or conservatism corresponds to the different ages of the two grams: the Praesens is a Proto-Germanic phenomenon and a successor of the PIE Present while the Progressivum is a late Vilamovicean innovation.



Figure 11. Waves of the imperfective-path grams²⁶

Another group of constructions may be understood as waves progressing along a future path of obligation or predestination. The Futurum I is a highly advanced and less conservative gram that spans from the second array of stages of the cline (intention, imperative and epistemic necessity) to the final portions of this evolutionary template. Its main use corresponds to a future tense with less marked modal nuances. The Futurum II seems to be more conservative. It preserves the original sections of the path (agentive obligation) and in its future uses offers a strong modal load.²⁷ Likewise, its subjunctive sense is invariably colored by the agentive modal undertone. By using the cline of four historical and conceptual stages of futurity (Bybee, Perkins, Pagliuca 1994), we may compare the two formations and show their different advancement or conservatism:

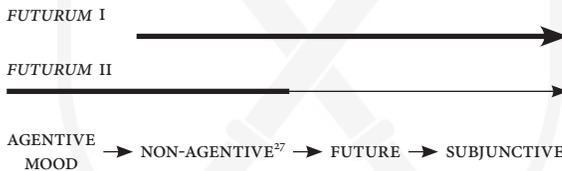


Figure 12. Waves of the future-path grams²⁸

The last class of constructions is best understood as arising during a modal contamination. The Coniunctivum I reflects an advanced portion of the cline where a

²⁵ This involves speaker-hearer modality, intentional and epistemic senses.

²⁶ Only development in the present time frame is represented in this chart. Moreover, the evolutions along the modal contamination cline and the modal cline of habituales have been ignored. In the future time frame, the contrast between the two grams is even more evident. The Praesens covers the entire trajectory, being able to introduce future perfective events while the Progressivum only denotes future progressive and continuous activities.

²⁷ While The Futurum I may be viewed as a type of a becoming “neutral” subjunctive (the modal interpretative mainly stems from the syntactic environment), the use of the Futurum II in subjunctive environment always presupposes the agentive (obligation, necessity, etc.) sense of the gram.

²⁸ As explained, the semantics of the Futurum I Perfectum is a product of the anterior path and future obligation-predestination cline. This wave will be omitted in the chart.

past has been reinterpreted as real counterfactuality (R-C), first optative and then subjunctive (in protases) and conditional (in apodoses). The Coniunctivum II – due to the disappearance of the most forms of the Coniunctivum I – copies this development without, however, having originated in a non-modal past lexeme. It is a periphrastic substitute built on the already fully modalized auxiliary *wje* (thus, it did not involve a modal contamination *sensu stricto*). Hence, the two formations cover the identical sections of the path. The difference between them does not lie in the advancement/conservatism but in the distribution or formal grammaticalization (i.e. frequency). The Coniunctivum I is an older (Proto-Germanic) construct which has been preserved only in some highly frequent verbs (*zâjn* ‘be’ and *hon* ‘have’) and in inherently modal auxiliaries. It is an old and “dying” gram. The Coniunctivum II – a later innovation – is a young and “aggressive” construction that, due to its formal distinctiveness (the form is analytical and clearly distinguishable from the other grams) and regularity (the only morphological pattern involves the verb *zâjn*), has spread to an immense majority of verbs. Thus, while the Coniunctivum I decreases its frequency, the Coniunctivum II increases it.

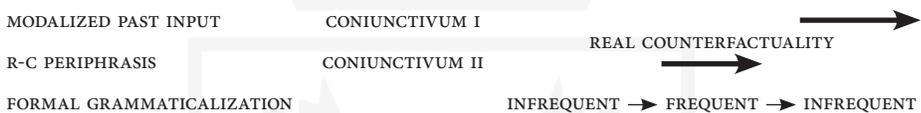


Figure 13. Waves of the modal-contamination-path grams

A slightly distinct relation may be found between the Coniunctivum I Perfectum and the Coniunctivum II Perfectum. Both grams cover the sphere of unreal counterfactuality that corresponds to the modalization of an original pluperfect or, more correctly, a *surcomposé* variety of the real counterfactual mood (i.e. Coniunctivum I). Although the age of the two formations is distinct (the Coniunctivum I is significantly older than Coniunctivum II), there is only a minimal difference in frequency: and this time it is the Coniunctivum I Perfectum that is slightly more common than its analytical counterpart. This means that the older gram still defends its position in the system. Additionally, the Coniunctivum II Perfectum – in contrast with the Coniunctivum I Perfectum – offers a sense that corresponds to a less advanced stage in the development of unreal counterfactual moods. Namely, it may still convey the idea of a present-future real counterfactual resultativity.

4. Conclusion

The Vilamovicean verbal system may be grasped in its totality and explained as an “ocean” moved by four types of waves with their collateral “splashes”:²⁹ the anterior-path wave³⁰ (which has created the Praeteritum, Perfectum and Resultativa), the im-

²⁹ The metaphorical term ‘splash’ is used to refer to sub-clines that derive from a main path (e.g. the modal path that may arise at the habitual stage of the imperfective track).

³⁰ It operated in the three time frames.

perfective-path wave³¹ (which has created the Praesens and Progressivum), the future predestination-obligation path wave (which has created the Futurum I and Futurum II; and jointly with the anterior path, the Futurum I Perfectum),³² and the modal contamination-path wave (which has created the Coniunctivum I and Coniunctivum I Perfectum, both of which served as templates for their periphrastic homologues Coniunctivum II and Coniunctivum II Perfectum; this wave also influenced the development of the Praesens).

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³¹ It also prompted sub-waves such as modal path of habituals.

³² The Futurum I Perfectum also underwent a development along the future perfect path.

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