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The grammar of ‘non-realization’¹

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1. Introduction

There are two major approaches to linguistic categorization: classical discrete categorization and gradient/fuzzy categorization. The classical approach to categorization goes back to Aristotle: categories are described in terms of a checklist of necessary and sufficient defining properties. This view has been very influential in linguistics, especially in theoretical frameworks.

A much more recent way of viewing categories is one where categories are accounted for both in terms of a checklist of properties as well as in terms of the gradience/fuzziness of their boundaries (Bolinger 1961, Langacker 1987, Aarts 2004, Aarts 2007). A gradience-acknowledging approach has proved to be very helpful in modeling linguistic phenomena from both a synchronic and a diachronic perspective.

It is a frequent pattern of scientific linguistic endeavor to “throw the baby out with the bathwater”, every time a newly articulated insight captures the minds of linguists, and this was – indeed – the case with gradience, the result being an approach that could be succinctly summarized as “gradience is everywhere” (see Aarts 2007, Croft 2007).

The caveat here is: an adequate account of linguistic categories (model of grammar) should take into consideration both the discreteness and fuzziness/indeterminacy aspects of linguistic phenomena.

One of the theoretical pillars of the current study is Aarts’ 2007 model of categorial indeterminacy which proposes two major types of gradience – Subsective and Intersective. These capture the fuzzy character of English word classes, phrases, clauses and constructions. Subsective Gradience allows members of categories to display properties to varying degrees. Intersective Gradience (IG) involves two categories ‘converging’ on each other, such that there exist elements which display properties of both categories. The model is a compromise between having exclusively Aristotelian categories with sharp boundaries and allowing for gradience in terms of the number of properties that a member of a category possesses. It presents what is regarded to be the first exhaustive investigation of gradience in syntax from a synchronic perspective. The framework is an idealized model that is built around the idea that grammatical categories can be characterized by sets of morphosyntactic features. A methodological decision was taken to exclude semantic considerations. This was done in order to get a grip on complex arrays of phenomena. As we will see below, however, the model can also be applied to morphosemantic phenomena.

The other theoretical pillar of this investigation is the framework underlying grammaticalization theory as elaborated in Heine et al. 1991, Heine 1992, Heine and Kuteva 2002, Heine and Kuteva 2005, Heine and Kuteva 2006, Heine and Kuteva 2007, where linguistic categories are treated as continuous, “floating” phenomena through time and space from a panchronic – that is, both synchronic and diachronic – perspective. Notice that in grammaticalization studies, too, it has been argued that discreteness does have a place in a model where grammaticalization is seen as a gradual sequence of discrete micro-changes (Traugott & Trousdale 2010) involving “step-wise acquisition of properties” (Denison 2006: 300, 2010).

¹ The first-named author expresses her deeply-felt gratitude to the participants in her „Grammatical Typology“ seminar in summer semester 2019, Institute for English and American Studies at the Heinrich-Heine University, Düsseldorf, for stimulating discussions and insightful comments. Our deeply-felt thanks for numerous valuable suggestions go also to Peter Austin, Bernard Comrie, Östen Dahl, Nick Evans, Bernd Heine, Ingo Plag, Paolo Ramat and two anonymous reviewers.

46 Aarts' 2004 and Aarts' 2007 works on determinacy/indeterminacy in syntax sparked
47 a series of articles on the feasibility of the distinction discreteness/abruptness versus
48 gradience/fuzziness in linguistics (Croft 2007, Traugott & Trousdale 2010, among others),
49 which address a fundamental issue in the discipline and are a part of an ongoing linguistic
50 debate.

51 In the present paper we will claim that, in addition to the issues which have figured
52 prominently in that debate already, there exists at least one more language phenomenon for
53 the description of which we need to take recourse to the notion of discreteness, namely
54 semantically elaborate grammatical categories (on the notion of semantically elaborate
55 categories, see Kuteva 2009, 2010, and also discussion in the next section).

56 We will show that in the case of semantically elaborate grammatical categories it is
57 important to posit boundaries to categories, in particular, sharp boundaries, and will argue
58 that an Intersective Gradience approach can capture the nature of this type of categories.

59 Thus the contribution of the present study is twofold. At the empirical level, we
60 investigate a number of Tense-Aspect-Mood form:meaning pairings – across a number of
61 languages, both related and unrelated genetically and geographically – which have created
62 notorious terminological confusion in the literature. Most of the grammatical structures we
63 are concerned with here have remained largely under-researched, a notable exception being a
64 most recent study on what has been referred to as “frustratives” in Overall 2017. On the
65 basis of a cross-linguistic analysis of expressions for the non-realization of different degrees
66 of the verb situation, we propose to distinguish between the following five categories:

- 67 a. apprehensional – non-realization of undesirable verb situation;
- 68 b. avertive – non-realization of once imminent, past verb situation where the verb
69 situation is viewed as a whole (i.e. perfective);
- 70 c. frustrated initiation – non-realization of initial stage of past verb situation;
- 71 d. frustrated completion – non-realization of completion of past verb situation;
- 72 e. inconsequential – non-realization of expected result/resultant state of past verb
73 situation.

74 At the theoretical level, we show that one of the reasons behind the confusion around the
75 above categories is that they are semantically very rich – that is, they involve a cluster of
76 specific semantic components – and this makes them hard to deal with in conventional
77 frameworks. We argue that using the notion of an abstract prototype or the notion of
78 *Gesamtbedeutung* (core meaning) in describing the above categories on a universal
79 conceptual-semantic plane – in this particular case of what we will refer to as non-realization
80 Tense-Aspect-Mood (TAM) semantically elaborate categories – would not get us far and
81 would, in fact, result in unnecessary vagueness and imprecision. We will propose – instead –
82 an account of these categories in terms of precise Aristotelian categorisation, whereby two
83 (or more) distinct categories may converge on – that is, share – a number of properties and
84 yet have strict boundaries. This proposal thus fleshes out – in a new area, namely the
85 morphosemantic domain of verbal Tense-Aspect-Mood – the notion of Intersective
86 Gradience, which Aarts 2004 and Aarts 2007 introduced with respect to word classes as
87 well as phrasal and clausal syntactic structures.

88 In a study like the present one it is inevitable that one runs into a problem all
89 comparative linguists are very well familiar with, namely the distinction between language-
90 specific (grammatical) categories and cross-linguistically valid ones (for an excellent
91 overview of this discussion in the typological literature, see Haspelmath 2007, 2010a, 2010b,
92 Rijkhoff 2010, LaPolla 2016, among others). There are different standpoints taken in the
93 literature to the suitability/unsuitability of this distinction. Thus on one view, which has been
94 referred to as the Structuralist view, analysts of language should only study language-
95 specific categories since each and every language has its own, specific “spirit” of conceptual

96 organization, and it is not justifiable to invest effort into artificially levelling up the
97 differences between language particular systems. On another, eloquently elaborated view
98 (Haspelmath 2007, 2010a, 2010b), language-particular grammatical categories should be
99 studied in-depth within the system of the particular language under investigation, and
100 parallel to this, comparative linguists are justified to *independently* apply special theoretical
101 constructs termed “comparative concepts”; the latter concepts are a priori defined by
102 typologists in the study of linguistic phenomena across languages. Crucially, the language-
103 particular grammatical categories are not instantiations of the comparative concepts, i.e.
104 there is a disconnect between the former and the latter. Notice, however, that Haspelmath’s
105 proposal gives full recognition to the deductive character of the typological procedure he
106 advocates: once the comparative concepts are established by typologists as theoretical
107 constructs, they are then matched to the phenomena of the particular languages under
108 investigation.

109 The standpoint we take here goes counter to the Structuralist credo, since an
110 exponentially increasing body of knowledge about individual languages indicates that there
111 exist not only differences but also striking commonalities among languages, and deciding, a
112 priori, to abandon all effort comparing these languages will deprive us – we believe – of
113 valuable insights into, ultimately, the workings of the human brain.

114 Like Haspelmath’s comparative concepts (2007, 2010a, 2010b), the five categories we
115 propose here, are not “stored” in the language user’s mind, they are theoretical constructs
116 proposed by analysts of language. Moreover, they are categories identifiable not necessarily
117 within the conceptual-semantic organization of individual languages but rather on what we
118 refer to as a universal conceptual-semantic space. Again, like Haspelmath 2007, 2010a,
119 2010b, we apply deductive reasoning every time we examine a new language for the
120 existence of any of the above categories. Where we differ from Haspelmath, however, is that
121 our approach combines – very much like the classical scientific method and the
122 methodology advocated in the Basic Linguistic Theory framework (Dixon 1997, Dryer
123 2006) – induction and deduction, whereby induction precedes deduction. Thus, starting from
124 the facts of individual languages, we observe similar clustering of meaning features
125 associated with specific means of expression – which are grammatical rather than lexical –
126 and, using inductive reasoning, we abstract efficient “summaries” over the language-
127 particular categories. These summaries consist of the characteristics the language-particular
128 categories share, even though the latter might have additional, diverging characteristics in
129 any individual language. In other words, our inductive reasoning results in cross-
130 linguistically valid summary abstractions, whereby the language-particular categories can be
131 regarded as the concrete instantiations – and therefore as members – of the cross-
132 linguistically valid summary abstractions. Once we have arrived at these summaries we then
133 apply them – by deduction – very much in a hypothesize-and-check manner, to new sets of
134 linguistic data from new languages we want to examine for the existence of the categories
135 under investigation.

136 Our approach thus comes closest to the approach taken in Bybee and Dahl (1989), who
137 distinguish between (a) language-specific grammatical categories/grammatical
138 morphemes/grammatical forms – which they term “grams” – on the one hand, and (b) cross-
139 linguistically valid grammatical categories – which they term “gram-types”, identifiable by
140 their semantic foci and associated with typical means of expression (Bybee and Dahl 1989:
141 52) – and which are manifested in individual languages. Our approach is also highly

142 compatible with the distinctions “notional” (“semantic”) vs. “grammatical”², on the one hand,
143 and “universal” vs. “language-specific”, on the other (Comrie 1976, 1981, 1985).

144 In other words, the way we identify cross-linguistically valid categories here is
145 compatible with the approach Rijkhoff 2010 advocates for the purposes of linguistic
146 comparison. Rijkhoff (2010: 95) proposes to employ functional categories rather than
147 semantic or formal ones: “typologists first need to make sure that the forms or constructions
148 under investigation do the same job in the various languages (*functional sameness*);
149 subsequently this functional selection can be narrowed down on the basis of formal or
150 semantic criteria to construct a set of elements that is similar enough to allow for
151 crosslinguistic comparison (*formal and semantic similarity*)”.

152 Finally, the five categories we propose can be characterized in terms of Ramat’s 1999
153 distinction between features (e.g. aspect, tense, modality, etc.) and values (e.g. progressive,
154 past, counterfactual, etc.)³ in the following way. Since these five categories are semantically
155 elaborate, i.e. they have compositional character, as will be shown below, and since they
156 encompass values of several features simultaneously, they can be regarded as what can be
157 termed “grammatical feature hyper-values”.

158 It is beyond the scope of this study to come up with a straightforward terminological
159 framework to be applied in linguistic typology; following Kuteva et al. 2019, here we are
160 going to use the terms grammatical category and functional category interchangeably for
161 cross-linguistically identifiable grammatical structures which involve a particular set of
162 meaning components and are associated with a particular means of expression (i.e.
163 grammatical rather than lexical) that serves a particular function. We will be using the
164 expression *form:meaning pairing* to refer – in a rather general sense – both to language-
165 specific and cross-linguistically valid categories. Notice, however, that whenever we want to
166 draw attention to the language-specific characteristics that the above five categories manifest
167 in individual languages, we will follow Haspelmath’s 2010a proposal to capitalize the term
168 for the particular category under discussion as well as to point out the language in which it is
169 observed (cf. the avertive vs. the Bulgarian Avertive).

170 Whereas the apprehensional is relatively well-studied, the other four categories have
171 either not been given any recognition as grammatical structures at all or they have been
172 subsumed under one and the same cover category, or alternatively – depending on author –
173 there have been proposals to lump various combinations of these categories into different
174 “umbrella” categories.⁴

175

176 **2. Semantically elaborate grammatical categories**

177 Up until the early 80s of the last century it was common practice to assume that a
178 grammatical category can be straightforwardly assigned to a particular conceptual-semantic
179 domain. As a matter of fact, belonging to a particular domain was such a strong assumption
180 that in some cases it had even gained the status of a definitional criterion for the notion of
181 grammatical category. For instance, the SIL (Summer Institute of Linguistics) glossary⁵ of
182 linguistic terms defines a grammatical category as a set of syntactic features that express
183 meanings from *the same conceptual domain* [emphasis ours], occur in contrast to each other,

² We tacitly assume that all languages have the means to express all notions; where languages differ is whether they dispose of lexical (single unit or complex construction) means vs. grammatical means to do that.

³ A similar distinction made in the literature is the one between “dimensions” vs. “categories” (with thanks to an anonymous reviewer).

⁴ That the literature on what has been referred to as the avertive and the frustrative is extremely confusing is amply discussed in Zester (in preparation), where it is argued that these structures should be treated as two distinct categories.

⁵ <http://www.sil.org/linguistics/GlossaryOfLinguisticTerms>

184 and are typically expressed in the same fashion, e.g. aspect, case, definiteness, mood and
185 modality, noun class, number, polarity, tense, transitivity, voice. Kuteva 2009, 2010 has
186 referred to grammatical categories understood in the above sense – e.g. the past tense in
187 English in its primary, deictic function – as ‘semantically straightforward categories’.⁶

188 In more recent decades, however, there has appeared a vast literature acknowledging
189 the fact that – especially in the area of tense, aspect and mood (and most recently, also
190 evidentiality) – very often it is extremely hard to establish clear boundaries between tense,
191 aspect and mood/modality and that categories cut across different conceptual-semantic
192 domains (see Dahl 1985, Iatridou 2000, Ziegeler 2000, Palmer 2007, Verstraete 2005,
193 Hacquard 2006, among others). This view culminates in the standpoint taken in Dahl (2015:
194 210-213): “It should be noted from the outset, however, that tense, aspect, mood, and
195 evidentiality do not usually come neatly lined up as separate categories in grammars. Rather,
196 the meanings of TAME [Tense-Aspect-Mood-Evidentiality] forms often combine elements
197 from more than one of them.” The form:meaning pairings we investigate in this study
198 behave very much like the ones referred to in Dahl 2015 above: they encode more than one
199 semantic feature and may involve more than one conceptual-semantic domain. Kuteva 2009,
200 2010 termed this kind of categories *semantically elaborate grammatical categories*, or
201 semantically “rich” categories since they may relate to more than one conceptual-semantic
202 domain simultaneously.

203 Notice that the distinction *semantically elaborate* vs. *semantically straightforward*
204 *grammatical categories* is not related to phenomena such as the semantic-conceptual break-
205 down into stages of the progression of an event (initiation, progression, completion), for
206 instance, although we do sometimes count these as distinctive features. What it is relevant to
207 – instead – is semantic complexity along any dimension. We have to bear in mind, however,
208 that there are constraints on this semantic complexity. Although there is great variation
209 among the world’s languages, when investigating many genetically, typologically and
210 areally diverse languages, a number of “cumulative” (that is, *semantically elaborate*)
211 categories do emerge: they express – simultaneously – certain features that do occur together
212 more often than others in one linguistic form. If there is clustering together of particular
213 features, this cannot be by chance; most likely, these will be semantically related ones. For
214 instance – as Paolo Ramat (p.c.) points out to us – ‘it is highly unlikely to come across a
215 language that will have the same encoding for “to the right” and “to the left”’, provided that
216 these two notions exist in the minds of the users of that particular language. On the other
217 hand, it is no surprise that in Bulgarian the grammatical form for the imperfect, *-še* (3rd
218 person, sg) encodes past time, imperfective aspect and, in an *if*-clause context, also the
219 irrealis: this makes perfect sense given that the imperfect refers *per se* to a non-bounded –
220 i.e. not having been (fully) realized – verb situation⁷.

221 Notice that here we use the expressions *meaning components*, *semantic features*,
222 *properties* and *attributes* interchangeably. By these expressions we do not mean “semantic
223 primitives” (i.e. minimal units of meaning), nor do we assume them to have the same status of
224 necessary and sufficient conditions; we follow Cruse 1986 in assuming that meaning
225 components can be not only criterial but also expected, unexpected, or possible attributes. For us,
226 the expressions *meaning components*, *semantic features*, *properties*, *attributes* stand for portions

⁶ What is referred to by means of the term *semantically straightforward grammatical categories* are form:meaning pairings that are dedicated to expressing a single function, or that have one primary function, whereby they may have one or more secondary functions.

⁷ As an anonymous reviewer points out to us, “there is a semantic parallel between imperfective and irrealis, but there is also an important difference. For the imperfective, ‘not having been (fully) realized’ would mean not having been (fully) realized at reference time’, whereas in the case of irrealis (or perhaps better, counterfactual, since irrealis is a wider concept) it would rather be ‘never realized et al.’”.

227 of meaning which can be used as distinctive features in the definition of different categories. A
 228 decompositional approach commits the researcher to an exhaustive account of meaning in
 229 terms of a set of semantic components and meaning is understood as equivalent to this set of
 230 components in their various subsets and combinations⁸. By contrast, we don't claim to be
 231 able to account for meaning in this way, but rather we look for ways to zoom in and point to
 232 some portions of meaning, namely those that can be used as distinctive features in the
 233 definition of different categories. We don't, however, propose to reduce meaning to a set of
 234 such features, rather we are looking for ways that will allow us to compare and contrast
 235 categories with similar meanings across different languages. Kuteva 2009 exemplifies
 236 semantically elaborate grammatical categories by means of the avertive, a grammatical
 237 category recently identified across languages (Kuteva 1998, 2001, Heine and Kuteva 2002).
 238 The avertive is used only in past contexts and in Kuteva 1998, Kuteva 2001, Heine and
 239 Kuteva 2002, it is treated as a linguistic expression standing for a verb situation which was
 240 on the verge of taking place but did not take place ("was on the verge of V-ing but did not
 241 V"):

242
 243 (1) Bulgarian

244 *Štjax da padna.*
 245 want.1SG.IMP to fall.down.PFV.1SG.PRES
 246 'I nearly fell down.'

247
 248 (2) Southern American English

249 *I liketa had a heart attack.*
 250 'I almost had a heart attack.' (Kytö & Romaine 2006)

251
 252 (3) Venda

253 *Ndo ŋoŋo- u mu rwa⁹*
 254 I want.PERF- INF him hit
 255 'I nearly hit him.' (Poulos 1990: 332)

256
 257 (4) Koasati

258 *im- ho:pá:ci- l- á:pi- Vhco- k am- máta- t*
 259 3DAT- hurt- 1SS- MODAL- HABIT- SS 1SSTAT-miss- PAST
 260 'I almost injured him but I missed.' (Muskogean; Kimball 1991: 196)

261
 262 In the above works the avertive has been described as involving at least three
 263 conceptual-semantic domains: temporality (pastness), aspectuality (imminence), and
 264 modality (counterfactuality/non-realization).¹⁰ Notice, however, that more careful
 265 observations on the nature of avertive structures reveal that in these languages where
 266 there is a grammatical distinction between perfectivity versus imperfectivity – that is,
 267 aspectual boundedness versus non-boundedness of the verb situation – the main verb slot
 268 in the avertive structure is filled out by a perfective verb. In other words, the verb

⁸ An anonymous reviewer adds that "more broadly, in dealing with a complex interplay of meaning components, it is important to distinguish which of these are entailed, which are implicated, and which are presupposed."

⁹ Notice that the auxiliary expression *ŋoŋo mu rwa* (AUXILIARY-OBJECT-MAIN VERB) in this example is the result of the following grammaticalization development: Venda *ŋoŋa u* (wanted:PERF INF) 'have wanted to', verb form > *ŋoŋo*, Avertive ('almost' marker, Poulos 1990: 332).

¹⁰ In order to avoid confusion with the semantic notion of 'counterfactuality' which has been used in a specialized way in the literature, here we are using the term *non-realization* to refer to the modal meaning component of the avertive.

269 situation encoded by the main verb is viewed as bounded. Hence, in the present study we
270 propose a more fine-grained definition of the avertive, which explicitly includes
271 perfectivity as one of its meaning components. This means that for expressing the
272 avertive, not only are perfectives used in the languages that have them but also that the
273 avertive entails semantic perfectivity also in the languages that do not mark it
274 grammatically (with thanks to an anonymous reviewer). Accordingly, the avertive can
275 now be defined as “a structure which stands for a bounded verb situation – viewed as a
276 whole – which was on the verge of taking place in the past, but didn’t”.

277 A similar semantic construct was identified in Hindi (Abbi 1980) and in a large
278 number of Indo-Aryan languages (Abbi 1992). It was then (1980) termed “non-
279 precipitative” (see Section 3.2 below).

280 That the semantics of the avertive is elaborate – i.e. rich in specificities – becomes
281 clear when we compare the avertive to another grammatical category, which was also
282 identified across languages only very recently, the proximative.

283 The proximative has been noticed in a number of individual languages but has been
284 traditionally considered a specific verb construction rather than a grammatical category¹¹. An
285 exception to this practice is Comrie (1976: 64–5) and Comrie (1985: 95), who has not only
286 pointed it out (under the names of “prospective”, and “immediate future”, respectively), but
287 has, moreover, acknowledged that the form in question expresses a grammatical distinction
288 (see also Jendraschek 2014 and Brabantier et al. 2014). Heine 1992 showed that the
289 proximative (which he first called an “almost”-aspect) is a fully-fledged grammatical
290 category across languages. König 1993 presented a further investigation of the same gram
291 and proposed the term proximative¹² which has been adopted by Heine and his associates in
292 a number of subsequent works (Heine 1994a, 1994b, Kuteva 1995, cf. also Romaine 1999).

293 The proximative defines a temporal phase located close before the initial boundary of
294 the situation described by the main verb. It indicates a moment shortly before the possible
295 occurrence of the given verbal situation, with (crucially) no implication about whether the
296 situation actually occurred or not. Yet another essential characteristic of the proximative is
297 that it can be used in both past and non-past contexts; consider, for instance example (5)
298 from Nandi, where the volitional verb *want* has come to function as the auxiliary of the
299 grammaticalized Proximative construction:

- 300
301 (5) Nandi (Southern Nilotic, Nilo-Saharan)
302 *mâ- ko-ráarak- tà así:s(ta)*
303 want-3- fall- ITIVE sun(NOM)
304 ‘The sun is about to set.’ [Kuteva 2001]
305

¹¹ It has to be pointed out that it isn’t easy to answer the question of what formal properties are criterial for awarding (a set of) linguistic elements the status of a grammatical category. Much of the literature focuses mostly on inflected forms when discussing grammatical categories (or features), though grammars also allow combinations of a lexical and a functional element. As our focus here is on semantics, we have adopted a wider view on what formal properties count as grammatical. We have assumed that combinations of functional and lexical elements can have grammatical meanings, but that grammatical meanings can also be associated with the constructions in which such elements are embedded.

¹² In an excellent cross-linguistic study of what he calls “antiresultatives” Plungian 2001 also uses the term “proximative”, but the meaning he assigns to this term is different. In Plungian’s 2001 terminology, proximative is a structure “*oboznačajúšij nedostiženie finala v slučae nekontroliruemogo processa*” [Transl.: “standing for the non-reaching the end of an uncontrollable process”], which comes closest to our frustrated completion (see below).

306 In other words, the proximative is a purely aspectual¹³ gram, its essential semantic
307 characteristic being imminence¹⁴.

308 From the above it becomes clear that it is justifiable to treat the avertive as
309 semantically more elaborate than the proximative. The most obvious argument in favor of
310 such an account is the fact that the semantics of the former (past-plus-imminent-plus-non-
311 realized-plus-perfective) subsumes the semantics of the latter (imminent).

312

313 **3. Tense-Aspect-Mood semantically elaborate categories in the “grammar of non- 314 realization”**

315 That “we construct reality through the language we use” is a foundational idea of language
316 relativism. Here we take the standpoint of the golden middle between strict language
317 relativism on the one hand and language universalism on the other, and assume that we
318 construct reality through the *languages* we use. What is methodologically important for us is
319 that the more languages we analyse, the more refined a picture of human conceptual-semantic
320 reality we get. Accordingly, we will make a distinction between a universal conceptual-
321 semantic space and language-specific conceptual-semantic space. Using the sizable body of
322 knowledge accumulated over the last decades in the study of grammaticalization
323 developments across languages (see Kuteva et al. 2019), we will plot the grammatical
324 categories investigated here in the universal conceptual-semantic space. Notice that – as an
325 anonymous reviewer points out to us – this does not mean that the apprehensional, the
326 avertive, frustrated initiation, frustrated completion, and the inconsequential are discrete
327 semantic categories in all languages. Our claim here is that some languages grammaticalize
328 these particular clusters of meaning components, whereas others express them by lexical
329 means.

330

331 We are now in a position to refer to our object of investigation as that portion of the
332 universal conceptual-semantic space of what we can call – temporarily – the TAM “grammar
333 of non-realization”. Cross-linguistic data allows us to divide this space into at least five
334 distinct sub-portions each of which is found to be encoded by grammatical – or
335 grammaticalizing (lexico-grammatical) – linguistic structures. As the name of that
336 conceptual-semantic space suggests, there is at least one meaning component which all of
337 these structures share: they all refer to situations that have in some way or other not been
338 (fully) realized. However, depending on the particular structure, the non-realization may
339 involve different aspects of the verb situation. In some cases the focus may be on the non-
340 realization of the verb situation as a whole, in its entirety (apprehensional). In other cases the
341 focus may be on the non-realization of the verb situation – as a whole – which was about to
342 take place in the past (avertive). The focus may also be on the non-realization of the initial
343 stage (frustrated initiation) or of the final stage of the verb situation (frustrated completion).
344 Finally, the non-realization may be a characteristic not of the verb situation itself but of its
345 expected/wished for result or resultant state (inconsequential). In other words, the underlying
346 criterion according to which the “non-realization space” discussed here is structured is
347 degree of realization of the verb situation and/or its expected result/resultant state.

348 On the basis of cross-linguistic grammatical comparison in what follows we will
349 build a case for the existence of a five-portion conceptual-semantic frame represented in

¹³ For a detailed argumentation concerning the aspectual character of the proximative, the reader is referred to Heine 1992.

¹⁴ Judging from the definition of the word *imminent* given in OED, one could distinguish between no fewer than three distinct senses in which this word is used: (i) closeness in time; (ii) being threatening or dangerous, and; (iii) being highly probable if nothing is done about it (with thanks to an anonymous reviewer). As must have become clear from the preceding discussion, it is only (i) that is essential for the present study.

350 Figure 1 below. Each of the entities in this frame is instantiated in a distinct, TAM
351 form:meaning pairing in some languages:

352
353 <insert Figure 1 here>

354
355 The ordering in (i) - (v) of the structures under discussion is not meant to represent
356 their diachronic development; what it represents instead is a synchronic continuum of
357 different degrees of realization of the verb situation. We have placed the structure encoding
358 the highest degree of verb situation non-realization (i.e. unreal), the apprehensional, at the
359 beginning of this continuum, and the structure encoding the lowest degree non-realization
360 (i.e. real), the inconsequential, at the end of the continuum. Whereas with the apprehensional
361 the entire verb situation is unrealized (i.e. the resulting degree of verbal situation realization
362 is zero), with the inconsequential it is not the verb situation but rather the expected resultant
363 state that remains unrealized (i.e. the resulting degree of the verb situation realization is full
364 but the resultant state is absent or incomplete). As will become clear from the discussion
365 below, each of the TAM categories in Figure 1 constitutes a cluster of more than one
366 grammatical feature values (in Ramat's 1999 sense), i.e. each is a semantically elaborate
367 category.

368 369 **3.1 Apprehensional**

370 The apprehensional involves the highest degree of non-realization of a past/non-past verb
371 situation. It encodes an undesirable verb situation which is to be avoided. In describing what
372 he calls "apprehensional-epistemic modality" Lichtenberk (1995: 293) explicitly points to
373 the fact that we are dealing here with a mixture of semantic components, i.e. a semantically
374 elaborate grammatical category:

375 A mixed modality which on the one hand gives information on the factuality of the
376 situation, which is counter- (or non) factual and on the other hand states the "attitude
377 [of the agent or the speaker] concerning the desirability of the situation encoded",
378 which is undesirable.

379 The apprehensional is a structure – very often embedded in subordinate clauses – that
380 has been referred to as the "apprehensive", the "adverse consequence clause", the "negative
381 purpose clause", the "evitative", the "precautioning", or the "*lest*-clause" (Angelo and
382 Schultze-Berndt 2016, Austin 1981, Dench 1988, Dixon 1980, 2002, Epps 2008,
383 Lichtenberk 1995, Vuillermet *forthc.*). The undesirable situation is generally portrayed as
384 counterfactual, and the canonical apprehensional construction is in two parts: one depicting a
385 preemptive action, and another outlining a negative situation. In less canonical extensions of
386 this category, the preemptive action may be elided or simply implied by context (Evans
387 1995: 264).

388 Thus our definition of the apprehensional involves two verb situations, Verb Situation
389 X and Verb Situation Y. Verb Situation X (whether explicitly marked or left implicit) is
390 featured as the one causing the avoidance of the undesirable Verb Situation Y.

391 The apprehensional was first established in a number of Australian, Austronesian and
392 Amazonian languages. Dixon 1980, for instance, describes the Apprehensional in Yidiny as
393 an inflexion which specifically marks the verb of a subordinate clause, and denotes an
394 undesirable event which is to be avoided; the main clause involves steps to be taken to effect
395 the avoidance. The causality involved is clear: the verb situation in the main clause causes
396 the avoidance of the verb situation in the subordinate clause. It is expressed by two suffixes,
397 *-l* (which is one of the non-past verb suffixes in Yidiny, see Dixon 1980: 380) followed by
398 the suffix *-ji*:

399

400 (6) Yidiny
 401 *Yiju waguuja garba- η gudaga- ηgu*
 402 this.ABS man.ABS hide- PRES dog- ERG
 403 *bajaa- l- ji*
 404 bite- APPREHENSIONAL
 405 ‘The man is hiding, lest the dog bite him (i.e. for fear that the dog might otherwise bite
 406 him).’ (Dixon 1980: 380)

407
 408 Dixon (1980: 380) points out that the Yidiny Apprehensional can also be used in past
 409 contexts such as “I didn’t go across the muddy patch lest I slip down”, in other words, there
 410 is no temporal restriction for the use of this expression.¹⁵ Instead, there is the following
 411 morphosyntactic restriction in Yidiny: the Apprehensional inflexion can only be used in
 412 subordinate clauses.

413 Austin (1981: 224ff.) refers to this structure as the *lest*-clause in Diyari and Dhirati,
 414 and so do Dench (cf. the *lest*-construction in Dench 1988: 108ff., see also Zester 2010) in his
 415 description of Martuthunira and Smith 2015 in a recent description of Papapana. Austin
 416 (1981: 224–226) defines *lest*-clauses as clauses which “basically serve to indicate some
 417 situation which the speaker considers to be unpleasant and which should be avoided” and
 418 points out that *lest*-clauses – which in Diyari and Dhirati are marked by the affix *-yaṯi* –
 419 follow the main clauses to which they are subordinated, and that it is possible to have a tense
 420 inflexion for the main clause verb:

421
 422 (7) Diyari
 423 *pulaṯa miṅka- ṅi kuṯi- ipa- yi/ ṯanali ṅayi- yaṯi palpa- li*
 424 3DLO hole- LOC hide- TR- PRES 3PLO see- LEST some- ERG
 425 ‘(He) hides them in a hole lest some of the others see (them).’ (Austin 1981: 226)

426
 427 Virgin Islands Dutch Creole offers a semantically transparent example of how a structure
 428 which initially involved a temporal subordinate clause – a clause beginning with the
 429 temporal adverb *fo* “before” – gave rise, over time, to the Apprehensional structure in that
 430 language, as the two sentences (8) and (9) show, respectively:

431
 432 (8) Virgin Islands Dutch Creole (Van Sluijs 2015)
 433 *Ju fo bli een jaa mi ons, fo ju nee am fa ons.*
 434 2SG MOD stay INDF year with 1PL before 2SG take 3SG of 1PL
 435 ‘You must stay with us for one year, before you take her from us.’

436
 437 (9) Virgin Islands Dutch Creole (Van Sluijs 2015)
 438 *Dan Anáánsi a ho fo loo bet padún*
 439 then A. PST have FO go ask pardon
 440
 441 *fo sini du am a fort.*
 442 before 3PL do 3SG LOC prison
 443 ‘Then Anansi had to ask for forgiveness, lest they put him in prison.’

¹⁵ Notice that this lack of temporal restriction only refers to the precautionary situation, i.e. to the verb situation denoted by the main clause; it may – or may not – be realized; the apprehension-causing situation, however, remains unrealized – at reference time – by definition.

445 As pointed out already, there are languages which possess a dedicated grammatical
446 morpheme encoding the apprehensional also at the level of the main clause, as the particle
447 *ngaja* in (10) in Ngarinyman (Ngumpin-Yapa, Pama-Nyungan, spoken in Australia)
448 illustrates:

449
450 (10) Ngarinyman (Angelo and Schultze-Berndt 2016: 256)
451 *Ngaja=ngali bayalan guliyan garraga.*
452 APPR=1DU.INCL bite:PRS dangerous frill-necked.lizard
453 'It might bite you and me, the dangerous frill-necked lizard.'

454
455 The grammatical semantics of the apprehensional can thus be represented as a cluster of
456 the meaning components presented in Table 1:

457
458 Table 1. Apprehensional
459 (i) Non-realized verb situation as a whole
460 (ii) Undesirability of verb situation
461 (iii) Causality: Verb Situation 1 causes avoidance of undesirable Verb Situation 2

462
463
464 Notice that there exists at least one language with two distinct morphosyntactic structures
465 for coding apprehension of an undesirable situation which is to be avoided, depending on
466 whether this is expressed by means of a bi-clausal structure or by a monoclausal one. This is
467 the Amazonian language Ese'ejá (Vuillermet, *forthc.*). EXAMPLE!!!! For the bi-clausal
468 structure Vuillermet uses the term “Precautioning”, and to the distinct morpheme suffixed to
469 the verb in a monoclausal structure she refers as the “Apprehensive”. In spite of this fact,
470 here we treat both bi-clausal and monoclausal structures expressing the meaning of non-
471 realized undesirable verb situation that is to be avoided as manifestations of the same
472 grammatical category, for the following reasons: (i) in many languages these are the same,
473 and; (ii) there is also a fairly regular pathway between the two in the process of
474 insubordination leading from the bi-clausal to the monoclausal structure (see also Evans
475 2007, Angelo and Schultze-Berndt 2016).

476 To sum up, the apprehensional is a semantically elaborate grammatical structure¹⁶, for the
477 following reasons. First, it encodes causality (Verb Situation 1 causes avoidance of Verb
478 Situation 2); second, it involves an undesirable verb situation; third, it describes a verb
479 situations a whole that is assessed as non-realized; hence (a) the frequent similarity/identity
480 of form between the expression of apprehensional and irrealis semantics, see, for instance,
481 Dixon (1980: 381), and (b) the use – in some languages – of a negator (Bond 2011).

482 Even though the subordinate – or the *lest* – clause expresses a verb situation which is
483 a potential expected outcome, it is clear that there is zero degree of realization of that
484 situation. Therefore, we have placed the apprehensional at the beginning of the non-
485 realization continuum in Figure 1.

486 487 3.2 Avertive

488 Unlike the apprehensional, which involves non-realized undesirable events to be avoided –
489 either in the past or in the non-past – the avertive involves past verb situations that almost

¹⁶ Notice that in those cases when the apprehensional is expressed by a bi-clausal structure, it is the whole bi-clausal construction and the situation it describes which is ‘elaborate’. In this sense it is justifiable to speak of elaborateness of semantics matched to “distributed” morphosyntactic form.

490 took place but didn't (see Kuteva 1998, where the avertive was firstly introduced as "action
 491 narrowly averted" (ANA), but was later re-labelled as the avertive in Kuteva 2000, 2001) as
 492 a verbal grammatical category. Since we have discussed the avertive already (see Section 2
 493 above), we are now in a position to summarize its properties in Table 2:

494

495 Table 2. The avertive

496 (i) Non-realized verb situation as a whole

497 (ii) Imminence

498 (iii) Pastness

499 (iv) Perfectivity

500

501 The non-lexical expressions for the avertive vary between purely grammatical
 502 inflections and lexico-grammatical constructions, using particles plus a verbal inflection.
 503 Kayardild, a Tangkic language (non-Pama-Nyungan) of Bentinck Island, north-west of
 504 Queensland, is one of the languages featuring a separate avertive verb inflection amongst its
 505 thirteen verbal inflections. The "almost" suffix *-nangarra* in Kayardild is attached to the
 506 verb that describes an action or event that almost happened at some point in the past. For
 507 example:

508

509 (11) Kayardild

510 *bulkurdudu ngijin- jina baa- nangarra krthurr- ina*
 511 crocodile.NOM 1SG.POSS- M.ABL bite- nangarra shin- M.ABL

512 'A crocodile almost bit me on the leg.' (Evans 1995: 261)

513

514 Gooniyandi, however, another Australian language, uses a lexico-grammatical adverbial
 515 construction to convey avertive meaning: The particle *wambawoo* meaning 'nearly' in
 516 Gooniyandi "occurs only with VPs in the potential mode, and indicates that although the
 517 process did not actually occur, it very nearly did":

518

519 (12) Gooniyandi

520 *Wambawoo gardyanirni*
 521 nearly she:could:have:fallen

522 'She nearly fell.' (McGregor, 1990: 512)

523

524 A very well-described structure expressing avertive meaning – which was termed
 525 "non-precipitative aspect" and was attested as early as Abbi (1975, 1977, 1980)¹⁷ – involves
 526 a bi-clausal structure where the second clause has adversative semantics. Abbi (1992)
 527 describes the non-precipitative as a situation "where the main event/action, represented by
 528 the Main Verb (Y) occurs on the verge of operation of another event/action, manifested in
 529 Reduplicated Verbal Adverb (X), and puts a stop on the operation of X; the result is that X
 530 never takes place... The verb inflection for Reduplicated Verbal Adverb for simultaneity and
 531 non-precipitation is identical in many of the languages". Notice that what is crucial here for
 532 the non-realized component element of the non-precipitative structure is that there is a
 533 second clause with adversative semantics. Abbi (1992) describes this clause as a "counter-
 534 proposition either with negative marking or with contrasting verbs".

¹⁷ This is an areal feature and thus, is shared by a large number of languages of the Indo-Aryan, Dravidian (except Tamil and Malayalam), Munda and Tibeto-Burman languages of South Asia [Abbi 1992]

535 Examples of the non-precipitative involve a limited number of antithetical verbs (on the
 536 notion of antithetical verbs, cf. Abbi 1992)¹⁸ specialized for marking avertive meaning, i.e.
 537 *bāc* ‘be saved from something/escape’, *ruk* ‘stop something’, *c^hoṛ-de* ‘leave something’,
 538 *c^huṭ-ja* ‘miss out’, *rah-ja* ‘stay/leave out’, and *cuk* ‘miss (a target)’¹⁹:

539
 540 (13) Hindi
 541 *barIf* *ho-* *te* *ho-*
 542
 543 rain happen/to.be- PRES.IMPFV.VADV happen/to.be-
 544 *te* *reḥ* *gəi*
 545 PRES.IMPFV.VADV stay/leave.out go.away.F.PFV
 546 ‘It was going to rain but did not.’ [Abbi 1980]

547
 548 Importantly, it is the combination of the antithetical verb of the second clause and the
 549 reduplication of what Abbi refers to as the Verbal Adverb of the first clause that result in the
 550 meaning of the non-precipitative. In other words, in addition to past, the main verb in a multi-
 551 clausal sentence has to be antithetical. If it isn’t, the avertive meaning does not arise. Non-
 552 antithetical verbs do not give us the reading of the avertive. Consider the Hindi sentences
 553 (14a) and (14b) below, where the action of *read* in (a) was undertaken but in (b) although it
 554 was on the verge of being undertaken it never took place. A similar situation is exemplified in
 555 (15a) and (15b):

556
 557 (14a) Hindi
 558 *bhāya* *kitab* *pəṭ^h-te* *pəṭ^h-te*
 559 brother book read-PRES.IMPF.VADV read- PRES.IMPF.VADV
 560 *so* *gəya*
 561 sleep go.M.PFV
 562 ‘The brother went off to sleep as he was reading the book.’ [Abbi 1980]

563
 564 (14b) Hindi
 565 *bhāya* *kitab* *pəṭ^h-te* *pəṭ^h-te*
 566 brother book read- PRES.IMPF.VADV read- PRES.IMPF.VADV
 567 *reḥ* *gəya*
 568 stay/leave.out go.M.PFV
 569 ‘The brother was about to read the book but did not.’ [Abbi 1980]

570
 571 (15a) Hindi
 572 *bācca* *palne-se* *gir-te* *gir-te*
 573 child crib-ABL fall- PRES.IMPF.VADV fall- PRES.IMPF.VADV
 574 *ro-ya*
 575 cry-M.PAST.PFV
 576 ‘The child cried while he was falling from the cradle’. [Abbi 1977]

577
 578 (15b) Hindi
 579 *bācca* *palne-se* *gir-te* *gir-te*
 580 child crib-ABL fall- PRES.IMPF.VADV fall- PRES.IMPF.VADV

¹⁸ As Ayesha Kidway (p.c.) rightly points out to us, all antithetical verbs – predictably – involve some sort of telic, or delimitative, semantics.

¹⁹ There are eight antithetical verbs all in all: *bāc*, *ṭal*, *roḥ*, *cuk*, *reḥ*, *c^hoṛ*, *c^huṭ*, and *ṭ^heher*.

628 envisage this as a (intransitive) Subject that is about to “enter” a verb situation, and in fact
 629 “touches” the initial boundary of that situation, but is then prevented from entering it.

630 Notice that though at this point the event is not yet explicitly said to be prevented,
 631 it is only in this kind of situation that the allative is used for infinitives. As pointed out
 632 above, the regular way of constructing infinitives is with a postverbal illative (with thanks to
 633 Abel Zadoks, p.c.):

634
 635 (17) Tibetan
 636 *Ra.ma.na- dag= kyaŋ sla- r log- du ñe- ste*
 637 Name- CLC= CNC back- ILL turn- ILL approach- CNJ
 638 (narrator:) ‘Rāma and his company were about to return’ (and they did). (Old
 639 Tibetan Ramayana, de Jong 1977: line A164)

640
 641 The two infinitival constructions differ in temporal structure precisely as one would expect
 642 from the illative/allative contrast.

643 In other words, the nature of the construction “infinitive with a postverbal allative” +
 644 *thug* (aux.) itself implies non-realization, which is then confirmed by (the right) context.
 645 Even though the imminent event is envisaged as real, it is not realized yet. The temporal
 646 implication is one of pastness, even though Tibeian has relative tense, so the absolute
 647 reference would depend on the position in the clause chain. Such an analysis then illustrates a
 648 ‘constructional’ view of grammatical meaning, since we attribute the semantics not just to the
 649 words (morphemes) and their combinations, but we consider it arising from the construction
 650 itself.

651 Notice that in some languages the very fact that it is verbs denoting the beginning of a
 652 verb situation that can be used in the main verb slot enhances the semantics of the whole
 653 structure: it is the beginning of the verb situation that has been frustrated. Thus in the so-
 654 called “preventive” construction in Russian (Malchukov 2004: 194) *bylo* (be.3SG.PAST.NEUT)
 655 + main verb (PAST) (Vinogradov 1972 : 463; see also Plungian 2001), the main verbs are
 656 clearly marked as inchoative by Aktionsart prefixes such as *po-* in the verb *pošel* in the
 657 examples below:

658
 659 (18) Russian
 660 *Ja bylo pošel,*
 661 I be.3SG.PAST.NEUT depart.PAST.M
 662 *no... ostanovilsja.*
 663 but stop.PAST
 664 ‘I nearly started on my way but... (then) I stopped.’

665
 666 An even better example comes from the Russian National Corpus²¹ and dates back to the
 667 year 1864:

668
 669 (19) Russian
 670 *Ja bylo pošel na lestnicu,*
 671 I be.3SG.PAST.NEUT depart.PAST.M on staircase
 672 *no on ostanovil menja.*
 673 but he stopped me
 674 ‘I nearly started on my way upstairs, but he stopped me.’ (F. M. Rešetnikov, *Meždu*
 675 *l’udmi* 1864)

²¹ <http://www.ruscorpora.ru>

676

677

The most frequent occurrences of this construction are with animate subjects, as in the example above. However, *bylo* + main verb can also take an inanimate subject, especially if the subject designates a phenomenon or entity that is in some sense connected with intentionality:

680

681

682

(20) Russian

683

Delo bylo

pošlo,

684

matter be. 3SG.PAST.NEUT

start.going. 3SG.PAST.NEUT

685

no potom zagloxlo.

686

but afterwards faded.away. 3SG.PAST.

687

‘The (whole) affair was just about to start/get going but (then) it fizzled out.’

688

689

(21) Russian

690

Mašina bylo

poexala,

no...

691

car.F

be. 3SG.PAST.NEUT

start. 3SG.PAST.F

but

692

‘The car nearly started but...’/ ‘The car was just about to start but...’

693

694

Sometimes it is even possible to use this construction with typical inanimate subjects with no particular implication of intentionality:

695

696

697

(22) Russian

698

Vaza bylo

pokačnulas’,

no

ne

upala.

699

vase.F be. 3SG.PAST.NEUT

sway. 3SG.PAST.F

but

not

fall. 3SG.PAST.F

700

‘The vase was just about to sway but (then) it did not fall.’

701

702

It seems that the use of the *bylo*-construction in Russian has specialized for the expression of frustrated initiation whereby the main verb must denote the beginning of a verb situation, especially if we take into account the unacceptability of the example in (23), where the main verb *upala* ‘fall’ does not inherently involve beginning of a verb situation:²²

706

707

(23) Russian

708

**Vaza*

bylo

upala,

no...

709

vase

be.3SG.PAST.NEUT

fall.3SG.PAST.F

but

710

‘The vase nearly fell but...’/ ‘The vase was just about to fall but...’

711

712

Notice that a study of the entire scope of usage of the construction indicates that this is far from being the whole story; as will be shown in Section 4 below, the same construction has taken over two more functions.

714

715

Another example of the frustrated initiation category comes from the Amazonian language Pirahã, where Everett 1986 distinguishes between what he calls two “frustrative” markers, one expressing “frustrated initiation” –*ábagai* (1986: 300), and the other “frustrated termination” –*ábai* encoding actions begun but not completed (Everett 1986: 300). In other words, according to Everett 1986 there is a formal way to distinguish in Pirahã between the statement *The child almost began to fall* and *The child almost fell*.

719

720

While we assume that aspectual distinctions – as much as they are encoded in individual languages – are relevant to frustrated initiation, at this stage of research we have

722

²² As Andrej Mal’chukov (p.c.) points out to us, achievement verbs like the verb *upast’* do not (always) have imperfective aspect.

723 no conclusive evidence as to how exactly aspect relates to this category. Therefore, this is
 724 certainly an issue in need of further investigation.

725

726 **3.4 Frustrated completion**

727 The frustrated completion structure is about a past verb situation which just like with the
 728 apprehensional, the avertive, and the frustrated initiation structures was potentially realizable
 729 and yet remained unrealized. The difference is that with frustrated completion the verb
 730 situation had begun, but it could not be completed. In other words, there was an attempt to
 731 bring an initiated verb situation to an end, but this attempt was unsuccessful. We can
 732 represent the semantics of this structure as shown in Table 4:

733

734 Table 4. Frustrated completion

735 (i) Non-realized completion of verb situation

736 (ii) Pastness

737 (iii) Imperfectivity of prefinal stage

738

739 For instance, the Matses suffix *-uid* can refer to an action that was not finished, or an action
 740 that was not finished and additionally was expected to have a different outcome (Mueller
 741 2013: 106–107):

742

743 (24a) Matses

744 *cun tied neshca- uid- o- mbi*

745 1GEN swidden weed- INCP.FRUST-PST- 1SG

746 ‘I started weeding my swidden but did not quite finish.’ (Panoan; Fleck 2003: 362)

747

748 (24b) Matses

749 *Shectename cues- uid- o- mbi*

750 white.lipped.peccary kill- INCP.FRUST- PAST- 1SG

751 ‘I ineffectively tried to kill a peccary.’ [i.e. wounded it, but it escaped] (Panoan; Fleck
 752 2003: 362)

753 Mongsen Ao – spoken in Nagaland, Northeast India, a Tibeto-Burman/Sino-Tibetan²³
 754 language unrelated to Matses both genetically and geographically – exhibits the category of
 755 frustrated completion, too : the suffix *-phət* in Mongsen Ao is used to mark a “failure to do
 756 something to its completion“ or to do something ineffectually (Coupe 2007: 330-332):

757

758 (25) Mongsen Ao (Coupe 2007: 332)

759 *pa aki tʃhàphətəi li.*

760 *pa a-ki tʃhà-phət-əi li*

761 3SG NRL-house make-FRUS-SEQ stay.PST

762 ‘He didn’t finish building the house and left it in that state.’

763

764 Frustrated completion is often expressed by a bi-clausal structure involving the
 765 adversative conjunction *but* and the negative particle *no/not*²⁴. What is foregrounded here is

²³ The precise genetic relationship of Ao to Tibeto-Burman/Sino-Tibetan is unknown (Alexander Coupe, p.c.)

²⁴ Notice that once we have to deal with bi-clausal structures we are into the domain of morphosyntax and not in a domain that can be dealt with solely at the level of morphology/morphosemantics.

766 the imperfective nature of the verb situation. This is often reflected also in the morphosyntax
 767 of the structure. On the one hand, it may only allow for the choice of a verb in the
 768 imperfective aspect in those languages which have obligatory aspectual marking:

769
 770 (26) Russian
 771 *On ubeždal menja, no ne ubedil.*
 772 he- convince.IMPFV.PAST me but not convince.PFV.PAST
 773 ‘He tried to convince me, but he didn’t.’
 774

775 The imperfectivity of the verb in the first clause may be enhanced by the use of a temporal
 776 adverbial meaning “a long time”:

777
 778 (27) Russian
 779 *On dolgo ugovarival menja, no ne ugovoril.*
 780 he long persuade.IMPFV.PAST me but NEG persuade.PFV.PAST
 781 ‘He persuaded (Ipfv.) me for a long time, but didn’t persuade (Pfv.) me.’ (Comrie
 782 1976:19)
 783

784 On the other hand, it may involve a reduplication of the verb in the main clause:²⁵

785
 786 (28) Russian
 787 *Sneg tajal, tajal,*
 788 Snow melt.IMPFV.PAST melt.IMPFV.PAST
 789 *no ne rastajal.*
 790 but NEG melt.PFV.PAST
 791 ‘The snow started to melt but did not melt away completely.’
 792

793 3.5 Inconsequential

794 The inconsequential encodes the lowest degree possible of verb situation non-realization,
 795 namely it is about the lack – or the lack of completeness, or stability – of the expected, or
 796 wished-for results/consequences – of a verb situation that has itself been realized in the past.
 797 In other words, its meaning is ‘past verb situation that has taken place in vain’.

798 Table 5 summarizes the semantics of the inconsequential structure broken down into
 799 meaning components:

- 800
 801 Table 5. Inconsequential
 802 (i) Non-realized expected result of verb situation
 803 (ii) Pastness
 804

805 Thus in Hua (a Papua New Guinea language) the grammaticalized inconsequential structure
 806 has been identified as a specific verb form. It is marked by an affix – *mana-* (*-ma-*) –
 807 expressing a cluster of the meaning components of pastness (temporal), completion
 808 (aspectual) and non-realization of expected result (modal):
 809

810 (29) Hua

²⁵ We are grateful to Claude Hagege (p.c.) for having drawn our attention to this structure.

811 *hako- mana- (o)*²⁶
 812 seek- 1SG.ICSQ- (CLAM.VOC)
 813 ‘I sought (but couldn’t find)!’/‘I looked (in vain)!’ (Haiman 1988: 53)

814
 815 Haiman 1980 makes it clear that the Hua Inconsequential clause may stand alone (see the
 816 example above); when this happens, it very often signals a following indicative outlining
 817 the nature of the failure:

818
 819 (30) Hua
 820 *Ke- hu- mana. (Kmivaro’ a’bre)*
 821 talk- do.1SG- ICSQ
 822 ‘I talked to him: (but he didn’t listen to me.)’ (Haiman 1980: 158)

823
 824 The inconsequential seems to be a highly grammaticalized structure in Amazonian
 825 languages, where it has been often referred to by the term “(canonical) frustrative”. Thus
 826 the Inconsequential in Ese’ija is marked by the suffix *-axa* (the “-‘axa FRUSTRative” in
 827 Vuillermet’s 2013a terminology):

828
 829 (31) Ese’ija
 830 *Majoya eyaa oya ekue= baa= a*
 831 then 1SG.ERG 3ABS 1SG.GEN= machete= INSTR
 832 *sapa- [haha-weja- hia- ‘aja- nahe.*
 833 head- [cut-open]- DEPR- ICSQ- PAST
 834 ‘Then I tried to violently cut its head off with my machete.’ (but the action did not
 835 have the expected result, Marine Vuillermet, p.c.).

836
 837 Vuillermet (2012: 492) makes it clear that the action denoted by the main verb “cut-open”
 838 remained without the desired consequences: the viper whose head had been cut-open
 839 actually “walked away”. In other words, the above example would be better translated as
 840 ‘Then I tried to violently kill it by cutting its head off with my machete.’ The verb situation
 841 denoted by the main verb was realized, but the expected result was not obtained; hence, we
 842 are dealing with the Ese’ija Inconsequential here.

843 Another example comes from Desano (an Arawak language spoken in Latin America)
 844 :

845
 846 (32) Desano
 847 *bākā-ge eha-ri-bi*
 848 town-LOC arrive-FRUST-NON3.PAST
 849 ‘I arrived at the town (but I didn’t accomplish what I went there for).’ (Miller 1999:
 850 83)

851
 852 Typically, the inconsequential involves expectations towards the realization of a
 853 certain result. This expected but unrealized result is inferred from the context (see also the
 854 discussion above on the Hua Inconsequential). Thus the suffix *-bi* (termed “frustrative” in
 855 Jensen 1998) in the example from Tupinambá below indicates that the speaker expected a

²⁶ Here *-(o)* stands for the clamative vocable, which appears sometimes after imperatives, and proper names or kin terms in the vocative, and which is optional after the inconsequential (for further details on the use of this suffix, the reader is referred to Haiman 1980).

856 certain result to follow from the verb situation expressed by *só* ‘go’ but this result was absent
857 after the verb situation was realized:

858

859 (33) Tupinambá (Tupí-Guaraní)

860 *a-só-bi*

861 1SG-go-FRUST

862 ‘I went, but didn’t accomplish anything.’ (Jensen 1998: 539)

863

864 The inconsequential may also be about an incomplete – or unstable – result of a verb

865 situation that has taken place in the past. Russian has a specialized way of marking the

866 inconsequential of incomplete result:²⁷ it uses the Aktionsart prefix *do-* in its meaning ‘to

867 complete’ with the negative particle *ne-* preceding it within the boundaries of the same word

868 form,²⁸ in order to mark the incomplete result of a past verb situation:

869

870 (34) Russian

871 *Mne kažetsja, včera on čto-to nedogovoril(=ne-do-govoril).*

872 to.me seems yesterday he something NEG-AKTIONSART-speak.PAST

873 ‘It seems to me, yesterday he didn’t make his point completely.’/ ‘It seems to me,

874 yesterday he wasn’t explicit enough about he said.’ (Plungian 2001: 58)

875

876 In other words, Russian verbs can appear with what grammatical tradition considers

877 to be a complex prefix – *nedo-*.²⁹ The first element of this prefix is formally similar to the

878 negative particle *ne* in the language. The situation in Russian is very interesting because the

879 language makes a subtle formal distinction between the inconsequential and frustrated

880 completion. Thus the negative particle *ne* can appear in front of verbs prefixed with the

881 Aktionsart prefix *do-* meaning ‘to complete’. The two cases are distinguished in the

882 orthography and are associated with different semantic interpretations. On the one hand, the

883 Russian Inconsequential is marked by the complex prefix *nedo-* and has the meaning

884 ‘incomplete result of a past verb situation’ (see the example above). On the other hand, if the

885 negative particle *ne* is added to a verb prefixed with *do-*, signaled in writing by the fact that

886 it is then spelled separately, then we are dealing with the Russian Frustrated completion

887 structure, the meaning being ‘non-completed verb situation’:

888

889 (35) Russian (Plungian 2001: 58):

890 *On ne dogovoril (=do-govoril) i*

891 he NEG AKTIONSART-speak.PAST and

892 *pospešno vyšel (“prerval razgovor”)*

893 suddenly/abruptly went.out

894 ‘He could not/did not complete what he wanted to say and suddenly left.’

895

896 Chumakina 2013 describes a highly intriguing periphrastic verb structure – which she

897 terms the “inertial” – in Archi, which partially overlaps with the inconsequential. The

898 inertial stands for an event which had a result (and in fact, this result persists longer than

899 expected), however, it also means that some change of state was expected but did not

²⁷ Notice that there are other expressions for the same function, even though they are not the dedicated means for expressing the Inconsequential.

²⁸ Notice that in the canonical case in Russian, the negative particle *ne* is used separately from the verb form.

²⁹ This is reflected, for example, in the fact that dictionaries like the Ožegov dictionary have entries for this complex prefix and distinguish it from the combination of negative *ne* with the prefix *do*.

900 happen. Since at this stage of research we have no clear understanding as to how exactly the
 901 inertial relates to the inconsequential, the reader is referred to Chumakina 2013 for details.

902 Finally, some languages appear to have developed two distinct structures encoding
 903 the inconsequential function. Thus in Yanomama we find the affix *pë*, which can be
 904 translated by ‘vainly’ in (36):

905
 906 (36) Yanomama
 907 *ware ya- a nia- pë- ta-*
 908 peccary 1SG(A) 3SG(P) shot.arrow- ICSQ- PUNCT-
 909 *ke- ma*
 910 PFV2- PAST
 911 ‘I shot the peccary (but not lethally)’/‘I ineffectively tried to kill a peccary [i.e. I
 912 wounded it but it escaped].’ (Ferreira 2015)

913
 914 In addition to this morpheme there is yet another inconsequential structure –
 915 consisting of the verbal particle *ni* followed by the morpheme *õhõtaa* ‘suffer’ – which gets
 916 added to the main verb:

917
 918 (37) Yanomama
 919 *ya- rãma hu- u ni- õhõtaa- a- ma*
 920 1SG(S)- to.hunt to.go- DYN V.PTCL- to.suffer- IPFV- PAST
 921 ‘I went hunting (but I did not kill anything).’ (Lit.: ‘I-suffered-hunting’) (Ferreira
 922 2015)

923

924 4 Linguistic categorization

925 4.1. Grammatical polysemies and abstract semantic prototypes/ semantic “cores”

926 Of the grammatical categories discussed above it is only the apprehensional that is
 927 relatively well-studied and non-controversial (Austin 1981, Dixon 1980, Epps 2008,
 928 Lichtenberk 1995, Vuillermet 2012, Vuillermet forthc., Angelo and Schultze-Berndt 2016,
 929 among others). The other four categories have – most of the time – not been given any
 930 recognition as grammatical categories in their own right. The reason for that is, we
 931 hypothesize, the existence – in a number of languages – of a one-to-many mapping between
 932 form and functions of the structures under discussion here, a situation to which we may refer
 933 as grammatical polysemy (or heterosemy). Thus Epps 2008 reports for Hup (a language of
 934 the Nadahup (Maku) family, in the Vaupés region of the Amazon rain forest) the existence
 935 of what she calls a “frustrative mood” marker which illustrates this point. According to Epps
 936 2008, the frustrative in Hup is encoded by the inner suffix *-yãh-* on verbs and a particle *yãh*
 937 on verbs and predicate nominals. It has the following functions, which correspond to our
 938 inconsequential, frustrated completion and avertive structures, respectively:

939 (i) Action which occurred but was ineffectual/ the intended or anticipated goal of the
 940 action is unrealized/ its resulting (intended) state did not last, or its eventual outcome is
 941 in doubt (i.e. the inconsequential in our terminology):

942

943 (38) Hup
 944 *tít w'ãt-át ʔãh cuh-ʔeʔ-yãh-ãh*
 945 string long-OBL 1SG string-PERF-FRUST-DECL
 946 ‘I strung (the beads) on a long string (in vain).’ (Epps, 2008: 620)

947

948 (ii) The action itself did not reach completion (i.e. frustrated completion in our
 949 terminology);

950 (iii) (When the frustrative particle *yáčh* is used with the verbal negative suffix *-nih*). An
951 averted negative event:³⁰

952

953 (39) Hup (Epps, 2008: 618)

954 *ʔãh widham-nih* *yáčh(...)*

955 1SG arrive.go-NEG FRUST

956 'I almost didn't arrive(...)'

957

958 The *bylo*-construction in Russian mentioned above can also be regarded as a structure that
959 presents a case of grammatical polysemy/heterosemy. Plungian 2001 and Malchukov 2004
960 are two excellent studies of this construction from which it becomes clear that it can encode
961 any of the following semantically elaborate categories:

962

963 a) frustrated initiation

964 (40) Russian

965 *Pošjol* *bylo* *k* *domu,*

966 start.walking.PAST be.3SG.PAST.NEUT towards home

967 *no ostanovilsja.*

968 but stopped

969 'I was about to start on my way home, but (then) I stopped.' (Plungian 2001: 74)

970

971 b) inconsequential

972 (41) Russian

973 *pojavilsja* *bylo* *v dome,*

974 appeared be.3SG.PAST.NEUT in home

975 *no tut-že snova izčez.*

976 but right.away again disappeared

977 'I appeared at home just for a moment, but disappeared again right away.' (Plungian
978 2001: 74)

979

980 c) avertive³¹

981 (42) Russian

982 *Zadal* *bylo* *vopros,* *no zastesnialsja.*

983 give.PAST be.3SG.PAST.NEUT question but became.shy

984 'I nearly asked a question, but I was too shy for that.' (Plungian 2001: 74)

985

986 Which of these functions will be realized by any particular occurrence of the *bylo*-
987 construction depends on the particular aspectual characteristics of the main verb.

988 Notice, however, that when it comes to describing the behavior of the above
989 concrete linguistic expressions on a language-specific level, an analysis in terms of
990 grammatical polysemy is not the only possibility. An alternative analysis would be one in
991 terms of monosemy, or underspecified grammatical category (with thanks to an anonymous
992 reviewer). Such an analysis involves the notion of abstract semantic prototype or "core"
993 semantics, whereby it is assumed that the boundaries between the functions/uses of the

³⁰ Notice that Epps (2008: 621) reports one more function for the frustrative particle *yáčh* when used with the verbal negative suffix *-nih*, namely it may indicate that "a negative event has impeded a desired outcome or situation (i.e., 'did not do (verb), to our disappointment')".

³¹ Plungian (2001: 74) refers to this function of the *bylo*-construction as "unrealized intention" (Russian: *nerealizovannoe namerenie*).

994 grammatical morpheme concerned are fuzzy and blurred. Thus it is often the case that
995 following the logic of “common denominator”, various attempts have been made to postulate
996 an abstract semantic prototype to capture a varying number of the structures under
997 discussion here. There exist a number of systematic accounts of the form:meaning pairings
998 which constitute the object of the present investigation (Aikhenvald 2003, Epps 2007,
999 Malchukov 2004, Plungian 2001, Overall 2017). For lack of space, in this section we can
1000 only discuss – in a rather synthetic way – some of them (for details, see the original studies).

1001 One of the most comprehensive treatments of the above distinctions in terms of a
1002 single abstract prototype is presented in Aikhenvald 2003. On the basis of a detailed analysis
1003 of the linguistic facts of the Amazonian language Tariana, Aikhenvald treats a number of
1004 structures as the concrete linguistic realizations of a single, frustrative core meaning, that is,
1005 “the action was ‘frustrated’” in some way. More precisely, Aikhenvald (2003: 380) describes
1006 the morpheme *-tha* in Tariana as the expression of no fewer than the following meanings
1007 depending on the con- and the co-text of use of that morpheme :

- 1008 (i) *The action has failed already.*
1009 (ii) *The action is bound to fail.*
1010 (iii) *The success of an attempted action is not yet certain.*

1011 Of these three, the distinction in (i) comes close to our avertive, and the one in (iii) is
1012 close to our frustrated completion. The distinction in (ii) is a very interesting observation;
1013 since at this stage of research we have no conclusive data about the existence of a
1014 form:meaning pairing encoding the same meaning in any other language, we will leave it for
1015 consideration in further research..

1016
1017
1018

1019 While describing (any number of) the semantically elaborate categories under
1020 discussion here in terms of abstract semantic prototypes/semantic “cores” on a language-
1021 specific level may be justifiable, such a treatment of these categories on the universal
1022 conceptual-semantic level – we argue – deprives us from important typological insights.
1023 There is nothing to be gained from cross-linguistic accounts leveling up the differences
1024 between two verb situations that are totally opposite in temporal-aspectual-modal nature
1025 such as a fully realized one versus a fully non-realized one. This has become the common
1026 practice in the typological literature on South American languages, in particular, where the
1027 umbrella term “frustrative” has been used for non-realized TAM categories almost on an
1028 “anything goes” principle. This is how a detailed recent study of tense, aspect, modality and
1029 evidentiality in indigenous South American languages describes the “frustrative” (Mueller
1030 2013: 158): “A frustrative refers to an event that did not have the expected outcome or was
1031 finished unsuccessfully. The action can be left unfinished, or be finished but not as expected,
1032 or be done in vain. It involves emotive frustration on the part of the speaker, but not
1033 necessarily so. It is not an incompletive, which just states that an action is not finished,
1034 regardless of whether the outcome was expected or desired. One could say that semantically
1035 a frustrative marker can be an incompletive with added frustration in those cases where the
1036 action is not finished, but this is only a part of frustrative meaning. Actions may very well be
1037 finished, which prohibits incompletive meaning, but not with the desired outcome.”

1038 The “frustrative” as described in Mueller (2013: 158) covers – in our model – two
1039 distinct semantically elaborate grammatical categories, frustrated completion and the
1040 inconsequential, which occupy two adjacent places on our non-realization *apprehensional-*
1041 *avertive-frustrated initiation-frustrated completion-inconsequential* continuum (Fig. 1). In
1042 other words, whereas the abstract semantic prototype model may serve as a possible
1043 description of the behavior of the linguistic expressions under discussion on a language-

1044 specific level, this model is too vague to help us further if we are carrying out a typological
1045 comparative study.

1046 The question then arises:

1047 given that in individual languages the above grammatical polysemies – or
1048 monosemous, underspecified grammatical categories, for that matter (see the discussion
1049 below) – exist, is it justifiable to treat the avertive, frustrated initiation, frustrated completion
1050 and the inconsequential as distinct categories in the first place?

1051 Our answer to this question is in the positive, for the following reasons. First, it is
1052 possible to find clear-cut formal oppositions between particular TAM non-realization
1053 semantically elaborate categories within the system of a single language such as, for
1054 instance, the formal distinction in the orthography between Frustrated completion and the
1055 Inconsequential in Russian (see Section 3.5 above). An example of a formal distinction
1056 between Frustrated completion and Frustrated initiation comes from Pirahã. Thus in (43), in
1057 which the Frustrated completion marker (referred to as “frustrated termination marker” in
1058 Everett 1986) is attached to the verb, the speaker “perceives the child as beginning to fall but
1059 catching himself before hitting the ground” (1986: 300):

1060
1061 (43) Pirahã
1062 *Tiobáhai bigí kaob – ábai*
1063 Child ground fall-FRUST.TERM
1064 ‘The child almost fell.’ (Everett, 1986: 300)

1065
1066 However, if we exchange the Frustrated completion marker *–ábai* with the Frustrated
1067 initiation marker *–ábagái* the meaning of the sentence will change:

1068
1069 (44) Pirahã
1070 *hi xi koho- áo- b- ábagái*
1071 3 thing eat- TELIC- PERF- FRUST.INIT
1072 ‘He almost (began to) eat it.’ (Everett, 1986: 300)

1073
1074 Tariana is a language which makes a formal distinction between the Avertive and the
1075 Inconsequential. More precisely, in Tariana it is possible to employ a distinct affix, namely
1076 *–maña* (or *–mayã*) to ‘describe an action which was about to happen, but did not happen’.
1077 Aikhenvald 2003 even adds an evaluative aspect to the meaning: “Its meaning is ‘something
1078 negative almost happened but the agent (A/Sa) managed to prevent it’” (Aikhenvald 2003:
1079 342). This is a typical context of use for the avertive:³²

1080
1081 (45) Tariana
1082 *ha-na-nuku nu-whe-ta- mayã nhupa-ka*
1083 this-CL:VERT-TOP.NON.A/S 1SG-fall+CAUS2-ALMOST 1SG+grab-DECL
1084 ‘I was on the verge of dropping this long one (pen) but managed to grab it.’
1085 (Aikhenvald 2003: 342)

1086
1087 On the other hand, there exists what Aikhenvald refers to as the frustrative marker –
1088 *tha-* which is often – even though not always – used to indicate “that the success of an
1089 attempted action is not yet certain” (Aikhenvald, 2003: 380), i.e. the inconsequential in our
1090 terminology.

³² Notice that Tariana (Aikhenvald 2003: 342), can also express avertive meaning by the frustrative marker –
tha- plus ‘almost’ particle.

1091
 1092 (46) Tariana
 1093 *Nuha* [nu-sata-tha-na *nhuma*]
 1094 I 1SG-ask-FRUST-REM.P.VIS 1SG+hear
 1095 ‘I did try in vain to ask (the pilot about why he did not let us go).’ (Aikhenvald 2003:
 1096 380)

1097
 1098 Whereas *-maña* (or *-mayã*) is categorized as an aspect marker, the frustrative marker *-tha-*
 1099 is classified in Aikhenvald 2003 as a mood and modality marker.

1100 Second, when examined in greater detail, many situations of what at first sight seem
 1101 to be grammatical polysemies involving the categories under discussion here turn out to
 1102 involve different constructions where the same, “polysemous” grammatical morpheme is
 1103 used in a specific grammatical environment. Let us compare the use of the frustrative marker
 1104 *-tha-* in the above example in Tariana to the use of the same marker in examples (47) and
 1105 (48), where the meaning is Avertive:

1106
 1107 (47) Tariana
 1108 *Tuki-thamana* *wa-yami*
 1109 little-FRUST+REM.P.NONVIS 1PL-die
 1110 ‘We almost died.’ (Aikhenvald 2003: 382)

1111
 1112 (48) Tariana
 1113 *Kwame-tiki* *nu-wha-tha-mahka* *nu-a*
 1114 little.by.little-DIM 1SG-fall-FRUST-REC.P.NONVIS 1SG-go
 1115 ‘I have almost fallen down (but I managed not to).’ (Aikhenvald, 2003: 382)

1116
 1117 At first sight, one may be inclined to regard the *-tha-* morpheme as manifesting grammatical
 1118 polysemy (Inconsequential/Avertive). A closer examination of the grammatical distribution
 1119 of this morpheme reveals, however, the following regularity:

- 1120 a) When used in combination with visual evidentials, *-tha-* marks the Inconsequential;
 1121 b) When used in combination with non-visual evidentials and the adverb *tuke* ‘a little’, or
 1122 *kwame-tiki* ‘little by little-diminutive’, it means ‘just about, almost’, marking an action
 1123 which was on the verge of happening but didn’t (cf. Aikhenvald 2003: 381), i.e. the
 1124 Avertive.

1125 In other words, it isn’t *-tha-* that conveys the inconsequential or avertive meanings, but its
 1126 use as part of a whole construction with or without the adverb ‘a little’, and with the visual
 1127 vs. non-visual evidentials. Thus, it is justifiable - we argue - to treat these two constructions
 1128 as the instantiations of two distinct grammatical categories.

1129
 1130 **4.2. The present approach: Intersective Gradiance and semantically elaborate categories**

1131 In the present section we will argue that the notion of precise, sharp boundaries is
 1132 critical/crucial to a phenomenon such as semantically elaborate grammatical categories. We
 1133 will offer an account of this type of categories based on what is termed “Intersective
 1134 Gradiance” in Aarts 2004 and Aarts 2007.

1135 Aarts’ approach to linguistic categorization is an integrative one: it takes a position
 1136 between the views of the so-called ‘categorizationalists’ (advocating precise, sharp
 1137 Aristotelian categories) and those holding the view that ‘gradiance is everywhere’.

1138 Intersective Gradiance is conceptualized as involving “two form class categories α
 1139 and β , and obtains where there exists a set γ of elements characterized by a subset of α -like
 1140 properties and a subset of β -like properties. When there is gradiance between two categories

1141 α and β we will say that these classes ‘converge’ by virtue of the fact that there exist elements
1142 which display properties of both categories”. Also: “The intersection is between γ and the full
1143 set of α -like properties, and between γ and the full set of β -like properties.” (Aarts 2007:
1144 124). As an example Aarts gives the phrase *a working mother* in which *working* is
1145 characterized by a mix of verbal and adjectival properties. For example, it is verbal by virtue
1146 of taking an *-ing* ending and by its ability to be premodified by an adverb such as *hard*, but at
1147 the same time it displays the adjectival property of being placed in front of a noun. Crucially
1148 to our analysis, Aarts’ model of Intersective Gradience rules out fluid category boundaries;
1149 rather, there is a clear demarcation line between categories. Thus a particular formative may
1150 have properties of one or two categories but the borders of the categories are still clear.
1151 Notice that the present model in terms of Intersective Gradience has an important
1152 characteristic in common with a model in terms of Transcategorization (Ramat 2001, Ježek &
1153 Ramat 2009): both models recognize the possibility for grammatical categories to share
1154 identical values (e.g. genus in verbs and nouns) as well as the possibility for the same
1155 linguistic expression to belong to more than one category. Where they differ – in a major
1156 way – is that whereas the former allows for a clear demarcation line between categories, the
1157 latter does not. In other words, both models recognize gradience, but the Intersective Model
1158 retains discreteness whereas the Transcategorization Model does not.

1159 What makes an account in terms of Intersective Gradience an adequate way to
1160 capture the characteristics of the TAM semantically elaborate categories under discussion
1161 here is the fact that these categories are notionally related to each other and that they share a
1162 varying number of characteristics, i.e. meaning components, and yet, they are cross-
1163 linguistically identifiable as categories in their own right.

1164 Thus our account of semantically elaborate categories based on the notion of
1165 Intersective Gradience is an extension of the way in which this notion was elaborated in
1166 Aarts 2004 and Aarts 2007 in two ways. Whereas Aarts’ work fleshes out Intersective
1167 Gradience primarily on the basis of syntactic phenomena/criteria, in the present study we
1168 rely on semantic criteria as much as we do on morphosyntactic ones. This comes as no
1169 surprise, since our purpose in this study is to identify – and organize within a single coherent
1170 conceptual-semantic frame – a particular set of particular (lexico-)grammatical structures
1171 across languages. Due to the vast diversity of language-specific syntactic rules, cross-
1172 linguistic comparisons without taking recourse to semantics are next to impossible,
1173 especially in cases where the languages investigated are both genetically and geographically
1174 remote.

1175 What is most relevant to the present discussion is that even though any pair of the
1176 above semantically elaborate categories may share – or converge on, in Aarts’ 2004 and
1177 Aarts’ 2007 terminology – one or more meaning components, they still have sharp
1178 boundaries.

1179 From Table 1 through Table 5 in Section 3 it becomes clear that the semantically
1180 elaborate grammatical categories discussed here select a particular number from the
1181 following set of meaning components:

1182

- 1183 • Non-realization of the verb situation as a whole
- 1184 • Non-realization of the initiation of the verb situation
- 1185 • Non-realization of the completion of the verb situation
- 1186 • Non-realization of the expected result/resultant state of the verb situation
- 1187 • Causality
- 1188 • Undesirability of verb situation
- 1189 • Pastness
- 1190 • Imminence

- 1191 • Perfectivity
- 1192 • Imperfectivity of prefinal stage

1193

1194 The gist of the present account is that any of the categories under discussion share a certain
1195 number of particular characteristics, but this does not make them gradually “flow” into each
1196 other. On the contrary, the boundaries between them are sharp and precise. Let us illustrate
1197 this by taking a closer look at the avertive again. In Section 3 we characterized the avertive
1198 as a cluster of 6 meaning components: (i) *non-realization of foregrounded degree of verb*
1199 *situation stage-by-stage development*, (ii) *foregrounded degree of verb situation realization:*
1200 *full*, (iii) *result degree of verb situation realization: zero*, (iv) *imminence*, (v) *pastness*; (vi)
1201 *perfectivity* (see Table 2). Notice that the analysis we propose of semantically elaborate
1202 categories involves an even stronger emphasis on the Aristotelian view than advocated in
1203 Aarts 2004 and Aarts 2007. Thus, for example, Aarts allows a word like *utter* in *utter fool* to
1204 be an adjective, even though it conforms only to a subset of adjectival properties. The
1205 parallel question that would legitimately arise in the present study is then: Do we allow, for
1206 example, an avertive for which fewer than the four components in Table 2 apply? Our
1207 answer to this question is in the negative: if the semantics of an elaborate grammatical
1208 category involves fewer or more than – or the same number but different from – the above
1209 components, it is then a different category. Thus if a grammatical category only involves
1210 *pastness*, and *perfectivity*, but not *non-realization of the verb situation as a whole* and
1211 *imminence*, it is then another category, namely the aorist.

1212 Let’s assume that a grammatical category converges on only one of the avertive
1213 defining characteristics, e.g. *pastness*. If that category has additional characteristics which
1214 are different from the ones of the avertive – e.g. *non-realized completion of the verb*
1215 *situation* (instead of *non-realized verb situation as a whole*), and *imperfectivity of prefinal*
1216 *stage* (instead of ‘perfectivity’), then – again – it is a different grammatical category,
1217 namely frustrated completion.

1218

1219

1220 5 Discussion

1221 In the previous sections we looked in particular at meaning:form pairings that express
1222 different degrees of realization of the verb situation (thus our investigation is in the
1223 conceptual-semantic space of Tense-Aspect-Mood), ranging from a verb situation which was
1224 frustrated in its entirety, to a verb situation where the event designated by the verb happened,
1225 but some expectation raised by the event was not met. The form:meaning pairings we look at
1226 share this meaning of non-realization, but in addition contain various semantic components
1227 like pastness, imminence, perfectivity. As a result of our cross-linguistic investigation, we
1228 proposed and defined in detail five categories, namely the apprehensional, the avertive,
1229 frustrated initiation, frustrated completion and the inconsequential. To map these categories
1230 precisely we looked at data from a range of languages – both languages that are related to
1231 each other and ones that are not – in what can be referred to as universal conceptual-
1232 semantic space³³. As is to be expected when working with diverse languages, we came
1233 across varying formal means of expressing the above semantically elaborate categories,
1234 depending on the morphological profile of the individual languages. The clearest
1235 manifestations of the categories under discussion came from languages where there exist

³³ Notice that – as an anonymous reviewer correctly points out to us – there actually are three levels of analysis here and two interfaces between them: (i) the cross-linguistic category; (ii) the language-specific category, which is a member; (iii) the individual occurrences of the language-specific category. It is on the first of these three levels that we can place the *apprehensional-avertive-frustrated initiation-frustrated completion-inconsequential* continuum in Fig. 1.

1236 specific, morphosyntactically dedicated, highly-grammaticalized verb forms for them (e.g.
1237 the Matses suffix *-uid* for the Matses Frustrated completion, or the affix *-mana-* (*-ma-*) for
1238 the Inconsequential in Hua). In other languages we came across less-grammaticalized, i.e.
1239 lexico-grammatical rather than grammatical linguistic expressions for the apprehensional,
1240 the avertive, frustrated initiation, frustrated completion and the inconsequential. In these
1241 languages we observe – as a rule – either auxiliary constructions and/or bi-clausal structures,
1242 where the semantics of the main verb can play a role for the overall interpretation of the
1243 structure. In all cases, however, we are dealing with linguistic expressions that have moved
1244 away from their initial, lexical status. In other words, for the purposes of this study, we left
1245 out of consideration lexical expressions, and only examined grammatical as well as
1246 grammaticalizing structures (cf. Heine and Kuteva 2002 regarding the diagnostic tools for
1247 identifying grammaticalized/grammaticalizing structures).

1248 The form:meaning pairings we reviewed here present a challenge exactly because of
1249 their complex semantics. They frequently remain unrecognized in the study of languages
1250 where they occur. We consider it important to recognize that the form:meaning pairings we
1251 reviewed should be defined as belonging to grammatical categories which may share some
1252 meaning components, but retain distinct and well-defined boundaries. Thus, we argue in
1253 favor of a categorization which recognizes gradience, but retains discreteness. Seeing the
1254 categories we discussed in the paper as discrete is justified because they can have distinct
1255 formal expression across languages as well as within the same language.

1256 It is no less important to recognize that the categories discussed here – like all
1257 semantically elaborate grammatical categories – are not to be confused with grammatical
1258 polysemies: a grammatically polysemous category involves more than one grammatical
1259 meaning, whereby in a particular type of context only one of them is realized; in the case of
1260 a semantically elaborate grammatical category, on the other hand, all meaning components
1261 are realized simultaneously in every particular type of context. This does not mean that
1262 semantically elaborate grammatical categories are incompatible with grammatical
1263 polysemies, however. Thus the individual meanings that a grammatical polysemy involves
1264 may each be cumulative, that is, elaborate in our sense, e.g. the inner suffix *-yãh-* in Hup
1265 (see Section 4.1). Furtheron, a polysemous grammatical morpheme may appear in different
1266 linguistic constructions thereby realizing different grammatical categories, semantically
1267 elaborate ones included, e.g. the grammatical morpheme *-tha* in Tariana (see Section 4.1).
1268 One might well be tempted to challenge the present analysis by raising the question: how do
1269 we know that we are dealing with conventionalized features of meaning/grammatical
1270 structures and not with pragmatic implicatures of particular, non-grammatical(ized)
1271 linguistic expressions? For instance, as Alexandrova 2016 points out in a most recent study
1272 on narrowly averted and partially completed events in the languages of Europe and beyond,
1273 it is well-known – ever since Dowty 1979 – that when used with telic predicates in the past,
1274 one and the same linguistic form (e.g. Engl. *almost*) can be interpreted as meaning either that
1275 (a) the event was on the verge of occurring but it did not; or that (b) the event was partially
1276 realized but its endpoint was not reached. Accomplishments ([+durative], [+telic]) are
1277 generally compatible with both, while achievements ([-durative], [+telic]) accept only (a). A
1278 language which neatly manifests this situation is English, since it lacks specialized linguistic
1279 expressions for (a) and (b). Then the question arises: on what grounds do we treat (a) and (b)
1280 as two distinct categories? Our justification for the present analysis comes from the fact that
1281 – unlike English – there are languages that do not collapse (a) and (b) into the same
1282 structure, cf. example (42) for the Avertive and example (28) above for Frustrated
1283 completion in Russian. Alexandrova 2016 points out further languages which – just like
1284 Russian – encode (a) and (b) separately, Lithuanian, Buryat, Tyvan, among others.

1285 An anonymous reviewer observes that it is possible to use the English adverb *almost*
1286 as a modifier of past perfective VPs in four different types of context, which results in
1287 expressing avertive, frustrated initiation, frustrated completion, and inconsequential meaning,
1288 respectively:

1289
1290 “(a) Avertive: ***I almost cleaned the house.*** *I hate cleaning the house. But I hate boredom*
1291 *even more. Fortunately, your proposal to go have coffee saved me.*

1292
1293 (b) Frustrated initiation: ***I almost cleaned the house.*** *But you came to get me to go have*
1294 *coffee with you just as I was about to start.*

1295
1296 (c) Frustrated completion: ***I almost cleaned the house.*** *When you came to get me to go*
1297 *have coffee with you I had already gotten down to the last room.*

1298
1299 (d) Inconsequential: ***I almost cleaned the house.*** *I dusted and vacuumed for hours and*
1300 *hours but no matter how much I had at it, the place just looks grimy.”*

1301
1302 The question then arises: should we treat the behavior of the English construction *almost +*
1303 *perfective VP* as a manifestation of a grammatical polysemy with the semantically elaborate
1304 grammatical categories Avertive, Frustrated initiation, Frustrated completion and
1305 Inconsequential as its distinct meanings, or as “some sort of underspecified super-category”,
1306 or simply as a structure which “encodes proximity to a reference point on some appropriate
1307 scale, as in *It’s almost noon* or *She’s almost three* or *It costs almost a million bucks*“ (with
1308 thanks to the same anonymous reviewer). We agree with the anonymous reviewer that in
1309 order to give a conclusive answer to this question – which relates to the language-specific
1310 level of analysis – one needs to perform polysemy vs. vagueness/underspecification tests of
1311 the kind discussed in Cruse 1986. Applying the substitution, the identity, the establishment of
1312 senses as well as the sense spectra tests (for details, see Cruse 1986: 58-74) we conclude that
1313 the *almost + perfective VP* construction in English is a monosemous, underspecified
1314 linguistic expression rather than a polysemous one. A detailed analysis of the way this
1315 construction is used in English remains outside the scope of interest in this study, however,
1316 because this construction is lexical rather than grammatical (or lexico-grammatical) in
1317 English, in the first place (the reader is referred to Kuteva et al. 2019 for the diagnostic tools
1318 used in identifying grammatical structures). Second, the reader is reminded of the fact that
1319 our proposal for the existence of a synchronic continuum *apprehensional-avertive-frustrated*
1320 *initiation-frustrated completion-inconsequential* in Fig. 1 relates to a level of analysis which
1321 is not language-specific but a cross-linguistic one within what can be regarded a universal
1322 conceptual-semantic space.³⁴

1323 13246 **6. Conclusion**

13257 In this paper we studied five non-realization TAM semantically elaborate grammatical
1326 categories – the apprehensional, avertive, frustrated initiation, frustrated completion, and
1327 inconsequential – that we have been able to identify across languages. In order to show the
1328 non-realization meaning component one needs to break down the semantics of an event into
1329 stages such as initiation and completion, a procedure firmly established in the literature on
1330 the internal structure of verb situations. The classification we propose here – that is, the

³⁴ This, however, does not mean that the five categories under discussion here have to be grammaticalized in all languages.

1331 synchronic non-realization continuum apprehensional-avertive-frustrated initiation-frustrated
1332 completion-inconsequential (Fig. 1) – does, indeed, take the break down of the internal
1333 structure of the verb situation as a starting point. But it goes beyond that. What it does in
1334 addition is: it makes us “take a step back”, viewing the whole picture, with the verb situation
1335 on the “canvas of time”, whereby the verb situation is conceptualized as a temporal stretch
1336 placed on the time axis, and the vantage point of the viewer changes from the (i) pre-initial
1337 phase to the (ii) imminently pre-initial phase to the (iii) initial phase to the (iv) completion
1338 phase and, finally, to the (v) after-final phase of that verb situation.

1339 We argued that the Intersective Gradience approach to linguistic categorization is
1340 particularly good at dealing with the categories under discussion here. The apprehensional,
1341 avertive, frustrated initiation, frustrated completion, and inconsequential encode more than
1342 one meaning components belonging to different semantic domains simultaneously. We show
1343 that the application of the Intersective Gradience approach adequately captures their nature:
1344 (i) the semantics of these categories encompasses a particular number of particular meaning
1345 components (i.e. they have discrete boundaries), and (ii) these elaborate categories are
1346 composed of a number of discrete meaning components that they may partially share with
1347 other, different categories. It is this fact that gives a superficial impression of fuzziness .
1348 There is, however, a caveat here. It is not always easy to determine if a particular
1349 grammatical category is semantically elaborate or semantically straightforward, and this is
1350 not surprising: there exists no consensus among linguists about (a) what “meaning” is, in the
1351 first place, and; (b) whether it is justifiable to keep pragmatics separate from semantics.
1352 Hence it is only to be expected that measuring the semantic elaborateness of a particular
1353 linguistic expression – be it lexical or grammatical – would be a challenging task³⁵. It is
1354 beyond the scope of this paper to study the different types of situations that can be observed
1355 when trying to compare grammatical categories with respect to their elaborateness (for a
1356 detailed discussion on this, the reader is referred to Kuteva 2009). For the purposes of the
1357 present study, however, it is instructive to point out that there exists at least one type of
1358 situation where the semantic elaborateness of grammatical categories can be measured in a
1359 principled way: When the semantics of one grammatical category encompasses/ includes the
1360 semantics of another grammatical category. Thus, the avertive is more elaborate than the
1361 past since the meaning of the former (involving pastness, imminence, non-realization)
1362 includes the meaning of the latter in its primary, deictic function (pastness). While at this
1363 stage of research we have only made use of strictly linguistic metrics for measuring
1364 elaborateness of grammatical categories, future research may well show that disciplines such
1365 as psycholinguistics are better equipped for this task.

1366 **Abbreviations**

1367 A/Sa = agent

1368 ABL = ablative

1369 ANA = action narrowly averted

1370 ABS = absolutive

1371 ACC = accusative

1372 AG = agentive

1373 ALL = allative

1374 CLAM.VOC = clamative vocable

1375 CLC = collective

³⁵ We are reminded of Levinson (2000) when he says “An utterance is not, as it were a veridical model or “snapshot” of the scene it describes. Rather an utterance is just as sketchy as Rembrandt’s drawing..... There is no algorithm that, given a syntactic string in a language, cranks out its unique logical form or semantic structure.”

1376 CNC = concessive
 1377 CNJ = conjunction
 1378 dat = dative
 1379 DEPR = depreciative
 1380 DIM = diminutive
 1381 DIO = dual object
 1382 ELA = elative
 1383 ERG = ergative
 1384 F=feminine
 1385 FRUST=frustrative
 1386 FRUST.INIT = frustrated initiation
 1387 FRUST.TERM = frustrated termination
 1388 GEN = genitive
 1389 habit = habitual
 1390 ILL = illative
 1391 IMPF = imperfect
 1392 IMPFV = imperfective
 1393 INCP = incipient
 1394 INCP.FRUST = frustrated completion
 1395 ICSQ = inconsequential
 1396 INDF = indefinite
 1397 INF = infinitive
 1398 INS/INSTR = instrumental
 1399 ITIVE/ITV = intransitive
 1400 LOC = locative
 1401 LEST = *lest*-clause
 1402 M = masculine
 1403 MOD = modal
 1404 modal = modal affix *-á:pi-*
 1405 NEG = negative
 1406 NEUT = neuter
 1407 NOM = nominative
 1408 NMZ = nominalizer
 1409 NP = noun phrase
 1410 NPF = noun prefix
 1411 NRL = non-relational prefix
 1412 PA = past
 1413 PAST/past = past
 1414 PERF = perfect
 1415 PFV = perfective
 1416 PL/pl = plural
 1417 PIO = plural object
 1418 POSS = possessive
 1419 PRES = present
 1420 PTCL = particle
 1421 PUNCT = punctual
 1422 PST = past
 1423 PUR = purposive
 1424 REC.P.NONVIS = recent past non-visual evidential
 1425 REM.P.VIS = remote past visual evidential

1426 RES = resultative
 1427 RPAS = remote past
 1428 s = same subject switch reference marker –k
 1429 SG/sg = singular
 1430 SS/ss = switch reference same subject
 1431 stats = subject of a stative verb
 1432 TAM = Tense-Aspect-Mood
 1433 TMP.OS = temporal subordinate, object-to-subject co-reference
 1434 TMP.SS = temporal subordinate, subject-to-subject co-reference
 1435 TR = transitive
 1436 V = verb
 1437 VADV = verbal adverb
 1438 VBZ = verbalizer
 1439 VP = verb phrase
 1440 3A = 3rd person Agent

1441
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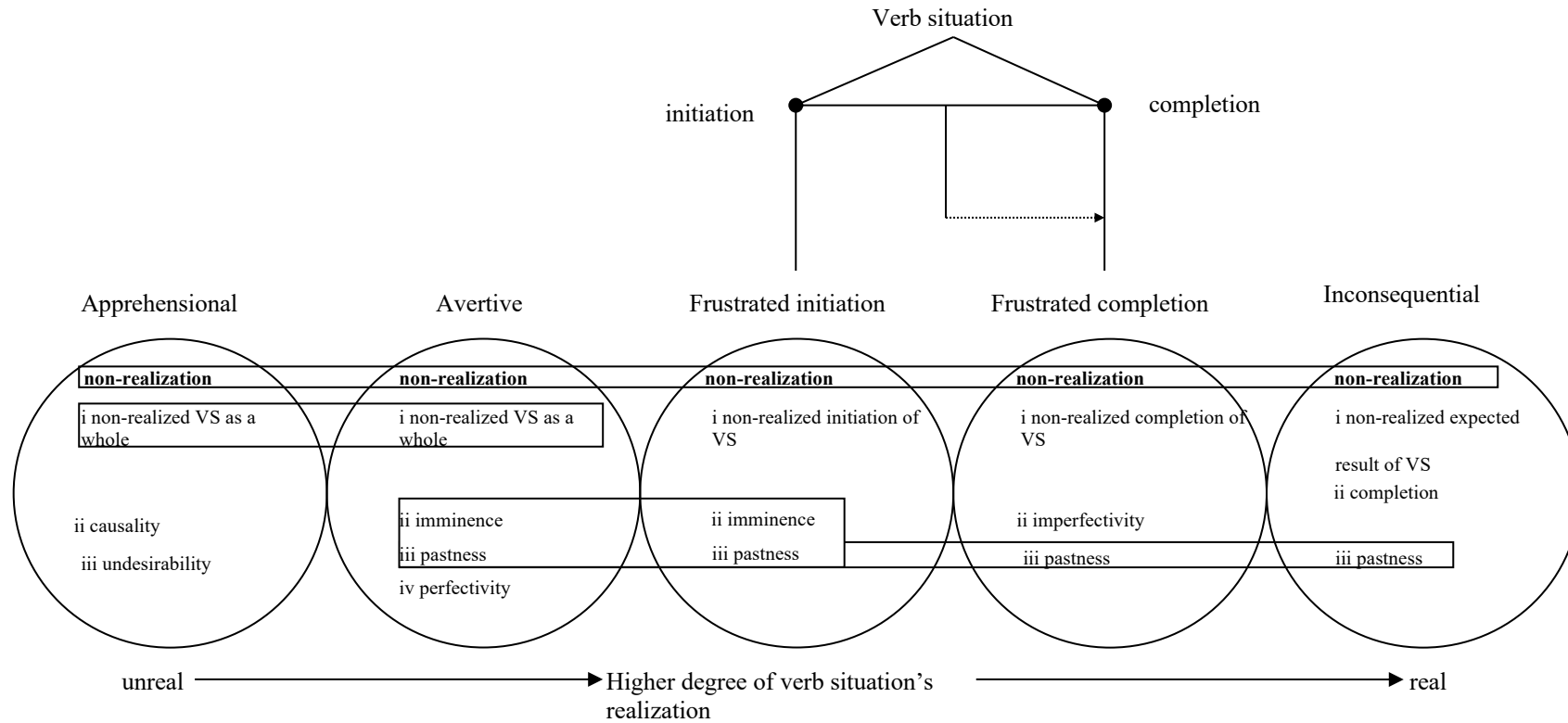
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Figure 1. Conceptual-semantic space of the “grammar of non-realization”



In this representation the shared components of the various semantically elaborate categories is visualized using 'boxes'.
 VS = verb situation