From short adverbs to complex predicates:  
A radical approach to adverbial agreement and construction in Romance  
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Abstract  
Short adverbs such as slow in to drive slow are usually seen as unproblematic. This paper shows that they emerge as only one interpretation from a baseline structure combining “verb + adjective” (VA structure). This structure underlies a complex series of interpretations that produce well-known patterns such as secondary predication, but also largely ignored patterns, as for example adverbial agreement in Romance. It is shown that agreement is a cohesive device used in order to enhance thematic coherence in complex predicates that include an adjectival modifier. Some short adverbs undergo lexicalization (to think big), with possible changes of word-class (e.g., shortcoming). The fact that the units emerging from VA structure have a constructional basis, in the broadest sense of the term construction, is also the starting point for a discussion of the heuristic value of the narrow definition of construction as a pair of form and meaning, which would thus be a way to analyze complex word structure. It is argued that an adequate analysis requires (i) a differentiated definition of the semiotic basis of the term meaning, (ii) a clear terminological distinction of conceptual and grammatical meaning and (iii) an analysis of construction at different levels of abstraction.

1. Introduction  
Recent discussion on complex predicates, complex nouns, complex adpositions, amongst others, brings the syntactic aspects of word structure (in more general terms: sign structure) into sharper focus (e.g., Nash & Samvelian 2016 for verbs, Hennig 2016 for nouns). The controversial debate on constructions stimulated by Goldberg (1995) conceives syntactic constructions as linguistic signs, an assumption that directly follows from Goldberg’s first definition of construction as a form–meaning pair. Even suffixes are sometimes analyzed in terms of “constructionalization” (Hüning & Booij 2014). This article presents a case study in its own right on short adverbs that secondarily affords the opportunity of checking the heuristic potential of constructionalist approaches, which may be subdivided into, firstly, compositional analyses following the traditional definition of grammatical construction and, secondly, analyses which consider constructions as linguistic signs, getting in closer touch with word structure.

The units in focus are, roughly speaking, short adverbs such as slow in to drive slow, and spicy in to eat spicy etc. Romance shares with English the tendency to use short adverbs for informal, oral communication, while the written standard prefers long adverbs ending in Romance –ment(e) or Engl. –ly (see Hummel 2014a). Similarities of usage in Romance and English are used in this article in order to develop the argumentation in more general terms. Short adverbs often freely combine with verbs, e.g., to drive slow, but some of them undergo lexicalization, e.g., to run short of, to stop cold, to think big, etc. This means that productive syntactic combination coexists with tendencies to form complex verbs with figurative meaning. Short adverbs may thus be considered a playground where construction varies between free syntax and frozen syntax. The fact that the definitions of construction vary between two extremes suggests two complementary approaches. Free construction in syntax corresponds to the traditional definition: “In its most general sense in linguistics, construction refers to the overall process of internal organization of a grammatical unit – a sentence, for example, being constructed out of a set of morphemes by the application of a set of rules (Crystal 2008 s.v.)”. I will use the term construction₁ for this baseline concept. Construction₁ is not an established form–meaning pair but a free compositional unit. The baseline concept is crucial for any dynamic analysis of secondary or tertiary processes starting from
construction. “Surface generalization” (Goldberg 2006; see Section 3) is one such secondary process. It cannot be conceived without a productive baseline.

In their prototypical function as modifiers of a noun, adjectives in Romance agree with the modified noun in gender and number. By contrast, adjectives modifying a verb generally take the unmarked masculine singular form. The latter are therefore described as invariable short adverbs. In the following examples from Romance, short adverbs take the unmarked masculine singular form although the subject is marked for gender or number:

(1)
Fr. Ils vont direct au café
Sp. María habla rápido
It. Loro guardano dritto nella telecamera
Pt. A eletricidade vai direto na lâmpada
Cat. Els homes treballen dur
Rom. Oamenii lucrează greu

They go direct to the café
Maria speaks fast
They look direct into the camera
The current flows direct into the bulb
The men work hard
The men work hard

In this canonical view, short adverbs can be clearly distinguished from secondary predication. Subject-oriented secondary predicates agree in gender and number with the subject noun. This is functionally justified inasmuch as they denote a property of the subject within a scope syntactically defined by the verb. Semantically, the property characterizes the subject participant during the event denoted by the verb:

(2)
Fr. Elle vit heureuse
Sp. Los niños duermen tranquilos
It. Flavia entra furiosa nella stanza
Pt. Ela chega cansada
Cat. La Maria va arribar contenta
Rom. Ea a venit acasă veselă

She lives happy
The children sleep calm
Flavia enters the room furious
She arrives tired
Maria arrived happy
She went home cheerful

Secondary predication may be considered a construction at a more abstract level than construction₁, that is, an abstract form–meaning pair conveying ‘adjective denoting an event-bound property of the subject’. This will be named construction₂. At this level of abstraction, the definition as a form–meaning pair can only be read in terms of grammatical meaning. The construction₂ itself creates no lexical meaning, and it does not depend on the lexical (= conceptual) meaning of its components (see definitions in Section 2). The grammatical meaning of the construction₂ meets lexical meaning at the level of utterance where the slots of construction₂ are filled with lexical items.

This brings to light the fundamental ambiguity of simply using the term meaning, a term that prototypically suggests conceptual meaning without overtly excluding grammatical meaning. If we prototypically conceive a pair “form–conceptual meaning”, the analysis of construction₂ is provocative. If we accept that construcion₂ deals with a pair “form–grammatical meaning”, the analysis appears to be adequate and almost conform to traditional concepts of grammatical construction. At the same time, the constructional point of view appears to be less innovative compared to traditional approaches. The lexical components may undergo restrictions that follow from the grammatical meaning of the construction₂ “secondary predication” (e.g., the properties must permit an event-related interpretation), but no restriction is exerted from the lexical components themselves. It becomes evident that the

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¹ Brazilian Portuguese.
linguistic discussion on construction 2 lacks a clearly defined semantic basis insofar as only grammatical meaning is concerned (see Section 2).

Recent research blurs the nice picture of clear-cut constructions 2 by providing evidence for occasional and even systematic agreement of short adverbs in Romance (Cruschina 2010, Ledgeway 2011 and in print, Silvestri in print, Satorre Grau 2009, Hummel 2015) as shown below: 2

(3)

| Fr. | Mes vers couleront plus faciles | My verses will flow more easy |
| Sp. | Vamos directos a casa | We go home direct |
| Pt. | Vamos directos ao cerne da questão | We go direct to the core of the question |
| It. | Se ne vanno dritti in Paradiso | They go direct to Paradise |
| Cat. | Anem directe a l’hotel | We go direct to the hotel |

The examples in (3) share or confound the definitional properties underlying the short adverbs in (1) and the secondary predicates in (2). In contrast to subject-oriented secondary predication in the examples of (2), where the modifier indeed denotes an event-bound property of the subject, the series in (3) shows subject agreement although the modifier only modifies the verb (adverb of manner). It can consequently be replaced by adverbs ending in –ment(e), or –ly in English. 3

The overlapping illustrated in (1), (2) and (3) is a consequence of the fact that the constructions 2 share the same baseline construction 1 “verb + adjective”. The constructions 2 “verb + short adverb” and “verb + secondary predicate” emerge as “surface generalizations” without losing the common basis. This provides constructional variation. The fact that written standard rules out adverbial agreement in constructions 2 mirrors a normative effort made in order to establish clear-cut boundaries between accepted constructions (see Hummel, in print c). For systematic structural reasons, this effort is in vain in the case of masculine singular. In Romance, secondary predication cannot be morphologically or syntactically distinguished from short adverbs if the relevant argument slot is filled with a masculine singular noun:  Il parle heureux ‘He speaks happy’ (subject-oriented).  Il le voit heureux ‘He sees him happy’ (object-oriented). This means that semantic interpretation starting from the productive baseline construction 1 is permanently relevant. Such interpretations produce gradually varying surface generalizations as constructions 2.

In this article, it is argued that a radical approach is required. It is radical insofar as it starts from fundamental insights into the semiotic and cognitive basis of constructions. This allows for the description of adverbial agreement as an emerging phenomenon among others. The term radical approach obviously recalls Croft’s (2001) Radical construction grammar. Indeed, increasing specialization of research and the usage of mutually opaque metalinguistic terminologies or languages (2001: 3) make us look again at the very fundamentals of

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2 Only Romanian seems to stick to the invariability principle with adverbial functions (Mircea Vasile & Croitor, in print). Adverbial agreement must not be confused with “adverbial inflection”. The latter term concerns the categorical status of grammatical morphemes used as markers of adverbial functions, e.g., Engl. –ly and Romance –ment(e). Within a vivid debate, the inflection hypothesis, which analyzes these morphemes as inflectional endings, is opposed by those who claim a derivational status as suffixes, and even those who plead for composition (see e.g., Giegerich 2012, Dal 2007). (**The text is fine now.**)

3 It should be noted that adverbial agreement can also be observed with modifiers of adjectives (e.g., Sp. chicos medios tontos ‘half crazy kids’, Fr. des oreilles pures françaises ‘pure(ly) French ears’). According to Brunot (1906, vol. 2: 409), this type of agreement prevailed in French until the 17th century, invariability being exceptional. The recent grammar of the Spanish Academy mentions this practice, adding however that agreement should be avoided (RAE-ASALE 2009: §13.8d). In the following, I only analyze adverbial agreement within VP.
language and linguistics in order to set a coherent foundation for the study of the interfaces, that is, of how all elements play together in order to ensure communication. Crofts approach remains syntactic in the sense that he studies constructions. He reacts against traditional syntax, replacing it with a broader notion of grammar that includes meaning (“theory of grammar – not just syntax”), using conceptual maps for the description of the output of constructions (2001: 8, 16). However, despite considering constructions as pairs of form and meaning, that is, as linguistic signs, no theory of the linguistic sign is suggested. But how can a theory claim a crucial role for constructions conceived as linguistic signs without thoroughly defining fundamental semiotic principles that refine the rough assumption of “form–meaning pairs”? 

In Section 2, it is argued that a reformulation of the semiotic basis of linguistic signs and constructions is crucially needed in order to tackle constructions. Section 3 deals with fundamental relations between structure and constructions. Section 4 provides evidence for the emergence of conventionalized constructions. Section 5 has a closer look at the function(s) of agreement in the constructions under scrutiny. Finally, Section 6 briefly analyzes lexicalized constructions, defined as construction.

2. The semiotic foundation

If construction is taken as a sign, basic semiotic principles must be clearly defined. If we choose a simplified version of the semiotic triangle proposed by Ogden & Richards (1936) as a starting point, we see that the material form of the word, which is generally defined as a sequence of sounds, is directly related to meaning, which in turn allows for reference to an object or thing meant:

Figure 1: The semiotic triangle

As Bloomfield (1963: 265) already observes, in natural language all words used in an utterance have both conceptual and grammatical meaning. Hence, the merely conceptual interpretation of the semiotic triangle is an arbitrary choice. This choice is generally not explicated. House, for instance, is a singular form, as differentiated from houses / the houses, and it can further be opposed to a house / the house. Thus, it becomes clear that the material form of the word is not simply a sequence of sounds, but a structure composed by morphemes. If we listen to an unknown language, we indeed only perceive a sequence of sounds, but fluent speakers of a language recognize morpheme structure. This obviously does not exclude structural ambiguity (functional homonymy).

Consequently, conceptual meaning goes hand in hand with grammatical meaning or function. This is a general (or universal) feature of syntax and lexicon. Conceptual and grammatical meaning may be lexicalized together, as in the case of tree where the concept is lexicalized as a noun. A form such as walk may be manifested as a noun (a walk) or a verb (to walk), or slow may appear with adjectival or adverbial function. Hence, grammatical
information (function) can be either identified by syntax or lexicalized. The fact that many stems do not exist independently, as in *tailor*, shows that both concept and function may run together. And even in the case of independently existing stems, as in *staple > stapler*, the word *stapler* integrates and lexicalizes both. In addition, categorization effects show that word-class or syntactic function exerts a forming influence on the concept (e.g., Wierzbicka 1986). If we admit that *a walk* and *to walk* deal with the same extra-linguistic “substance”, it becomes clear that word-class not only affects the syntactic function but also the concept, presented as a thing in the first case, and as an event in the second.

If we ask a morphologist why there is not general critique or refusal of the semiotic triangle based on simple sequences of sounds, the answer could be: This model concerns semantics, not morphology. But if meaning includes grammatical information, this answer is not satisfactory. The morphologist could add: Well, I said semantics, but I meant lexical semantics. Again, I would argue the contrary, that “lexical” can only be transparently defined as ‘being part of the lexicon’ (lexicalization). As we have seen, word-class and function are often lexicalized together with conceptual meaning. Hence, what is really meant by *semantics* or *lexical semantics* in current linguistic discourse is *conceptual semantics*, generally related to a word, as opposed to *grammatical meaning or function*. As we have seen, concepts are not independent of grammatical meaning.

For these reasons, I suggest two reformulations. The first concerns the definition of lexical meaning. In Fig. 2, (1a) illustrates the current usage of the term (see e.g., Crystal 2008: s.v. *meaning*; more details in Hummel, in print b). The only acceptable formulation is, however, (1b):

**Figure 2: The definition of lexical meaning**

This does not mean that grammatical meaning covers all the functions of sign, but only that functional properties may undergo lexicalization, and some of them generally do so in the case of lexical units (e.g., word-class). (1b) is in line or compatible with Croft’s (2001: 19) definition of *meaning*: “The term *meaning* is intended to represent all of the *conventionalized* aspects of a construction’s function […].”

The second reformulation concerns the semiotic triangle itself. The semiotic triangle crucially needs grammatical meaning as its third dimension. The semiotic triangle is thereby transformed into a semiotic pyramid (see details in Hummel, in print b):

**Figure 3: The semiotic pyramid**
In this pyramid, functional specification in utterance parallels conceptual specification. Traditional “semantic” analyses using the semiotic triangle only discuss polysemy. The semiotic pyramid shows that *polyfunctionality* is as relevant for the sign as polysemy. I do not claim that reference and function are simple manifestations of the meaning. Morphemes may also productively receive a given function by local syntax (see dotted line between “morpheme structure” and “function”). This is also the reason why the model does not specifically mention *syntactic function*. If the model includes reference as the endpoint of the conceptual dimension, we have to put *function* in a broad sense at the end of the functional dimension, including not only function in syntax but pragmatic codetermination. The pragmatic counter-argumentative function of *well* is a lexicalized feature inside its polyfunctionality. From a diachronic genetic point of view, as well as for language acquisition, meaning is probably not prior to reference and function but an abstraction or a set of abstractions of these. Hence, the pyramid can be read in the top down and bottom up directions. If we use the pyramid for an analysis of secondary predication, it turns out that only grammatical meaning can be isolated by abstraction, while the conceptual components that may fill the slots of this construction have no common conceptual configuration.

But do we really need to return to the old-fashioned semiotic triangle, adapting it to function by means of a pyramidal model, when cognitive linguistics provides evidence for the complexity of semantic relations constituting networks? I would argue that most semantic theories in the past hundred years have tried to eliminate the linguistic sign. Lexical fields in structural linguistics did not need a model of the linguistic sign since meaning was explained as the result of neighboring paradigmatic semantic structures. Similarly, cognitive semantics focuses on semantic networks and extra-linguistic contiguity. But neither is it possible, in structural linguistics, that in a lexical field (system) all meanings are negatively determined by other meanings (elements in the system), nor is it possible that in a given sentence (system) all members are triggered by other members. In cognitive linguistics, the *profiling* of a single line in the contiguous structure of a triangle would not be possible if the word *hypotenuse* had not the capacity of selecting this feature (Langacker 1999: 28). Even if the conceptual semantics of *hypotenuse* presupposes a network linked to other networks, the concept of the word has to be structured in such a way that it specifically selects a single extra-linguistic feature out of the object “triangle”. From the semiotic point of view, it does not matter if semanticists explain this selecting or profiling capacity in terms of networks, systemic paradigms or semantic features of meaning. The relevant fact is that there are signs which provide independent information to a given utterance. If not, we would not use them. Fauconnier (1999: 123-1214) recognizes but minimizes the role of signs: “A second point, *economy*, is that language forms carry very little information per se, but derive their power by

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4 It may well be that the scientific ardor of proposing causal explanations is one of the sources for these biased approaches. It seems to be hard for linguists to accept that a single sign such as *tree* simply exists because we perceive that an object “tree” exists in the world.
activating pre-existent networks in a way that creates emergent structures.” Yet, this “little information” is the reason why signs are used, opening whatever window to subsequent knowledge.

Strangely enough, neither lexical field theory nor cognitive linguistics nor construction grammar have suggested a model of the linguistic sign, not to speak of (asemantic) theories in syntax. The semiotic pyramid provides such a model. In contrast to traditionally used conceptual models, the pyramid offers interfaces between morphology, syntax and pragmatics. It enables different elaborations concerning the inner structure of the morphological, conceptual or functional dimensions. It further shares the critique which Croft (2001) addresses to the traditional opposition of syntax and semantics, insofar as grammatical meaning is part of the sign in the pyramid. The semiotic pyramid conserves, however, the distinction of a grammatical and a conceptual component. The fact that words can be morphologically analyzed as combinations of morphemes, especially in terms of stem plus grammatical morphemes, provides evidence against simple reductions to concepts. We may say that messages are the objectives of communication. To this extent, everything contributes to the construction of “sense”, which is a basically conceptual entity; but this does not mean that there is no grammatical component during the process of sense construction. Categorization effects (see supra on Wierzbicka) and the limits of fully separating stems and grammatical morphemes (see supra on tailor) show that the resulting concepts bring about a synthesis of both conceptual and grammatical meaning. A suffix may have a conceptual meaning, but this concept is linked to the grammatical properties of a suffix. It may well be that all grammatical meanings can be expressed as (rather abstract) concepts, e.g., “x determines y”. It is therefore basically the link to a given rule that distinguishes merely conceptual from grammatical meaning. Consequently, there has to be a place for rules in the model of the linguistic sign and word structure.

3. Structure and construction

Goldberg (2006) uses the concept of surface generalization in order to allow for a more dynamic view on the origin of constructions. Her argumentation is essentially directed against a model of syntax operating with underlying components. This explains why the word surface is used. This word does not specify what we find at the surface. A radical approach must exactly define what speakers may generalize “at the surface” and how the generalization process works. Generalizations presuppose the development of rules or tendencies that help in constructing sense, that is, the contribution of units or constructions to the message conveyed in a given utterance.

It is well known, or should be, that linguistic communication does not transmit information from one speaker to another speaker. The hearer only receives sensorial stimuli, e.g., sounds and possibly gesture in the case of spoken language, or visual stimuli in the case of written language. Consequently, the hearer is always obliged to use these asemantic stimuli as the starting point for the creative reconstruction of the information supposedly meant by the speaker. Fluent speakers are able to recognize morphemes. This means that fluent speakers analyze sensorial stimuli as word or phrase structures, as illustrated by the semiotic pyramid. A radical approach, therefore, usefully takes the traditional term structure as the basis for the construction of sense. As we shall see, one and the same structure may provide several interpretations. Constructions thus appear as phenomena emerging from a given structure. In other words, constructions are interpretations of a structure. I insist on the role of interpretation in order not to present constructions as immanent, self-emerging.

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5 Studies in morphology and syntax are traditionally reluctant to admit that an element such as a plural morpheme bears a concept. But what differentiates singular from plural (**?) if both morphemes share the same function? What is the difference between the conjunctions or and and if it is not the conceptual meaning?
phenomena in a structural linguistic sense. It is not constructions that are “at work”, but speakers.

4. Constructions emerging from baseline “verb + adjective structure” (VA structure)

The material form of a linguistic sign has been defined as a structure composed of morphemes in order to symbolize the construction of sense. I therefore take “verb + adjective” as the relevant structure, using the term VA structure. Starting with the most generally recognized constructions, the main interpretations of VA structure in Romance include the following patterns exemplified for French and Spanish:

Table 1: Canonical constructions emerging from VA structure

I. Secondary predication
   a. subject-oriented: Elle vit heureuse                She lives happy
   b. object-oriented:  
                              1) Je l’ai vue vivante       I saw her alive
                              2) Je l’ai trouvée vivante I found her alive
                              3) Mes soupes, je les mange grasses I eat my soups fatty / rich

II. Copula verb construction
   a. subject-oriented: Elle est malheureuse           She is unhappy
   b. object-oriented:  
                              1) Je la vois malheureuse    lit. I see her unhappy
                              2) Je la trouve malheureuse I find her unhappy

III. Adjectives with adverbial function (so-called short adverbs)
   a. Modifiers of the verb:
      Paul et Marie vont direct au café     Paul and Mary go direct to the bar
      (= directement)                      (= directly)
   b. Modifier of an inner object:
      iii) Nous voisines mangent gras    Our neighbors eat fatty / rich
      (*grassement)                      (*fattily / *richly)

According to typological insights (Hengeveld 1992), the modifiers in Table 1 belong to the word-class of adjectives. The distinction of adjectival and adverbial functions is made at the level of syntax (utterance). Sometimes the same concepts allow for different interpretations:

Sp. María va derecha  ‘upright’
    María va derecho a casa ‘directly’

Several constructions in Table 1 are genetically related. The copula construction with the indexes (i) or (ii) are metaphorical developments of the secondary predication construction with the same indices. A similar relation can be observed for a subtype of short adverbs which is traditionally analyzed as the modifier of an “inner object”. In the last example (iii), Our neighbors eat fatty, the modifier denotes a quality of the food, that is the direct object of the verb to eat. This direct object is not made explicit (“inner object”). The inner object may be explicated as the direct object of the verb, as shown by the secondary predication with the index (iii). In contrast to English, adjectives in French and other Romance languages can undergo morphological agreement of gender and number with nouns.

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6 This sentence is rather unusual, but I see her unhappy and I have to cry seems to be possible.
This happens or may happen in *Mes soupes, je les mange grasses*, marked for both feminine and plural. Since the making explicit of the direct object as the modified noun *soupe* of the secondary predicate *gras* entails agreement, the analysis of *manger gras* as a verb plus short adverb runs short of evidence. The absence of agreement appears to be a simple consequence of the fact that an inner object is not specified for number and gender. This supports the analysis as an adjectival function. This is also the reason why the examples with index (iii) do not allow for an equivalent usage of the corresponding long adverbs, Fr. *grassement* and Engl. *fattily / richly*. It should be added that the very adjective already blocks the long adverb form because it is hard to imagine a manner interpretation. This, however, only shows that the use of this type of adjective is restricted for verb modification, albeit not for secondary predication where the modifier denotes a property of an argument.

The fact that constructions₂ emerging from VA structure are genetically and functionally related, as well as the existence of constructional ambiguity (see Introduction), shows that constructions₂ gradually emerge from baseline VA structure via interpretation. The dynamics of emergence calls into question the validity of constructions₂ being conceived as signs, that is, pairs of form and grammatical meaning. This holds at best for the most salient, possibly prototypical instances of a specific construction₂. Grammars and linguistic studies often use such prototypical examples for secondary predication, copula verb constructions or short adverbs. In addition, written standard excludes adverbial agreement in Romance. Hence, the vision of clear-cut sign-type constructions₂ is largely artificial with regard to objective empirical facts.

5. Adverbial agreement and predicative cohesion

In Romance, the so-called short adverbs (Type III in Section 4) tend to take the unmarked masculine singular form of the adjective. This is in line with the prevailing description of adverbs as invariable units in the grammars of Romance languages. However, adverbial agreement is a consistent secondary pattern that prevails in certain varieties. It is the dominant pattern in Central and Southern Italo-Romance varieties, as well as adjectives modifying adjectives in French until the 17th century (see Introduction). It is noteworthy that adverbial agreement is a provocative term which is better defined as “agreement of adjectives with adverbial function”. The term adverbial agreement is an example of the risks we take if we start our analysis directly at the level of construction₂, where short adverbs are often considered as adverbs in terms of word-class. The radical approach chosen for this paper helps to overcome the apparently paradoxical phenomenon of supposedly invariable adverbs undergoing nominal agreement by taking VA structure as its functional basis. The following aims at specifying the role of nominal agreement in adverbial functions.

The data used for this purpose stems from two French corpora used for the future Historical Dictionary of French Adjective-Adverbs (Hummel & Gazdik, in preparation). In the diachronic Corpus A, about five per-cent of the attestations (N = 13,500) show agreement for number and/or gender, without taking into account possible masculine singular agreement, which cannot be formally distinguished from unmarked adverbial usage (*Il vit heureux ‘He lives happy’*). Corpus B contains data from informal present-day usage (4,200 attestations). In this corpus, adverbial agreement constitutes fifteen percent of the examples. The fact that adverbial agreement is three times more frequent in informal registers shows that agreement is a strong natural tendency of French which is artificially restricted in the written standard (Corpus A), where adverbial agreement is considered to violate the principle of invariability of adverbs (see details in Hummel 2014b, in print a, in print c). Spontaneous informal usage is clearly sensitive to agreement in so-called adverbial functions. The data on Spanish stem from two diachronic databases which add up to 3,500 attestations (cf. Hummel 2015). Except for Corpus B, all corpora have free online access (https://adjective-adverb.uni-graz.at).
Generally speaking, the focus in VA structure can be more or less oriented to the subject, to the object or to the verb, according to the conceptual properties of the subject noun, the object noun, the verb, and the modifier. For the same the reason, some long adverbs appear to be subject-oriented (e.g.; Guimier 1991, for French adverbs in –mente, Rodríguez Ramalle 2003: 77-84, for Spanish, Valera 1998, for English adverbs in –ly; see also the more general, argument-oriented analysis by Broccias 2011). In this case, long adverbs can replace secondary predicates in the same utterance, marking a slightly more subject- (4a) or verb-oriented (4b) interpretation, also in English:

(4a) Les enfants attendent nerveux The children wait nervous
(4b) Les enfants attendent nerveusement The children wait nervously

Since English uses invariable adjectives, the modification scope in sentence (4a) cannot be further oriented with inflectional morphemes. In contrast, Romance languages can use morphemes for gender and number in order to direct or accentuate the modification scope by means of agreement (more argument-oriented) versus invariability (more verb-oriented).

Our data provides evidence for the following types of agreeing verb modifiers in French and Spanish:

Table 2: Major patterns of adverbial agreement (Type III)

1. Agreement with the subject
   a. Stylistic accentuation or emphasis (elaborated literary register)
      Fr. Marie parle clair Fr. Marie parle claire Mary speaks clear
      Sp. Maria corre lento Sp. Maria corre lenta Mary runs slow
   b. Predicative cohesion and focus (informal registers)
      Fr. Les gars de l’OM jouent forts The OM guys play great
      Sp. Vamos directos We go direct

2. Agreement with the object
   a. Stylistic accentuation or emphasis (elaborated literary register)
      Fr. La victoire a été achetée chère The victory was dear(ly) bought
      Sp. Quiere He is willing to sell his life dear(ly)
   b. Predicative cohesion and focus (informal registers)
      Fr. J’arrête nette ma consommation de cannabis I’m stopping cold my cannabis use
      Sp. No dicen las cosas tan exactas They don’t say things that exactly

For the sake of illustration, these examples are abbreviated versions from attested occurrences in the corpora. I have tried to use short adverbs in the English translations in order to point out the striking similarities of Romance and English in this domain. The French language is a particular case in that the morphemes used for number and gender agreement are generally not audible. I do not discuss this aspect here (see Hummel, in print a).

The Types 1a and 2a in Table 2 are not frequently used but are accepted as stylistic variants of prevailing invariable usage. They are used in literary style in order to secondarily emphasize the role of the agent of the event, even in those cases where the main modification scope semantically focuses on the verb, as in the examples. Hence, these types differ from secondary predication in terms of the main scope, the scope of secondary predicates being subject- or object-oriented. This variant can sometimes be found in informal oral registers, for example when Sp. Me voy rapidita que debo coger el bus ‘I have to leave quick to get the bus’ is used by a female speaker to playfully emphasize the predication and possibly the relevance of the predication for herself. Again, the term adverbial agreement is not adequate inasmuch as agreement is used in order to activate a secondary adjectival motivation.
In the examples for Type 1b and 2b, agreement can hardly be justified on semantic grounds. The modifier of the verb agrees with the subject in the first and with the direct object in the second case. In the French prescriptive tradition, this type of agreement would be named _illogical grammatical agreement_ (“illogisme grammatical”) because the agreement does not match the relation of the modifier to the modified. In fact, in the examples, modification exclusively concerns the modifier and the verb. Consequently, we only very exceptionally find this construction in standard usage, while it is not infrequent in informal attestations. The crucial point is that the “illogical” practice is not unmotivated. In the sample analyzed by Hummel (in print a), all the 133 examples but one show consistent agreement with the subject or the object. That is to say, we do not find cases such as *Les gars de l’OM jouent fortes* or *J’arrête nettes ma consommation de cannabis* where agreement does not match with any argument of the verb. I would therefore argue that informal spontaneous language has a motivated practice of adverbial agreement used for marking the _thematic coherence in the predication_. It could therefore be characterized as a marker of _predicative cohesion_. The fact that agreement never concerns all arguments simultaneously, which by the way would cause systematic problems since nouns differ in gender and number, means that agreement can be seen as a device for organizing the information structure of the utterance in a subject- or object-oriented sense, at least in terms of communicative relevance.

The following example taken from informal spoken Chilean Spanish shows cohesion in a borderline case with secondary predication (see Hummel 2008)

(5) **Sp.** Juliana hace las cosas _relajadas_ Juliana does things _relaxed_

In this example, agreement concerns the modifier _relajadas_ and the direct object _las cosas_, despite the fact that the modifier _relajadas_ ‘relaxed’ exclusively modifies the subject _Juliana_ for semantic reasons. Agreement is used in the example to emphasize the new information in focus. The example shows that it is not logical mapping but thematic cohesion and focus that constitute the basic motivation of agreement strategies in spontaneous language.

To conclude, far from being “illogical”, adverbial agreement is used either to secondarily profile an adjectival relation to an argument of the verb in a context that foregrounds the adverbial function (1a, 2a), or simply to mark thematic predicative cohesion and to orient the modification scope (1b, 2b). Again, gradual surface generalizations are possible but not in the sense of constructions$_2$ defined as pairs of form and grammatical meaning. Crucially, this possibility seems to be drastically reduced in Table 2 when compared with the constructions$_2$ in Table 1. There seem to be no prototypical examples available for the examples in Table 2. In my opinion this is due to the fact that the constructions in Table 2 are not canonical. Grammars and linguists provide prototypical examples for the illustration of the examples in Table 1. By contrast, adverbial agreement is a matter of spontaneous informal communication or playful stylistic elaboration in literature. As shown by examples such as (5), in this type of communication it is even hard to clearly identify the constructions listed in Table 1. The following statement by Croft (2001: 6) can therefore be confirmed: “one must describe a _syntactic space_ in which there is a continuum of construction types in morphosyntactic terms”. This favors, however, the hypothesis of composition (construction) to the detriment of the “form–meaning pair” hypothesis.

6. **Construction and word-formation**

I have defined construction$_2$ as a pair of form and grammatical meaning. If we look at prototypical cases of secondary predication, one may accept this construction$_2$ as an established grammatical sign. Such a sign is independent of the conceptual meanings of the units that fill the slots of the construction$_2$. Rules guiding word-formation can provide the same result, e.g., the structural relation “determiner–determinate” in the composed word _housemaid_. This is why word-formation has been characterized as the grammar of the
lexicon. However, lexicalization is not restricted to grammatical meaning. The composed word frogman involves the lexicalization of a specific conceptual interpretation. In the same vein, VA structure is also the baseline construction for lexicalized complex verbs (to highlight, to shoot dead, to run short of) which can also be transposed to adjectives (hard-working, easy-cooking, hard-pressed) or nouns (shortcoming). Constructions involving conceptual meaning will be called construction3.

At an intermediate level between complex words and free combinations in syntax, resultative constructions also require a conceptual relation. There is no strictly grammatical way to differentiate manner-type to shoot wild from resultative to shoot dead. Moreover, Sp. lo hace feliz is ambiguous with regard to its interpretation as a manner of doing something ‘s/he makes it in this way / s/he is happy to do it’ or a result ‘s/he makes him happy’. In Romance, nominal agreement may help to select the resultative interpretation: Sp. Juan las hace felices ‘John makes them happy’. Again, the difference may be rather subtle. In the following example from the French Corpus B, the inflected variant suggests a more resultative interpretation:

(6) C’est une très belle chanson et il est impossible de la chanter fausse
It’s a very nice song and it is impossible to sing it wrong

The more usual variant la chanter faux. The resultative interpretation cannot be adequately translated into English. The equivalent would be something like to sing it out wrong. In contrast to, e.g., to shoot dead or to cut short, the resultative quality “faux” is not a direct or probable result of the event ‘chanter ‘sing’” but a result of the way the event is realized (manner). Consequently, the resultative reading comes very close to the manner reading. Again, prototypical cases of resultative constructions may suggest a clear semantic configuration for resultative constructions, but the data show that they only gradually emerge from simple compositional syntax (see more examples in Hummel, in print a).

Romance languages tend to lexicalize the normal syntax patterns of sentences. A first type concerns frequency only, e.g., Fr. trancher net ‘to neatly cut’ / ‘to take a clear-cut decision’. In this case, the phrase can be syntactically elaborated: trancher tout net, trancher clair et net. A second type combines the first type with metaphorical transposition, e.g., Fr. couper court ‘to interrupt’ or faire maigre ‘to fast during lent’. In these cases, the complex verb cannot normally be syntactically modified. The metaphorical interpretation would be immediately lost in favor of the concrete meaning: couper très court(s) ses cheveux ‘to cut one’s hair very short’ and Il fait très maigre ‘He looks very slender’. Nominalization is possible as well: le parler-clair lit. ‘the clear-speaking’. Past participles follow the same rules for modification as adjectives, where the modifier precedes the modified, as in English (e.g., Fr. grand ouvert ‘wide open’). Consequently, lexicalized verb participles have AV-structure: clair-semé ‘thin(ly)’ sown on the ground’, while the other verb forms take VA-structure, e.g., the infinitive semer clair ‘to sow thin’.

**Conclusion**

The paper has shown that an adequate analysis of so-called short adverbs must take the structure “verb + adjective” (VA structure) as its starting point. Short adverbs appear to be one of several interpretations of this structure. These interpretations gradually emerge from baseline VA structure. Grammars and linguistic studies usually analyze canonical patterns such as secondary predication or copula verbs combined with adjectives, while secondary patterns such as adverbial agreement are neglected. This paper shows that patterns can only be clearly distinguished on a prototypical basis, while more objective empirical data provide broad evidence for contiguity and ambiguity. Crucially, the functional dynamics of VA structure can only be explained if the modifier is considered as an adjective in terms of word-class. Hence, short adverb is not an adequate term. It fails to cover the usage as a modifier of an inner object of the verb, as well as the agreement of the modifier with an argument of the
verb in Romance. Short adverbs are, instead, adjectives used for functions that are usually classified as adverbial, which is, as we know, a quite heterogeneous series of functions. In VA structure, the verb offers its semantic and syntactic valency to the modifier. The scope of modification therefore has a wide range of options. This is also the reason why complex predications emerge from VA structure. In this context, nominal agreement with one of the arguments of the verb appears to be a linguistic device used in Romance in order to enhance thematic cohesion in a complex predicate structure. It can further be used to favor resultative interpretations or to stress or emphasize the new information or the narrow focus in information structure. Agreement can also profile the relevance of the subject for the event (subject-oriented secondary predication). Adjectives modifying the verb only, without extending the modification scope to its arguments, appear to be the less complex interpretation of VA structure. Spontaneous informal communication often uses nominal agreement also in these cases, while the norms of written standard restrict agreement to secondary predication and copula verbs.

The analysis of the patterns that emerge from VA structure via interpretation has been paralleled by a discussion of the heuristic validity of the term construction defined as a pair of form and meaning, that is, as a linguistic sign. It has been shown that the term meaning used in this definition is too vague insofar as conceptual meaning needs to be distinguished from grammatical meaning. In order to transparently define and describe conceptual and grammatical meanings as components of linguistic signs, the traditional semiotic triangle has been replaced by a semiotic pyramid. The dynamics and contiguity of the patterns that gradually emerge from VA structure show that a simple form–meaning definition of construction hypostatizes constructions in a way that can at best be argued for prototypical cases. The only adequate way to analyze constructions as signs is to consider such a sign as the endpoint of abstraction. The abstraction process starts from baseline construction, in its traditional definition as the rule-guided combination of morphemes in order to form a linguistic unit. This productive compositional baseline underlies all further abstractions and ensures the dynamics of interpretation. At a first level of abstraction, construction1 concerns grammatical meaning only, as in secondary predication. If we want to consider secondary predication as a linguistic sign, this exclusively concerns grammatical meaning in prototypical cases. Conceptual meaning may intervene at a second level of abstraction, e.g., resultative secondary predication (construction2). At this level, lexicalization can produce units of the lexicon with underlying complex predication. These units are pairs of form and conceptual plus grammatical meaning. Complex predication underlies the complex verb Fr. couper court ‘to interrupt’, the noun Fr. le parler-clair lit. ‘the clear-speaking’, the adjective Fr. clair-séminé ‘thin(ly) sown’ etc. The second example, le parler-clair, is a productive result of word-formation that has not yet been lexicalized. There can be no doubt that these signs have a complex basis that can be described in terms of construction taken in its broadest sense. However, constructions2,3 conceived as linguistic signs are only tips of an iceberg. Croft (2001: 5) shows himself skeptical about “maximally general categories and rules for a particular language”, arguing with evidence on cross-linguistic variation. The results of the present study make me still more cautious with regard to the categorization as constructions2,3 and more inclined to stress the dynamic componential fundamentals of possible generalizations. This is probably due to the fact that the data used for this paper stem from corpora that include variation in informal language. Many of the examples quoted in this paper, e.g., for adverbial agreement, will never come to the mind of a linguistic who introspectively uses examples for linguistic demonstration. Such examples are indeed lacking in recent studies on short adverbs in Romance. The limits of componential approaches appear with construction3, which indeed concerns word structure in the narrow sense of a specific lexicalization.

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