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Compounds and multi-word expressions in French

1 Introduction

French compounds differ from Germanic compounds in two important aspects. First, while Germanic compounding complies with the Right-hand Head Rule (e.g. English *postage stamp*, German *Briefmarke*, Dutch *postzegel*), French, like other Romance languages (see the chapters by Masini (Italian) and Fernández-Domínguez (Spanish) in this volume), has a general tendency towards left-hand headed compounding (e.g. *timbre-poste* lit. stamp-post). Second, whereas languages such as Dutch and German establish a clear demarcation between compounds and lexicalized phrases on the basis of formal criteria (spelling, prosody, linking elements, loss of adjectival inflection in [A N] compounds), French compounds are not easily distinguishable from syntactic expressions, and true compounds in Germanic languages often correspond to syntactic multi-word units in French (e.g. English *admission ticket* vs. French *billet d'entrée* (lit. ticket of entrance)) (Zwanenburg 1992: 222; see also the chapters by Booij (Dutch), Schlücker (German) and Bauer (English) in this volume).

Contrary to Germanic languages, French has no distinctive word stress, only phrase stress. Moreover, whereas Germanic compounds may present linking elements (e.g. Dutch *zonnebril*, German *Sonnenbrille* ‘sunglasses’), these do not occur in French. Furthermore, the spelling of French multi-word units is characterized by many inconsistencies and irregularities: many combinations can be spelled with or without a hyphen (e.g. *bébé(-)éprouvette* ‘test-tube baby’ (lit. baby(-)test tube), *porte(-)monnaie* ‘coin purse’ (lit. carry(-)money)) or even as one word (e.g. *portefeuille* ‘wallet, billfold’ (lit. carrysheet) (Lehmann/Martin-Berthet 2008). Spelling of complex lexical units as one word occurs (e.g. *vinaigre* ‘vinegar’ (lit. wineacid)), but it is far from being the rule (cf. French *vin rouge* vs. German *Rotwein*), and the French spelling rules are systematically updated by orthographic reforms.¹ Finally, many French compound-like expressions have

¹ The orthographic reform of 1990 proposed, for instance, to hyphenate complex numerals greater or lower than one hundred (e.g. *vingt-trois* ‘twenty-three’, *cent-cinquante-huit* ‘one hundred and fifty-eight’), whereas this was only the case for numerals lower than one hundred before. The French Academy also suggested writing as one word a list of complex lexical units

internal inflection markers (e.g. *beaux-arts* ‘fine arts’), while these are generally attributed to syntactic formations.

As a result, none of the formal criteria typically applicable in Germanic languages² allow for a straightforward differentiation between compounds and (lexicalized) multi-word phrases in French, and, accordingly, the term ‘compound’ is not always used in a consistent way in the literature on French morphology. As a matter of fact, ‘compounding’ is often used to refer to various types of complex lexical units regardless of the formation process (morphological or syntactic) (for an overview, see, for example, Van Goethem 2009 and Villoing 2012).

Van Goethem (2009) illustrates this in the domain of [A N] units. The Dutch compound *zuurkool* ‘sauerkraut’ (lit. sour-cabbage) can be distinguished from the lexicalized phrase *zure regen* ‘acid rain’ and the non-lexicalized syntactic phrase *zure kers* ‘sour cherry’ on the basis of its spelling (written as one word), its stress pattern (prominent stress on *zuur* in *zúurkool* while *zure kers* has double stress and *zure régen* has prominent stress on the noun *regen*, cf. De Caluwe 1990: 17) and the lack of inflection of the adjectival component *zuur* in the compound (cf. Booij 2002: 314). In French, however, these criteria do not apply and Van Goethem (2009) concludes that, leaving aside some exceptions that do not conform to regular modern French syntax (e.g. *rouge-gorge* ‘robin’ (lit. red-throat) and *grand-mère* ‘grandmother’, cf. Van Goethem 2009: 246f.), French [N A] and [A N] units are phrases and not compounds, whatever their spelling may be: whether written as two separate words (e.g. *premier ministre* ‘prime minister’), hyphenated (e.g. *cordon-bleu* ‘master chef’ (lit. cord-blue)) or even as one single word (e.g. *vinaigre* ‘vinegar’ (lit. wineacid)).

In this paper, we will turn the focus to [N₁ N₂] units, but before doing so we will present the different approaches to complex lexical units in French and show

previously written as separate words (with or without a hyphen), for example *chauvesouris* ‘bat’ (lit. bald-mouse), *millepattes* ‘centipede’ (lit. thousand-legs), *passepartout* ‘pass key’ (lit. pass-everywhere), *portemonnaie* ‘coin purse’ (lit. carry-money) and *véloski* ‘skibob’ (lit. bike-ski). (Internet: www.lalanguefrancaise.com/guide-complet-nouvelle-orthographe, last access: 18.4.2017).

2 In this respect, English may be considered to occupy an intermediary position: the traditional distinctive criterion applicable to English is the stress pattern, compounds being typically characterized by fore-stress (e.g. *black bird* vs. *bláckbird*, cf. Bauer 2004 and this volume), but even this criterion is not always straightforward and many mismatches can be observed: as shown by Bauer (2004), a lexicalized phrase such as *primary school* has first-element stress (or compound stress), whereas *first-aid*, with the two components hyphenated and unified, has second element stress (or phrase stress). These inconsistencies also apply to [N N] formations: *péanut oil*, for instance, has fore-stress, whereas *olive oil* may have end stress (cf. Bauer 1998, this volume; Giegerich 2009a, 2009b).

how true morphological formations (i.e. compounds) can be distinguished from multi-word phrases (Section 2). At the end of this section, the possible benefits of a constructionist approach to the issue will be highlighted. Section 3 will concentrate on $[N_1 N_2]$ lexical units, which turn out to be the most problematic case in French since it is not easy to determine whether this formation belongs to syntax or morphology. In Section 4, a specific subtype, that of subordinative $[N_1 N_2]$ units, will be examined because the latter most severely challenge this morphology-syntax divide. Whereas Fradin (2009) considers these formations to be true compounds, we will show that this only holds for the classifying subtype, and not for the qualifying one. Section 5, finally, will be devoted to a constructionist account of qualifying subordinative $[N_1 N_2]$ formations, followed by the conclusion in Section 6.

2 Complex lexical units in French: four approaches

The notion of compounding generally has a more extensive scope in French morphology than in the literature on Germanic languages. Van Goethem (2009) identifies three different approaches. The common view is ‘non-restrictive’ in the sense that it includes all kinds of complex lexical units, regardless of whether they are formed in morphology or syntax (2.1). According to the ‘scalar’ approach (2.2), compounds are considered the endpoint of a scale of ‘lexicalization’ (used here to refer to the process of becoming a lexical item). The ‘restrictive’ or ‘lexicalist’ approach (2.3) aims to establish a clear demarcation between compounds and multi-word phrases. In what follows, we will outline these three different approaches. In 2.4, finally, we will add a fourth perspective and briefly show how complex lexical units can be accounted for from a Construction Grammar perspective.

2.1 The non-restrictive approach

In their overview article of multi-word expressions, Hüning/Schlücker (2015: 454ff.) convincingly show that (syntactic) multi-word expressions and word-formation units (i.e. compounds) share a set of properties. Both are complex expressions with (potential) status as a lexical unit, and both expressions typically serve as linguistic signs for specific concepts (i.e. they have a ‘naming function’, cf. also Schlücker/Hüning 2009). Lastly, lexicalized phrases and compounds may have compositional or non-compositional semantics and may contain constituents with metaphorical semantics.

In French, formations such as [N *de* N] (e.g. *fil de fer* ‘iron wire’ (lit. wire of iron)), [N *à* N] (e.g. *verre à vin* ‘wine glass’ (lit. glass to wine)), [N *à* Det N] (e.g. *sauce à l’ail* ‘garlic sauce’ (lit. sauce to the garlic)), [A N] (e.g. *Moyen Âge* ‘Middle Ages’) and [N A] (e.g. *poids lourd* ‘heavyweight’ (lit. weight heavy)) (Fradin 2003: 199; Booij 2010: 172) are constructed by means of syntactic rules, as manifested through the presence of prepositions, determiners and adjectival inflection. Nevertheless, like compounds, they are productively used in name formation and it is therefore not surprising that the notion of compounding is often extended to all kinds of complex lexical units with a naming function, regardless of the formation rules. This approach can be illustrated by Mathieu-Colas’s (1996) classification of French compounds, which includes, for instance, lexicalized [A N] and [N A] units such as *premier ministre* ‘prime minister’ and *table ronde* ‘round table meeting’ (lit. table round), even though these comply with the syntactic formation rules, including adjectival inflection.

2.2 The scalar approach

A second approach is to establish a scale of lexicalization ranging from free syntactic phrases over (semi-)lexicalized phrases to true compounding. Such a scale contains, by definition, a large transition zone in which it is not easy to decide whether we are dealing with syntactic phrases or with compounds.

This idea of a scale of lexicalization of complex units can be found in studies by Gross (1988, 1996), who argues that lexicalized phrases and compounds can be distinguished from free syntactic phrases by means of semantic and syntactic parameters of lexicalization (‘figement’). Semantically, lexicalized phrases and compounds such as *fait divers* ‘novelty, piece of news, news item’ (lit. fact diverse) are typically characterized by ‘non-compositionality’, in contrast to free syntactic phrases such as *fait évident* ‘obvious fact’, which have compositional semantics. Syntactically, in lexicalized [A N] or [N A] expressions the adjective loses the possibility of ‘actualization’ (1) and of ‘predication’ (2) (cf. Gross 1996: 31–34).

- | | | | |
|-----|---|-----|---|
| (1) | <i>un fait maintenant évident</i>
‘a now obvious fact’ | vs. | <i>*un fait maintenant divers</i>
‘a now diverse fact’ |
| (2) | <i>Nous avons constaté un fait qui est évident</i>
‘we have observed a fact that is evident’ | vs. | <i>*Nous avons constaté un fait qui est divers</i>
‘we have observed a fact that is diverse’ |

On the basis of these parameters³, Gross (ibid.) distinguishes between different degrees of lexicalization. *Cordon solide* ‘solid rope’, *cordon électrique* ‘power cord’ (lit. cord electric) and *cordon(-)bleu* ‘master chef’ (lit. cord(-)blue) illustrate three different degrees of lexicalization: *cordon solide* is a free syntactic noun phrase (‘groupe nominal libre’), *cordon électrique* is considered a semi-lexicalized noun phrase or compound (‘un groupe nominal ou nom composé semi-figé’) and *cordon(-)bleu* is called a lexicalized compound (‘un nom composé figé’).

However, as rightly observed by Corbin (1992: 36), Gross still uses the term ‘compounds’ (‘mots composés’) to refer to all lexicalized and semi-lexicalized combinations: both *cordon électrique* and *cordon-bleu* are called ‘noms composés’, whatever the differences may be in structure or degree of lexicalization. In other words, similar to the non-restrictive approach, the notion of compound is still applied to all structures with a naming function, including syntactic expressions.

2.3 The restrictive or lexicalist approach

In a modular approach to grammar, it has to be accepted that phrasal multi-word expressions and compounds, notwithstanding significant similarities, are different, the most crucial distinction being the fact that they are constructed according to the rules of different components of the language system (syntax vs. morphology).

A third theoretical tradition in French morphology, whether or not inspired by the ‘lexicalist’ approach in Generative Grammar (Di Sciullo/Williams 1987) and represented by Benveniste (1974), Corbin (1992, 1997), Zwanenburg (1992), Fradin (2003, 2009) and Villoing (2012), among others, follows this view and argues that a clear distinction should be made between compounds and lexicalized phrases. Although both strategies may have the same naming function, they obviously fit into different parts of grammar, compounds belonging to morphology and phrases to syntax.

These authors argue, for instance, that [N Prep N] combinations such as *pomme de terre* ‘potato’ (lit. apple of ground) and *sac à main* ‘handbag’ (lit. bag to hand), commonly considered compounds in French, should be analyzed as lexicalized syntactic phrases since they respect the general principles of word order and syntax in French.

³ Cf. also ten Hacken’s (1994) tests (such as insertion, substitution, anaphora from one constituent of the sequence).

The most extreme position can be found in Di Sciullo/Williams (1987), who claim that French does not have any compounds at all:

It now appears that French (and no doubt Spanish) lacks compounding altogether. Once we have subtracted fixed syntactic phrases (idioms) such as *timbres-poste* and phrases reanalyzed as words (syntactic words) such as *essui-glace* <sic>, there are no candidates left. (ibid.: 83)

Corbin (1992, 1997) is less restrictive and preserves the term ‘compound’ to refer to lexical units of the type $[N_1 N_2]$ (e.g. *timbre-poste* ‘postage stamp’) and $[V N]$ (e.g. *essui-glace* ‘windscreen wiper’) because they are formed according to lexical composition rules, specific to the lexicon and different from syntactic rules. Corbin (1997) uses the notion of ‘polylexematic units’ (‘unités polylexématiques’) as a general term for covering both compounds and lexicalized phrases. However, both naming strategies are distinguished on the basis of the ‘division of labor principle’ between morphology and syntax. According to this principle, also labeled the ‘Lexical Integrity Hypothesis’ (LIH hereafter), syntax has no access to morphological operators or infralexical units and, conversely, morphology has no access to syntactic operators:⁴

Les règles syntaxiques n’ont accès ni aux opérateurs morphologiques ni à des unités infralexicales. Les règles morphologiques n’ont pas accès aux opérateurs syntaxiques. (ibid.: 83)

On the one hand, this implies that affixed polylexematic units such as *fil-de-fériste* ‘high wire walker’ (lit. wire-of-iron-ist) belong to morphology, since syntax cannot attach affixes. On the other hand, polylexematic units containing a syntactic operator, a preposition as in *verre à vin* ‘wine glass’ (lit. glass to wine) or a determiner as in *hors-la-loi* ‘outlaw’ (lit. outside-the-law), necessarily belong to syntax.⁵ In other words, polylexematic units are exclusively formed either by syntax or by morphology, and the idea of a scale is thus rejected:

⁴ Corbin’s analysis is in line with the strong lexicalist hypothesis: ‘The syntax neither manipulates nor has access to the internal structure of words’ (Anderson 1992: 84). On this topic, see, among many others, Lieber (1992), Plag (2003) and, for an overview, Lieber/Scalise (2007).

⁵ There seems to be a contradiction in Corbin’s analysis, which considers *fil-de-fériste* as a morphological unit despite the presence of the preposition *de* ‘of’. However, Corbin (1997: 83) argues that the morphological insertion of the suffix *-iste* is subsequent to the insertion of the preposition *de* and that only the final step of the formation should be taken into account: the word is a morphological construct (application of the suffix *-iste*) on the basis of a syntactically constructed stem, *fil de fer*, which can be considered a lexical unit.

En vertu du partage des tâches entre les modules d'une grammaire, les séquences engendrables syntaxiquement ne le sont pas morphologiquement et réciproquement. (ibid.: 84)⁶

On the same grounds, Fradin (2009: 418) excludes expressions such as *sans-papiers* 'person without identity papers, illegal immigrant' (lit. without papers) and *pied-à-terre* 'pied-à-terre, holiday cottage' (lit. foot-on-ground) from true compounding because they correspond to phrases that can be generated by syntax (cf. *Il s'est retrouvé sans papiers* 'he ended up without (identity) papers' and *Le cavalier mit pied à terre* 'the horseman dismounted' (lit. put foot on ground)). He relabels Corbin's proposal as 'Principle A':

Principle A: Compounds may not be built by syntax (they are morphological constructs) (ibid.: 417)

Whereas in Corbin's (1997) view, only [N N] and [V N] configurations can be considered true compounds, Fradin (2009) concludes that not two but four productive compounding patterns can be retained in French: [V N] (e.g. *brise-glace* 'ice-breaker' (lit. break-ice)), [A A] (e.g. *sino-coréen* 'Sino-Korean'), [N N] coordinates (e.g. *auteur-compositeur* 'author-composer') and [N N] subordinates (e.g. *poisson-chat* 'catfish' (lit. fish-cat)). Villoing (2012: 36) adds to this a particular subclass of [A N] compounds with a color adjective as head (e.g. *bleu-ciel* 'sky blue' (lit. blue-sky)). She argues that all these formations should be considered true compounds because they all display syntactic anomalies:

- VN compounds: the absence of a determiner between the verb and the noun, and a diverse range of semantic relations between the verb and the noun (*ouvre-boîte* 'can opener' (lit. open-can)),
 - coordinated NN (*horloger-bijoutier* 'jeweler-watchmaker' (lit. watchmaker-jeweler)) and AA (*aigre-doux* 'sweet and sour' (lit. sour-sweet)) compounds: the absence of a coordinating conjunction between the constituents,
 - all other NN compounds (*poisson-chat* 'catfish' (lit. fish-cat), *pause-café* 'coffee break' (lit. break-coffee)): hyponymic interpretation,
 - AN compounds (*bleu-ciel* 'sky blue' (lit. blue-sky)): the presence of an adjectival rather than a nominal head.
- (paraphrased from Villoing 2012: 36)

⁶ Our translation: 'By virtue of the division of tasks between the modules of a grammar, sequences that are possibly generated by syntax are not generated by morphology and vice versa'.

Villoing (2012: 30) specifies that French native compounding⁷ ‘is prototypically formed of two lexemes of the current lexicon of French, without any linking element; the internal order of constituents is XY, where X is the governing element’. Furthermore, the composing lexemes belong, by definition, to the major word classes (noun, verb, adjective), and are uninflected. This implies that ‘no constituent is marked by inflection: no modality, tense, person or aspect marking on the verb in VN compounds, no number on the N, and no gender or number on adjectives, disregarding cases of agreement’ (ibid.: 31f.).⁸ Examples are *poisson-chat* ‘catfish’ (lit. fish-cat), *wagon-fumeur* ‘smoking car’ (lit. car-smoker), *ouvre-boîte* ‘can opener’ (lit. open-can) and *vert-pomme* ‘apple green’ (lit. green-apple).⁹

This view implies that many other multi-word units that are often considered compounds do in fact belong to syntax and, therefore, need to be analyzed as lexicalized phrases. According to Villoing (ibid.: 35f.), the following French multi-word units should not be analyzed as compounds:

- Complex units composed of non-lexemes, such as complex prepositions and complex conjunctions: e.g. *par-dessus* ‘from above’, *de sorte que* ‘such that’¹⁰
- Lexicalized syntactic constructions, namely NPs (3), PPs (4) and VPs (5) that behave like lexical units:

⁷ Villoing (2012) distinguishes native compounds from neoclassical compounds, which have different properties: the latter are ‘prototypically composed of two bases of Greek or Latin origin that are not syntactically autonomous in French, connected by a linking element; the internal order of constituents is YX, where X is the governing element’ (Villoing 2012: 30) (e.g. *ludo-thèque* ‘game library’, *homi-cide* ‘manslaughter’, *cyno-céphale* ‘dog head’).

⁸ However, Villoing (2012: 34) rightly observes that some compounds actually display inflected forms of the lexeme: for instance, many [V N] compounds include a plural N, orthographically and/or phonologically marked (e.g. *presse-fruits* ‘fruit press’ (lit. press-fruits), *protège-yeux* ‘eye protector’ (lit. protect-eyes)). Villoing argues that this plural inflection is not the result of syntactic marking, but of inherent and semantically motivated inflection.

⁹ This approach, in line with Corbin (1992), Villoing (2009), Bonami/Boyé (2003, 2014) and Fradin (2009), among others, implies that the V in French [V N]_N compounds (e.g. *ouvre-boîte* ‘can opener’) is not an inflected form of the verb (imperative or present indicative), but a stem of the lexeme.

¹⁰ Although Zwanenburg (1992) starts from the same syntax-morphology divide principle, his analysis leads to completely different results: he concludes that real compounding in French is precisely restricted to nouns, adjectives and verbs with a modifying preposition or adverb (e.g. *sous-chef* ‘deputy’ (lit. under-boss), *arrière-pays* ‘hinterland’ (lit. behind-land), *maltraiter* ‘mal-treat’). Paradoxically, this implies that French compounding would be right-headed, similar to Germanic compounding.

- (3) *brosse à dents* ‘toothbrush’ (lit. brush at teeth)
coffre-fort ‘safe’ (lit. box strong)
case départ ‘start, square one’ (lit. box departure)
 - (4) *sans-papiers* ‘illegal immigrant’ (lit. without-papers)
 - (5) *boit-sans-soif* ‘drunk’ (lit. drinks-without-thirst)
- Lexicalized phrasal expressions that behave like lexical units: for instance, *rendez-vous* ‘appointment, date’ (lit. go-you), *qu’en-dira-t-on* ‘gossip’ (lit. what about it-will say-one).

Villoing (ibid.: 36) admits, nevertheless, that the boundary between compounds and syntactic units is most problematic in the case of $[N_1 N_2]$ sequences. This can also be derived from her examples: *horloger-bijoutier* ‘jeweler-watchmaker’ is considered a compound, whereas *case départ* ‘square one’ is analyzed as a lexicalized syntactic construction. It does indeed appear that French $[N_1 N_2]$ sequences can be constructed by both morphology and syntax and that a subcategorization of $[N_1 N_2]$ formations is needed. We will therefore focus on this particular formation type in Sections 3 and 4.

2.4 A constructionist perspective to complex lexical units

It can be concluded from the preceding overview that the term ‘compounding’ is not used consistently in the French linguistic tradition and often covers much more than, strictly speaking, morphological complex lexical units. Hüning/Schlücker (2015) point out the commonalities and differences found between compounds as word-formation units and syntactically formed multi-word expressions. In spite of the differences, both patterns may serve the same purpose and even enter into competition to do so. As for French, many examples of competition can be found between $[N N]$ and $[N \text{ Prep } N]$ formations: *village(-)vacances* coexists with *village de vacances* ‘holiday village, holiday resort’ (lit. village (of) holidays) and the same holds for *point(-)rencontre* and *point de rencontre* ‘meeting point’ (lit. point (of) meeting) and *impression (par) laser* ‘laser printing’ (lit. printing (by) laser) (cf. also Section 3.1). These facts indicate that in French, too, the boundary between compounds and syntactic multi-word expressions is fuzzy and the data are suggestive of a lexicon-syntax continuum.

This non-modular view of language is precisely a basic assumption of Construction Grammar (cf. Goldberg 1995, 2006; Croft 2001; Booij 2010; Hoffmann/

Trousdale (eds.) 2013, a.o.). Crucial to this model is the concept of ‘constructions’: these are conventional pairings of form (referring to syntactic, morphological and phonological properties) and meaning (including semantic, pragmatic and discourse-functional properties) and are considered the fundamental units of the linguistic system. All levels of grammatical description involve such form-meaning pairings – not only words as in the Saussurean tradition – and constructions vary in size, degree of schematicity and complexity (cf. Goldberg 2009), the minimal linguistic construction being the word in Booij’s (2010) model of Construction Morphology. Furthermore, constructions, both syntactic and morphological, are linked to each other by (vertical) inheritance relations and also by (horizontal) connectivity links (Norde 2014; Norde/Morris 2018). As a consequence, language can be considered a complex network of constructions. Substantive constructions (e.g. *petit mais vaillant* ‘small but tough’, *position clé* ‘key position’) are instances of semi-schematic constructions (e.g. [Adj₁ *mais* Adj₂], [N₁ *clé*]), which – in turn – inherit properties from more general schematic constructions (e.g. [Adj₁ CONJ Adj₂], [N₁ N₂]). Moreover, constructions may also inherit properties from multiple-parent constructions via so-called ‘multiple inheritance’ (cf. Trousdale 2013; Trousdale/Norde 2013).¹¹

It is not surprising that many recent studies in the field of multi-word expressions are in the constructionist vein. In this approach, it can be assumed that both compounds and phrasal structures with a naming function can act as conventionalized form-meaning pairings or ‘constructions’, and we should accept the existence of what Booij (2010: 190) calls ‘lexical phrasal constructions’: these are syntactic formations that should be stored as lexical units in the mental lexicon, such as *fil de fer* ‘iron wire’ (lit. wire of iron) and *moulin à vent* ‘windmill’ (lit. mill at wind). These formations demonstrate that there is no strict boundary between the lexicon and syntax, or, as Booij (ibid.: 191) puts it, ‘syntax permeates the lexicon because syntactic units can be lexical’.

Compounds and phrasal structures are not only closely linked in the constructional network; they may also compete or interact with each other. The process of ‘multiple inheritance’ may even produce hybrid constructions that inherit properties from parent constructions belonging to different domains, such as morphology and syntax. We believe that these insights from Construction Gram-

11 The idea of ‘multiple inheritance’ could be seen as the synchronic representation of the complexity of language change. Diachronic developments do not always follow linear pathways from one source construction to another target construction; a complex interplay between different sources and processes is often at stake (cf. De Smet/Ghesquière/Van de Velde’s (eds.) 2013 volume *On multiple source constructions in language change*).

mar are useful to account for problematic cases that cannot be univocally classified as morphological or syntactic constructs, such as French $[N_1 N_2]$ subordinates. In Sections 3 and 4 we will therefore focus on these particular cases and in Section 5 we will propose an analysis in line with the constructionist insights.

3 French $[N_1 N_2]$ sequences: compounds or phrases?

In Section 2.3, we observed that both Fradin (2009: 428f.) and Villoing (2012: 36) admit that the boundary between morphological and syntactic units in French is most difficult to apply in the case of $[N_1 N_2]$ formations. We will therefore now concentrate on Fradin's arguments to retain only $[N_1 N_2]$ coordinates and subordinates as true French compounds, at the expense of other types of $[N_1 N_2]$ sequences, namely so-called 'two-slot nominal constructs' and identificational $[N_1 N_2]$ constructs (3.1). In Section 3.2, we will focus on subordinate $[N_1 N_2]$ formations and show that their status is more problematic than acknowledged by Fradin (2009).

3.1 Fradin's (2009) typology of $[N_1 N_2]$ sequences

Fradin (2009) distinguishes between four types of $[N_1 N_2]$ sequences: coordinates, subordinates, two-slot nominal constructs and identificational constructs; the first two are assigned to morphology and the others to syntax.

First, two types of $[N_1 N_2]$ **coordinates** can be distinguished: in (6) each N has a distinct referent and the compound's denotatum is the sum of these referents; the compounds in (7), however, denote a unique referent combining properties of both N_1 and N_2 (ibid.: 429f.):

- (6) *Bosnie-Herzégovine* 'Bosnia-Herzegovina'
physique-chimie 'physics-chemistry (as a teaching discipline)'
- (7) *chanteur-compositeur* 'singer-composer'
hôtel-restaurant 'hotel-restaurant'

As also argued by Villoing (2012: 36), the absence of a coordinating conjunction between the constituents excludes these sequences being generated by syntax, and they should therefore be considered true compounds.

Unlike coordinate compounds, **subordinate compounds** only denote the referent expressed by N_1 (i.e. the head noun), while N_2 (i.e. the modifier) refers to

one of its salient properties. According to Fradin (2009: 430f.), this property may concern a physical dimension (shape, length, weight) (8), an intrinsic capacity (slowness, quickness, strength, duration) (9) or a function (10), and is metaphor-based.

- (8) *requin-marteau* ‘hammerhead shark’ (lit. shark-hammer)
homme-grenouille ‘frogman’ (lit. man-frog)
- (9) *justice escargot* ‘slow justice’ (lit. justice snail)
guerre éclair ‘blitzkrieg’ (lit. war lightning)
attaquant-bulldozer ‘offensive forward’ (lit. attacker-bulldozer)
discours fleuve ‘lengthy discourse’ (lit. discourse river)
- (10) *camion-citerne* ‘tanker truck’ (lit. truck-tanker)
voiture-balai ‘broom wagon’ (lit. car-broom)
livre-phare ‘leading book’ (lit. book-lighthouse)

Even though Fradin recognizes that the morphological status of these compounds is open to debate (cf. Section 4), he claims that the regular interpretative patterns found in these subordinate compounds are similar to those of some derived lexemes, such as French adjectives derived with the suffix *-able* (Fradin 2003). In the same way as productive suffixes, the N_2 of subordinate [N_1 N_2] formations can be combined with a broad range of stems and forms a productive constructional pattern with a regular interpretation. This similarity with derivation is taken as an argument in favor of their morphological status.

Whereas coordinate and subordinate [N_1 N_2] sequences follow a constrained pattern and have a regular semantic relationship between the constituents, this is not the case with **two-slot nominal constructs** (Fradin 2009: 432f.) and identificational [N_1 N_2] sequences. The examples in (11) all denote the referent expressed by N_1 , but they completely differ from subordinate compounds because N_2 does not refer to an intrinsic and salient property of N_1 . Moreover, the sequence usually corresponds to a syntactic phrase in which N_2 forms part of a prepositional phrase (12), which suggests a syntactic origin.

- (11) *impression laser* ‘laser printing’ (lit. printing laser)
espace fumeurs ‘smoking area’ (lit. space smokers)
accès pompiers ‘firemen entrance’ (lit. entrance firemen)
- (12) *impression par laser* (lit. printing by laser)
espace pour (les) fumeurs (lit. space for (the) smokers)
accès pour (les) pompiers (lit. entrance for (the) firemen)

Fradin (2009: 433f.) likewise argues for *identificational* $[N_1 N_2]$ sequences (cf. also Noailly 1990):

- (13) *la catégorie adjectif* ‘the adjective category’
l’institution Opéra ‘the Opera institution’

N_2 identifies N_1 (N_2 is an N_1) and from this point of view, these sequences are equivalent to syntactic (appositional) $[N_1 N_2]$ constructs in which N_2 is a proper noun and N_1 expresses a socially recognized category (e.g. *le président Mandela* ‘President Mandela’, *la région Bourgogne* ‘the region of Burgundy’).

3.2 Discussion: morphological and syntactic approaches to $[N_1 N_2]$ subordinatives

We agree with Fradin that $[N_1 N_2]$ coordinates are true compounds and cannot be the result of syntactic formation. We also subscribe to his view on two-slot nominal and identificational $[N_1 N_2]$ constructs: both sequences can be shown to correspond to syntactic phrases. However, subordinate $[N_1 N_2]$ formations are more problematic than acknowledged by Fradin (2009) and it can be demonstrated that the examples mentioned for this class are not all of the same kind. At first glance, it can, for instance, be observed that some of them permit degree modification of N_2 while others do not (*discours vraiment fleuve* ‘really lengthy discourse’ (lit. discourse really river) vs. **requin vraiment marteau* ‘really hammerhead shark’ (lit. shark really hammer)), and some but not all N_2 s form productive series (e.g. *discours-fleuve* ‘lengthy discourse’ (lit. discourse-river), *roman-fleuve* ‘novel cycle’, *film-fleuve* ‘lengthy movie’, *débat-fleuve* ‘lengthy debate’, etc.), while no series formation is possible for $[N\text{-}marteau]$, for instance. We will discuss these differences more extensively in Section 4.

As already mentioned, these formations have been the subject of some debate. Amiot/Van Goethem (2012: 350ff.) and Van Goethem (2012: 77–81) provide an overview of the different accounts, which range from purely syntactic analyses (cf. Noailly 1990 and Goes 1999) to strictly morphological accounts, like the one by Fradin (2009).

With regard to the syntactic approaches, a distinction can be made between analyses where the second component of the phrase is still considered a noun in spite of some adjectival properties (cf. Noailly 1990, who labels N_2 as ‘substantif épithète’ and Arnaud/Renner 2014, who detect adjective-like syntactic behavior to some extent), and others like Lehmann/Martin-Berthet (2008: 206), who claim

that N_2 is converted into an adjective if it complies with a set of criteria typical of adjectives (such as degree modification and predicative use).

With regard to the morphological approaches, we can contrast Fradin's classification of French compounding with the general typology of compounds by Scalise/Bisetto (2009) (applied to French by Villoing 2012), according to whom these 'problematic' compounds are not subordinatives but belong to the ATAP (attributives-appositives) class, and more particularly to the subclass of appositives:

Attributive compounds can actually be defined as formations whose head is modified by a non-head expressing a 'property' of the head, be it an adjective or a verb: actually, the role of the non-head categorial element should be that of expressing a 'quality' of the head constituent. Appositives, to the contrary, are compounds in which the non-head element expresses a property of the head constituent by means of a noun, an apposition, acting as an attribute. (Scalise/Bisetto 2009: 51)

As these definitions show, attributives (e.g. *high school*) and appositives (e.g. *snailmail*, *swordfish*) belong to the same ATAP class because they have similar functions. The metaphorical value of the modifier is argued to be an important distinctive criterion between [N_1 N_2] subordinatives (e.g. *mushroom soup*), on the one hand, and [N_1 N_2] appositives (e.g. *mushroom cloud*), on the other:

In appositives that, together with attributives, make up the ATAP class, the noun plays an attributive role and is often to be interpreted metaphorically. Metaphoricity is the factor that enables us to make a distinction between, e.g. *mushroom soup* (a subordinate *ground* compound) and *mushroom cloud*, where *mushroom* is not interpreted in its literal sense but is rather construed as a 'representation of the mushroom entity' (...) whose relevant feature in the compound under observation is shape. (ibid.: 52)

In the next section, we will take a closer look at this specific type of formation and will argue that we need to distinguish between two different subclasses: classifying and qualifying [N_1 N_2] subordinatives, of which only the former undoubtedly belong to morphology.

4 Classifying vs. qualifying [N_1 N_2] subordinatives

In this section we will argue that two types of [N_1 N_2] subordinatives should be distinguished: classifying (e.g. *requin-marteau* 'hammerhead shark' (lit. shark-hammer)) and qualifying (e.g. *guerre éclair* 'blitzkrieg' (lit. war lightning)). The difference can essentially be found in the different role of N_2 with respect to

N_1 .¹² Despite their similarities (in all these subordinate compounds, N_2 denotes a salient, metaphor-based property of N_1), N_2 has a classifying role in some [N_1 N_2] formations (e.g. *requin-marteau*) but a qualifying role in others (e.g. *guerre-éclair*). We will present the distinguishing properties of both types of [N_1 N_2] subordinatives in 4.1 and 4.2, respectively.

4.1 Classifying [N_1 N_2] subordinatives

Classifying [N_1 N_2] subordinatives are characterized by a number of particular semantic and syntactic properties:

(i) Semantically, they behave like designations ('names'): they refer to stable concepts (Kleiber 1984), but their reference is established in a motivated way: N_1 , the semantic head, is the hyperonym and N_2 , which does not have a referential meaning, refers to a salient property of N_1 that allows the [N_1 N_2] sequence to be distinguished from other N_1 s. Hence, N_2 expresses a classifying property of N_1 .¹³ This is why, at least when they denote biological species, classifying [N_1 N_2] sequences are often the vernacular denominations corresponding to scientific taxonomies: for instance, *serpent-tigre* corresponds to *Notechis Scutatus*, *pin-parasol* to *Pina Pinea* and *oiseau-lyre* to *Menura Superba*, etc. (cf. Ureña/Faber 2010 for English compounding). When [N_1 N_2] is not a vernacular denomination corresponding to a scientific taxonomy, it can at least integrate a hierarchical folk categorization (Wierzbicka 1996): for example, a *fauteuil-crapaud* 'squat armchair' (lit. armchair-toad) is a kind of armchair (*fauteuil*), in the same way as a club chair or a rocking chair. And, in turn, an armchair is a piece of furniture, etc. This signals the relationship of inclusion [X is a Y], typical of the hierarchy between a hyponym and its hyperonym.

(ii) N_1 often denotes a biological species, especially animals (14a), vegetables (14b) or sometimes human beings (14c). More exceptionally, compounds denoting artefacts can also be found (14d):

¹² This category merges what Arnaud (2003: 13) calls the 'composés équatifs-analogiques' ('equative analogical compounds') and the 'composés méronymiques-analogiques' ('meronymic analogical compounds'), i.e. *poisson-chat* 'catfish' vs. *poisson-scie* 'sawfish', respectively.

¹³ To a certain extent, such sequences correspond to the 'generic-specific compounds' in Arnaud (2003), but the author classifies them as 'equative/analogical compounds', because of the metaphorical use of N_2 .

- (14a) *poisson-scie* ‘sawfish’ (lit. fish-saw)
oiseau-lyre ‘lyrebird’ (lit. bird-lyre)
serpent-tigre ‘tiger snake’ (lit. snake tiger)
- (14b) *saule têtard* ‘silver willow’ (lit. willow tadpole)
pin-parasol ‘umbrella pine’ (lit. pine-umbrella)
tomate-cerise ‘cherry tomato’ (lit. tomato-cherry)
- (14c) *homme-grenouille* ‘frogman’ (lit. man-frog)
femme-objet ‘woman as object’ (lit. woman-object)
enfant-roi ‘spoilt child’ (lit. child-king)
- (14d) *voiture-bélier* ‘ram-raid’ (lit. car-ram)
fauteuil-crapaud ‘squat armchair’ (lit. armchair-toad)
noeud-papillon ‘bow tie’ (lit. bow-butterfly)

(iii) In these cases, and as opposed to coordinate compounds, the two nouns denote concrete entities that do not belong to the same semantic class and the metaphor that underpins the relation between N_1 and N_2 is often based on physical resemblance: the nose of a *poisson-scie* is shaped like a saw (*scie*) and a *saule têtard* has roughly the shape of a tadpole (*têtard*): a big head like the upper part (the foliage) of the willow, and a short tiny bottom part (like the trunk). In our examples, the only sequences that do not instantiate this relation are *enfant-roi*, *femme-objet* and *voiture-bélier*, in which the metaphor is based on behavioral resemblance. For example, an *enfant-roi* is a child (*enfant*) who is treated like a king (*roi*) and who often becomes a ‘domestic tyrant’.

(iv) Syntactically, all the linguistic tests usually used to measure the lexical integrity of a sequence (cf. Sections 2.2 and 2.3) show that these classifying [$N_1 N_2$] formations are words, insofar as they do not accept any of these manipulations, unlike the qualifying [$N_1 N_2$] subordinatives that we will study in Section 4.2.

(v) The last property to be mentioned is the fact that, unlike the qualifying [$N_1 N_2$] formations, these classifying subordinatives do not give rise to productive series.

We can conclude from this survey that the subordinate [$N_1 N_2$] formations like those exemplified under (14) are binominal words and true compounds in which N_2 metaphorically denotes a classifying property of N_1 .

4.2 Qualifying [$N_1 N_2$] subordinatives

Qualifying [$N_1 N_2$] subordinatives can be distinguished from the classifying subtype on the following grounds:

(i) All kinds of nouns may instantiate N_1 : nouns denoting artefacts (15a), social roles (15b), time or slots of time (15c), events (15d), and even abstract nouns (15e):

- (15a) *livre-phare* ‘landmark book’ (lit. book-lighthouse)
établissement-pilote ‘pilot institution’ (lit. institution-pilot)
film-culte ‘cult movie’ (lit. movie-cult)
- (15b) *acteur-clé* ‘key actor’ (lit. actor-key)
attaquant-bulldozer ‘offensive forward’ (lit. attacker-bulldozer)
- (15c) *moment-charnière* ‘pivotal moment’ (lit. moment-hinge)
date-limite ‘deadline’ (lit. date-limit)
- (15d) *discours-fleuve* ‘lengthy discourse’ (lit. discourse-river)
guerre-éclair ‘blitzkrieg’ (lit. war-lightning)
- (15e) *justice-escargot* ‘slow justice’ (lit. justice-snail)

(ii) According to Fradin (2009), N_2 s often refer to a metaphoric intrinsic property of N_1 (cf. Section 3.1): slowness (e.g. *justice-escargot*), quickness (e.g. *guerre-éclair*), strength (e.g. *attaquant-bulldozer*) or duration (e.g. *discours-fleuve*). To a certain extent, they often express intensity, as in *livre-phare*, *acteur-clé*, *moment-charnière*: a *livre-phare*, for example, is a *very* famous book that attracts a lot of attention. However N_2 does not have a categorization function (a *livre-phare* is not a kind of book, an *acteur-clé* is not a kind of actor, etc.): the [N_1 N_2] sequences exemplified under (15) are not designations that could be included in a hyperonymy/hyponymy hierarchy. Instead, N_2 has a qualifying role and, moreover, it can often be substituted with a qualifying adjective: an *acteur-clé* is a very important actor (in a given context), a *justice-escargot* is very slow justice, and so on.

(iii) It is precisely the qualifying role of N_2 that could, in our view, explain the specific behavior of these [N_1 N_2] formations, and particularly their lack of lexical integrity (cf. 2.3):

(a) Both N_1 and N_2 can be instantiated by a complex (i.e. multi-word) sequence. The examples under (16) represent formations with a ‘complex N_1 ’:

- (16a) *Wilo Salmon France représente un acteur économique clé de la région.*
 (www)¹⁴
 ‘Wilo Salmon France represents a key economic actor in the region’

¹⁴ All examples followed by (www) were taken from the web via Google searches in May 2017.

- (16b) *Wall Street 2 adopte la forme d'une saga familiale **fleuve*** (www)
 'Wall Street 2 takes the form of a very long (lit. river) family saga'
- (16c) *L'affiche du film d'animation **culte** Akira a eu droit à de nombreuses parodies* (www)
 'The poster of the cult animated movie Akira spawned many parodies'
- (16d) *d'un coup de poing éclair, elle dévie le ballon* (www)
 'with a lightning punch (lit. punch-of-fist), she deflects the ball'

In these examples, the N_1 s resemble phrases: they result from the association of a noun and an adjective (16a–b) or of a noun and a prepositional phrase (16c–d).

The N_2 slot can also be filled by a complex item, but this is more exceptional:

- (17) *La compagnie de gendarmerie [...] a mobilisé des effectifs lors de l'opération **coup de poing** menée vendredi* (www)
 'The police [...] mobilized officers on Friday for the lightning [lit. punch-of-fist] raid'

Interestingly, a lexicalized multi-word expression such as *coup de poing* can fill, in its literal meaning ('punch'), the N_1 slot or, in its metaphorical meaning ('lightning'), the N_2 slot.

It should be noticed that, since the complex sequences that may fill the N_1 or N_2 slots are lexicalized phrases, this is less problematic for the LIH than if they were free, compositional phrases (cf. Booij's (2010) use of 'lexical phrasal constructions' in 2.4).

(b) Most N_2 s can be modified by an adverb of degree, as shown in (18):

- (18a) *on avait le sentiment d'assister à un moment **vraiment** charnière* (www)
 'we had the feeling of witnessing a truly pivotal (lit. hinge) moment'
- (18b) *un conseil **vraiment** éclair* (www)
 'a really whirlwind (lit. lightning) council meeting'
- (18c) *la multiplicité des voix de ce roman **vraiment** fleuve* (www)
 'the multiplicity of voices in this really lengthy (lit. river) novel'

This second property is more challenging for the LIH: the lexical integrity of the [$N_1 N_2$] sequences is undoubtedly called into question by the insertion of an adverb of degree between the two Ns. This is why some authors put forward a weakened

version of the hypothesis, including Ackema/Neeleman (2004), Booij (2005) and Lieber/Scalise (2007).¹⁵

Our previously conducted corpus research (Amiot/Van Goethem 2012; Van Goethem 2012, 2015) indicate that the most frequently inserted adverb is *vraiment* ‘really, truly’, as in (18), but other degree adverbs can be found too: *absolument* ‘absolutely’ (19), *réellement* ‘really’ (20), *extrêmement* ‘extremely’ (21) and even, but more rarely, *très* ‘very’ (22):

- (19) *Les années 1970 constituent en effet une période **absolument** charnière dans la vie des communautés [...]* (www)
 ‘The 1970s constituted an absolutely pivotal (lit. hinge) period in the life of communities [...].’
- (20) *Nous reviendrons sur ce point **réellement** clé pour la suite de la réflexion* (www)
 ‘We will return to this point, which is really key (lit. this really key point) for the continuation of the discussion’
- (21) *[...] une version raccourcie d’un texte **extrêmement** fleuve qu’il a publié quelques années plus tôt* (www)
 ‘[...] an abridged version of an extremely lengthy (lit. river) text that he published a couple of years before’
- (22) *le match a été une orgie offensive avec un score **très** fleuve (42–24 en faveur des Parisiens)* (www)
 ‘the match was an offensive orgy with a very crushing (lit. river) score (42–24 in favor of the Parisians)’

The presence of such adverbs conflicts not only with the lexical integrity of the [N₁ N₂] sequence, but also with the nominal status of N₂: usually an adverb of degree modifies a gradable adjective, not a noun. However, in the context of the qualifying [N₁ N₂] sequences, N₂ seems to switch to adjectival status.

Syntactically, evidence for this adjectival status is not only provided by the possibility of modification by an adverb, but, like a qualifying adjective, N₂ can also be inserted into a comparative construction:

¹⁵ Cf. also the ‘Italian *trasporto latte*-type constructions’ (Lieber/Scalise 2007), in which both components can be modified by an adjective, e.g. *produzione scarpe* ‘shoe production’ → *produzione (accurata) scarpe (estive)* ‘(accurate) production of (summer) shoes’.

- (23a) *pour moi c'est [la préadolescence] une période bien **plus charnière** que l'adolescence* (www)
 'For me it [pre-adolescence] is a much more pivotal (lit. hinge) period than adolescence'
- (23b) *La proximité de commerces est **moins clé** que pour une résidence senior* (www)
 'The proximity of shops is less key than for a senior housing complex'

Semantically, in all the examples under (19–23), N_2 could be paraphrased by an evaluative adjective, for example:

- (24) [...] *une période absolument **charnière** / **cruciale***
 'an absolutely pivotal (lit. hinge)/crucial period'
 [...] *ce point réellement **clé** / **important***
 'this really key/important point'
 [...] *un texte extrêmement **fleuve** / **long***
 'an extremely lengthy (lit. river)/long text'

This demonstrates the qualifying value of N_2 vis-à-vis N_1 . We will return to this in Section 5, but it is worth noting for the time being that this behavior distinguishes the qualifying subordinative [N_1 N_2] from the classifying subordinative (Section 4.1).

(c) Some N_2 s can be used predicatively. Predicative use is the most prototypical use of qualifying adjectives. In some cases, ' N_2 ' can fill the slot of an adjective in a predicative construction (25) with or without degree marking:

- (25a) *La période **est charnière** également sur le plan économique* (www)
 'The period is also pivotal in economic terms'
- (25b) *Leur rôle **est** ainsi plus clé que jamais* (www)
 'Their role is thus more key than ever'
- (25c) *c'est déjà arrivé quand l'interview **est** vraiment fleuve* (www)
 'It has already happened when the interview is really lengthy'

In this use, the [N_1 N_2] construction (*période charnière* in (25a), *rôle clé* in (25b) and *interview fleuve* in (25c)) is broken up, and N_2 acquires autonomous adjectival behavior. This separation of compound-like sequences has been labeled 'debonding' by Norde (2009) (cf. also Amiot/Van Goethem 2012; Van Goethem 2012; Norde/Van Goethem 2014; Van Goethem/De Smet 2014; and Van Goethem 2015).

5 A constructionist analysis of qualifying $[N_1 N_2]$ subordinatives

As can be concluded from the preceding section, besides coordinate $[N_1 N_2]$ sequences, only classifying $[N_1 N_2]$ subordinatives should be regarded as true compounds in French, whereas the qualifying $[N_1 N_2]$ formations display hybrid behavior in the sense that they may, to a greater or lesser extent, undergo syntactic operations. We will now demonstrate how the idea of ‘multiple inheritance’ (cf. Section 2.4) can be fruitfully applied to account for these hybrid qualifying $[N_1 N_2]$ subordinate constructions.

Two phases can be distinguished in the emergence of qualifying subordinatives (cf. Amiot/Van Goethem 2012 and Van Goethem 2015 on $[N_1 clé]$ subordinatives).

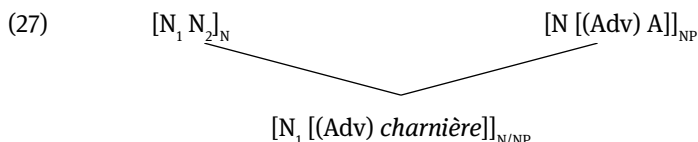
The first step is the emergence of a productive constructional idiom – via so-called ‘constructionalization’ (Traugott/Trousdale 2013; Hüning/Booij 2014) – in which N_2 develops a specific (metaphoric) qualifying meaning when combined with an N_1 in a compound(-like) sequence (e.g. *question-clé* ‘key question’, *moment charnière* ‘pivotal moment’, *réunion marathon* ‘marathon meeting’, *cas limite* ‘borderline case’, etc.). This qualifying meaning may be seen as the result of ‘coercion’ (cf. Audring/Booij 2016) in which the metaphoric meaning sometimes already available for the noun outside the compound-like pattern (e.g. *la clé du succès* ‘the key of success’) is selected (‘coercion by selection’) and/or in which N_2 develops adjective-like (semantic and formal) properties within the $[N_1 N_2]$ pattern (‘coercion by override’). This semi-schematic construction, applied to the example of $[N \text{ charnière}]$ formations, can be represented as follows:

$$(26) \quad [[X]_{N_1} [\text{charnière}]_{N_2}]_{N_1 N_2} \leftrightarrow [\text{pivotal, crucial SEM}]_i$$

However, the constructionalization of N_2 goes beyond this morphological stage, since it may occur in innovative syntactic constructions with the same semantics (cf. Section 4.2). As already suggested by Amiot/Van Goethem (2012) and Van Goethem (2015), the adjective-like uses of N_2 can be seen as the result of an interaction between the closely related morphological $[N_1 N_2]_{N_1 N_2}$ and syntactic $[N A]_{NP}$ constructions.¹⁶ The fact that N_2 s such as *charnière*, *clé*, *fleuve*, *limite* and so on

¹⁶ The schematic representations are a bit simplified since, as we have seen in 4.2, N_1 and N_2 can include a multi-word sequence, and the A can be instantiated by a phrase in the case of degree modification (e.g. *une période vraiment charnière*).

developed a qualifying meaning in the former construction, typical of adjectives, may have favored this constructional ambiguity. In constructional terms, this interaction can be translated as an instance of ‘multiple inheritance’. Schematically, this multiple inheritance can be represented as in (27):



The $[N_1 [(Adv) charnière]]_{N/NP}$ sequence inherits its properties from two distinct parent constructions, the morphological qualifying compound $[N_1 N_2]_N$ pattern (e.g. *moment-charnière* ‘pivotal moment’) and the syntactic $[N [(Adv) A]]_{NP}$ pattern (e.g. *un moment (vraiment) crucial* ‘a (really) crucial moment’). As a consequence, and as shown in Section 4.2, it is a hybrid between a morphological and a syntactic construction and N_2 can, in some cases, gradually develop more adjective-like syntactic uses, such as the predicative use.

This approach indicates that French $[N_1 N_2]$ subordinatives, and especially the subclass of formations with a qualifying N_2 , are in reality closely related to $[N A]$ or $[A N]$ formations. As we have seen in Section 3.2, Scalise/Bisetto (2009) merge $[N_1 N_2]$ appositives and $[N A]/[A N]$ attributives within the class of ATAP compounds because the modifier in both cases expresses a qualifying property of the head noun. We can therefore conclude that their classification for these types of formations is highly insightful. However, what is still missing in this approach is the fact that this ATAP class contains not only pure (morphological) compounds, but also hybrid constructs with both morphological and syntactic properties.

6 Conclusion

Compared with Germanic languages, it turns out to be very difficult to delineate French compounds from syntactic multi-word units. In the first part of this contribution, we outlined three different approaches dealing with compounding in the French tradition: non-restrictive, scalar and restrictive (lexicalist). Although we believe morphological formations should be distinguished from syntactic formations, it is insightful to highlight their shared potential for expressing the same denominative functions. We therefore added a fourth approach: we believe a constructionist, non-modular approach to the language system provides a more

appropriate account. From this perspective, both compounds and phrasal structures with a naming function can act as conventionalized form-meaning pairings or ‘constructions’ and we should accept the existence of what Booij (2010: 190) calls ‘lexical phrasal constructions’, namely phrasal constructions that are stored in the (mental) lexicon.

Another advantage of this constructionist approach is that it can deal with structurally ambiguous formations, such as $[N_1 N_2]$ structures with a qualifying N_2 . As shown throughout this paper, these sequences are particularly difficult to deal with in a modular approach because, on the one hand, they formally and semantically resemble $[N_1 N_2]$ (subordinative) compounds, but, on the other hand, they allow syntactic operations to a greater or lesser extent. In a conception of language as a constructionist network, these hybrid formations can be fruitfully accounted for by the mechanism of ‘multiple inheritance’. Following this process, we have argued that the hybrid properties of French qualifying $[N_1 N_2]$ sequences result from the inheritance of properties from both a morphological and a syntactic parent construction.

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