

On The Status of N-V Verbal Compounds in Catalan

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1.0 Introduction

This thesis investigates the status of verbal N-V compounds in Catalan among three different age groups of bilingual speakers of Catalan and Spanish in Catalonia. Examples of verbal compounds appear in many articles relating to Catalan morphology and have been analyzed as a productive feature of the language (Gràcia and Fullana 1999).

However, this type of compound construction is unique to Catalan among Romance languages (Pena 1991:90). Given that most speakers of Catalan are bilinguals whose second language is either Spanish or French, the construction is therefore potentially unstable. It is important to look at the changes in usage of this type of compound between Catalan speakers of different generations to explore whether the productive process of N-V verbal compounding is gradually weakening as some compounds gain more opaque meanings.

This study begins with a background on the syntax of Catalan verbal compounds in section 2. Specific collected examples of N-V verbal compounds are introduced and classified according to their degrees of transparency and opacity in section 3. Section 4 presents the methods of conducting the surveys used to collect speakers' intuitions about the verbal compounds themselves. The results of the surveys are then analyzed and discussed in section 5, focusing on the effects of specific characteristics of the speakers in connection with the degrees of opacity, usage, and productivity of the compounds.

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2.0 Background Information: Verbal Compounds

Verbal compounds are verbs composed of two or more distinct words. Catalan verbal compounds may be composed of either an N-V or an ADV-V combination, as in the following examples:

(1) *ull - prendre*

eye - take

to catch someone's eye

(2) *mal - dir*

badly - say/tell

to speak badly of someone

Ullprendre in (1) is an example of a verbal compound formed using the noun *ull* and the verb *prendre*. *Maldir* in (2) is formed by combining the adverb *mal* and the verb *dir*.

ADV-V verbal compounds exist in Spanish as well. For instance, Spanish has the word *maldecir* (from *mal - decir*, or badly - say/tell), which is equivalent to the Catalan word *maldir* and once again means *to speak badly of someone*. Nevertheless, most morphologists believe ADV-V verbs such as these are “quite clearly cases of reanalysis and are not synchronically productive” (Rainer and Varela 1992:134). In contrast, the process of N-V verbal compounding claimed to be productive in Catalan by Gràcia and Fullana (1999), and seen in *ullprendre*, does not exist in Spanish (Clements 1989:156), making its presence in Catalan all the more interesting and valuable to study.¹

¹ Alcoba (1988) cites several N+V verbal compounds in Spanish such as *maniatar*, meaning *to bind someone's hands* from *mano + atar* (hand + tie). However, the examples support Rainer and Varela's analysis (1992:134) that this type of Spanish compound can be classified as N+i+V, exhibiting a consistent vowel epenthesis or change to *i*, and including further instances of reanalyzed words in this category, such as *alicortar* from *ala + cortar* (wing + cut), which are antiquated and have generally fallen out of use.

2.1 Syntax

Because N-V verbal compounds are unique to Catalan among Romance languages, it is interesting to look briefly at an overview of their syntactic features, especially regarding their morphological headedness and corresponding equivalent phrase structures within the context of Catalan syntax.

2.1.1 Morphological Headedness

Headedness refers to the element, or head of a word, which determines the morphological and syntactic properties of the entire word. Cabré asserts that in a Catalan compound, whether nominal, verbal, or adjectival, the element to the right always dominates the combination and imposes its category over the whole word (1994:80). Catalan is indeed a generally morphologically right-headed language,² though the headedness of its compounds can vary according to the lexical category of the compound word (Mascaró 1985:58). In contrast, the compounds of Spanish and other Romance languages are usually morphologically left-headed (Pena 1991:92), though right-headed constructions are also possible (Lang 1990: 71).

The most productive type of headed compound in Catalan is formed with a noun on the left and an adjective on the right, such as the following example taken from Mascaró (1985:64):

- (3) *barba - roig*
 beard - red
 red-bearded

The compound in (3) is an adjective, taking its syntactic category from the morpheme on

² In fact, Catalan words formed as derivatives of other words through affixation are always right-headed; it is only the compounds which can sometimes be left-headed, though most types still have heads on the right. (Mascaró 1985:58).

the right. Similarly, verbal compounds in Catalan are right-headed, and therefore retain the lexical category of verb from their righthand element, as the following words illustrate:

(4) *cama - trencar*

leg - break

to break the leg (of an animal)

(5) *cor - nuar-se*

heart - knot

to have a strong feeling of distress, anxiety, or fear

Trencar and *nuar-se* are the righthand heads of these two verbal compounds, while the lefthand element of each word modifies the verb in some way.

Mascaró characterizes this type of compound by the direct relationship between the first element of the compound and an argument of the transitive verb stem (1985:68). The nouns in examples (4) and (5) are tied to their respective verbs through the same arrangement; they restrict the meaning of the simple verb, although the verb may additionally require a syntactic object. *Camatrencar* in (4) is an example of a transitive verbal compound, while *cornuar-se* in (5) is a reflexive intransitive verb. Catalan N-V verbal compounds are composed of a noun and a transitive verb; the resulting compound verb may be either transitive or intransitive.

2.1.2 Exceptionality of the N-V Verbal Compound

When considering the productiveness of a certain kind of word-formation process, it is important to look at the new words within the larger context of the language. While verbal compounds in Catalan are morphologically right-headed, the language is syntactically left-headed, meaning the verb normally appears to the *left* of its object within the verbal phrase.

The following sentences, taken from Gràcia and Fullana (1999:240), are semantically equivalent, but employ two different syntactic structures, the first with a simple verb, and the second with a compound:

(6) *El caçador va trenc - ar la cama a l'ocell.*
 the hunter SA break - 3sgP the leg to the bird.³
 'The hunter broke the bird's leg.'

(7) *El caçador va camatrenc - ar l'ocell.*
 the hunter SA leg+break - 3sgP the bird.
 'The hunter broke the bird's leg(s).'

In (6) the word order is typical of VO languages such as Catalan and Spanish and contains a syntactically left-headed verb phrase, while in (7) the verbal compound uniquely presents its information in OV order because the verbal morpheme appears inside the compound on the right. The syntactic left-headedness in (6), implying a VO ordering, is characteristic of all Romance languages and Catalan is no exception. The exceptionality of the N-V verbal compound is that its morphological right-headedness (or OV ordering) seems to contradict the syntactic ordering of the language. However, this difference between morphological and syntactic headedness is a common one and occurs in English as well.⁴ The complement-verb order within the verbal compounds is simply further evidence that they should in fact be analyzed as single lexical entities and not as strings of multiple words obeying the rules of the Catalan verb-phrase.

It has been proposed that “the complement-head order of verbal compounds in Catalan is a consequence of the original Latin OV order,” since Latin was head-final with

³ 3sgP signifies the 3rd person singular preterite morpheme, and SA indicates a 3rd person singular Semi-Auxiliary verbal element needed for the preterite tense, which does not have a surface realization in the gloss.

⁴ For example, in English it is grammatical to say either *bartend* or *tend the bar*, although in *bartend* the morphological head (the verb *tend*) is on the right, and in *tend the bar*, the syntactic head of the verbal phrase, *tend*, is on the left, displaying VO ordering.

respect to complements (Gràcia and Fullana 1999:243). Moll (1952) explains the forms as simply analogous to the Latin verbs that were constructed with a verbal element in the final position, and a complement of the verb on the left. Nevertheless, Gràcia and Fullana (1999:244) argue that the morphological structure of Catalan verbal compounds cannot be solely a Latinate remnant because of the continuing productivity of this class of words. They found that speakers could correctly interpret the literal meanings of new N-V verbal compounds, even when the authors had invented the compounds themselves (Gràcia and Fullana 1999:244):

- (8) *nas+trencar* *nose+break* ‘to break the nose (of a person)’
 pell+cremar-se *skin+burn* ‘to burn one’s skin’

Still, it is important to note that it is likely that only the literal meanings of verbal compounds that are new to speakers of Catalan will be appropriately interpreted. Many of the compound verbs in use today are often utilized to evoke more figurative interpretations than literal ones. Furthermore, a semantic discussion of the compounds will be presented later in this paper, as well as a discussion of the productiveness of the creation of new verbal compounds in terms of their opaque or transparent meanings.

Regardless of whether Catalan verbal compounds originated in Latin, their morphosyntactic structure is unique. Their morphological right-headedness is exceptional to the syntactically left-headed VO word order found in all Romance languages including Catalan, while other Romance languages such as Spanish are more consistent in their morphological and syntactic left-headedness (Pena 1991:92). If it is true that verbal compounds are in fact becoming increasingly opaque and less productive in the Catalan of bilingual speakers of Catalan and Spanish, then this may be because of

the compounds' anomalous construction with respect to other types of compounds in the lexicon of either language.

2.2 Summary

Verbal compounds composed of an N-V combination are found uniquely in Catalan among Romance languages. The compounds, which may be transitive or intransitive, are morphologically right-headed, and are thought to be productive, although they display an anomalous internal OV ordering with respect to the normal VO syntactic left-headedness of the language.

3.0 Data

Although many of the N-V verbal compounds in Catalan are transparent and can be understood literally as the simple verb modified slightly by its complement, most have much more opaque interpretations because they have changed in significance or gained multiple meanings over time. The transparent compounds are compositional; the meaning of the parts makes up the meaning of the whole, as in the following example:

- (9) *cor - bategar*
 heart - beat
 to have the heart beat (for the heart to beat)

This type of compound seen in (9) is easily interpretable based on the meanings of the two words of which it is composed.

The compounds classified as opaque can be divided further into two categories: figurative and lexicalized. Figurative compounds, like transparent compounds, are compositional, but in a figurative sense:

- (10) *ull - ferir*
 eye - hurt
 to hurt someone's eyes (because of ugliness)

In (10), *ullferir* explicitly means to hurt someone's eyes; yet despite this the meaning is not literal because the eyes are only figuratively hurt by seeing ugliness, making this a figurative compound.

Lexicalization refers to the process through which phrases, or in this case the morpheme combinations of compound words, come to be reanalyzed by speakers over time as individual and opaque units of the lexicon, composed of fewer morphemes than when they were originally created, and often shifting in significance from the original semantic value. Lexicalized compounds are completely non-compositional as demonstrated below:

- (11) *sang - cremar-se*
 blood - burn
 to become impatient

The lexicalized compound in (11) has been reanalyzed into a single verb meaning *to become impatient*, though the words *blood* and *burn* would not themselves indicate this interpretation.

The following section provides an overview and discussion of the data, roughly classifying the compounds into categories of those with transparent meanings, those with opaque meanings, both figurative and lexicalized, and those that share traits of each.

3.1 Transparent Verbal Compounds

The process of productive compound word formation relies both on the native speakers' ability to create original combinations of words, following their language's grammatical

patterns, and their ability to understand novel combinations used by other speakers. The most transparent types of verbal compounds are those in which the first element of the compound, which is the complement of the verb, modifies the verb by applying it specifically to that complement. These literal, or compositional, verbal compounds are simply more explicit versions of their simple verbs. For example, *trencar* means to break, while *camatrencar* means, more specifically, to break a leg.

The following are examples of transparent Catalan verbal compounds and their glosses:

(12) *pell* - *obrir-se*

skin - open

to have one's skin open (for one's skin to open)

(13) *pell* - *partir-se*

skin - divide

to have one's skin open (for one's skin to open)

(14) *cor* - *bategar*

heart - beat

to have the heart beat (for the heart to beat)

The noun complements *pell* and *cor*, in (12) through (14), are affected literally by the action of the verbs. The two compounds in (12) and (13) are also reflexive verbs, and all three compounds in (12) through (14) are intransitive. Each of the three compounds is also in some way related to the body and is descriptive of a process it undergoes.

Some compounds have more than one possible literal interpretation:

(15) *peu* - *calcigar*

foot - step on

to step on with one's foot (or to step on someone's foot)

Peucalcigar, in (15), is complex among this group of transparent verbal compounds because *peu*, the *foot*, can be interpreted as either that which steps on something, executing the action of the verb, or that which is stepped on, affected by the action.

The following is an example in which the noun complement to the verb acts as a location for the action:

- (16) *coll - portar*
 neck - carry
 to carry (something) on one's neck

In (16), the relationship between *portar* and *coll* is that of a prepositional phrase: *portar a coll*, literally *to carry on/at the neck*.⁵ Moreover, in some sense the word *coll* in *collportar* therefore acts to locate the action of the verb *portar*, yet the meaning of the entire compound is still quite transparent.

A majority of transparent verbal compounds can be classified into the general area of the lexicon referring to parts of the body with noun-elements including *leg*, *skin*, *foot*, *heart*, and *neck*, while the exceptions have to do with nature as in (17) and (18):

- (17) *terra - trémer*
 earth - shake
 to have the earth quake (for the earth to quake)
- (18) *aigua - barrejar-se*
 water - mix
 to have waters mix (for waters to mix)

It seems as if all of these words could have been formed a long time ago, from such basic vocabulary as words for water, earth, and parts of the body. If it is true that these

⁵ In this particular case, however, the phrase *portar a coll* itself has been lexicalized, and simply means *to carry a person*, whether on one's neck or back or in one's arms.

transparent verbal compounds are in fact older forms, then we might expect to find some more technical terms belonging to a specific area of the lexicon such as rural farm-life or crafts of trade:

- (19) *pell* - *foradar*
 skin/leather - to make a hole
 to make a hole in the skin or leather
- (20) *pell* - *trencar-se*
 skin/leather - break
 to have the skin or leather break (for skin or leather to break)
- (21) *tall* - *girar*
 blade - turn
 to bend the blade (of a knife)
- (22) *cama* - *trencar*
 leg - break
 to break the leg (of an animal)

Indeed in (22), *camatrencar* is certainly a form used more often in a rural context; *tallgirar* in (21) seems antiquated and craft-related; moreover *pellforadar* and *pelltrencar-se* in (19) and (20) could easily have been applied at first to the trade of processing leather, a different and perhaps older interpretation of the compound, but still a literal one.

There seem to be relatively few transparent, or literally interpreted verbal compounds in Catalan, as compared to the amount of compounds that carry more opaque meanings. As a general rule, the transparent data are also slightly archaic. They seem more applicable in rural situations than in others, and it is possible their usage has narrowed or is becoming restricted to treatment that is more poetic or literary. This study will investigate whether Catalan speakers believe they would be more likely to employ one of this class of verbal compound in a conversation or to find one in a written text.

3.2 Intermediate Forms

Before moving on to the opaque verbal compounds, it is important to look for compound words that can be interpreted either transparently or opaquely, since they may turn out to be indicators of a lexicalization process, appearing at a stage somewhere in between transparency and opacity. Only one verbal compound was clearly identifiable as belonging to this category:

(23) *coll - tòrcer*

neck - bend/twist

lit. to twist the neck (of someone or something); lex. to die

The lexicalized meaning of *colltòrcer* in (23) is discernibly related to the literal meaning; however, *to die* is not an immediately intuitive interpretation of the combination of *coll* and *tòrcer*. It seems likely that the compound gained this significance later in its evolution and started out with only the literal sense. Additionally, *colltòrcer* can mean to twist or bend the stem of a plant, the *coll* in this case being the figurative *neck* or stem of the plant. Catalan often utilizes simple body-part terminology, such as *coll*, figuratively with respect to comparable parts of the anatomy of inanimate objects. *Cap*, for example, which means *head*, is another word used quite frequently in this style, which will be discussed further in the next section, and can be used to describe everything from the head of a table to the point of a needle.

3.3 Opaque Verbal Compounds

The largest class of Catalan verbal compounds falls under the opaque category of compound words that now have only figurative or lexicalized meanings, though they may have had more transparent interpretations in the past.

The following are examples of figurative verbal compounds and their glosses:

(24) *cor - ferir*

heart - hurt

to break someone's heart

(25) *ull - ferir*

eye - hurt

to hurt someone's eyes (because of ugliness)

(26) *ull - prendre*

eye - take

to catch someone's eye (because of mystery or beauty)

Corferir in (24) is equivalent to the expression *to break someone's heart* in English. The noun complement *cor*, which precedes the verb, is figuratively affected by the verb in a dramatic and almost poetic way. The noun complement *ull*, or *eye*, in (25) and (26) is also figurative, and references a different type of body part than those employed by most transparent compounds. In contrast to the insensate leg and foot, the eye typically has much more to do with one's personality or emotions.

The following two compounds in (27) and (28) are notable because the nouns are the medium by which the events are carried out:

(27) *man - llevar*

hand - take

to grab, borrow, or steal something (out of the place it belongs)

(28) *aigua - batre*

water - beat/whip

to water something forcefully (i.e. drench or splash)

For example, *aigua* is not the object of the verb in (28), but instead it is the tool used to accomplish the action. This compound is also interesting because it can be equally used to describe the act of rain clouds drenching fields and trees, and the act of a construction worker spraying a wall with water.

Verbal compounds in (29) to (31) make use of the basic Catalan words *cap* and *coll*, which mean *head* and *neck* respectively, in a figurative manner:

(29) *cap* - *alçar*

head - lift

to lift (an object) up by the head

(30) *cap* - *ficar*

head - put

1) to put the head (of an object) somewhere,

2) to be preoccupied with something⁶

(31) *coll* - *trencar-se*

neck - break

1) to break (an object) at the neck,

2) to put forth a great effort, or suffer prejudice

Here the nouns refer to the metaphorical head or neck of an object, such as the head (or end) of a stick in (29), or the neck of a bottle, a shirt, or a guitar in (31). It is common to employ this type of abstract analogy to the structure of inanimate objects in Catalan, but the many different possible meanings of *cap* confuse the issue regarding whether these compounds are opaque or transparent. For instance, in (29) *capalçar* could be used to refer to picking up a pumpkin by its stem, but if Catalan speakers can use *cap* to describe the actual head or stem of the pumpkin, then the sense of the verb is literal. For the most part though, since the uses of *cap* are themselves figurative, and because the compounds in (30) and (31) also have a second lexicalized meaning, this study will consider all such words as figurative (and therefore opaque). The compounds in (29) and (31) are also interesting because the nominal first elements of the compounds are semantically related

⁶ *Capficar* has a third, nautical definition as well. When used in conjunction with a subject such as *the prow of a ship*, it can mean that the figurative *head* of the ship sinks into the water a little too much.

to the verbal elements and convey the location of the action.

The following are examples of purely non-compositional, lexicalized compounds:

(32) *cap - girar*

head - turn

1) to turn (an object) upside-down, invert (the order of) something,

2) to change one's opinion

(33) *cara - girar*

face - turn

1) to change one's mind,

2) to turn against someone, stop being friends

The noun complement *cap* in (32) falls into the same category as the figurative instances of *cap* and *coll* discussed earlier; though *capgirar* is not a figurative compound because the meaning of the word as a whole is not at all compositional, but lexicalized. In (33), *caragirar*, which uses *cara* or *face*, provides another example of a more personal and emotional body part noun element than the legs and feet present in the transparent compounds, like the earlier figurative compounds using *ull* or *eye*.

Further examples of lexicalized compounds abound:

(34) *cor - glaçar*

heart - freeze

to succumb to a strong fear

(35) *cor - secar-se*

heart - dry up

1) to have something dry up (a plant),

2) to lose vitality and interest (in life) and to become embittered

(36) *cor - nuar-se*

heart - knot

to have a strong feeling of distress, anxiety, or fear

In (34) through (36), the compounds are appealing as hyperbole and are strongly emotionally expressive.

It is worth mentioning that the lexicalized compounds exclusively contain simple noun-elements referring to parts of the body (as do the figurative compounds, with the exception of *water* in (28)). However, several incorporate the word *sang*, meaning *blood*, such as the compounds in examples (37) through (39):

(37) *sang* - *glaçar-se*

blood - freeze

to feel a strong fear (caused by an imminent danger)

(38) *sang* - *cremar-se*

blood - burn

to become impatient

(39) *sang* - *girar*

blood - turn

1) to go crazy, 2) to suddenly change one's opinion

Though blood is tangible and also something found in the body, it seems a more conceptually abstract entity than some of the other complements, and is therefore more apt to be used in an opaque compound.

Overall, opaque compounds seem to have to do with either emotional states or concrete actions described abstractly. Nevertheless, semantic categories for these more figurative and lexicalized verbal compounds are more scattered and difficult to pin down than those of the literal words. It is unclear whether literal interpretations of these opaque verbal compounds once existed, or whether they appeared through a productive Catalan word-formation process, immediately adopting their figurative or lexicalized readings. It is also unclear whether verbal compounds, both transparent and opaque in nature, are still

being produced, and to what extent each type is utilized by different age groups of Catalan speakers. Perhaps the opaque forms are a more recent innovation than the seemingly antiquated literal verbal compounds, and are therefore used more comfortably in conversation by younger speakers.

3.4 Initial Discussion

Catalan verbal compounds can be divided into semantically transparent and opaque categories, the first of which seems to contain the more archaic words, while the second, larger group can be divided into figurative and lexicalized compounds, and includes contemporary lexical items indicating emotional states or metaphorically described actions. Of the 28 verbal compounds, 16 were semantically grouped into the opaque category, compared with only 12 compounds classified as transparent.⁷ It is possible that over time, the process of verbal compound formation has become less productive or that speakers have lexicalized most of the literal verbal compounds or given them more figurative interpretations, though the history of the words has not been documented thoroughly enough to know for certain. If transparent verbal compound usage has reduced in potential applications, this may be because Catalan verbal compounds have been gradually falling out of use. Alternatively, they may have simply started to gain figurative meanings or become lexicalized, maintaining their existence in the lexicon as they become reanalyzed and reevaluated by speakers into lexical items which do not necessarily contain more than one root.

⁷ This statistic citing 12 transparent verbal compounds includes the 11 literal compounds described earlier plus the word *colltorcer* in (23), which was originally classified as an intermediate form, having one literal and one lexicalized definition: *to twist the neck (of someone or something)* or *to die*. For the purposes of analysis, it will be considered to have only the first, literal meaning, as it is most transparent to speakers unfamiliar with this rarely used word, and was probably considered as such when they commented on it in the survey.

4.0 Catalan N-V Verbal Compound Survey

This study sets out to investigate the status of N-V verbal compounds in Catalan by exploring compound usage among different age groups to provide a historical context for the way in which the status of these words is changing in the language. Although Gràcia and Fullana have analyzed the Catalan N-V verbal compound as a productive feature of the language (1999), its uniqueness to Catalan among Romance languages and the fact that most Catalan speakers are bilingual speakers of Spanish or French make the construction potentially unstable. In order to better examine the status of the compounds in Catalonia with respect to their degrees of transparency or lexicalization, a survey was conducted to obtain assessments of speakers from different age groups of their personal levels of usage of each word, and to gather further examples of N-V verbal compounds. Very few Catalan speakers were able to come up with any additional compounds beyond those already presented. Nonetheless, the opinions that the sampled speakers provided regarding the meanings and usage of the compounds were invaluable.

4.1 Methods of Collecting Data

As many verbal compounds as possible were gathered from various texts on compounding in Catalan and Romance languages, Catalan morphology, and Catalan grammars. The 28 assembled compounds formed the focus of the investigation, and were presented to the bilingual speakers of Catalan and Spanish, in combination with 12 ADV-V verbal compounds, in the context of a linguistic survey requesting their judgments concerning the words. Following is a chart that lists the survey's 40 verbal compounds divided by category:

(40) Verbal Compounds in the Survey

Transparent N-V	Opaque N-V		ADV-V
	Figurative	Lexicalized	
<i>cor - bategar</i> heart - beat to have the heart beat (for the heart to beat)	<i>cor - ferir</i> heart - hurt to break someone's heart	<i>cap - girar</i> head - turn 1) to turn upside-down, invert something, 2) to change one's opinion	<i>mal - gastar</i> badly - spend to waste money
<i>pell - obrir-se</i> skin - open to have one's skin open (for one's skin to open)	<i>ull - ferir</i> eye - hurt to hurt someone's eyes (because of ugliness)	<i>cara - girar</i> face - turn 1) to change one's mind, 2) to turn against someone	<i>car - comprar</i> expensively - buy to buy at an expensive price
<i>pell - partir-se</i> skin - divide to have one's skin open (for one's skin to open)	<i>ull - prendre</i> eye - take to catch someone's eye (due to mystery or beauty)	<i>cor - glaçar</i> heart - freeze to succumb to a strong fear	<i>menys - prear</i> less - price to underestimate
<i>peu - calcigar</i> foot - step on to step on with one's foot (or to step on someone's foot)	<i>man - llevar</i> hand - take to grab, borrow, or steal something (out of the place it belongs)	<i>cor - secar-se</i> heart - dry up 1) to have something dry up (a plant), 2) to lose vitality and interest (in life) and to become embittered	<i>prim - filar</i> thinly - to spin to be really meticulous
<i>coll - portar</i> neck - carry to carry (something) on one's neck	<i>aigua - batre</i> water - beat/whip to water something forcefully	<i>cor - nuar-se</i> heart - knot to have a strong feeling of distress, anxiety, or fear	<i>mal - parir</i> badly - give birth to have been born badly (to be deficient, an insult)
<i>terra - trèmer</i> earth - shake to have the earth quake (for the earth to quake)	<i>cap - alçar</i> head - lift to lift (an object) up by the head	<i>sang - glaçar-se</i> blood - freeze to feel a strong fear (caused by an imminent danger)	<i>mal - acostumar</i> badly - get used to for spoiled children who have bad/annoying habits
<i>aigua - barrejar-se</i> water - mix to have waters mix (for waters to mix)	<i>cap - ficar</i> head - put 1) to put the head (of an object) somewhere, 2) to be preoccupied	<i>sang - cremar-se</i> blood - burn to become impatient	<i>prim - mirar</i> thinly - see to be really meticulous
<i>pell - foradar</i> skin/leather - to make a hole to make a hole in the skin or leather	<i>coll - trencar-se</i> neck - break 1) to break (an object) at the neck, 2) to put forth a great effort, suffer prejudice	<i>sang - girar</i> blood - turn 1) to go crazy, 2) to suddenly change one's opinion	<i>mal - dir</i> badly - speak to speak badly of someone
<i>pell - trencar-se</i> skin/leather - break to have the skin or leather break			<i>car - vendre</i> expensively - sell to sell something for more than it is worth
<i>tall - girar</i> blade - turn to bend the blade (of a knife)			<i>meny - estimar</i> less - love to not love someone as they deserve
<i>cama - trencar</i> leg - break to break the leg (of an animal)			<i>mal - vendre</i> badly - sell to sell something for less than it is worth
<i>coll - tòrcer</i> neck - bend/twist lit. to twist the neck (of someone or something); lex. to die			<i>vil - tenir</i> vilely - have to underestimate

Speakers were requested to look over a chart of the compounds, marking all the options that they believed to be appropriate in order to indicate for each word whether they recognized the meaning of the compound, would be likely to find it in a written text, would be likely to employ it in a conversation, and would be likely to say it in another non-verbal, derivative form.⁸ The sections of the surveys regarding the derivative forms and the ADV-V compounds were included in the survey in order to provide speakers with the impression that they were still being helpful although they might not have believed they would use many of the N-V verbal compounds in their verbal non-derivative forms. Furthermore, speakers were solicited to provide additional Catalan N-V verbal compounds if they could think of any.

The intent of the study was to examine responses from Catalan speakers of three different age groups in order to ascertain the effect of a speaker's age on their intuitions concerning the compounds. Data collected include nine surveys from speakers ages 15-19, six surveys from speakers ages 20-39, and six surveys from speakers ages 40-60. In addition to their age, speakers were asked to supply their profession, the area of Catalonia where they live, which language they consider to be their *llengua materna*, or first language, though all speakers were completely bilingual, and their preference for speaking in either Spanish or Catalan if they had one. Selected based on their willingness to take the survey, most of the speakers were students and teachers from a secondary school in Igualada, a small Catalan city where the same central Catalan dialect used in Barcelona is spoken.⁹

⁸ For example, *caragirat* (an adjective meaning *traitor* or *hypocrite*), derived from *caragirar* (*to change one's mind or to turn against someone, or stop being friends*).

⁹ One of the speakers in the oldest age group was from Mallorca and spoke Mallorca's Catalan dialect.

The responses were then analyzed, primarily focusing on the way in which age affected speakers' intuitions pertaining to their likeliness to use different N-V verbal compounds in a conversation. Through a discussion of the results, the current productivity or status of the compounds will be assessed, taking into account that the close relationship of all bilingual Catalan speakers to Spanish in Catalonia has potentially made the N-V verbal compound construction an unstable one.

5.0 Verbal Compound Usage in Catalonia: Analysis of Data

In order to learn about the current status of N-V verbal compounds in Catalan, it is essential to explore speakers' opinions about the words by investigating the discrepancies in usage among different categories of compounds, as well as the effects of separate contexts of usage on the results. Responses to the surveys were compiled and analyzed in terms of differences in compound utilization in written versus spoken contexts and between lexicalized versus transparent compounds, among different ages of speakers, and finally with regard to speakers' attitudes toward Spanish.

5.1 Compound Usage and Preliminary Survey Results

The most general observation that can be made about the survey results is that the speakers' intuitions point toward a higher tendency of written compound usage than of spoken. The 21 surveyed speakers each commented on the 28 compounds (creating 588 total responses), marking their likelihood of finding each word in a written text and/or of employing it in conversation. The results are as follows:

(41) Frequency of Written vs. Spoken Verbal Compounds

	Number of compounds marked likely to be:	Percentage indicated:
Found in a text	213 / 588	36%
Used in conversation	101 / 588	17%

It is interesting to note that the frequency at which Catalan speakers believe they might find N-V verbal compounds in a text is more than twice the frequency at which they would use the words in conversation. Both rates of usage are relatively low, though, since clearly fewer than 50% of the total responses affirmed the presence of verbal compounds in either written or spoken language.

The fact that many speakers believe that the verbal compounds are more likely written than spoken calls into question their true status as a productive construction of the language; if this type of word is not being employed as much as it has been in the past, then perhaps the compounds appear to the speakers as antiquated forms with obscured definitions, or perhaps as simply belonging to a more literary sphere of the lexicon. It seems probable that for those specific cases in which a speaker indicated that a compound was more likely to be found in a text than used in conversation, the verb may have poetic or archaic connotations rather than functioning actively in the language today.

Overall, the more interesting distinction lies in the comparison between opacity and transparency in the verbal compounds of both written and spoken language. This contrast will be explored in the following sections, while additionally considering the effects of speakers' ages and relationships with Spanish.

5.1.1 Effects of Opacity versus Transparency

Of the 28 verbal compounds, 12 compounds were grouped into the transparent category,

while 16 were classified as opaque. Aside from the greater number of opaque compounds among the compounds assembled for the survey, these opaque verbs also had higher percentages of use in both written and oral contexts than the transparent verbs did. The following chart confirms this comparison, based on the combined responses of all speakers for both encountering the words in a text and using them in conversation (creating 672 total responses for the 16 opaque compounds, and 504 total responses for the 12 transparent compounds):

(42) Frequency of Opaque vs. Transparent Verbal Compounds

	Number of compounds marked likely to be found in a text and/or spoken:	Percentage indicated:
Opaque	230 / 672	34%
Transparent	84 / 504	17%

The opaque compounds are put to much higher rates of use than are the literal compounds, although once again, both statistics are relatively low, suggesting that Catalan may be experiencing a possible depletion in frequency of verbal compound use.

The discrepancy between the transparent and opaque compound usage is significant. It implies that these opaque terms are currently enjoying more possibilities of usage, perhaps because they can be more easily applied to situations of contemporary everyday life than the literal words can. The verbal compounds with opaque interpretations can also be less clearly perceived as having two separate morphemes because their two roots are often masked by the combined non-transparent meanings. This possible disassociation from the opaque compounds' dual origin is important because similar constructions are not present in the grammar of any neighboring

Romance language, so the words are, in effect, assimilated into the lexicon of Romance as words with an obscure morphological makeup rather than anomalous N-V verbal compounds, which may help to perpetuate their existence in the language. In terms of the infrequent usage shown for literal compounds, Catalan/Spanish bilingualism in the region of Catalonia could in fact be working to decrease the regularity of usage (or formation) of any lexical element too apparently inconsistent with Romance morphology, such as the unstable N-V verbal compound construction, with its separate noun and verb morphemes and the transparent complement-verb relation between the two words.

The following chart displays a further division of the opaque versus transparent survey results, between the written and oral modes of usage:

(43) Frequency of Opaque vs. Transparent Verbal Compounds

		Number of compounds marked likely to be:	Percentage indicated:
Opaque	Found in a text	147 / 336	44%
	Used in conversation	83 / 336	25%
Transparent	Found in a text	66 / 252	26%
	Used in conversation	18 / 252	7%

In (43), this grouping clearly reveals the hierarchy that exists in speakers' intuitions surrounding verbal compounds. The survey results imply that not only would speakers use opaque compounds more than literal ones in almost all situations, but as discussed earlier, they also believe themselves much more likely to recognize both literal and opaque compounds in a written text than to employ either type in a conversation.

The surprisingly high percentage of the occurrence of opaque compounds in written text stems from their semantic nature. They can be used figuratively to describe many actions or emotions and are probably often employed poetically in Catalan fiction,

whereas literal compounds would naturally come up less often because of their necessarily specific referents such as leather perforation, or two bodies of water mixing.

5.1.2 Effects of Speaker's Age

Studying linguistic differences between speakers of different age groups is one of the most helpful and valuable ways to learn about language change. The original intent of this investigation was to ascertain the variation present among Catalan/Spanish bilingual speakers of three distinct age groups regarding their use of N-V verbal compounds in Catalan. As mentioned earlier, the speakers examined included nine people ages 15-19, six people ages 20-39, and six people ages 40-60. The oldest speaker surveyed was 56. Further research of verbal compound usage in speakers older than 60 would provide a more valuable exploration of the compounds' status in the language now and in the past.

The results of the surveys, based once again on affirmative responses out of total responses, and with the speakers broken down into three different age groups, are as follows:

(44) Frequency of Verbal Compound Usage among Three Age Groups

		Ages 15-19	Ages 20-39	Ages 40-60
Opaque	Found in a text	39% (62/160)	39% (37/96)	50% (48/96)
	Used in conversation	13% (21/160)	27% (26/96)	38% (36/96)
Transparent	Found in a text	33% (40/120)	14% (10/72)	22% (16/72)
	Used in conversation	3% (4/120)	7% (5/72)	13% (9/72)

Overall, younger speakers consistently used fewer verbal compounds than older speakers in all situations with the exception of the youngest group of speakers' sense that they might find such high percentages of the verbal compounds in a printed text. However, aside from this anomaly which will be discussed shortly, the patterns of more opaque

compounds than transparent compounds and of more written than oral compounds remain intact through the divisions of the data according to age of the speaker.

It is noteworthy that not only do older speakers employ transparent compounds in conversation slightly more often than younger speakers do, as hypothesized earlier, but they use opaque compounds more often than the younger generation as well. Perhaps these opaque forms have been present in the language for just as long as the literal ones, originating with either literal or opaque interpretations, and are therefore just as extant in the language of Catalan's older speakers as its younger ones, if not more so.

One reason that younger speakers may have indicated that they would find more of the literal verbal compounds, and just as many of the opaque, in a written text as the older speakers (who are more likely to speak those same words) is that they strongly associate the transparent N-V verbal compound construction with older speakers or a more academic or official area of the lexicon, which is more likely to be put down on paper. Even if the younger speakers did not necessarily recognize the meanings of all of the compounds, or were so unfamiliar with the words that they were unsure whether they are in fact interpreted literally or not, perhaps the association of these compounds with some adult, official style of language use prompted them to indicate that the words would likely be found in a printed text. Conversely, the older speakers may have been more familiar with the actual meanings of the literal verbal compounds and known for a fact that many of them would rarely be seen in their written forms.

The social and political history of Catalonia as a region of Spain offers a separate explanation for these results. During the time when many of the speakers in the oldest age group were growing up, learning the two languages, and attending school, Spain was

under the control of Francisco Franco, a totalitarian dictator who forbade the teaching of Catalan in public schools in an attempt to enforce the linguistic unity of the nation and to eventually eradicate the distinct culture of Catalonia. Because of the political circumstances, many of the children educated in Spain during the 1960s and 1970s did not receive any official schooling in Catalan, but only in Spanish. These speakers may have conversed in Catalan at home with their parents, but were never formally educated in their native language. It is probable that the comparatively low results for the older speakers' intuitions about transparent Catalan compounds in their written forms in the preceding analysis is connected to the speakers' lack of formal instruction in the academic lexicon of Catalan, and the fact that they may associate official or academic language with Spanish itself and more spoken or informal communication with Catalan. Moreover, although many educators continue to teach in only Spanish, the current curriculum of Catalonia, in which younger generations are now receiving formal education in Catalan, may also have an effect on verbal compound usage in the future.

5.1.3 Effects of Relationship with Spanish

Because almost all Catalan speakers are bilinguals who are also fluent in Spanish or French, there is great potential for the languages to have an effect on each other. Furthermore, the popularity of immigration from other parts of Spain to Catalonia, and the consequent influx of non-bilingual Spanish speakers, could contribute significantly to the effect of Spanish on Catalan in the region. More specifically, in the case of Catalan N-V verbal compounds in Catalonia, as there is no such verbal N-V construction in Spanish, speakers who have more of a connection to Spanish and who feel more comfortable speaking it might tend to employ such an unusual construction more rarely

when speaking Catalan. If this phenomenon is actually occurring, it could be a sign that either the N-V verbal compounds, unstable within the Romance language family, are gradually becoming lost from Catalan or that the once-productive process of their formation is diminishing.

The majority of the surveyed speakers identified their *llengua materna*, or native language, as Catalan in addition to specifying that Catalan is still the language in which they prefer to speak. Four out of 21 speakers identified their native language as *castellà*, or Spanish.¹⁰ Of these four speakers, two continue to prefer speaking Spanish, while the other two now prefer to speak Catalan. Because of the very small nature of this investigation, it would hardly be significant to calculate a comparison between the verbal compound usage of these two groups of two speakers each, though the effects of attitude toward Spanish among all bilingual speakers of Catalonia is an area for further study. Nonetheless, an attempt will be made to contrast the compound usage of these four speakers who all have a significant relationship to Spanish with the usage from the remaining Catalan speakers from the previously presented data. The results are as follows:

(45) Verbal Compounds: Native Catalan Speakers vs. Native Spanish Speakers

		Percentages for Catalan speakers:	The four speakers with relationships to Spanish:
Opaque	Found in a text	42% (115/272)	50% (32/64)
	Used in conversation	27% (74/272)	14% (9/64)
Transparent	Found in a text	25% (50/204)	33% (16/48)
	Used in conversation	8% (17/204)	2% (1/48)

¹⁰ Of these four speakers, two were between the ages of 15-19, and two were 20-39.

The judgments of the four native Spanish speakers regarding the prevalence of verbal compounds in written text were slightly higher than those of speakers for whom Catalan is a native language. The high levels of compounds that native Spanish speakers cited as likely to appear in a text can be accounted for by an assumption parallel to the explanation for the same type of high levels cited by the youngest group of native Catalan speakers. Intuitions associating these unknown words with an academic or official sphere of the lexicon lead the speakers to assume they would be likely to find the words written, although they themselves are unsure of their interpretations.

In contrast, the likelihood of the native Spanish speakers to employ an N-V verbal compound in a spoken context was much smaller than that of the native Catalan speakers. In fact, the findings illustrate that speakers with a strong relationship to Spanish use only about half as many verbal compounds in conversation as the Catalan speakers do. If more data were available in which similar trends appeared, this discrepancy could be a strong sign that the presence of Spanish has a definite influence on the usage of N-V verbal compounds, decreasing their status as a productive construction in Catalan.

5.2 Summary

The previous section explored the influence of various characteristics of the compounds themselves and their speakers on N-V verbal compound usage through a multifaceted analysis of the data. The following discussion focuses mainly on the larger implications of these analyses with regard to the current and changing status of N-V verbal compounds in Catalan.

As noted earlier, the Catalan N-V verbal compound has been analyzed as a productive feature of the language (Gràcia and Fullana 1999); however its uniqueness to

Catalan among Romance languages, in cooperation with the fact that most Catalan speakers are bilingual speakers of either Spanish or French, make it a potentially unstable construction and call into question its sustained productivity.

Although not an unfailing indicator of the status of spoken language, it was informative to look at speakers' intuitions regarding written language and which compounds were more likely to appear in a text than others. The certainty that speakers judged more verbal compounds as likely to appear on the printed page than in their everyday speech points towards both a specific categorization of the compounds within an academic lexicon and the apparent obsolescence of the words.

It was surprising that greater numbers of opaque compounds than literal compounds were considered more likely to be encountered in their written form than spoken. Initially it seemed as if the more literal compounds might dominate in the written area, as the intuitively more archaic forms, while the opaque compounds would appear more often in contemporary everyday speech. In fact, opaque verbal compounds in the speakers' opinions are consistently used in greater numbers than are their transparent counterparts. This may be a very clear sign of a shift in meaning, from transparent to opaque, of the compounds that benefit from continuing use, or of the loss from the language of those transparent compounds that are no longer spoken. Alternatively, it could represent a decrease in productivity for all compounds apart from those with opaque interpretations.

While bearing in mind the political linguistic circumstances imposed by Franco during many of the speakers' years of secondary education, exploring the effects of each Catalan speaker's age on their intuitions relating to the verbal compounds provides the

background necessary to infer a historical context to the changing status of N-V verbal compounds in Catalan. Almost unvaryingly, older Catalan speakers exhibited higher rates of verbal compound usage than younger speakers. This finding implies greater levels of usage of the compounds historically than in the present; because the compounds are not being utilized to the same degree by younger Catalan speakers, they are slowly disappearing from the language or simply being given lexicalized or figurative meanings while remaining in the lexicon of the younger generation as an unproductive form hereafter.

Finally, there are clear conclusions to be drawn from the analysis which divided speakers based on their native languages, although there were such few subjects that supplementary research is needed on this topic. Concentrating solely on the degree to which verbal compounds are put to use in conversation, bilingual speakers who identified their native language as Spanish rather than Catalan have much lower rates of verbal compound usage. This suggests a distinct influence of Spanish and its lack of N-V verbal compounds on the extent to which speakers utilize them in Catalan. Nevertheless there is not enough evidence to support the idea that Spanish has directly affected the status of the Catalan compounds. Although they clearly seem to be dwindling in the language, it is uncertain whether the words are undergoing processes of shifting towards figurative meanings or lexicalization, or whether their productivity is weakening because of language contact with Spanish.

In summary, this section justified the importance of investigating the ways that N-V verbal compound usage is affected, depending not only on different characteristics of the speakers, but on aspects of the words themselves. Results of the surveys were

analyzed from the following perspectives: written versus spoken contexts, opaque versus transparent compounds, younger versus older speakers, and speakers whose native languages were Spanish versus Catalan. The analysis demonstrates that all speakers believe verbal compounds are more often found in a text than employed in conversation, and that all speakers reliably use more opaque compounds than literal ones. Moreover, older generations of Catalan speakers use N-V verbal compounds more frequently than younger generations. The distinction between native Spanish and Catalan speakers tentatively revealed that native Spanish speakers use verbal compounds less frequently, although further investigation is needed. Few assumptions can be made concerning the effect of Spanish/Catalan language contact; however the presence of N-V verbal compounds in Catalan does appear to be diminishing over time.

6.0 Conclusion

The status of N-V verbal compounds has been analyzed in terms of their usage among different groups of speakers and in separate linguistic contexts. The results of this analysis establish that over time the usage of N-V verbal compounds in Catalan is slowly decreasing, and that either the compounds are becoming lexicalized or given more figurative meanings, or the productive process of transparent compound formation is gradually weakening. Whether these changes are attributable in part to contact with Spanish or not, a reduction in the productivity of the Catalan N-V verbal compound is underway. This study supports the observation that verbal N-V compounds are exclusive to Catalan in the Romance language family and are increasingly potentially unstable because of both their exceptionally separate morphological and syntactic headedness and the considerable circumstances of language contact between Spanish and Catalan.

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