Classes of idioms and their interpretation[*]

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Abstract

In this paper, we will show that the distinction between *idiomatically combining expressions* (ICE) and *idiomatic phrases* (IP) is not as clear-cut and uniform as Nunberg, Sag & Wasow (1994) appear to assume: for example, we show that *V one's head off* idioms can neither be neatly classified within one class nor within the other. We compare our approach to these idioms with two recent formal accounts that neglect some insights from the cognitive linguistics framework: on the one hand, Jackendoff's (1997a,b; 2002) account of these idioms fails to recognize the systematic syntax-semantics correspondences provided by Talmy's (1985, 1991, 2000) typology of motion events; on the other hand, Glasbey's (2003, 2006) lexical storage-based account of their aspect fails to recognize the metaphorical process that determines their atelic interpretation. More generally, we also show how, despite generative claims to the contrary, various conceptual processes can overrule the aspect provided by grammar. We conclude this paper by showing that even part and parcel IPs like *kick the bucket* can be shown to have a partially compositional nature, whereby a strict, dichotomic division between ICEs and IPs does not seem to be empirically adequate.

Keywords: idiom, metaphor, aspect, language typology

1. Introduction: Two classes of idioms

The study of idioms from a modern cognitive science perspective has generated a very fruitful literature in both linguistics, where it is analyzed how they are represented lexically, syntactically, and semantically, and psycholinguistics, where it is important to work out how they are processed by the mind/brain.[1] *Grosso modo*, two different approaches to idioms can be distinguished: (i) the more standard, non-compositional approach, which takes them as long words that syntactically and semantically behave as lexical entries, and associates their nonliteral meanings with somewhat arbitrary configurations of words, and (ii) the compositional approach, which focusses on their non-arbitrary internal semantic and syntactic structure and on the consequences this non-traditional conception entails. Following this second research trend, we concentrate here on the linguistics side of the distinction between so-called "decomposable vs. non-decomposable idioms" (Nunberg 1978). Accordingly, next we will briefly review some linguistic approaches to this partition.[2]

1.1. Nunberg, Sag & Wasow (1994)

These authors propose to distinguish between *idiomatically combining expressions* (ICEs) and *idiomatic phrases* (IPs). The first include idioms such as *pull strings* ('explode connections') or *spill the beans* ('divulge information'), which –although associated with conventional meanings– can be argued to have meanings which are distributed among their parts. In particular, the following parallelisms between literal and idiomatic meanings can be established: *pull·explode* and *strings·connections*; *spill·divulge* and *the beans·information*. The second class includes idioms such as *kick the bucket* or *saw logs*, which –besides their

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[1] For a review of some important works on the representation and processing of idioms, see Cacciari & Tabossi (1993), Gibbs (1994), Titone & Connine (1999), and Keysar & Bly (1999), i.a.

[2] For a review of the implications of this distinction on the psycholinguistics side, see Gibbs (1992), Gibbs & Nayak (1989), and Titone & Connine (1999), i.a.

conventionality– are said to characteristically not to distribute their meanings among their components. Rather the whole VPs of *kick the bucket* and *saw logs* are associated to the global interpretation of *die* and *snore,* respectively.[3]

According to Nunberg, Sag & Wasow (1994:498), idioms may differ along three orthogonal semantic dimensions: compositionality, conventionality, and transparency. Compositionality refers to the degree to which the phrasal meaning, once known, can be analysed in terms of the contributions of the idioms parts; conventionality refers to the degree to which idiomatic meanings are not predictable based upon knowledge of the word components in isolation, and knowledge of the conventions of a particular language environment; finally, transparency refers to the degree to which the original motivation of these phrases is immediately accessible (see Titone & Connine 1999: 1663-1664). Having this triple semantic distinction in mind and other things being equal, IPs are assumed to differ from ICEs in having basically a lower compositionality, a higher conventionality, and a lower transparency.

In the following section, we review Jackendoff's (1997a, 2002) recasting of the distinction between ICEs and IPs in his architecture of the language faculty. In particular, this linguist questions the standard generative assumptions of lexical insertion (Chomsky 1981) and the structure of the lexicon, and consequently puts forward the view of lexical licensing of units larger than X^o.

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[3] To put it in Nunberg, Sag & Wasow's terms:

(i)   "We will use the term 'idiomatically combining expression' (or 'idiomatic combination', for short) to refer to idioms whose parts carry identifiable parts of their idiomatic meanings" (NSW 1994:496).

(ii)   "There are numerous expressions like *saw logs, kick the bucket,* and *shoot the breeze* whose idiomatic interpretations cannot be distributed over their parts, and which must therefore be entered in the lexicon as complete phrases. These will be referred to as 'idiomatic phrases'" (NSW 1994:497).

1.2. Jackendoff (1997a, 2002)

Lexical licensing analyses lexical entries as sets of correspondences among independently generated phonological, syntactic and semantic representations, and is based on the operation of unification, which preserves sisterhood and linear order, but not adjacency.[4]

Based on the fact that in an idiom such as *bury the hatchet*, *the hatchet* allows syntactic mobility (e.g. *The hatchet seems not to have been buried yet by those skaters*), and each one of the two chunks of the idiom has an independent metaphorical meaning (*bury* means 'reconcile' and *the hatchet* 'disagreement'), Jackendoff (1997a:168-169) puts forward the hypothesis that the lexical entry for *bury the hatchet*, omitting the phonological representation, should look like in (1), where subscripts are responsible for the unification procedures: subscript x on the whole Lexical Conceptual Structure (LCS) maps onto the verb of the syntactic structure. Subscript A of the LCS should map with the conceptual structure of the external argument of the sentence, and subscript y indicates unification between the independently generated NP and the internal argument of the predicate.

(1)   ICEs: Jackendoff (1997a:168)

V_x NP_y

Det   N
          count
          sing
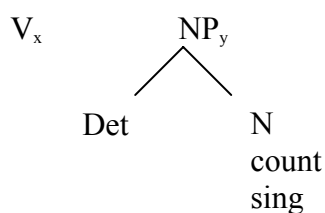
[RECONCILE ([   ]$_A$, [DISAGREEMENT]$_y$)]$_x$

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[4] For the issue of adjacency in the syntax of idioms, see O'Grady (1998).

In contrast, the lexical entry for *kick the bucket* is assumed to have a fixed VP syntactic structure whose NP object is not unified with an argument in the LCS. Based on the fact that *the bucket* has no syntactic mobility (e.g. *#The bucket was kicked by John*), no independent meaning and therefore no θ-role, Jackendoff concludes that (2) captures this idiosyncratic mapping.[5]

(2)   IPs: Jackendoff (1997a:169)

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              VP
            /    \
          /        \
       V_x          NP
                   /  \
                 /      \
              Det        N
```
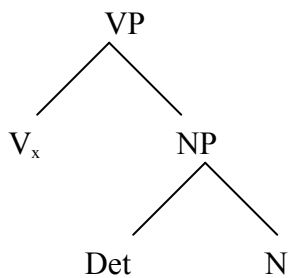
[DIE ([ ]$_A$)] $_x$

In short, Jackendoff claims that ICEs like *bury the hatchet* and IPs like *kick the bucket* involve different kinds of correspondences between syntactic structures and semantic structures.

Finally, there is still a third distinction to be associated with the ICEs vs. IPs partition, which can be based on the aspectual composition of idioms. We review it in the following section.

1.3. Glasbey (2003, 2006)

Glasbey (2003, 2006) examines the fact that aspect may in principle be derived compositionally at least in one class of idioms, i.e., Nunberg, Sag & Wasow's (1994) ICEs.

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[5] Jackendoff (1997a:169): "In other words, *the hatchet* is linked to *bury* via its θ-role; but *the bucket* has to be linked to *kick* syntactically because it has no θ-role. Hence *the hatchet* is movable and *the bucket* is not." For a recent review of Jackendoff's (1997a) account of idioms, see Horn (2003).

By employing a notion of aspectual composition which includes thematic relations (Krifka 1992), and allowing for the fact that the thematic relations may differ between the idiomatic and the literal interpretations of a given expression (*contra* McGinnis 2002, 2005), Glasbey (2003, 2006) puts forward the correlation stated in (3).

(3)   a.   ICEs – their aspectual information is compositionality derived;

        b.   IPs – their aspectual information is not compositional and is stored in long-term memory (i.e. in the lexicon).

According to this correlation, the aspect of ICEs like *bury the hatchet* and *spill the beans* is derived by a regular process of aspectual composition, just as in the non-idiomatic cases. For example, *the hatchet* in the ICE *bury the hatchet* is interpreted as introducing a thematic relation that corresponds to a gradual patient relation both in the literal eventuality of *burying the hatchet* and in the idiomatic one of 'reconciling a disagreement', for in both cases the object is subjected to the event in a gradual manner: i.e., the progress of the burying/reconciling event is reflected in the quantity of hatchet/disagreement remaining (e.g., when the hatchet is half-buried, the event is half done; when the disagreement is half-reconciled, the event is half done). In contrast, *the town* in the IP *paint the town red* ('have an extravagantly good time in town') is not a gradual patient (it only holds on the literal reading that when the town is half-painted, the event is half done). Glasbey shows that the normal aspectual composition (its being a realization: cf. *They painted the wall red in/*for five hours*) is not possible in this idiom. Rather, this idiomatic VP is interpreted as an activity: *They painted the town red for/*in five hours*. IPs like *paint the town red* are then claimed to lack aspectual composition and be listed as whole phrases in the lexicon. In particular, Glasbey claims that the aspectual information of this IP (i.e., its being an activity) must be stipulated as attached to its lexical entry.

To sum up, in this section we have introduced the difference between ICEs and IPs (Nunberg, Sag & Wasow 1994), we have shown how this difference can be dealt with in the Parallel Architecture model (Jackendoff 1997a, 2002), and we have shown how this difference can correlate with a difference in aspectual composition (Glasbey 2003, 2006). In the next section, we will revise some tests on which the difference between ICEs and IPs can be based. We will first consider the arguments for composition of ICEs, as were initially postulated by Nunberg, Sag & Wasow (1994), and we will then apply these tests to the class of constructional idioms exemplified by *V X's head off* (cf. Jackendoff 1997b, 2002; Mateu & Espinal in press).

2. ICEs vs. IPs

Several grammatical tests have been postulated by Nunberg, Sag & Wasow (1994) in order to defend that ICEs characteristically have a phrasal meaning that can be analysed in terms of the contributions of the idiom parts. However, as we will show, these tests do not set up uniform classes of idioms.

2.1. Nunberg, Sag & Wasow's (1994) arguments for compositionality in ICEs

According to Nunberg, Sag & Wasow (1994: 503), "modification, quantification, topicalization, ellipsis, and anaphora provide powerful evidence that the pieces of many idioms have identifiable meanings which interact semantically with other". These are the five tests on which they mainly base their claim that in the case of ICEs, parts of an idiom should be assigned meanings, contributing to the interpretation of the whole idiom.

Parts of idioms can be modified, either by means of adjectives or by means of relative clauses: "in order to modify part of the meaning of an idiom by modifying a part of the idiom,

it is necessary that the part of the idiom have a meaning which is part of the meaning of the idiom" (Nunberg et al. 1994: 500; ex. (2c) and (3a)):

(4)   a.   *kick the filthy habit*

        b.   Pat got the job by *pulling strings* that weren't available to anyone else

Parts of ICEs can be quantified (Nunberg et al. 1994:501; ex. (5a)):

(5)   *touch a couple of nerves*

Parts of ICEs may be emphasized through topicalization (Nunberg et al. 1994:501; ex. (6a)):

(6)   Those strings, he wouldn't pull for you

Parts of ICEs can be omitted in elliptical constructions (Nunberg et al. 1994:501; ex. (7a)):

(7)   My goose is cooked, but yours isn't

Parts of ICEs may show coreference relations with pronominal expressions (Nunberg et al. 1994: 501; ex. (8)):

(8)   Although the FBI kept tabs on Jane Fonda, the CIA kept them on Vanesa Redgrave

To sum up, since modification, quantification, topicalization, ellipsis or anaphora may affect only part of the idiom's meaning, it appears to be natural to conclude that these idiom parts have some kind of interpretation of their own. This notwithstanding, in the next section, we will show that these tests do not provide conclusive evidence for deciding whether a given idiom is an ICE or an IP, whereby our interpretation of these results will be that this set of tests does not characterize uniformly the class of ICEs posited by Nunberg, Sag & Wasow (1994).

2.2. *V one's head off* idioms: ICEs and/or IPs?

Given Nunberg, Sag & Wasow's (1994) division of idioms, it seems that all idiomatic constructions can be classified in two classes: either ICEs or IPs. If they pass the tests reviewed in section 2.1, they are ICEs. If they don't, they are IPs. In order to exemplify why

this dual classification does not always work and does not always give clear results, next we summarize the descriptive set of some relevant syntactic and semantic properties that characterize a class of idiomatic constructions: so-called *V one's head off* idioms (Jackendoff 1997b, Mateu & Espinal in press), which will be shown to pose some non-trivial problems for Nunberg, Sag & Wasow's (1994) bipartite classification.

On the one hand, the fact that some systematic paradigmatic effects can be found in this set of constructional idioms (e.g., different activity predicates can occupy the verbal slot and a set of body part nouns can occupy the direct internal argument slot) points to their ICE-like nature, i.e., to the fact that some semantic compositionality is involved. As noted by Jackendoff (1997b: 551), these constructions involve "a free choice of intransitive verb subject to selectional restrictions". In particular, the relevant restriction is a semanticoaspectual one: the verb expresses an activity (cf. (9a)), but not an achievement, i.e., the verb cannot express a change of location or change of state (cf. (9b)).[6]

(9) a.   John {worked/talked/pushed/argued/…} his {head/butt/ass} off

b.   *John {exited/cleared/arrived/died/…} his {head/butt/ass} off

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[6] Cappelle (2005) adds two additional observations on the N + PRT combinations. First, he points out that: "the choice of certain particles, even in seemingly idiomatic combinations, is far from arbitrary and that non-directional meanings are metaphorical extensions from the 'basic image schemata' (Lakoff and Johnson 1980) expressed by particles (e.g. *out* makes reference to the idea of a 'container'" (p. 356). Second, although the choice of NPs is said to be totally fixed (cf. Jackendoff 2002:86), Cappelle (2005: 453) notices that there is a somewhat wider choice of extended inalienable NPs:

(i)   *laugh your {socks / pants} off*

Another compositional factor that points to their ICE-like nature is the fact that the head of the NP must have a possessive determiner, which is coindexed with the subject (Jackendoff 1997b, 2002; Mateu & Espinal 2007).[7]

(10) a. John laughed his head off

b. We laughed our heads off

In addition, two tests that point to the ICE-like nature of these idiomatic constructions are pronominalization and ellipsis. The following examples in (11) are considered as fully acceptable by Jackendoff (1997b: 548, ex. (77c,d); 549, ex. (81c,d)).

(11) a. Bill ate his heart out over Sally on Wednesday, then he ate it out over Jessica
on Thursday.

b. Bill ate his heart out over Sally, and Harry ate HIS out over Jessica

c. Bill cried his eyes out on Wednesday, and he cried them out again on Sunday

d. Bill cried his eyes out on Wednesday, and Harry cried HIS out on Sunday

This notwithstanding, there are some tests that lead one to classify these constructions as IPs. For example, the direct object cannot undergo tough movement: cf. (12a). Notice that this movement is acceptable with the usual (non-idiomatic) way of expressing inalienable NPs in English: cf. (12b).[8]

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[7] As noticed by Cappelle "there is a closely-related pattern in which the pronoun refers to someone else"; that is, a set of data exists where the possessive is not coindexed with the subject:

(i) a. He talked my head off

b. I will sue your ass off

Cappelle (2005:48, note 10)

[8] Given the ungrammaticality of the non-idiomatic construction of (ib), the passive test does not apply here (cf. #*The bucket was kicked by John*, which is not acceptable on the idiomatic reading).

(i) a. *His heart was eaten out (by Bill)

b. *His_i / $Bill_i$'s arm was broken by $Bill_i$ / him_i

(12)   a.   *His heart was terrifyingly easy for Bill to eat out

     b.   His$_i$ arm wasn't too hard for Bill$_i$ to break

<div align="center">Jackendoff (1997b: 548, ex. (77b) and (76b))</div>

Similarly, their direct object cannot be questioned, while this movement is acceptable with regular inalienable NPs.

(13)   a.   *Whose/which heart did Bill eat out?

     b.   Which arm did Bill break?

<div align="center">Jackendoff (1997b: 548, ex. (77e) and (76a))</div>

Their direct object can neither be left-dislocated, nor emphasized through topicalization.

(14)   a.   *His heart, Bill ate it out

     b.   *HIS HEART, Bill ate out

<div align="center">L. McNally (p.c.)</div>

Another proof of IP-nature is the fact that modification is not usually possible (Nunberg et al. 1994: 500).

(15)   *Bill ate his {own/inner} heart out

Furthermore, the NPs of these idiomatic constructions cannot be quantified (Nunberg et al. 1994: 501).

(16)   *We were laughing our two heads off

Similarly, these idioms do not admit quantificational modification of the particle (e.g., in contrast to the so-called 'time-*away* construction').

(17)   a. *We laughed our heads {entirely/partly/half} off

     b. Susan waltzed the afternoon {entirely/partly/half} away

<div align="center">Jackendoff (1997b: 540, ex. (45b))</div>

<div align="center">Jackendoff (1997b: 548, ex. (77a) and (76a))</div>

<div align="center">11</div>

Finally, and quite importantly for our present purposes, *V one's head off* idioms present an aspectual mismatch, which would point to the fact that these idiomatic constructions are IP-like (cf. section 1.3). As pointed out by Jackendoff (1997b) and Glasbey (2003, 2006), these idioms can be considered as "fake resultatives": they present an aspectual reading different from "true resultatives", as illustrated by comparing the telic resultative constructions in (18), associated to literal eventualities, with the atelic ones in (19), associated to idiomatic ones. Their classification as examples of ICEs would then be surprising since, as noted in section 1.3, ICEs do preserve the aspectuality of the literal interpretation.

(18)   a. The audience laughed the actor off the stage in/*for ten seconds

        b. She worked the splinter out of her finger in/*for ten seconds

(19)   a. John laughed his butt off all day long/*in ten minutes

        b. John worked his guts out all day long/*in ten minutes

Since there is no natural endpoint involved in (19), these idioms seem to describe an activity rather than an accomplishment (Vendler 1967; Dowty 1979). Accordingly, they fail standard tests for accomplishments:

(20)   a.   *It took me two hours to cry my eyes out

        b.   *It took us ten minutes to laugh our heads off

Moreover, their atelicity can be proved by compatibility with *for*-modification (Jackendoff (1997b: 551), the imperfective entailment test (Wechsler 2005), and the impossibility of modification by *completely* (Glasbey 2006: 6):

(21)   a.   Sue worked *her butt off* for/*in an hour

        b.   The frog sang *his heart out* for the whole night/*in a night

(22)   a.   We were laughing our heads off → We laughed our heads off

        b.   John was crying his eyes out → John cried his eyes out

(23)   a.   *He laughed his butt *off completely*

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b. *She cried her eyes *out completely*

All in all, from the previous tests and data it seems reasonable to conclude that there is no clear-cut distinction between ICEs and IPs, since the arguments for compositionality like those ones put forward by Nunberg, Sag & Wasow (1994) do not apply uniformly to an idiomatic construction such as *V one's head off*, whereby a strict dichotomic classification of idioms based on a selection of grammatical tests does not seem appropriate for all idiomatic constructions.[9]

3. Two previous accounts of '*V one's head off*' idioms

In this section, we deal with two previous accounts that assume that the conceptual interpretation and the aspectual meaning (in particular, the atelic or activity interpretation) of the idiomatic constructions under study can be accounted for by means of some unmotivated lexical stipulations: see Jackendoff (1997a,b; 2002) and Glasbey (2003, 2006), respectively. Our point here is not whether their alleged stipulations exist, but rather whether they can be motivated or not. Accordingly, we want to show that these two formal accounts fail precisely because they neglect some insights from the cognitive linguistics framework: on the one hand, Jackendoff's (1997a,b; 2002) account of these idioms fails to recognize the systematic syntax-semantics correspondences provided by Talmy's (1985, 1991, 2000) typology of motion events; on the other hand, Glasbey's (2003, 2006) lexical storage-based account of their

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[9] Titone & Connine (1999) also express their qualms about assuming (at least, for processing purposes) a strict division between decomposable idioms (i.e., ICEs) and non-decomposable ones (i.e., IPs). Drawing on previous research by McGlone et al. (1994) and Glucksberg (1993), they point out that nondecomposable idioms have been shown to be semantically productive as well and conclude: "given the semantic flexibility of even nondecomposable idioms, it is likely that there is substantial overlap in the processing characteristics of nondecomposable and decomposable idioms" (p. 1662).

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aspect fails to recognize the metaphorical process (Gibbs 1994, 1995; Lakoff & Johnson 1980, 1999) that conveys their atelic interpretation.

3.1. Jackendoff (1997a,b; 2002)

Jackendoff claims that the idiomatic constructions under study are listed in the lexicon as VP idioms: see (24) and (25) for his informal representations, drawn from Jackendoff (1997b:554) and Jackendoff (2002:173), respectively. The construction itself has a VP syntactic structure in which the NP + PRT are lexically fixed, and the V is a free variable. At the level of conceptual structure the schemas in (24a) and (25a) are claimed to be interpreted with an intensive adverbial force (cf. *intensely, excessively*), associated with the action denoted by the verb. The NP plus the particles *out/off* form a class of idiomatic intensifiers that, somewhat unexpectedly, do not carry typical resultative semantics. Crucially, notice that the association between the syntactic part in (24a)/(25a) and the interpretive one in (24b)/(25b) is merely stipulated, and that no motivation is provided for such a stipulation.

(24) a. $[_{VP}$ V [bound pronoun]'s head off]

  b. 'V intensely' (Jackendoff 1997b: 554)

(25) a. $[_{VP}$ V NP PRT]: V pro$_e$'s head / butt off, V pro$_e$'s heart out

  b. 'V excessively' (Jackendoff 2002: 173)

Unlike Jackendoff, we do not think that the syntactic-semantic correspondences shown in (24)-(25) must be stipulated as such in our mental lexicon: for example, according to him, the direct object is non-meaningful (it is analyzed as a pure syntactic object: notice that it is not represented in the semantic/conceptual representation).[10] Basically, his proposal is that the

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[10] This stipulation is also found in Jackendoff's analysis of other semi-idiomatic constructions. For example, according to Jackendoff (1992, 1997b), a non-meaningful status is also given to the direct object of so-called

direct object plus the particle are conceptually "reanalyzed" as a degree intensifier. Indeed, like him, we also find this final degree interpretation quite intuitive, but what we call into question here is his simplistic point that such an interpretation is to be related to syntax directly. In other words, we consider the informal correpondences shown in (24) and (25) as misleading since we want to argue that the final interpretation "(activity) Verb {intensely/excessively}" is not part of the relevant semantics that interacts *directly* with syntax. Rather, as will be shown in section 4, we claim that this conceptual interpretation results from a metaphorical mapping from a source domain to a target domain. In this section, however, we want to concentrate on showing that all elements of syntax in (24) and (25) are as meaningful as the ones that can be found in literal/non-idiomatic examples like those in (18). Importantly, we want to emphasize that all these idiomatic and non-idiomatic examples are structured as predicted by Talmy's (1991, 2000) well-known typological classification of English as a "satellite-framed language": i.e., in English, the verb is typically conflated with a supporting event, the path being coded as a satellite around the verbal head.

Accordingly, as predicted by Talmy's typology, similar examples from satellite-framed languages like Germanic and Slavic are structured similarly. The following ones are excerpted from Mateu & Espinal (2007: note 18):

(26) a.   Er schrie sich die Lunge aus dem Hals   (German)

             he screamed refl-dat the lung out-of the neck

             'He screamed his head off.'

      b.   Hij praat zijn mond voorbij   (Dutch)

             he talks his mouth prep-prep

             'He shoots his mouth off.'

'one's way construction' (e.g., *John pushed his way through the crowd*). But see Goldberg (1995) or Mateu (2005) for different analyses that treat the *way* NP as meaningful.

    c.   Jan schodził sobie nogi   (Polish)

              Jan out-walked refl-dat feet

              'John walked his feet off.'

    d.   Džon vyplakal svoi glaza   (Russian)

              John out-cried poss. eyes

              'John cried his eyes out.'

In contrast, in so-called "verb-framed languages" like Romance and Greek, these idioms are also systematically structured as predicted by Talmy's typology: the motion verb is typically conflated with path, giving a directional verb (cf. 27). As a result, the supporting event is not expressed in the verb but as an omissible adjunct. The following examples are also excerpted from Mateu & Espinal (2007: note 19), where it is shown that the structuring of some constructional idioms is quite systematic and non-arbitrary in both satellite and verb-framed languages.

(27)   a.   uscirgli il fegato   (per il tanto bere)   (Italian)

              go+out+CL the liver   (for the so-much drinking)

              'drink one's head off'

    b.   treure el fetge per la boca (de tant pencar)   (Catalan)

              get+out the liver through the mouth (of so-much working)

              'work one's guts out'

    c.   echar los hígados   (de tanto trabajar)   (Spanish)

              get+away the livers   (of so-much working)

              'work one's guts out'

    d.   Mu vgike o patos   (apo tin polli douleia)   (Greek)

              me went+out the butt (from the much work)

‘I worked my butt off.’

Accordingly, assuming Talmy's (1985, 1991, 2000) typology of motion events, it should be clear that there is *no* unsystematic coding of semantics in the English idioms in (24)-(25), since the V is conflated with a supporting event and the path expresses the trajectory of the direct object, which is not unmeaningful, as in Jackendoff's conceptual analyses above, but is semantically interpreted as the entity in motion (i.e., *Figure*, in Talmy's terms). It is then the case that Jackendoff omits the meaningful components of the source domain and concentrates on the final interpretation of the target domain, whereby his analysis does not account for the syntax-semantics mapping, but only for the final interpretation. To conclude, by losing the present Talmian typological perspective and the complex metaphorical mapping involved, Jackendoff fails to argue for the unsystematic, arbitrary syntax-semantics mappings in (24) and (25).

3.2. Glasbey (2003, 2006)

Glasbey (2003, 2006) mainly focuses on the fact that fake resultatives like those in (19) show non-compositionality of aspect (*contra* McGinnis 2002, 2006), since the aspectual class conveyed by the idiomatic interpretation is an activity, a kind of eventuality that should be contrasted with the literal interpretation, which gives rise to an accomplishment (cf. 18). According to her, whereas the literal eventualities of resultative constructions have a natural endpoint and a gradual patient, there is usually no gradual patient property in the idiomatic eventuality involved in (19), unless one can imagine such a natural end point and some homomorphism can be identified between the syntactic components and certain properties of the idioms's components. Thus, her example in (28a) can be accepted and submitted to the accomplishment test in (28b), because a counterpart exists in the idiomatic domain (e.g., *pains, feelings, thoughts,* etc.) to the body part in the domain of literal interpration (i.e. *heart*).

(28) a. ?Patsy poured her heart out in two hours, on the phone to her sister.

  b. It took Patsy two hours to pour her heart out, on the phone to her sister.

According to Glasbey (2006: 5), what is characteristic about the class of idioms under study is that it corresponds to "a construction which describes an accomplishment under a literal interpretation and an activity under an idiomatic interpretation". As noted in section 1.3, she claims that idioms which do not show compositionality of aspect, tentatively identified with Nunberg, Sag, & Wasow's (1994) so-called *idiomatic phrases*, should best be regarded as being listed as full phrases in the lexicon with their aspectual information attached. Glasbey concludes that it is possible to view aspect as being compositional in at least some idioms (e.g. Nunberg, Sag, & Wasow's *idiomatically combining expressions*), while at the same time allowing for the result of the aspectual composition to be different in the idiomatic and the literal cases. The problem still is that, under her approach, no motivation is given to the empirical fact that the idioms exemplified in (19) are aspectually interpreted as activities. Notice that this is merely stipulated.

In the next section, we will show that (i) Jackendoff's (1997a/b, 2002) observation that the set of idioms in (19) are interpreted as "V intensely/excessively" and (ii) Glasbey's (2003, 2006) claim that they are aspectually interpreted as activities (but not as accomplishments) both can be motivated if one assumes that some metaphorical modes of thought are dynamically activated in the process of idiom comprehension (cf. Lakoff 1987; Gibbs 1994, 1995; Lakoff & Johnson 1999, i.a.).

4. On the conceptual interpretation of '*V one's head off*' idioms

In this section, we want to face what appears to be a non-trivial dilemma: on the one hand, our Talmian analysis of *V one's head off* idioms leads us to assume that they involve a compositional analysis. On the other hand, the global/holistic interpretation of intense activity

posited by Jackendoff seems quite intuitive as well, whereby a non-compositional analysis can also be said to be involved. As noted, we do not buy his claim that the latter analysis, informally represented in (24)-(25), is the only one that matters as far as the syntax-cognition interface is concerned. Rather we will show that Lakoff & Johnson's (1980, 1999) theory of conceptual metaphor makes the syntax-cognition connection less arbitrary: by applying their theory to *V one's head off* idioms, both a compositional analysis, related to the literal meaning of their source domain, and a non-compositional one, related to that of their target domain (cf. *infra*) will be shown to be involved in their semantic/conceptual representations.[11]

Similarly, in contrast to Glasbey's (2003, 2006) claim that the atelic aspect of *V one's head off* idioms is stored in the long-term memory by some sort of lexical stipulation, we will argue below that there is a conceptual motivation for such a non-compositional aspectual interpretation. Accordingly, rather than claiming that these idioms are bearers of interpretive anomalies, we support the idea that they are conceived of as triggers of conceptual metaphors

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[11] Although we leave it for further research, our prediction is that a similar hypothesis holds for the processing/comprehension of these idioms as well. Interestingly, Titone & Connine (1999) found pychological evidence that the literal meanings can also be involved in idiom processing (favoring then the compositional approach), this finding being not incompatible with their global/holistic meanings (favoring then the non-compositional approach). Accordingly, they concluded that both the compositional and non-compositional approaches to idioms must not be regarded as incompatible, since there is evidence "for a view of idiomaticity in which idioms are processed simultaneously as non-compositional and compositional word sequences". We differ from these authors in claiming that this global/holistic meaning is also conceptually motivated (e.g., by conceptual metaphor), whereby it cannot be said to be coded in a "semantically arbitrary word sequence".

One caveat is in order here: as emphasized by Gibbs (1994, 1998), assuming a conceptual metaphor approach to the interpretation of idioms does not necessarily require that the relevant metaphor be always accessed in their comprehension. See also McGlone (2007) for more discussion.

that introduce a relationship between a source domain and a target domain (Lakoff 1987; Gibbs 1994).

Let us then try to motivate the two apparent stipulations associated with the *V one's head off* class of idioms reviewed above: i.e., the conceptual interpretation 'to act excessively' and the atelic interpretation. First, these idioms seem to activate a metaphor based on the well-established primary metaphor that conceives the body as a container (Lakoff & Johnson 1980, 1999), for extracting a part from this container is cognitively conceived of as an excessive, impossible action. The activated metaphor, which can be formulated as in (29), shows how the abstract concept of intensity in the target domain can be conceptualized as a more concrete act of *ex*cessive physical change of location in the source domain.

(29)   INTENSITY IS AN EXCESSIVE CHANGE OF LOCATION

Given this, Jackendoff's observation that an example like *John laughed his butt off* is conceptually interpreted as (roughly) 'John laughed intensely' is assumed to be driven by the activation of the metaphor in (29): i.e., the intensity meaning involved in this example is driven by an excessive (in fact, unreal) change of location, in particular by a detachment undergone by the butt from the subject's body. In other cases like *John worked his guts out* or *John cried his eyes out* the change of location is instantiated by an exhaustion, rather than a detachment, of a body part.

Interestingly, as pointed out in section section 3.1 above, the metaphor in (29) is also involved in the conceptual interpretation of similar idioms that can be found in languages other than English (see the satellite-framed constructions in (26) and the verb-framed ones in (27)).

Furthermore, the shift in aspectual interpretation shown in *V one's head off* idioms can be argued to be motivated by applying the metaphor in (29) to the interpretation of the particular main activity predicate, which, as noted by Jackendoff, is not part of the English

idiomatic construction. Assuming then that so-called "event structure components" like process, cause or change can also be metaphorically understood (see Goldberg 1995, Lakoff & Johnson 1999, Mateu & Espinal in press), the resulting complex metaphor is the following one in (30). Our claim is that it is precisely the activation of the event structure-based metaphor in (30) that accounts for the durative (i.e., atelic) aspect of *V one's head off* idioms: the excessive change of location structured by a bounded path (*off*) is mapped onto the target domain as a more abstract unbounded intense process. In other words, the process involved in these idioms is conceptualized as so intense that it appears to lack boundaries; as a result of the activation of the complex metaphor in (30), there turns out to be no real endpoint involved in the final conceptual interpretation of the idiom, hence the *non*-resultative aspect.

(30)   AN INTENSE PROCESS IS AN EXCESSIVE CHANGE OF LOCATION

This metaphor can then be argued to constrain the aspectual interpretation in a non-trivial way in "fake resultatives" like *V one's head off* idioms, where the metaphorical mapping does not appear to preserve the cognitive topology of the embodied, image-shematic source domain, i.e., the so-called "Invariance Hypothesis" (Lakoff 1990, 1993) appears to be violated. In contrast, when dealing with "true resultatives", the telic aspectuality in the target domain can be said to follow from the topology of the source domain: the *telos* (i.e., the endpoint/final goal) in the source domain is mapped onto another one in the target domain (cf. Goldberg 1995, i.a.). It is then not surprising that most of resultative constructions are telic since this is what is expected under Lakoff's (1990, 1993) Invariance Hypothesis.

Furthermore, (30) can also be argued to be involved in the process of understanding "fake resultatives" like the one in (31a), which has a typical durative interpretation (cf. *John laughed a lot for an hour*) and contains a subset of adjectives (i.e., *crazy* or *silly*) initially conceptualized as final states, i.e., abstracts locations, of a caused change (cf. Goldberg (1995) for the relevant methapor CHANGES OF STATE ARE CHANGES OF LOCATION).

We claim that the atelicity of (31a) follows from the fact that the excessive final endpoint/state associated to *crazy/silly* is conceptualized in such a way that the intense activity appears to lack boundaries. As above, as a result of the activation of the complex metaphor in (30), there turns out to be no final state (i.e., abstract location) involved in the final conceptual interpretation of the idiom, hence the typical *non*-resultative aspect of the idiomatic constructions in (31).[12]

(31)　　a. John laughed himself *crazy* for an hour.

　　　　b. John laughed himself *silly* in an hour.

Finally, an additional remark needs to be made before concluding this section with regard to the verb-framed counterparts to *V one's head off* idioms illustrated in (27). These idioms differ from the satellite-framed paradigm in that the set of verbs is limited, this being expected if the pattern is the verb-framed. In other words, unlike what is found in Germanic, in Romance the verbal slot is part of the idiom and only some few directional/change of state verbs can be found (see Espinal 2004).[13] Interestingly enough, the activation of the event-

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[12] According to Jackendoff (1997b: 552), "the expressions with *crazy* and *silly* can be used telically or atelically". Concerning their telic interpretation, our claim is that the complex metaphor involved is the typical one found in ("true") telic resultatives like *Joe kicked Bob black and blue in one hour*: A CAUSED CHANGE OF STATE IS A CAUSED CHANGE OF LOCATION (cf. Goldberg (1995) for the event-structure metaphors involved in (true) resultative constructions).

[13] Jackendoff's (1997a, 2002) claim that the verbal slot is free in *V one's head off* idioms (cf. section 3.1) should be taken as a tendency since there are cases where the activity verb *is* already part of the idiom. One interesting example is the one in (ia), which is discussed by Gibbs (1994, 1998) when dealing with the metaphors involved in how English speakers interpret the abstract emotional concept of anger. In this particular case he argues that a metaphor like ANGER IS ANIMAL BEHAVIOR is involved in interpreting (ia) (unfortunately, he does not take into account the generalizations derived from the metaphor in (29)). Here we assume Gibbs's (1992, 1994, 1998) insightful criticism of traditional theories of idioms where two idioms like those in (i) would for example be simply assumed to have the same stipulative meaning of *John got very angry*. As argued by Gibbs, the second

structure metaphor in (30) is also involved in Romance. Consider the Catalan examples in (32): the literal reading exemplified in (32a) can only have the telic reading, while the idiomatic one (i.e., the more appropriate one) in (32b) can only have an atelic reading.

(32)   a. En una estranya operació quirúrgica el metge va treure el fetge per la boca

        in a strange operation surgical the doctor PAST get+out the liver through the mouth

        del pacient *en* una hora / *durant una hora

        of+the patient in one hour / during one hour

        'In a strange surgical operation the doctor took the liver out through the mouth of the

        patient in one hour.'

    b. El metge va treure el fetge per la boca *durant* tot el període de

        the doctor PAST get+out the liver through the mouth during whole the period of

        resident / *en quatre anys

        resident in four years

        'The doctor worked his guts out while he was a resident.'

As pointed out by Glasbey (2003, 2006) and Mateu & Espinal (2007, in press), the discussion of how aspect is interpreted in so-called "fake resultatives" like *They painted the town red* or *V one's head off* idioms is quite relevant in light of some recent claims in the generative literature (cf. Marantz 1997; Borer 2005; McGinnis 2002; 2005, i.a.), where it is argued that the aspect of idiomatic constructions is always the same as the one of their corresponding literal constructions, their more general claim being that grammar overrules the conceptual system. As opposed to their generative claim, in the following section, we show how some

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example in (ib) is motivated by a different metaphor, i.e., ANGER IS HEATED FLUID IN A CONTAINER (cf. also *blow your stack* or *flip your lid*).

(i)   a.   John bit my head off.

        b.   John hit the ceiling.

conceptual processes can constrain the aspectual import provided by the grammatical elements.

5. More on the conceptual interpretation of aspect

As emphasized by Glasbey (2003, 2006), the existence of aspectual mismatches between literal and idiomatic readings can be taken as empirical evidence against McGinnis's (2002) claim that aspect is always systematic. In particular, McGinnis claims that the aspectual reading of the idiomatic reading always respects the aspectual reading of the literal one. However, as we have just seen, this is not the case: the activation of cognitive metaphors that people have formed from their experience of growing up and acting in the world (Lakoff & Johnson 1980, 1999; Lakoff 1987; Johnson 1987; Gibbs 1994, 2003) is an essential element in our understanding of idiomatic expressions, whereby it is not surprising that some metaphors can also be relevant to the interpretation of the aspectual properties they convey.

Besides the activation of metaphors, responsible for the intensity and atelicity of certain idioms, notice that a metaphor such as (29) (i.e., INTENSITY IS AN EXCESSIVE CHANGE OF LOCATION) is also related to another fundamental structure relevant in the perception and behavior of our bodily experience. Such structure is the Containment image-schema (Johnson 1987). Containment limits forces, such as movement or extraction, within the container; however, forcing an excessive detachment of a body part outside the container destroys the limits of it and, consequently, turns a fixed location of a body part into a fuzzy one and, simultaneously, contributes to reinterpreting an aspectual telic meaning into an atelic one.

A second image-schema that has been postulated in the cognitive semantics literature is the PATH image-schema, which reflects our everyday experience of moving around the world and experiencing the movements of other entities (Johnson 1987). For example, this

image-schema, along with the VERTICALITY and UP-DOWN orientation, is what accounts for the conceptual interpretation of atelic aspect associated with a Catalan idiom such as *fer llenya* lit. make wood 'fall down'.[14] In particular, the idiom *fer llenya* 'fall down' is used, within the Catalan tradition of building human castles, when the equilibrium is lost and the castle falls down, either in the process of moving up or while descending.

(34)   Han aconseguit carregar el castell però han fet llenya quan el començaven a

          have managed build the castle but have made wood when it began to

          descarregar. (Institut d'Estudis Catalans, *Diccionari de la Llengua Catalana*)

          unbuild

          'They managed to build the castle, but they fell down when they began to undo it.'

By employing a notion of aspectual composition (cf. Glasbey (2003, 2006), who refers back to Krifka 1992), which is directly determined by the sort of verb (*fer* 'make' denotes an activity) and the sort of object complement (*llenya* 'wood' is a mass noun), it is predicted that the expression *fer llenya*, interpreted literally, denotes an activity, not an achievement. However, a mismatch is produced in the idiomatic reading that can only be explained if there are some ingredients of conceptual structure that overrule the compositional aspect: (i) the UP-DOWN orientation of the Path-schema, on the one hand, and (ii) the cognitive profile (cf. Langacker 1987, 1991) on the final state, on the other,. These components of conceptual structure motivate an atelic aspect for the idiomatic reading, thus calling into question

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[14] With regard to the data in Catalan, we would like to refer to a conceptually-oriented dictionary of idioms in contemporary Catalan (Espinal 2004, 2005), which specifies relevant grammatical information (i.e. syntactic, semantic, lexical, morphological and, exceptionally, phonetic), as well as general linguistic information (i.e. dialectal markedness, dialectal variants, prescriptive and etymological) for each idiom associated with a conceptual entry. More important, it also provides cross-referential conceptual relationships among the idiomatic expressions being recorded.

McGinnis's (2003:9) claim that "verbs with a mass-noun object (...) do not allow a telic reading under any pragmatic circumstances".

The aspectual properties that are not grammatically transparent are dependant on the concept with which they are cognitively associated by the intervention of cognitive patterns such as image-schemas. In case of conflict, the aspectual information that is associated with the target conceptual domains with which idioms are connected in the conceptual system motivate the atelic or telic interpretation of idiomatic expressions that speakers reach at the time of idiom comprehension.

6. Concluding remarks

In this paper we have shown that the partition between compositional idioms (ICEs) vs. non-compositional ones (IPs) is not as well-established and uniform as Nunberg et al (1994) would claim. In particular, we have shown that so-called *one's head off* idioms can neither be neatly classified within one nor within the other. In fact, notice that even prototypical IPs like *kick the bucket* can be shown to have some portions of compositional meaning: for example, it is interesting to point out that the punctual/sudden meaning of *kick* is preserved in the idiom *kick the bucket*, which can be shown in the following contrast in (35) (cf. also Cacciari & Glucksberg (1991) and Titone & Connine (1999) for similar remarks).

(35)　a.　　John kicked the bucket in the car accident.

　　　b.　　# John lay kicking the bucket due to his chronic illness.

For our present purposes, it should then be clear that Jackendoff's (1997a) attempt to formalize the IP as in (2) neglects the abovementioned compositional part preserved by the idiom *kick the bucket*. Similarly, the fact that *die* can be more acceptable in the progressive construction than the idiom *kick the bucket* is not expected under Jackendoff's (1997a) analysis (cf. also McGinnis (2002) for similar remarks).

All in all, the relevant conclusion seems to be that that a strict, dichotomic division between ICEs and IPs does not seem to be empirically adequate. In fact, our claim here is that a purely formal classification that neglects the non-discrete cognitive contribution will not work. Accordingly, we have compared our approach to *one's head off* idioms with two recent formal accounts that fail to recognize some insights from the cognitive linguistics framework: on the one hand, Jackendoff's (1997a,b; 2002) account has been shown to fail because it does not take into account the systematic syntax-semantics correspondences provided by Talmy's (1985, 1991, 2000) typology of motion events; on the other hand, Glasbey's (2003, 2006) lexical storage-based account of their atelic aspect has been shown to fail because it ignores the conceptual motivation due to the relevant metaphorical process involved. More generally, we have also shown how, despite generative claims to the contrary (Marantz 1997; Borer 2005; McGinnis 2002, 2005), various conceptual processes can be argued to overrule the aspect provided by grammar. These processes include access to image-schemas and metaphors. Access to these cognitive domains is what explains that idiomatic expressions can be associated with different aspectual classes at the literal and figurative interpretations (cf. *shoot the breeze*, which means an achievement on its literal interpretation, but an activity 'to chat' on the idiomatic one).

In short, our study is a contribution to the need to be cautious about strict methodological dichotomies within linguistic theory (e.g., Nunberg, Sag & Wasow's (1994) idiomatically combining expressions vs. idiomatic phrases) and about formal accounts of the syntax-conceptual semantics connection (e.g., Jackendoff 1997a, 2002) that ignore some important findings from cognitive (psycho)linguistics (e.g., Lakoff & Johnson 1999; Gibbs 1994; Talmy 2000).

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