

# The Structure of Nominal Phrases with and without Classifiers: Evidence from Selection and Idioms\*

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## Abstract

It is common to hypothesize that in classifier and non-classifier languages alike the various functional heads (determiner/demonstrative, numeral, classifier) each head their own projection, so that the maximal projection of the nominal phrase is not NP but something like DP. We evaluate the predictions this makes regarding selection and verb-object idioms in English, a non-classifier language, and in Korean and Vietnamese, two classifier languages. These predictions are not upheld. Selection and idioms show that the maximal projection of the nominal must be a projection of the lexical N itself, not a functional element. We argue that the widespread adoption of the DP Hypothesis was a mistake and it should be abandoned.

Keywords: DP Hypothesis, classifiers, nominals, idioms, selection, Korean, Vietnamese, English

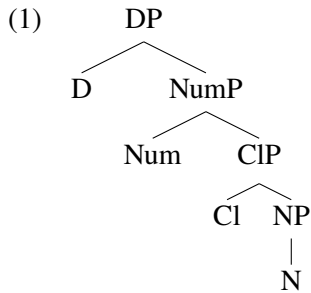
## 1 Introduction

The DP Hypothesis, which claims that the head of the nominal projection is not N, but a functional projection D, appears to have gained such widespread acceptance in the field that articles and textbooks now regularly use the label “DP” to refer to nominal phrases, rather than “NP.” The basic claim of this theory—that lexical Ns are dominated by a sequence of functional projections—has also been adopted in studies of classifier languages. One of the most common approaches to the structure of the nominal phrase in classifier languages is to hypothesize that the various functional elements—demonstrative (D), numeral (Num), and classifier (Cl)—all head their own projections. Each of these heads projects, so that the maximal projection of a noun is not NP but DP (determiner or demonstrative phrase<sup>1</sup>). The following structure is quite common (see Simpson 2005, Wu and Bodomo 2009, Cheng and Sybesma 2012, among others):

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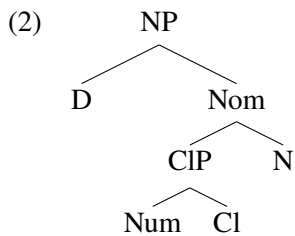
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<sup>1</sup>We abstract away from the question of whether demonstratives are the same category as determiners, and whether that category is the D of the DP Hypothesis proposed for languages with determiners. See the works cited for some discussion.



Other publications add even more projections (e.g., Bartlett and González-Vilbazo 2013).

In this paper, we compare the DP Hypothesis as applied to English and to classifier languages against a different hypothesis, where the head of the nominal is the lexical head N (the NP Hypothesis). We adopt the structure proposed for English by Payne and Huddleston (2002) and adapt it to classifier languages as follows:



In this structure, the maximal projection of the nominal is a projection of the lexical head N, not any of the functional heads. There are three levels: the head N, the maximal projection NP, and intermediate projections labeled “Nom,” of which there may be more than one (see Payne and Huddleston 2002, Payne *et al.* 2013).<sup>2</sup> We assume that the numeral and classifier together form a sub-constituent, but this is not crucial to the arguments (see, e.g., Li and Thompson 1981, Tang 1990, Nguyen 2008, Zhang 2011, Bale and Coon 2014).

We compare the DP Hypothesis and the NP Hypothesis on a variety of phenomena, spending the most time on selection and verb-object idioms. We argue that all of this evidence supports the NP Hypothesis over the DP Hypothesis. Selection, in particular, is simply incompatible with the DP Hypothesis. In the DP Hypothesis, verbs must not select Ns, they must select Ds. D selects NumP, Num selects for CIP, and so on. This must be the case given the usual assumption that selection is strictly local, such that heads can only select their sisters (and possibly their own specifiers). In a structure like that in (1), it is impossible for there to be any selectional relation between a verb and the N head within its nominal complement. We show that this is incorrect, and that the head of the sister of a verb must be N, not D or any other functional head. We also present data from a survey of verb-object idioms in English and classifier languages that argues for the

<sup>2</sup>Payne and Huddleston 2002 do not use the label  $\bar{N}$  for this intermediate projection, because the  $\bar{X}$  label means something particular in classical X-Bar Theory, namely a constituent that includes the head and its selected arguments only. The Nom projection does not distinguish between arguments and adjuncts.

same conclusion: the functional elements in idioms are generally not part of the idiom, and can be freely interchangeable (just like modifiers). This requires that the head of the complement of the verb be N, not D, Num, or Cl.

We begin by reviewing the arguments that have been put forward in support of the DP Hypothesis (section 2). None of these arguments are compelling, and all of the facts are compatible with the NP structure. Additionally, an asymmetry in form selection indicates that nominals are not parallel to clauses, as the DP Hypothesis frequently claims, and this asymmetry supports the NP Hypothesis over the DP Hypothesis. In section 3 we examine the issue of selection, and show that the facts of selection are only compatible with the NP hypothesis. Once again, clauses and nominals are not parallel at all when it comes to selection. Section 4 then presents a detailed study of verb-object idioms in English, Korean, and Vietnamese, and argues that the patterns of idioms that we find are best accounted for by the NP hypothesis. In particular, in verb-object idioms, the functional elements are almost never part of the idiom, and they can often freely vary, just like optional modifiers like adjectives. We argue that this is incompatible with central tenets of the DP Hypothesis.

Throughout this paper, we treat both non-classifier languages like English, and classifier languages, concentrating on Korean and Vietnamese (these three languages are spoken natively by the three authors). The arguments hold for languages of both types, and indicate that the head of the nominal in every language is N, not D. The overall conclusion is that the widespread adoption of the DP Hypothesis in the field was not well motivated, and it should be abandoned.

## **2 The DP Hypothesis Versus the NP Hypothesis**

The DP Hypothesis is the conjecture that the head of the nominal phrase is not N; instead, the NP projection is dominated by one (or more) functional heads that actually head the phrase, one of which is D (Determiner). Early suggestions of this hypothesis include Jackendoff (1972), Hogg (1977), Brame (1981, 1982), Szabolcsi (1983); among early proponents of this theory are Hudson (1984), Fukui (1986), Fukui and Speas (1986), Hellan (1986), Abney (1987), Szabolcsi (1987), Löbel (1989), and Olsen (1989). (Payne 1993 argues against the DP Hypothesis, but the arguments have generally been ignored.)

The primary motivation for the DP Hypothesis has always been a conceptual parallel with the structure of the clause, which was reworked by Chomsky (1986) as CP–IP–VP. The idea was that functional categories like C(omplementizer) and Infl(ection) fit the X-bar schema, and head XPs with complements and specifiers; we should expect the same for functional heads like D. In addition, some researchers noted morphological parallels between clauses and nominals in agreement and case, which they took to suggest an NP-internal Infl, parallel to the clause. (For a recent endorsement of the idea of a complete parallel between nominals and clauses, see Ritter and Wiltschko 2014, 1334.)

This section goes through these arguments, and shows that none of them are compelling. In addition, asymmetries in form determination indicate that clauses and nominals are not parallel at all. This is further taken up in the next section, which looks at the issue of selection in detail. Selection in particular will show that clauses and nominals are very different, and should not be treated the same.

It is important to note before running through these arguments that what is necessary in order to argue for the DP Hypothesis is a demonstration that the relevant facts can *only* be accounted for by taking the head of the nominal projection to be D (or some other functional head) and not N. Few of the arguments that have been presented in the literature have this character (in fact only one), and so most of them can be dismissed with little comment.

A survey of arguments for the DP Hypothesis can be found in Bernstein (2001). Much of the material in this section has already appeared in various places in the literature, and is collected in Bruening (2009). This section is largely just a summary of these earlier works.

## 2.1 Phrase Structure and Morphology

As mentioned above, the idea that functional elements have to fit into the X-bar schema seemed to naturally extend to categories like D, such that D must have a complement and a specifier. The complement of D would be NP, and its specifier might be something like a possessor phrase. This seemed to be a nice parallel with the clause, where VP is the complement of a functional projection Infl that takes a subject as its specifier. The possessor in the nominal was long thought of as a kind of subject; for instance in Binding Theory (Chomsky 1981). However, many aspects of X-bar theory have been abandoned, even in approaches that adopt some of its central tenets. For instance, Bare Phrase Structure (Chomsky 1995) does not require that a head project a complement or a specifier. Non-projecting functional heads are expected to exist. This means that this first argument for the DP Hypothesis does not go through: there is no reason to think that the category D would have a complement and a specifier. There is also no reason to think that the possessor is the specifier of D; even if we believe that possessors are comparable to clausal subjects, they can be in a subject-type position within NP (Spec-NP, for instance, as they were thought to be before the widespread adoption of the DP Hypothesis).

A second argument was that, just as Infl is involved in agreement and case-marking in the clause, there must be a functional head in the nominal that mediates agreement and case marking. This seemed to be supported by the fact that possessors in nominals agree and are case-marked in a way very similar to subjects in clauses in some languages, for instance Hungarian (Szabolcsi 1983). However, this evidence is offset by the many languages that mark subjects and possessors differently (like English). Moreover, in some languages where the morphological parallels exist, they are only morphological. Consider the Passamaquoddy data below:

(3) *Passamaquoddy* (Bruening 2009)

- a. **k-tus-onu-wok**  
2-daughter-1P-3P  
'our (Incl) daughters'
- b. **k-nomiy-a-nnu-k**  
2-see-Dir-1P-3P  
'We (Incl) see them.'

Here, the order of the morphemes and the features encoded by the morphemes are the same on verbs and on nouns. However, the suffix *-(wo)k* marks the number of the head noun in the nominal case, but the number of the object on the verb. The head noun in the nominal is generally *not* thought to be structurally parallel to the verb's object in a clause, meaning that the syntactic agreement relations would have to be very different in the two cases. In addition, the order of the morphemes in the nominal is unexpected: the morpheme marking the number of the head noun is *outside* the morpheme marking the number of the possessor. As argued by Bruening (2009), this shows that the morphological parallels are *superficial*, and do not reveal deep structural properties. Instead, the parallels are probably a reflex of general economy principles: languages use the same grammatical elements for different functions.

In any case, it has never been argued that agreement and case marking in the nominal are incompatible with an NP analysis. There is no reason to think that the NP hypothesis cannot deal with nominal-internal case and agreement, and so this argument has no force.

## 2.2 Semantics: Arguments Versus Non-Arguments

Another argument for the DP Hypothesis comes from the view that D's function is to turn an NP predicate into an argument (Szabolcsi 1987, Longobardi 1994). Cross-linguistically, it is claimed, bare NPs, without determiners, are only used as predicates, but DPs, with overt determiners, are used as arguments. In other words, there are languages in which the presence of an article correlates with its use as an argument (Szabolcsi 1987, Longobardi 1994). This is only expected on something like the DP Hypothesis, it is claimed, combined with the view of D's function as creating arguments.

However, the correlation really does not go very far. There are many languages where bare singular NPs can be arguments, and there are even languages where predicates, too, require articles (English). In addition, even if the correlation were real, it would not require that D be the *head* of the nominal projection. If D's function is to turn the predicate it attaches to into an argument, it can do that without actually being the syntactic head of the phrase. This idea is not actually an argument for the DP Hypothesis, but is orthogonal to it.

## 2.3 Extraction and Ellipsis

Szabolcsi (1983, 1987, 1994) uses extraction to argue for the DP Hypothesis. In clauses, Spec-CP is an escape hatch for movement out of CP. It appears that in Hungarian, a possessor can only be extracted out of a left-peripheral position within the nominal projection (based on case marking). According to Szabolcsi, this indicates a nominal CP, parallel to the functional CP in the clausal domain (see also Aissen 1996).

Even if this is correct, it is not an argument for the DP Hypothesis. In Chomsky's recent Phase Theory (Chomsky 2000), elements that need to extract have to get to the edge of their *phase* in order to be visible for operations outside the phase. If nominals are phases, elements will have to get to the edge of the nominal in order to extract further, regardless of what the *head* of the nominal is. If NP in the NP Hypothesis is a phase, then elements will have to get to the edge of NP in order to move further. Once again, the data

are not actually problematic for the NP Hypothesis, and so they do not constitute an argument for the DP Hypothesis.

Ellipsis has also been claimed to favor the DP Hypothesis. This argument says that it is possible to have a uniform theory of the licensing of ellipsis by heads if D is a head taking NP as its complement. (For an overview and references, see Lobeck 2006.) We will not go into this argument in any detail, but will simply point out that the licensing theory that is necessary is not uniform at all, since the definite and indefinite articles, prototypical Ds, do not license ellipsis in English, while the possessive 's, which is much less obviously a D, does. More generally, it has not been demonstrated that only heads license ellipsis, and one can simply reject that hypothesis. Since it has not been demonstrated that ellipsis is incompatible with the NP Hypothesis, this argument is again without force. (In fact, the data from ellipsis in Lipták and Saab 2014 suggest that the DP Hypothesis is on the wrong track; see the next section on head movement.)

## 2.4 Word Order: Head Movement

Probably the most important argument for the DP Hypothesis is a parallel between the relative position of the verb and its adverbs and the noun and its adjectives. In the clausal domain, this positioning is often accounted for by head-to-head movement, of the verb to higher functional projections (e.g., Emonds 1976, Pollock 1989). If similar word order variation in the nominal domain is to receive the same treatment, it requires a similar architecture. In particular, we need something like N-to-D movement. Head movement is thought to only move a head to the next immediately c-commanding head; N-to-D movement therefore requires that D take NP as its complement. Note that this is the one argument so far that, if it is correct, would truly be incompatible with the NP Hypothesis.

N-to-D movement has been argued to take place in the Romance languages (e.g., Bernstein 1993, Cinque 1994, Longobardi 1994), in Scandinavian languages (Delsing 1988, 1993; Taraldsen 1990, among others), in Hebrew (Ritter 1988, 1991), and in Romanian (Dobrovie-Sorin 1987, as cited by Bernstein 2001).

However, the existence of N-to-D movement is not uncontroversial. In fact, there has been a swelling tide of more recent work arguing that N-to-D movement is *not* the right analysis, for any language. For instance, Cinque (2005) argues that there is no head movement inside nominals; if there were, word order typology could not be accounted for (see also Cinque 2010). For Scandinavian, Hankamer and Mikkelsen (2005) argue that N-to-D movement is not the right account of the word order possibilities (see also Embick and Marantz 2008). The Romanian facts have also been argued to require a different account (Dimitrova-Vulchanova 2003), as have the Hebrew and Arabic data (Shlonsky 2004). Lipták and Saab (2014) argue from ellipsis that there is no head movement in nominals in Spanish and other Romance languages. Alexiadou (2001) and Georgi and Müller (2010) also argue against N-to-D movement. Given this trend, which is supported with solid arguments, we can conclude that this argument, too, fails to go through. We could go even farther than any of these publications have done, and argue that the DP Hypothesis is on the wrong track, since it fully expects N-to-D movement to exist, comparable to clauses. If it truly does not, as all this recent work argues, then the expectations of the DP Hypothesis are not upheld, which is an argument against it.

## 2.5 Word Order Typology

An additional argument for the DP Hypothesis might be constructed from word order typology. In the data in Dryer (1992), determiners seem to pattern with heads: the order of Det and nominal generally correlates with the order of verb and complement in a language. This seems to be consistent with the DP Hypothesis, where D takes NP as its complement, and inconsistent with the NP Hypothesis. However, as Dryer (1992) shows, numerous other pairs that no one takes to be head-complement pairs also correlate with the order verb-complement, including noun-genitive and noun-relative clause. Dryer (1992) himself argues that the correlations are best accounted for by branchingness: in the head-complement relation, the head does not branch but the complement does. Pairs that correlate are all asymmetric with respect to branching: one member of the pair does not branch, and it patterns with the verb; the other member of the pair does (or may) branch, and it patterns with the verb's complement. Det-nominal order patterns with verb-complement order because Det does not branch but the nominal may (it can include complements and modifiers of N). With noun-genitive and noun-relative clause, the noun does not branch but the genitive and the relative clause do.

Word order typology, then, does not support the DP Hypothesis, and is consistent with the NP Hypothesis.

## 2.6 Form Determination

As stated above, the main argument for the DP Hypothesis has always been a claimed parallel between nominals and clauses. However, clauses and nominals are, in numerous ways, not parallel at all. The next section will go through this in detail regarding selection. Right now, we will see that clauses and nominals also differ in how the form of each element within them is determined. (This asymmetry is noted by van Riemsdijk 1998, but it is ignored in that paper and clauses and nominals are treated as equivalent in being extended projections, CP of V.)

In the clausal domain, form determination is downward: each head determines the form of the head of its complement. C determines Infl, and each auxiliary determines the form of the next. This is illustrated for English below:

(4) *C determines Infl (finite vs. nonfinite):*

- a. I would like for the Jamaicans to win.
- b. I expect that the Jamaicans will win.

(5) *Each auxiliary determines the form of the next:*

- a. I might have been being handed some cocaine (when the police caught me).
- b. (might: bare form; have: -en form; be (Prog): -ing form; be (Pass): -en form)

The main verb does not determine the form of the functional elements, they determine its form:

- (6) a. I broke the vase.

- b. I was breaking the vase (when you came in).
- c. I have broken the vase.
- d. I might break the vase.
- e. I want to break the vase.

The only exception that we are aware of is auxiliary selection with unaccusatives versus unergatives (Romance, Dutch). But in this case, auxiliary selection is not determined by the verb itself. The same verb will have one auxiliary in the active voice, and a different one in the passive voice. In addition, adding a PP can change the choice of auxiliary for the same verb (see, e.g., Hoekstra and Mulder 1990). In other words, auxiliary selection seems to be determined by several heads in the clause, and not by the particular verb.

In clauses, then, functional heads determine the form of other heads, consistent with the typical analysis where a functional head heads the CP projection, with each head taking the next as its complement.

In contrast, in nominals the form of everything else is determined by the head noun:

- (7) a. too many/\*much people
- b. too much/\*many rice
- c. these/\*this scissors

This is even clearer in languages like Spanish that are richer in inflection than English:

- (8) *Spanish*
- a. todos esos lobos blancos  
          all those wolves white
- b. todas esas jirafas blancas  
          all those giraffes white

In Spanish, every element in the nominal phrase must agree with the head noun in gender and number (*lobos* is masculine plural, *jirafas* is feminine plural).

One might try to claim that it actually works the other way around: choosing a functional element in DP actually determines the form of N. This could not be correct, however, because a noun will just be incapable of combining with functional elements that mismatch:

- (9) a. these scissors
- b. \* this scissors

But there are no cases of verbs that cannot combine with certain functional elements; for instance there is no hypothetical verb *geat* that only has finite forms, and lacks a nonfinite one:

- (10) *Nonexistent verb:*
- a. I think that he geats. (finite)



- b. \* I want to geat. (\*nonfinite)

If it were really the case that the functional elements in the nominal determined the form of N, just like the functional elements in the clause determine the form of V, we would not expect this asymmetry.

The conclusion is that each functional element in the clausal domain is a head taking the next one as its complement (which determines its form), but this is *not* the case in nominals. In other words, clauses and nominals are not parallel at all. We can also note at this point that clauses do not behave as though they are headed by the lexical verb, as Grimshaw (2005 [1991]) claims when she analyzes the clause as an *extended projection* of the verb. In fact, the verb determines nothing outside of its own projection. There is no sense in which the higher functional projections are projections of the lexical verb. This is discussed in more detail in the next section.

## 2.7 Summary

This section has gone through the arguments that have been presented in favor of the DP Hypothesis. As we have seen, none of them are persuasive. All of the facts are consistent with the NP Hypothesis. Moreover, we have seen the first indications that nominals are not parallel to clauses in the way the DP Hypothesis claims: (i) in clauses, each head determines the form of the next head down, but in nominals the N determines the form of everything; (ii) head-to-head movement seems to take place in clauses, but it apparently never does in nominals. The main argument for the DP Hypothesis has always been a conceptual parallel with the clausal domain, but in fact nominals are not parallel to clauses at all. This will become even more apparent in the next section, where we go through the facts of selection in detail.

## 3 Selection

The previous section showed that none of the arguments that have been presented in favor of the DP Hypothesis actually go through. None of them actually rule out the NP Hypothesis, or even cause it the slightest bit of trouble. On the contrary, it is the DP Hypothesis that struggles with form determination, where it can be seen that clauses and nominals are not parallel at all. This section turns to the issue of selection, and shows that the parallel breaks down completely. Clauses and nominals are not parallel in any way when it comes to selection. With clauses, what is selected is the highest functional element. With nominals, functional elements are not selected at all, only the head noun is.<sup>3</sup>

We begin with English, and then turn to the classifier languages Korean and Vietnamese. Section 3.4 addresses attempts to fix the DP Hypothesis to account for the facts, including the often-appealed-to notion of an extended projection (Grimshaw 2005 [1991], van Riemsdijk 1998). This notion does not describe anything in the clausal domain, and so is nothing but an ad hoc attempt to fix the failings of the DP Hypothesis in the nominal domain.

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<sup>3</sup>Part of this argument against the DP Hypothesis is made by Payne 1993; the full argument is given in Bruening 2009, but we add to it here.

First, a word about selection: We are concerned with selection in the broadest sense, encompassing semantic selection (s-selection), categorial selection (c-selection), selection for features (e.g., [finite]), and lexical selection (l-selection, Pesetsky 1992). We see no need to distinguish among these subtypes of selection. All of them are strictly local: particular selectors select particular elements to merge with. This selection may involve the specification of the semantic type of that element, its category, features it bears, or even particular lexical items (as in V selecting for particular prepositions, or as in idioms, below). We find all of these in selection, and our discussion in this section includes all of them, but focusing on category and feature selection. We are not aware of any reason to distinguish between these various subtypes for the purposes of our comparison here. (For discussion, see Pesetsky 1992; Pesetsky's attempt to eliminate c-selection is shown by Alrenga 2005 to be unsuccessful, and Pesetsky himself acknowledges that lexical selection and feature selection are necessary in addition to s-selection.)

### 3.1 English

Clauses and nominals differ in what is selected when a verb selects them. Verbs that select for clausal complements select only categories that are determined high in the clause, such as questions versus declaratives, finite clauses versus nonfinite clauses, and subjunctive versus indicative clauses:

(11) *Questions versus declaratives:*

- a. Sue thinks that the world is flat.
- b. \*Sue thinks whether the world is flat.
- c. \*Sue wonders that the world is flat.
- d. Sue wonders whether the world is flat.

(12) *Finite versus nonfinite:*

- a. Bertrand wants the world to be flat.
- b. \*Bertrand wants that the world is flat.

(13) *Subjunctive versus indicative:*

- a. Sue asked that the answer *be*/\*is two.
- b. Sue thinks that the answer \**be*/is two.

Grimshaw (2005) claims that subjunctive selection is an instance of a verb selecting the form of the embedded verb. This is clearly not the case; it is the form of the *highest* verb, so Infl or Tense, that is selected, not the main verb:

(14) I suggest that you **be**/\***are** studying when I return.

Furthermore, Baltin (1989) argues that verbs only need to select the complementizer, and nothing else. If a verb selects *for*, the clause is nonfinite, if *that*, it is finite. If a verb selects a question, it always allows either finite or non-finite clauses:

- (15) a. I don't know whether or not to work on that. (Baltin 1989, (52))  
 b. I don't know whether or not I should work on that. (Baltin 1989, (53))

Payne (1993) (citing A. Zwicky) points out that subjunctives seem to be a problem for this view: both indicatives and subjunctives in English appear under *that*. However, plenty of languages have distinct subjunctive and indicative complementizers (e.g., Romanian); it is therefore not crazy to think that English has a  $C_{\text{Indic}}$  and a distinct  $C_{\text{Subj}}$ , both of which are pronounced as *that*; if this is the case, then it is possible to maintain that selection of clauses involves only selection for C, and never for anything in the complement of C. Verbs that select clauses *never* select for the main verb, for modals, for auxiliaries, for negation, or for topic or focus phrases (suggesting that TopicP and FocusP are not actually high functional heads in CP, contra Rizzi 1997). All of these can generally appear in any complement CP whose other functional elements they are compatible with.<sup>4</sup>

We conclude that the verb is not the head of the CP in any sense, C is. It is what is selected for when verbs select clauses. Note that this is simply incompatible with Grimshaw's (2005 [1991]) idea of the clause as an extended projection of the verb: there is no sense in which CP, or any of the functional projections above VP, is a projection of the verb. We will return to this point in section 3.4.

In contrast to clauses, verbs that select nominal arguments *never* select for particular determiners, or numbers, or possessors, or anything else. Generally, if a verb admits a nominal, any sort of nominal is allowed: quantificational, deictic with demonstrative, definite or indefinite, numeral plus noun, adjective plus noun, and so on. For instance, Baltin (1989) points out that there is no verb that allows NPs without a possessor but not ones with a possessor (or vice versa); there is also no verb that allows indefinite NPs but not definite ones:

- (16) *Nonexistent selectional pattern:*  
 a. John glorped books. (Baltin 1989, (35))  
 b. \* John glorped his books. (Baltin 1989, (36))
- (17) *Nonexistent selectional pattern:*  
 a. Samuel is streading a book.  
 b. \* Samuel is streading the book.

One possible case of this is kinship *have* (suggested by S. Tomioka):

- (18) a. I have a child.

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<sup>4</sup>A reviewer brings up selection of CP apparently changing when the higher clause is negative or a question, for instance where *if* is degraded with *know*:

- (i) a. ? I know if this will work.  
 b. I don't know if this will work.

Such facts are discussed in McCloskey (2006) and given a plausible semantic account. They are therefore not a problem for the view of strict locality of selection that all the data presented here argues for.

- b. \* I have the/every child.

However, this is possibly some kind of existential construction; see Freeze (1992), among others. *Constructions* sometimes require indefinites (e.g., existential constructions) or definites (e.g., topic constructions), but particular verbs do not (note that *have* in other uses allows definites).

Number is often selected when a verb selects a nominal:

- (19) a. I gathered the students.  
b. \* I gathered the student.  
c. I gathered the French Club.  
d. \* I gathered the scissors. (where there's only one pair of scissors)
- (20) a. The students met.  
b. \* A student met.  
c. A student and a professor met.

But note that selection for number is always semantic, not syntactic, as shown by the semantically plural but syntactically singular (19c) versus the semantically singular but syntactically plural (19d). It is not clear that number should be represented as a functional head separate from N (as in Ritter 1991); if it is, what is its content in (19c), where the noun is formally singular, and in (20c), where each of the two conjoined nouns is singular? It is more plausible to view semantic number as a property of the noun, given (19c) (but we acknowledge that number is a complicated topic that we cannot possibly do justice to here).

There is yet another asymmetry between nominals and the clausal domain. In the clausal domain, we have seen various instances of categorial selection for CP above (with selection for particular values of C, like [interrogative]). In addition, some verbs also select for clauses that are smaller than CPs. Raising verbs, for instance, are typically analyzed as selecting bare IPs (with a value of [nonfinite]), since raising is incompatible with CP material (complementizers, *wh*-phrases). Some other verbs are thought to select something even smaller, for instance VP. The following are some examples that have been argued to involve selection of bare VPs (Stowell 1983; examples (21a–d) are Stowell's):

- (21) a. Mary had [<sub>VP</sub> her brother open the door].  
b. Nobody heard [<sub>VP</sub> it rain last night].  
c. I want [<sub>VP</sub> it understood that the order was given].  
d. We all feared [<sub>VP</sub> John killed by the enemy].  
e. I made [<sub>VP</sub> them leave the room].

Numerous verbs also select forms in *-ing* and do not allow infinitival *to* or anything that is known to be higher than VP (see Pesetsky 1992); these might also plausibly be analyzed as selection of (a particular value of) VP:

- (22) a. She enjoyed [hearing the concerto].

- b. \* She enjoyed [to hear the concerto].
- (23) a. He succeeded in [convincing her].
- b. \* He succeeded [to convince her].

Alternatively, these are gerunds, nominals formed from VPs. If so, there is some nominal-forming head that selects for a VP. Either way, we see selection of VP. (For an analysis of restructuring or clause union as selection of VP, see Wurmbrand 2007.)

In other words, in the clausal domain, where it is hypothesized that there is a series of projections CP-IP-VP, we see selection for each of these projections: some verbs select CP, others select IP, others may select VP. Now, if nominals were truly like clauses and involved a series of projections DP-(NumP)-NP (or others), we should likewise see selection for each of these projections. The fact is that we never do. As stated above, if a verb (or other head) selects for a nominal, these functional elements vary, either freely or based on the choice of head noun (never the selecting verb). Some publications adopting the DP Hypothesis in fact argue that different nominal projections can have or lack the functional projections to different extents, for instance Déchaine and Wiltschko (2002) and Bošković (2014). It is striking, and totally unexpected in these theories, that verbs and other selectors *never* select for particular “sizes” of nominals in this sense, whereas they do seem to select different “sizes” of clauses. Once again, the expectations of the DP Hypothesis are not met, and clauses and nominals are not parallel at all.

In summary, in English, the functional elements are never selected in nominals. This contrasts sharply with clauses, where the functional elements *are* selected. Given that the most common assumption regarding selection is that it is strictly local, and in fact is probably limited to a sisterhood relation (for recent discussion, see Landau 2007), these selection facts indicate that the head of the CP is in fact C, but the head of the NP is not D, it is N.

### 3.2 Selection in Classifier Languages: Korean

Korean employs different sentence-final particles to mark clauses as declarative, interrogative, imperative, and exhortative (Ahn and Yoon 1989, Whitman 1989, Jung 1998, Bradner 2004, Pak 2004, among others). Verbs that select clauses as complements may select for particular types of these mood markers. For instance, the verbs meaning ‘claim’ and ‘believe’ only permit declarative clauses and do not allow interrogative clauses, while ‘ask’ and ‘question’ select for interrogatives and do not permit declaratives.<sup>5</sup>

- (24) a. Lina-nun [Thomi-ka ku kapang-ul sa-ss-ta/\*nya]-ko cwucanghay-ss-ta  
 Lina-Top [Tommy-Nom that bag-Acc buy-Pst-Decl/\*Q]-KO claim-Pst-Decl  
 /mit-ess-ta.  
 /believe-Pst-Decl

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<sup>5</sup>Abbreviations: Acc: Accusative, Adn: Adnominal, Asp: Aspect, Cl: Classifier, Comp: Complementizer, Cop: Copula, Dat: Dative, Decl: Declarative, End: Ender, Evi: Evidential, Exhort: Exhortative, Fut: Future, Gen: Genitive, Hon: Honorific marker, Imp: Imperative, Int: Intimate marker, Neg: Negative, Nml: Nominalizer, Nom: Nominative, Part: Particle, Pl: Plural, Pol: Polite marker, Pres: Present, Pst: Past, Q: Question, Top: Topic

‘Lina claimed/believed that Tommy bought that bag.’

- b. Lina-nun wuli-eykey [Thomi-ka ku kapang-ul sa-ss-nya/\*ta]-ko mwul-ess-ta  
Lina-Top we-Dat [Tommy-Nom that bag-Acc buy-Pst-Q/\*Decl]-KO ask-Pst-Decl  
/cilmwunhay-ss-ta.  
/question-Pst-Decl

‘Lina asked/queried us whether Tommy bought that bag.’

Note that in Korean, embedded clauses are typically marked with a morpheme *-ko* (*-nun* if they are complements to nouns), which comes outside the mood marker. The morpheme *-ko* is generally assumed to be a complementizer (Choe 1988; Ahn and Yoon 1989; Whitman 1989; Yoon 1990; Sells 1995; Kim 1996; Jung 1998). It occurs with all mood markers, which is what is actually selected by embedding verbs. As further examples, ‘suggest’ and ‘persuade’ select for an exhortative, while ‘order’ and ‘direct’ require an imperative:

- (25) a. Lina-nun wuli-eykey [ku kapang-ul sa-ca/\*ta/\*nya]-ko ceyanhay-ss-ta  
Lina-Top we-Dat [that bag-Acc buy-Exhort/\*Decl/\*Q]-KO suggest-Pst-Decl  
/seltukhay-ss-ta.  
/persuade-Pst-Decl

‘Lina suggested to us/ persuaded us to buy that bag.’

- b. Lina-nun wuli-eykey [ku kapang-ul sa-la/\*ca/\*ta/\*nya]-ko myenglyenghay-ss-ta  
Lina-Top we-Dat [that bag-Acc buy-Imp/\*Exhort/\*Decl/\*Q]-KO order-Pst-Decl  
/cishay-ss-ta.  
/direct-Pst-Decl

‘Lina ordered/directed us to buy that bag.’

As in English, then, verbs that select clauses select something high in the clause, namely whatever head it is that determines declarative, interrogative, imperative, or exhortative mood (see Jung 1998 for a summary of views in the Korean literature on what this head is). Since the morpheme *-ko* is invisible to this selection, we do not view it as a head occurring between the mood head and the higher verb; instead, it appears to be simply a morphological marker of subordination.

As for heads lower in the clause, they are selected by higher heads in the same clause, as in English. As an example, consider negation. In an imperative, negation is marked by *mal* rather than the more general *an*:

- (26) (Han and Lee 2002, (2))

- a. Hakkyo-ey ka-ci **mal**-ala.  
school-to go-CI Neg-Imp  
‘Don’t go to school!’
- b. \*Hakkyo-ey **an** ka-la.  
school-to Neg go-Imp  
‘Don’t go to school!’

The same is true in embedded clauses: an embedded interrogative uses *mal*, selected by the imperative head:

- (27) a. Lina-ka wuli-eykey [cip-ey ka-ci **mal**-la]-ko myenglyenghay-ss-ta.  
 Lina-Nom we-Dat [home-to go-CI Neg-Imp]-KO order-Pst-Decl  
 ‘Lina ordered us not to go home.’
- b. \*Lina-ka wuli-eykey [cip-ey **an** ka-la]-ko myenglyenghay-ss-ta.  
 Lina-Nom we-Dat [home-to Neg go-Imp]-KO order-Pst-Decl  
 ‘Lina ordered us not to go home.’

Just as in English, a higher verb selects the highest element in the clause (mood, in the case of Korean); mood selects the form of a lower head (negation); and so on. There is no embedding verb that selects for a negative clause or a non-negative clause; no embedding verb that selects for a particular tense or aspect; etc. In the clausal domain, each head selects the next head down. A verb that selects a clause only selects a particular value for the *highest* functional head in the clause. Once again, selection is strictly local: a higher verb cannot determine anything within the clause itself, other than the head of the clause.

In contrast, verbs that select nominals never select for particular functional elements. There is no verb that selects for a demonstrative, a numeral, or a classifier. If a verb selects a nominal phrase, any combination of these elements is allowed. This is demonstrated for mass and count nouns below:

- (28) a. Mina-ka (ku /sey pyeng-uy) wain-ul ma-syess-ta.  
 Mina-Nom (that /three CI-Gen) wine-Acc drink-Pst-Decl  
 ‘Mina drank (those/three bottles of) wine.’
- b. Tim-i (i /twu thong-uy) pyenci-lul sse-ss-ta.  
 Tim-Nom (this /two CI-Gen) letter-Acc write-Pst-Decl  
 ‘Tim wrote (these/two) letters.’

As in English, the functional elements in the nominal domain are *never* selected by verbs. A verb either selects a nominal or it does not. If it selects a nominal, any combination of the functional elements demonstrative, numeral, classifier is allowed. This is in stark contrast with clauses, where verbs *only* select the highest functional element, and each functional element selects the next.

### 3.3 Selection in Classifier Languages: Vietnamese

Vietnamese behaves in exactly the same way. Verbs that select clauses only select for values that are determined by the head of the clause: declarative versus interrogative versus imperative, for example. Unlike Korean, Vietnamese does not have a system of inflectional suffixes marking different types of clauses. Instead, clause types are marked by particles, although many of these particles are limited to root clauses and some are optional.<sup>6</sup> Nevertheless, embedded clauses can be distinguished by semantics and by other grammatical means, for instance the choice of clause-initial complementizer. For example, the verb ‘say’ only

<sup>6</sup>For instance, *hãy*, *đừng*, and *chớ* all mark imperatives. The first particle is used in affirmative imperatives and the other two in negative imperatives (Cao 1991, Hoang 1992, Pham 2006). These three particles cannot be used in any other type of clause as

permits declaratives and does not allow interrogatives (the complementizer *liệu* can only appear in interrogatives), while ‘want to know’ only allows interrogatives (which may be marked by a clause-final particle and *liệu*):

- (29) a. Họ nói [là/rằng/\*liệu Ly chẳng biết nấu cơm].  
 3P say Comp/Comp/\*Interr.Comp Ly Neg know cook rice  
 ‘They said that Ly does not know how to cook.’  
 b. \* Tân nói [Thơ có gặp Lan hay không].  
 Tân say [Tho CO meet Lan or Q]  
 ‘Tan said whether Tho met Lan.’ (Bruening and Tran 2006, (8a))
- (30) a. Hùng muốn biết [là/rằng/liệu Tuấn đến nơi chưa].  
 Hung want know [Comp/Comp/Interr.Comp Tuan arrive place Q]  
 ‘Hung wants to know if Tuan has arrived yet.’  
 b. \* Tân muốn biết [Thơ đã gặp Tiên].  
 Tân want know [Tho Asp meet Tien]  
 ‘Tan wants to know that Tan met Tien.’ (Bruening and Tran 2006, (9b))

Verbs selecting clauses only select for features carried by the head C: declarative, interrogative, or imperative. They never select for tense, aspect, or polarity, for instance. These are selected by functional elements within the clause itself. For instance, as in Korean, imperative clauses select a particular form of negation. Rather than the usual *không*, *đừng* or *chớ* must be used instead:

- (31) Đừng/chớ/\*không mua con heo này!  
 Neg.Imp/Neg.Imp/\*Neg buy Cl pig this  
 ‘Don’t buy this pig!’

When a higher verb selects an imperative clause as its complement, that imperative will in turn select the form of negation appropriate to an imperative. This is shown with the following pair, where it is not gram-

shown below:

- (i) a. \* Cậu hãy ăn cơm. (declarative)  
 2S Imp eat rice  
 ‘You eat rice.’  
 b. \* Cậu hãy ăn cơm không? (interrogative)  
 2S Imp eat rice Q  
 ‘Do you eat rice?’  
 c. Hãy ăn cơm! (imperative)  
 Imp eat rice  
 ‘Let’s eat rice!’



matical to use the form of negation selected by a declarative *chẳng*, which can be used in a sentence like (29a) where the higher verb selects a declarative complement.

- (32) Họ đã yêu-cầu chúng-tôi **đừng/chớ/\*chẳng** mua con heo này.  
 3P Pst request 1P Neg.Imp/Neg.Imp/\*Neg buy Cl pig this  
 ‘They requested us not to buy this pig.’

In other words, just as in English and Korean, in Vietnamese a verb that selects for a clause can only select for features carried by the head of the clause (declarative, interrogative, imperative). There is no case where a verb selects elements lower within its clausal complement. Within the clause, each head selects the next, so that imperatives select one form of negation and declaratives select another.

In contrast, verbs that select nominals never specify anything about the functional elements that occur in nominals. They never select for demonstratives, numerals, or classifiers. If a verb takes a nominal phrase as its complement, it permits any combination of these functional elements and even their complete absence. The following is typical, where the functional elements are simply optional:

- (33) a. Tôi có-thể ăn hết (cả) (một) (quả) sầu-riêng (kia) mà!  
 1S can eat done (all) (one) (Cl) durian (that) Part  
 ‘I can eat (that one whole) durian.’  
 b. Họ định mua (hai) (chiếc) nhẫn (này).  
 3P plan buy (two) (Cl) ring (this)  
 ‘They plan to buy (these two) rings.’  
 c. Chi vừa đốt (mười) (cái) áo (kia).  
 Chi just burn (ten) (Cl) shirt (that)  
 ‘Chi just burned (those ten) shirts.’

Once again, the conclusion is that clauses are headed by functional elements, something like C. The highest functional element selects the next functional element, until the lexical verb is selected. Nominals, in contrast, are *not* headed by functional elements. What is selected by a selecting verb is the lexical N itself, and the functional elements are irrelevant. This is true cross-linguistically, in classifier and non-classifier languages alike. Clauses and nominals are not comparable at all when it comes to selection, and the DP Hypothesis simply gets the facts wrong.

### 3.4 Attempts to Fix the DP Hypothesis

The issue of selection has been addressed in the DP Hypothesis. The first attempt at accounting for the selection of N that we are aware of involves percolation (Abney 1987). The features of N percolate up through the functional layers (in Abney, AP as well as DP). The problem with this account is that it does not explain why Ds and other things are *not* selected in nominals; they are there, and local, and should be available for selection. This theory would also have to explain why the features of V (or other things) do not percolate up to CP. In other words, it does not capture the asymmetry between clauses and nominals.

The second attempt at a fix that we are aware of is the double-headedness of Radford (1993). In this account, nominals have two heads, N and D. Again, this theory does not explain why Ds and other things are not selected in nominals, since they are entirely comparable to N. It also fails to explain why clauses behave differently from nominals.

The third attempt to salvage the DP Hypothesis in the face of the selection facts is the notion of an extended projection (Grimshaw 2005 [1991], van Riemsdijk 1998). The DP is said to be an extended projection of the N, and so a higher verb can indirectly select the N by selecting for the whole extended projection. The problem with this hypothesis is that it boils down to an ad hoc attempt to fix the failings of the DP Hypothesis. As we have seen, it is simply not correct to view the clause as an extended projection of the verb. There is no sense in which the functional elements of the clause are really a projection of the verb. As we saw, it is the functional elements that are selected when clauses are selected, and each functional head determines the form of the one it selects. The verb does not determine anything outside of its own projection. This means that the notion of an extended projection is simply incorrect for clauses, and fails to capture anything about their behavior. In the nominal domain, it does seem that the entire nominal is a projection of the noun. This means that the DP Hypothesis *could* be correct, *if* we adopt the notion of an extended projection. However, since this notion describes nothing in the clausal domain, its use in the nominal domain is completely ad hoc: it becomes a device whose only purpose is to fix the failings of the DP Hypothesis. In addition, the idea of an extended projection suffers from the same problem as the percolation idea discussed above: there is no reason in the extended projection theory why D, Num, and Cl could not be selected. The notion of an extended projection is therefore unhelpful and ad hoc, and should be abandoned.

### 3.5 Summary

The facts of selection are incompatible with the DP Hypothesis. What verbs select is the lexical head N, not any functional projection in the nominal phrase. This is in sharp contrast with clauses, where verbs *only* select the highest functional projection. Nominals and clauses are not parallel at all, as the DP Hypothesis claims. The NP Hypothesis is compatible with the facts of selection, but the DP Hypothesis is not.

The remainder of the paper is a detailed investigation of verb-object idioms. As we will show, they follow the same pattern as selection generally: there is a relation between V and N, and no relation between V and any of the functional projections within its nominal complement. Again, we take this to argue in favor of the NP Hypothesis and against the DP Hypothesis.

## 4 Idioms

We now turn to phrasal idioms which, we will argue, also support the NP Hypothesis and are incompatible with the DP Hypothesis. We begin with some preliminaries. First, we consider phrasal idioms to be two or more words that, just when combined with each other, do not have the meaning that is expected from the combination of their constituent parts, but some other meaning. It is crucial that this meaning only arises when the parts co-occur. For example, *get X's goat* is a phrasal idiom because the verb *get* does not have

its literal meaning of acquisition in this idiom, nor does *X's goat*. Just when combined, they produce the meaning 'drive X to anger/annoyance'. The verb *get* does not have this meaning in any other context, nor does *X's goat*. This particular meaning only arises when the V and the NP combine together; it is not there with different choices of NP or different choices of V. So, *get X's goat* does not have the same meaning as *get X's sheep/cow/hen* or *have/take/bring/steal X's goat*.

In contrast, the expression *a little bird told XY* is not a phrasal idiom, because the verb, *told*, has its literal meaning in this expression. In addition, the NP *little bird* is used in other contexts to mean an anonymous source of information. We can also find *a little bird said/mailed/broadcast/leaked/etc.* The NP even occurs without any verb of telling, as in *Had Varys's little birds failed him for once?* (George R.R. Martin, *A Clash of Kings*).

In our study, we limit ourselves to verb-object idioms. The deciding criterion for counting something as an idiom is that the non-literal meaning only arises when the V and the NP combine together, and is not present with different choices of V or different choices of NP, as just illustrated.

Idioms become relevant to deciding between the DP Hypothesis and the NP Hypothesis once we consider theoretical approaches to idioms. We are aware of three existing theoretical approaches to idioms and the structures they can be composed of. The first says that phrases that are interpreted idiomatically must be deep structure constituents, excluding all non-idiomatic material. This approach has been shown to be incorrect. For instance, O'Grady (1998) and others have pointed out that quantifiers, adjectives, and possessors that are not part of an idiom can come in between a verb and object that are interpreted idiomatically:

- (34) a. pull some discreet strings  
b. pull a few strings  
c. pull yet more strings (Nunberg, Sag, and Wasow 1994, (5c))
- (35) (O'Grady 1998, (5a,c,d))  
a. kick the filthy habit  
b. leave no legal stone unturned  
c. jump on the latest bandwagon
- (36) (O'Grady 1998, (4c-e))  
a. lose X's cool  
b. get X's goat  
c. fill X's shoes

Adjectives, quantifiers, and possessors form constituents with nouns; there is no constituent in these examples consisting of all and only the idiomatic material. Therefore, the underlying constituent view must be rejected.

The second approach, which we adopt, says that idiomatic interpretation is dependent on selection (Bruning 2010):

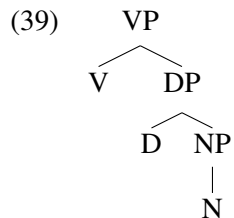
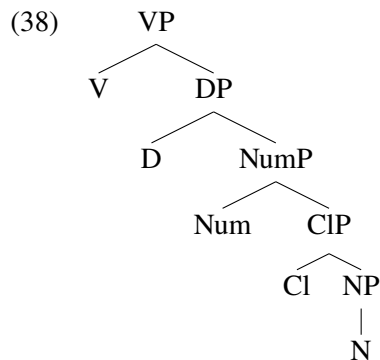
(37) The Principle of Idiomatic Interpretation:

X and Y may be interpreted idiomatically only if X selects Y. (Bruening 2010, 532, (24))

In the above examples, *pull* selects *strings*, and so the two can be interpreted idiomatically; *kick* selects *habit*; and so on. Non-selected elements, like adjectives and possessors, can appear in between pieces of idioms, because they do not disrupt this selection. Adjectives and adverbs *may* be part of an idiom, as in *beat a dead horse* (below), because they select for the projections they adjoin to. So, in *beat a dead horse*, *beat* selects an NP headed by the N *horse*, and *dead* selects a nominal projection (Nom in our structure), here one headed again by *horse*. Note that in the case of idioms, selection is for particular lexical items (the “1-selection” of Pesetsky 1992, see above). For more details, see Bruening 2010.

There is also a third approach, the dependency theory of O’Grady (1998). In O’Grady’s formulation, this is mostly equivalent to the selection theory. However, it has been altered slightly in the notion of the *catena* in Osborne, Putnam, and Gross (2012). We do not adopt this theory, because it introduces a syntactic notion, the *catena*, that we believe syntactic theory can do without. In contrast, every theory needs selection in some form or other. We therefore adopt the selection theory, and turn to what idioms have to tell us about the structure of nominal phrases.

The simplest place to start will be with verb-object idioms, where everyone assumes that verbs select their objects. Consider the structure of the nominal phrase posited for classifier languages above, as well as the simpler DP Hypothesis for English, both combining with a verb as its object:



These structures, combined with the selection theory of idioms, predict that there will be no verb-object idioms where V and N are fixed, but the functional elements D, Num, or Cl can be freely varied and are not part of the idiom. This is so because, in the structures above, V does not select N; V selects D. These

structures instead predict that verb-object idioms will always include the functional elements D, Num, and Cl, if they include N. The only way to construct an idiom involving V and N is to build a chain of selection: V selects D, D selects Num, Num selects Cl, Cl selects N. The same is true for the simpler DP structure for a language like English: V selects D, and D selects N. Verb-object idioms are therefore predicted to always involve D.

Note that it is not entirely clear what analyses like the above have to say about cases where the functional elements are absent. For instance, it is common in some classifier languages for objects to be bare Ns. There are two options: (1) the functional elements are present but null; (2) they are simply missing, and the maximal projection of the object is NP. On either option, if an idiom consists simply of V and N, analyses like the above predict that functional elements will not be able to appear. Either the null version is selected and should be obligatory, in the version where the functional heads are present but null; or the V can select a bare NP, in which case adding any functional elements will disrupt this selectional relation.

In contrast with the DP Hypothesis, the NP Hypothesis predicts that verb-object idioms do not need to involve the functional elements D, Num, Cl. The verb selects N directly, and V-N idioms should be common. The functional elements may be included, the same way idioms may include optional elements (e.g., adjectives in *beat a dead horse*), but they may also freely vary, the way quantifiers, adjectives, and possessors were shown to above.

We now turn to testing these predictions, beginning with the simpler case of English, and then turning to two classifier languages, Korean and Vietnamese. As we will see, the predictions of the NP Hypothesis are upheld, while those of the DP Hypothesis are not.

#### 4.1 English Verb-Object Idioms

Bruening (2010, note 11) suggests that determiners in English are never part of idiomatic phrases, despite appearances to the contrary. For instance, *no* seems to be part of the idiom *leave no stone unturned*, but this idiom also allows *any* and *a*, as in *don't leave any stone unturned* (<http://www.topix.com/city/satsuma-fl/2009/07/investigators-dont-leave-any-stone-unturned-in-haleigh-case>). Additionally, many verb-object idioms with *the* can be rephrased as compounds without *the*. For instance, *kick the habit* can be turned into *habit-kicking*, and *bury the hatchet* can be rephrased as *hatchet-burying* (“my ex came over last night to do some hatchet-burying”). In many verb-object idioms, *the* can also be replaced with another determiner or left out if the conditions are right. For instance, Bruening (2010) cites *beat the crap out of X* used with a bare plural partitive instead, as “he would beat ten kinds of crap out of them,” in Kate Atkinson’s novel *One Good Turn*.<sup>7</sup>

Here we investigate determiners in idioms more systematically. We focus on verb-object idioms, many

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<sup>7</sup>It should be noted that in many of our examples where determiners and numerals are altered, the effect is some kind of intensification. Regardless, the determiners, numerals, etc. can be altered, while in general the verb and the noun cannot (except in cases of “families of idioms,” like the abovementioned *beat the crap out of*, where the verb can be one of several verbs like *beat* and *kick*, and the noun can also vary within a limited range, as *crap*, *shit*, *tar*, etc.). These are not a problem for the selection view, because a particular verb can select a list of particular lexical items, or even a class of lexical items, with the result that the particular words can be productive.

of which include a determiner (we also include some V-P-NP and V-NP-P idioms). The following is a partial but we believe representative list of such idioms that appear to include a fixed determiner:

(40) *Definite*

- a. bark up the wrong tree
- b. beat the bushes for
- c. beat around the bush
- d. bite the big one
- e. bite the bullet
- f. bite the dust
- g. foot the bill
- h. give someone the cold shoulder/the works
- i. jump the gun
- j. kick the bucket
- k. sell down the river
- l. shoot the breeze/the bull
- m. spill the beans

(41) *Indefinite*

- a. beat a dead horse
- b. carry a torch for
- c. cast a pall on
- d. come a cropper
- e. cut X some slack
- f. do a number on
- g. have a bone to pick with

We used the internet as a corpus for finding occurrences of these idioms, to see whether the determiner truly is fixed in the idiom. In general, we find that it is not. Of the idioms with the determiner *the*, all but *bite the big one*, *bite the dust*, and *kick the bucket* frequently occur with other determiners. Here are some naturally occurring examples:

(42) *Definite*

- a. bark up the wrong tree: “Have you ever barked up a wrong tree?”; “you’re barking up another wrong tree”
- b. beat the bushes for: “I beat some bushes for your contact details”
- c. beat around the bush: “Lets beat around this bush no more”; “You people beat around more bushes than an army of gardeners”

- d. bite the big one: no other determiner found
- e. bite the bullet: “I thought I was going to have to bite a bigger bullet than I thought”
- f. bite the dust: no other determiner found
- g. foot the bill: “Who should foot that bill?”; “taxpayers must foot another bill”
- h. give someone the cold shoulder/the works: “At least 1 industry is about to give Google a big cold shoulder”
- i. jump the gun: “I figured, why not just jump that gun”; “Before you all jump another gun,”
- j. sell X down the river: “you just sold yourself down another river”
- k. shoot the breeze/the bull: “let’s shoot some breeze”
- l. spill the beans: “he vowed to spill more beans”

Idioms with indefinite determiners showed a similar malleability, other than *come a cropper*:

(43) *Indefinite*

- a. beat a dead horse: “it’s moronic for a public figure to beat that dead horse of a joke”
- b. carry a torch for: also occurs frequently as “carry the torch for”
- c. cast a pall on: “first let me cast the usual pall on proceedings”
- d. come a cropper: no other determiner found
- e. cut X some slack: “let’s not cut him too much slack”
- f. do a number on: “the producer did the same number on B.J.”
- g. have a bone to pick with: “I have no bone to pick with you”

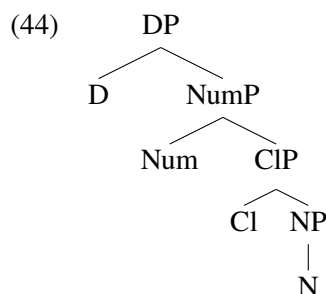
It therefore appears that determiners are, in fact, never part of idiomatic verb-object combinations. Even the idioms that seem to be completely fixed and to only occur with a designated determiner, like *kick the bucket*, turn out not to crucially involve the determiner. From this idiom has been derived an NP *bucket list*, from which has been derived a verb *to bucket-list* (‘to do things that are on your list of things to do before you kick the bucket, because you expect to kick the bucket soon’). The determiner has simply vanished when the NP part of the idiom has been extended to new idioms. Obviously, it was not a crucial part of the idiom.

We conclude that the DP Hypothesis is not correct for English. Verbs select Ns, as revealed in particular here through idioms. Verbs do not select for determiners. The head of the sister of V must be N, not D. The same holds for P: its sister must be a projection of N, not D. Determiners in idioms behave like optional modifiers (adjectives, possessors, relative clauses), which can be left out, added, or replaced with another; the typical rules for determiner use will determine what is appropriate.<sup>8</sup>

<sup>8</sup>Even the structure can be changed: for instance, open possessor slots, as in *cook X’s goose*, can be rephrased as postnominal PPs under the right conditions: “Aviation officials may *cook the goose of* opponents of policy of culling birds to make airways safer” (headline). Note that here a determiner has sprung up, where the usual formulation of the idiom has a prenominal possessor and no determiner. This follows the pattern of determiner use in the language generally. Again, this makes sense in the selection theory, but only if verbs select NPs, not DPs.

## 4.2 Classifier Language 1: Korean

We turn now to classifier languages, beginning with Korean. Korean is an agglutinating SOV language whose nominal phrase includes a classifier. To remind the reader, a frequently proposed structure for such nominal phrases is the following:



This structure could be applied straightforwardly to Korean, given nominal phrases like the following:

- (45)   ku  twu  kay-uy  mokkeli                   [Dem-Num-Cl-N]  
          that  two  Cl-Gen  necklace  
          ‘those  two  necklaces’

We evaluate the success of the structure above by investigating object-verb idioms in Korean, as we did for verb-object idioms in English. In the structure above, verbs do not select Ns, they select Ds, which in turn select Nums, which select Cls, which select Ns. To reiterate, this theory, combined with the selection theory of idioms, predicts that there will be no idiom where V and N are fixed, but D, Num, or Cl can be freely added or changed.

This does not match what we find in object-verb idioms in Korean. We find two patterns. In the first, the idiom consists only of a V and an N. Some of these do not permit any functional elements to appear, but others do. In the second pattern, the idiom appears to include one or more of D, Num, or Cl in addition to V and N. In the majority of these, the functional elements can be altered, and hence do not appear to be a fixed part of the idiom. In general, the functional elements behave like adjectives and possessors. This means that verbs do not select for D, Num, or Cl; they select for N, and the structure above must be rejected, as it does not capture this selectional relationship.

### 4.2.1 Description of Nominal Phrases in Korean

Before we turn to object-verb idioms in Korean, it is important to understand the basic structure of nominal phrases in the language. As was illustrated in (45), Korean has demonstratives, numerals, and classifiers, which may occur in that order. However, word order in Korean is relatively free, and Num-Cl-Dem-N order is also possible:



- (46)    *twu kay-uy ku mukkeli*                    [Num-CI-Dem-N]  
           two CI-Gen that necklace  
           ‘those two necklaces’

Possessors and adjectives can also be added, in various different word orders:

- (47) a.    *kunye-uy panccakinun ku twu kay-uy mukkeli*                    [Poss-Adj-Dem-Num-CI-N]  
           she-Gen sparkling    that two CI-Gen necklace  
           ‘those two sparkling necklaces of hers’
- b.    *panccakinun kunye-uy ku twu kay-uy mukkeli*                    [Adj-Poss-Dem-Num-CI-N]  
           sparkling    she-Gen    that two CI-Gen necklace  
           ‘those two sparkling necklaces of hers’
- c.    *kunye-uy twu kay-uy ku panccakinun mukkeli*                    [Poss-Num-CI-Dem-Adj-N]  
           she-Gen   two CI-Gen that sparkling   necklace  
           ‘those two sparkling necklaces of hers’

There are a few constraints on order. Only Num and CI may follow the head N (48). In addition, nothing may intervene between Num and CI (49):

- (48) a.    *mukkeli twu kay*    [N-Num-CI]  
           necklace two CI  
           ‘two necklaces’
- b.    \**mukkeli kunye-uy panccakinun ku*                                [N-Poss-Adj-Dem]  
           necklace she-Gen sparkling    that  
           ‘those sparkling necklace of hers’
- (49) a.    \**twu ku kay-uy mukkeli*    [Num-Dem-CI-N]  
           two that CI-Gen necklace  
           ‘those two necklaces’
- b.    \**twu panccakinun kay-uy mukkeli*                                [Num-Adj-CI-N]  
           two sparkling    CI-Gen necklace  
           ‘two sparkling necklaces’
- c.    \**twu kunye-uy kay-uy mukkeli*                                        [Num-Poss-CI-N]  
           two she-Gen   CI-Gen necklace  
           ‘two necklaces of hers’

When Num and CI appear to the right of the head N, the case that the whole NP receives follows the classifier and may also appear on the head N, as in (50a). Either or both case morphemes can be dropped under certain conditions. In contrast, when Num and CI precede the N, the CI is marked with genitive case, while the case the whole NP receives is marked on the head N (50b).

- (50) a. Yuna-ka mokkeli(-lul) twu kay(-lul) po-ass-ta. [N-Num-Cl]  
 Yuna-Nom necklace(-Acc) two Cl(-Acc) see-Pst-Decl  
 ‘Yuna saw two necklaces.’
- b. Yuna-ka twu kay(-uy) mokkeli-lul po-ass-ta. [Num-Cl-N]  
 Yuna-Nom two Cl(-Gen) necklace-Acc see-Pst-Decl  
 ‘Yuna saw two necklace.’

The order in (50a) is generally regarded as quantifier floating (see Lee 1989, Kang 2002, Ko 2005 and the references cited there). We will ignore this order for the most part, as all but one of the idioms we discuss occur in the order with genitive case in (50b).<sup>9</sup>

There has been disagreement in the literature on the structure of the nominal phrase in Korean (and Japanese, a syntactically similar language). Some works argue that there is no DP structure in Korean and Japanese (e.g., Fukui 1986, Lyons 1999, Fukui and Takano 2000); however, Park (2008) and Jung (1998) analyze Korean nominals as DPs. Our data indicate that the DP Hypothesis is incorrect for Korean, and indeed in general.

#### 4.2.2 Object-Verb Idioms in Korean

Our main sources for Korean idioms are (i) the online dictionary of the National Institute of the Korean Language ([http://stdweb2.korean.go.kr/section/idiom\\_list.jsp](http://stdweb2.korean.go.kr/section/idiom_list.jsp)); (ii) the electronic version of the Korean dictionary (<http://www.sejong.or.kr/>); (iii) a print idiom dictionary of the Korean language (Lee, Koo, and Lee 2008); and (iv) naturally occurring data found on the internet using Google and Naver searches. Examples found on the internet were checked with a number of native speakers. Our survey of idioms reveals that a large number of idioms in Korean involve a verb and its object, and the object may also be preceded by various functional and non-functional elements. We divide object-verb idioms into two classes according to the occurrence of functional elements. Class 1 includes object-verb idioms with bare nouns and no functional elements, while Class 2 includes object-verb idioms with one or more functional elements in the object (out of Dem, Num, Cl).

Class 1 involves object-verb idioms where the idiom includes only N and V. This class of idioms is well attested in Korean. Appendix A lists forty-four idioms in Class 1, and we do not pretend that this list is exhaustive. Here we illustrate with a small handful of examples from Appendix A. Each example illustrates the idiom’s use in a sentential context. The idiomatic parts are italicized; in each case, only those parts are fixed, while everything else can be altered.

- (51) Class 1: N-V
- a. ku-nun *cho*-lul *chi*-nun-tey senswu-i-ta.  
 he-Top vinegar-Acc spread-Adn-Nml player-Cop-Decl  
 ‘He interrupts very well.’ (spread vinegar = interrupt)

<sup>9</sup>Classifiers can also be dropped, especially in colloquial speech and with human nouns. See Lee and Ramsey 2000 and Sohn 2001.

- b. il.il.kwu kwukup.cha-ka cho-lul tatwu-e talli-ko iss-ta.  
 one.one.nine emergency.car-Nom second-Acc dispute-e run-ko exist-Decl  
 ‘The 119 ambulance is running in a very urgent situation.’ (dispute a second = be very urgent)
- c. ku-nun somay-lul ket-ko saep-ey-man cennyemha-yess-ta.  
 he-Top sleeve-Acc roll.up-and business-in-only concentrate-Pst-Decl  
 ‘He took a positive attitude and concentrated on his business.’ (roll up sleeve = take a positive attitude)
- d. ku cong-un temtheiki-lul ssu-ko cwukim-ul tangha-yess-ta.  
 that servant-Top worry-Acc wear-and killed-Acc suffer-Pst-Decl  
 ‘That servant got all the blame, and was killed.’ (wear worry = get blamed)
- e. na-nun chel.phan-ul kkal-ko ku namca-eykey kopaykha-yess-ta.  
 I-Top iron.pad-Acc spread.out-and that guy-Dat propose-Pst-Decl  
 ‘I was brash, and proposed to the guy.’ (spread out iron pad = be brash)

The idioms of Class 2 include N, V, and one or more of the functional elements of the nominal phrase (D, Num, Cl). We have found a relatively small number of idioms of Class 2, namely fourteen. Thirteen of them include a numeral as part of the idiom, and the other consists of Num-Cl-N-V. We have not found any idioms which seem to include a demonstrative. Some examples follow. Examples (52a–52b) are examples of idioms consisting of Num-N-V; the rest are listed in Appendix A. Example (53) is the sole Num-Cl-N-V idiom, in which a verb, the head N of its object, and a numeral accompanied by a classifier are interpreted idiomatically.

(52) Class 2: Num-N-V

- a. han wumwul-man kkwucwuni pha-sey-yo.  
 one well-only steadily dig-Hon-Pol  
 ‘Focus on one matter!’ (dig one well = focus on one matter)
- b. ne-nun sinsa-losse ettehkey twu mal-ul ha-ni?  
 you-Top gentleman-as how two word-Acc do-Q  
 ‘How can you as a gentleman change your mind so easily?’ (do two words = change one’s mind easily)

(53) Class 2: Num-Cl-N-V

Hana-nun mikwuk-eyse twu mali thokki-lul motwu cap-ass-ta.  
 Hana-Top America-in two Cl rabbit-Acc all catch-Pst-Decl  
 ‘Hana accomplished what she has planned in America.’ (catch two rabbits = accomplish)

Note that adverbs and quantifiers can be added in between the idiomatic object and verb (52a, 53). Additionally, inflectional endings like those on the verb, and case markings on the object, vary according to the context; for instance in (52a), the accusative case marker is replaced with the morpheme meaning ‘only’.

As noted above, the DP analysis of nominal phrases makes the prediction that in idioms functional elements should be fixed. Under this hypothesis, there is no selectional relation between V and N; V selects D, D selects Num, Num selects Cl, and Cl selects N. This predicts that functional elements within the nominal complement should not vary. It turns out, however, that this is not the case. Numerous N-V idioms (Class 1) can add functional elements, while idioms with apparently fixed functional elements (Class 2) frequently appear with other functional elements instead.

#### 4.2.3 Class 1: Bare N-V Idioms

We begin with Class 1, the object-verb idioms where only the bare noun is idiomatic, and show that a number of idioms in this class may occur with various functional elements (demonstratives, numerals, and classifiers) and non-functional elements (possessors and adjectives). Among the forty-four idioms provided in Appendix A, we find that ten can occur with functional elements; seventeen can occur with non-functional elements; and three can take both functional and non-functional elements in the NP. Adding these additional elements does not alter the idiomatic interpretation under consideration; rather it often adds an implication that a part of an idiomatic meaning is emphasized to some extent (as noted in note 7).

First, some N-V idioms can occur with demonstratives. The idiom *cholul chita*, ‘to spread vinegar’, allows the demonstrative *ku* to precede the noun, retaining the idiomatic interpretation:

- (54) ceypal ipen il-ey **ku** cho-com chi-ci-ma.  
 please this matter-in that vinegar-com spread-ci-Neg.Imp  
 ‘Please do not interrupt in this matter.’ (spread vinegar = interrupt)

Next, some N-V idioms can add numerals in the NP. The bare noun *cho*, ‘second’, can be preceded by the numeral *il* ‘one’.

- (55) halmeni-uy ketong-i ppalu-ci mosha-si-ko **il** cho-lul tatwu-eya ha-l  
 grandmother-Gen behavior-Nom fast-ci Neg-Hon-and one second-Acc dispute-indeed do-Adn  
 ttay  
 time  
 ‘My grandmother’s behavior is not fast, and so we are in a very urgent situation.’ (dispute a second = be very urgent)

Some N-V idioms permit a wh-Num *myech*, ‘how many’, followed by the classifier *kay*, a general classifier used to count inanimate objects; the result is a rhetorical wh-question:

- (56) a. ne-n elkwul-ey *chel.phan-ul* **myech** **kay** kkal-ass-nya?  
 you-Top face-in iron.pad-Acc how.many Cl spread.out-Pst-Q  
 Literal: ‘How many iron pads did you spread out on your face?’; idiomatic: ‘You are so  
 brash.’

- b. na **tases kay**-nun *kka*-ass-e.  
 I five Cl-Top spread.out-Pst-Int  
 Literal: ‘I spread out five iron pads.’; idiomatic: ‘I am so brash.’

The addressee can also answer the question by specifying the number of the iron pads, as in (56b), which then has the idiomatic interpretation but intensified.<sup>10</sup>

More examples of N-V idioms with demonstratives, numerals, and classifiers added are given below. We assume, based on Sohn (2001, 353), that a quantifier like *motun*, ‘every’, is category Num.

- (57) a. icye **motun** *somay*-lul *ket*-ko hwalkichakey sal-a-po-ca.  
 now every sleeve-Acc roll.up-and cheerfully live-a-try-Exhort  
 ‘Let’s be passionate and live cheerfully.’ (roll up sleeve = take a positive attitude)
- b. **ku** *sose*l com kuman *ssu*-ko solcikhakey mal-hay.  
 that novel just stop write-and frankly tell-Imp  
 ‘Stop lying and tell me frankly!’ (write novel = lie)
- c. emma-ka atul-hantey **yang** *son*-ul ta *tul*-ess-ta.  
 mother-Nom son-Dat both hand-Acc all hold.up-Pst-Decl  
 ‘The mother gave up her son.’ (hold up hand = give away/up)
- d. ecey twul-i anc-a-se *hopak.ssi*(-lul) **tas mal**-un cokhi *kka*-ss-ta.  
 yesterday two-Nom sit-a-while pumpkin.seed-Acc five Cl-Top fully peel-Pst-Decl  
 ‘Yesterday two of us sat and backbit someone.’ (peel pumpkin seeds = backbite; from Kim 2010, (5))
- e. Na hayko-toy-ese **yel** *sonkalak* motwu *ppal*-key toy-ess-ta.  
 I fire-become-because ten finger all suck-key become-Pst-Decl  
 ‘Because I was fired, I began to starve.’ (suck finger = starve)
- f. kyengki-uy sung.phay-nun **ku** *twukkeng*-ul *yel*-e-pwaya al-ke-ya.  
 game-Gen victory.defeat-Top that lid-Acc open-e-try know-Fut-Int  
 ‘We will know the result of the victory or defeat of the game once the game is done.’ (open lid = find out a result)

If the N in an N-V idiom is countable, a numeral and classifier can be added:

- (58) ne-nun na-hantey *kaci*-lul **sey kay**-nun *chye*-ya ha-y.  
 you-Top I-Dat branch-Acc three Cl-Top lop.off-should do-End

<sup>10</sup>Note that the object part of the idiom can be a null anaphor in (56b). See Nunberg, Sag, and Wasow (1994) on anaphora with idiom chunks. This possibility fits into the selection theory: in (56b), the verb *kka*, ‘spread out’, selects the object, *chelphan*, ‘iron pad’, and triggers an idiomatic interpretation; it can do this when ‘iron pad’ is accessed indirectly through a null or overt pronoun that activates the same lexical content as *chelphan*, too. The same holds for anaphora with VPs, as when A says, “The shit will hit the fan tonight,” and B replies, “Yes, it certainly will.” In B’s reply, the null VP still invokes the same lexical items and the same selectional relations, giving rise to the same idiomatic interpretation.

‘(After you have the blind date) you should set up a blind date for me at least three times.’ (lop off branch = introduce to, make something subsidiary)

For comparison, many object-verb idioms also permit adjectives and possessors, elements that are traditionally not conceived of as selected. One example is the following:

- (59) ne-nun **emma(-uy)** sok-ul elmana kulk-eya elun-i toy-kess-ni?  
 you-Top mother(-Gen) stomach-Acc how.much scratch-indeed adult-Nom become-Fut-Q  
 ‘How much do you have to worry your mother to become an adult?’ (scratch stomach = make someone worry)

It is also common to find that some object-verb idioms can add both lexical non-selected elements (adjectives and possessors) and functional elements (demonstratives or numerals):

- (60) a. **i cakun** kan-ul elmana coli-ess-nun-ci.  
 this small liver-Acc how.much boil.down-Pst-nun-End  
 ‘I have been very nervous.’ (boil down liver = be very nervous)
- b. Kim sacang-i **motun telewun temthe**ki-lul ssu-ko saimha-yess-ta.  
 Kim boss-Nom every dirty worry-Acc wear-and resign-Pst-Decl  
 ‘The boss Kim had all the blame shifted on to himself and resigned.’ (wear worry = get blamed)
- c. na Kim.sicang-i **pwuceng kongcicka-uy motun** ssi-lul malli-kess-ta.  
 I Kim.mayor-Nom corruption official-Gen every seed-Acc dry-Fut-Decl  
 ‘I, the mayor Kim, will get rid of all the officials’ corruptions.’ (dry seeds = get rid of)

The conclusion that we draw is that numerous object-verb idioms with a bare N in Korean do permit functional elements to appear with the N, without affecting the availability of the idiomatic reading. The prediction of the DP Hypothesis (that D, Num, CI would not be able to occur) is not correct. The functional heads D, Num, CI rather seem to pattern like non-selected adjectives and possessors, which are also typically not part of object-verb idioms but can be added to them.

#### 4.2.4 Class 2: Functional Elements Included

We now turn to Class 2, the object-verb idioms that include one or more of D, Num, CI as part of the idiom. As noted above, we have found fourteen idioms in Class 2. All fourteen include a numeral; one also adds a classifier. All fourteen, it turns out, permit the numeral to be replaced with another numeral or to be left out if the conditions are right. Once again, manipulating the idiom in this way typically intensifies the idiom. In the following examples, the numeral ‘two’ can be replaced with ‘three’, and ‘one’ with ‘two’:<sup>11</sup>

<sup>11</sup>An anonymous reviewer disputed some of the data in this section, so we provide some links to naturally occurring examples.

- (61) a. Hana-nun mikwuk-eyse *twu mali thokki*-lul motwu *cap*-ass-ta.  
 Hana-Top America-in two Cl rabbit-Acc all catch-Pst-Decl  
 ‘Hana accomplished what she had planned in America.’ (catch two rabbits = accomplish)
- b. phalli-uy sashiptay wekhing-mam **sey mali thokki**-lul *cap*-ta.  
 Paris-Gen forties working-mother three Cl rabbit-Acc catch-Decl  
 ‘Working mothers in their forties in Paris accomplish many things.’  
 ([http://www.ohmynews.com/nws\\_web/view/at\\_pg.aspx?CNTN\\_CD=A0001334135](http://www.ohmynews.com/nws_web/view/at_pg.aspx?CNTN_CD=A0001334135))
- (62) a. *han wumwul*-man kkwucwuni *pha*-sey-yo.  
 one well-only steadily dig-Hon-Pol  
 ‘Focus on one matter!’ (dig one well = focus on one matter)
- b. **twu wumwul** *pha*-nun cwung.ki.tul  
 two well dig-Adn middle.business.Pl  
 ‘Small and medium-sized business are focusing on more than one thing.’  
 (<http://www.fnnews.com/news/201303181734385875>)

Numerals can also be left out, and a possessor like the reflexive *casinmanuy* inserted instead:

- (63) a. *han wumwul*-man kkwucwuni *pha*-sey-yo.  
 one well-only steadily dig-Hon-Pol  
 ‘Focus on one matter!’ (dig one well = focus on one matter)
- b. **casin.man-uy wumwul**-ul *pha*-sip-si-o.  
 self.only-Gen well-Acc dig-Hon-Hon-Imp  
 ‘Focus on only one thing!’ (example modified from [https://books.google.es/books?id=\\_eGqBAAAQBAJ&pg=PT114&lpg=PT114&dq=자신만의+우물파기&source=bl&ots=P6UTOs0u8h&sig=qmL-ZGWAq8PO2oLqyhCQmvUWcpQ&hl=en&sa=X&ei=3aS3VK2wGMWd7gb724CgBA&ved=0CCMQ6AEwAA#v=onepage&q=자신만의%20우물파기&f=false](https://books.google.es/books?id=_eGqBAAAQBAJ&pg=PT114&lpg=PT114&dq=자신만의+우물파기&source=bl&ots=P6UTOs0u8h&sig=qmL-ZGWAq8PO2oLqyhCQmvUWcpQ&hl=en&sa=X&ei=3aS3VK2wGMWd7gb724CgBA&ved=0CCMQ6AEwAA#v=onepage&q=자신만의%20우물파기&f=false) )

Further examples follow, showing that idioms that include a numeral permit that numeral to be replaced with another:

- (64) a. ne-nun sinsa-losse ettehkey *twu mal*-ul *ha*-ni?  
 you-Top gentleman-as how two word-Acc do-Q  
 ‘How can you as a gentleman change your mind so easily?’ (say two words = change one’s mind easily)
- b. sinsa-losse ettehkey *twu mal sey mal ye*le *mal*-ul *ha*-ni?  
 gentle.man-as how two word three word many word-Acc do-Q  
 ‘How can you as a gentleman change your mind so easily?’ (literal: ‘say two words, many words’)  
 (similar example at <http://news.kukmin.tv/news/articleView.html?idxno=828>)

- (65) a. Chelswu-nun *yang tali-lul kelchi-n-ta*.  
Chelswu-Top both leg-Acc span-Pres-Decl  
'Chelswu is a two-timer.' (span two legs = date more than one person at a time)
- b. seysang pwulkongphyeng.ha-ci. nwukwu-n **sey tali ney tali-to kelchi-ko**  
world unfair.do-End someone-Top three leg four leg-even span-and  
pwulep-ta.  
jealous-Decl  
'The world is unfair. Some people date with even three or four partners at one time, and I am jealous of it.' (literal: 'span three legs, four legs')  
(similar example at <http://news.zum.com/zum/view?id=029201307087742103&t=0&cm=newsbox&v=2>)
- (66) a. wuli-nun onul-pwuthe *han soth.pap-ul mek-nun-ta*.  
we-Top today-from one cauldron.rice-Acc eat-Pres-Decl  
'From today we live in the same house.' (eat one cauldron rice = live in the same house or work together on the same team)
- b. ecey-kkaci-nun han soth.pap mek-nun sai-yess-nuntey nayil-pwuthe-nun **twu**  
yesterday-till-Top one cauldron.rice eat-Adn relation-Pst-but tomorrow-from-Top two  
*soth.pap mek-key toy-ess-e*.  
cauldron.rice-Acc eat-key become-Pst-Int  
'Till yesterday we were on the same team, but from tomorrow we will belong to different teams.' (literal: 'eat two cauldrons of rice')
- (67) a. Kim sacang sosik-ey wuli motwu *han pang-ul mek-ess-ta*.  
Kim boss news-in we all one fist-Acc eat-Pst-Decl  
'We were very shocked at the news about the boss Kim.' (eat one fist = be shocked)
- b. ai.phaytu-uy tal, **twu pang mek-un ayphul**  
IPad-Gen month two fist eat-Adn apple  
'In the month of iPad, Apple got much shock (from Samsung).' (literal: 'ate two fists')  
([http://businessnews.chosun.com/site/data/html\\_dir/2013/03/14/2013031401103.html](http://businessnews.chosun.com/site/data/html_dir/2013/03/14/2013031401103.html))
- (68) a. ku-nun sakwa-nun khenyeng *han swul-ul te tte-se hwa-lul nay-ess-ta*.  
he-Top apology-Top rather.than one spoon-Acc more scoop-and anger-Acc make-Pst-Decl  
'He did not apologize, and what's worse he got angry at me.' (scoop one spoon more = make the situation worse or outwit)
- b. saipi congkyo-eyse-nun **myech swul te tte-se hwanca-uy hwan.pwu-lul**  
pseudo religion-in-Top several scoop more spoon-and patient-Gen affected.part-Acc  
ccay-n-ta.  
incise-Pres-Decl



‘What’s worse is that people in pseudoreligions incise the affected area of patients.’ (literal: ‘scoop several spoons more’)  
 (modified from <https://mirror.enha.kr/wiki/안수기도>)

- (69) a. Kim sacang-i *han ken-ul olly-ess-ta.*  
 Kim boss-Nom one matter-Acc raise-Pst-Decl  
 ‘Our boss Mr. Kim made some achievements.’ (raise one matter = make some achievements)
- b. Kim sacang-i **sey** *ken-ul olly-ess-ta.*  
 Kim boss-Nom three matter-Acc raise-Pst-Decl  
 ‘Boss Mr. Kim made many achievements.’ (literal: ‘raised three matters’)  
 (similar example at <http://bbgoon.tistory.com/216?srchid=BR1http%3A%2F%2Fbbgoon.tistory.com%2F216>)
- (70) a. Min kyoswu-ka *haksayng-tul-eykey han thek-ul sso-ass-ta.*  
 Min professor-Nom student-Pl-Dat one tray-Acc shoot-Pst-Decl  
 ‘Professor Min treated his students.’ (shoot one tray = treat)
- b. *han thek anila twu thek-ilato sso-keyss-sup-ni-ta.*  
 one tray Neg two tray-even shoot-Fut-Hon-NI-Decl  
 ‘I will treat you two times.’ (literal: ‘shoot one tray, two trays’)  
 ([http://www.yeonessay.com/xe/index.php?mid=ESSAY&document\\_srl=2513&order\\_type=asc&sort\\_index=regdate](http://www.yeonessay.com/xe/index.php?mid=ESSAY&document_srl=2513&order_type=asc&sort_index=regdate))
- c. *cehuy hai.kholia hosuthey1-i yeypi tayhaksayng-tul-eykey han thek twu thek sey*  
 our high.Korea hostel-Nom preliminary college.student-Pl-Dat one tray two tray three  
*thek ney thek ssop-ni-ta.*  
 tray four tray shoot-NI-Decl  
 ‘Our High Korean Hostel treats preliminary college students many times.’ (literal: ‘shoot one tray, two trays, three trays, four trays’)  
 (<https://www.facebook.com/hikoreahostel/posts/439812849423739>)

The one idiom that includes a classifier does not permit that classifier to be replaced with another:

- (71) *twu mali/\*calwu thokki-lul cap-ta*  
 two Cl/Cl rabbit-Acc catch-Decl  
 ‘to accomplish’ (literal: ‘catch two rabbits’)

However, this is a fact about classifiers, not idioms. A literal sentence with the noun ‘rabbit’ also only permits one classifier:

- (72) *Mina-ka twu mali/\*calwu thokki-lul cap-ass-ta.*  
 Mina-Nom two Cl/Cl rabbit-Acc catch-Pst-Decl  
 ‘Mina caught two rabbits.’

It is therefore not surprising that the classifier cannot be changed in the idiom, either. (One thing we will note in the conclusion is that nouns that are part of idioms always have the classifier that is appropriate to them in their literal use.)

#### 4.2.5 Summary: Korean

We find that object-verb idioms with bare Ns permit functional elements to be added to them, contrary to the predictions of the DP Hypothesis. We also find that idioms that appear to include one of D, Num, or Cl can actually have those elements replaced with another or left out. Additional functional elements that are not part of the idiom can also be added. Again, this runs contrary to the predictions of the DP Hypothesis. That hypothesis, coupled with the selection theory of idioms, predicts that D, Num, and Cl will be fixed in idioms. If they are not part of the idiom, they will not be allowed.

We conclude from the failure of these predictions that the DP Hypothesis is not correct for Korean. Verbs select Ns, not Ds (or Nums or Cls). The maximal projection of an object nominal must be a projection of the N itself, NP.

### 4.3 Classifier Language 2: Vietnamese

Vietnamese is an isolating SVO language. As with English and Korean, in Vietnamese we also restrict our attention to verb-object idioms. Similar to Korean, we find two classes of verb-object idioms: (1) idioms that consist only of V and N; and (2) idioms that consist of V and N, plus one or more of the functional elements D, Num, Cl.

Again, the DP analysis of nominal phrases, combined with the selection view of idioms, predicts that the functional elements D, Num, Cl will not be able to vary in a verb-object idiom. They will either have to be null, if they are not part of the idiom, or they will be unchangeable, if they are. This is not what we find, though: Vietnamese idioms that consist only of V and N can have different functional elements added, and idioms that appear to include one or more of D, Num, or Cl can occur with or without those elements.

#### 4.3.1 Description of Vietnamese Nominal Phrases

We begin with a brief overview of nominal phrases in Vietnamese. According to previous studies on noun phrases in Vietnamese, a Vietnamese noun phrase has three main parts: (i) pre-nominal modifiers (Totality, Quantifier/Numeral), (ii) the Head (Classifier/Measure Noun, Noun), and (iii) post-nominal modifiers: Adjective, Relative Clause, Demonstrative (Nguyen 2004, Nguyen 2008; Diep 2005). Some examples of complex Vietnamese noun phrases containing all of these elements are given below:<sup>12</sup>

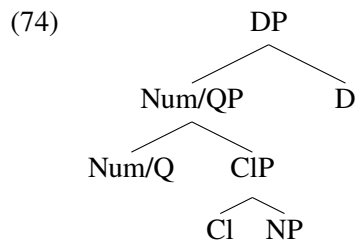
- (73) a.    tất.cả những con mèo đen    tôi đã nuôi ấy  
         all    many Cl    cat    black I    Pst raise that

---

<sup>12</sup>According to Tran 2011, except for the class of special nouns, all Vietnamese nouns have to have a classifier in order to occur with a numeral. This means that the examples below all have classifiers if they have numerals, since all of the idioms listed here only contain nouns in the regular class.

- ‘all of those many black cats (that) I took care of’
- b. toàn.bộ mười cân thịt ngon.lành mà anh muốn mua này  
 all ten Cl meat delicious that you want buy this  
 ‘all of these ten kilos of meat that you want to buy’

This would lead to the following structure for Vietnamese within the DP Hypothesis, ignoring modifiers like adjectives, relative clauses, and possessors (all of which come after the head noun and could be analyzed as adjoined to NP on the right):



Alternatively, D is on the left, but its entire complement moves to Spec-DP (see, e.g., Simpson 2005). Either way, what would be selected by V is not N, but D.

#### 4.3.2 Verb-Object Idioms in Vietnamese

We restrict our attention here to verb-object idioms, as in Korean and English. Vietnamese has a large number of idioms on the pattern V N V N (something like a serial verb construction), but, to keep matters simple, we only look at V N idioms here, with a single verb and nominal. However, because there are so few idioms of Class 2, with a functional element included as part of the idiom, we do bring in a few V N V N idioms in the discussion of that group.

To collect the target idioms, we used an online dictionary of idioms (<http://tudienthanhngu.com/>), a print dictionary of Vietnamese idioms and proverbs (Hoang 1997), and natural data found on the internet using Google, from different contexts including forum conversations, blogposts, and online newspapers. We were able to find 76 verb-object idioms, listed in Appendix B. 69 consist of only a V and a bare N (Class 1). We found seven idioms that include a functional element from D, Num, Cl. We group the seven with functional elements into Class 2, as in Korean.

A few examples of each class are given below. The complete list appears in Appendix B. Again, we illustrate the idiom in a sentential context, with the fixed material that gives the idiomatic reading in italics. First we present five examples from Class 1, idioms consisting only of N and V. A few idioms include other material besides V and N, for instance a PP in (75e).

(75) Class 1: V N, no functional elements:

- a. Khi đứng trước Ly, Nam chỉ biết *ngâm hạt thị*.  
 when stand before Ly Nam only know hold seed fig  
 ‘When standing in front of Ly, Nam stays so very quiet.’ (hold seed fig = be awfully quiet)

- b. Nam và Ly đã *chia tay* hai năm trước.  
Nam and Ly Pst divide hand two year ago  
'Nam and Ly broke up two years ago.' (divide hand = break up)
- c. *Chém gió* với bạn bè là một thú vui phổ biến trong giới trẻ.  
slash wind with friend is a hobby popular in world young  
'Bragging with friends is a popular hobby among the young people.' (slash wind = brag, boast, chitchat in a slightly exaggerated manner)
- d. Khi lên sân khấu, cô ấy *ăn ảnh* lắm.  
when go.up stage she eat photo much  
'She is very photogenic when she is on stage.' (eat photo = be photogenic)
- e. Bọn họ không dám về làng vì đã *trót ăn cơm trước kếng*.  
they Neg dare come village because Pst mistake eat rice before bell  
'They didn't dare to come back to the village because they lived together without getting married.' (eat rice before bell = live together without getting married)

A few examples of class 2 taken from Appendix B2 follow. As noted above, because there are so few idioms of this type, we also include some V N V N idioms in this class.

(76) Class 2: V N or V N V N, functional element included:

- a. Dầu em có *uốn ba tấc lưỡi* tôi vẫn sẽ không đổi ý!  
Despite you have fold three unit(2.3cm) tongue I still will Neg change idea  
'Even when you try to talk to persuade me, I will not change my mind.' (fold three units tongue = use speaking skill to persuade someone)
- b. Tùng toàn *ăn quả vả rồi trả quả sung* một cách thản nhiên.  
Tùng always eat Cl lychee then return Cl fig one way calm  
'Tùng is always ungrateful like nothing matters.' (eat lychee return fig = be ungrateful)
- c. Em làm ơn đừng suốt ngày *vơ đũa cả nắm* như vậy!  
you please no through day gather chopstick all hand like this  
'Please don't always stereotype like this.' (gather chopsticks all hand = stereotype things or people)
- d. Ai có thể ngờ Nam đã *ăn ở hai lòng* với Ly?  
who could expect Nam Pst eat live two stomach with Ly  
'Who would have expected that he was unfaithful with Ly.' (eat and live two stomachs = be unfaithful)

In the following subsections, we shall see that Class 1 idioms, though they include only a bare N in the idiom, can actually have various functional heads (D, Num, Cl) added without changing the idiomatic meaning. Similarly, Class 2 idioms, though they appear to include one or more of D, Num, and Cl, can

actually have these elements changed. This does not match the predictions of the DP Hypothesis, which predicts invariant functional heads in between V and N in idioms.

### 4.3.3 Class 1: Bare V-N idioms

As in English and Korean, idioms in Vietnamese vary in how fixed they are. Of the group of 69 V-N idioms in Appendix B1, we find that (i) 28 idioms are immutable and fixed; (ii) 12 idioms can add non-functional elements like possessors and adjectives; (iii) 4 idioms can have functional elements (D, Num, CI) added to them, but not non-functional modifiers; and (iv) 25 idioms can include both functional and non-functional elements in the NP.

An example of the permutations that are possible with idioms is given below. First, some idioms can have possessors in the NP. In the example below, the idiom *nuốt lời*, ‘to swallow word’, allows the reflexive possessor to follow the noun and still retain the idiomatic interpretation. More idioms like this can be found in the first part of Appendix B1.

- (77) Tôi sẽ không *nuốt lời của mình*.  
 1S Fut Neg swallow word belong self  
 ‘I will not break my promise.’ (swallow word = break a promise)  
 (<https://lesen237blog.wordpress.com/author/lesen2372014/page/7/>)

Similarly, some N-V idioms allow either a numeral or a *wh*-word to be inserted in pre-nominal position. For example, in (78a), a totality *cả*, ‘all’, and a numeral *hai*, ‘two’, are added in front of the noun *tay*, ‘hand’. In (78b), the idiomatic reading is still available when the *wh*-word *mấy*, ‘how many’ is present. More idioms of this type can be found in the second part of Appendix B1.

- (78) a. Thông-thường cơ-quan điều-tra đã *bó tay* thì Viện cũng *bó cả hai tay*  
 normally administrative investigate Pst fold hand then court also fold all two hand  
 luôn!  
 Part  
 ‘Normally if the Investigate Administrative gives up, the Court will also give up.’ (fold hand = give up)  
 (<http://sinhvienluat.vn/threads/toi-gi-day.21321/page-3>)
- b. Nếu có-thể mong bạn bớt chút thời-gian chia-sẻ... cùng cộng-đồng còn hơn là đi  
 if can hope 2S lower little time share together community still more Cop go  
 buôn *mấy sọt dưa lê*.  
 sell how.many basket melon pear  
 ‘If possible, I hope you can take a bit of time to share with the community rather than just chitchat.’ (sell melon and pear = chitchat)  
 (<http://agriviet.com/threads/giong-du-du-nao-co-gia-cao-nhat-viet-nam.208971/page-13>)

Notice that the addition of the totality, numeral, and wh-word makes the idiomatic interpretation become more emphatic and prominent. We can easily replace those three functional words with different ones to make the emphasis stronger or weaker. For example, the numeral *hai*, ‘two’, can be replaced with *mười*, ‘ten’, to make it clear that the speaker is really giving up (79a). In the same manner, in example (79b), a numeral *trăm*, ‘hundred’, can be inserted after the wh-word *mấy*, ‘how many’, to show the attitude of the speaker. (These examples are constructed but were checked with a number of native speakers. Similar examples can be found on the internet.)

- (79) a. Tôi nói thật là tôi *bó cả mười tay* rồi!  
 I say honest that I fold all ten hand already  
 ‘To be honest, I already so so gave up.’ (fold hand = give up)
- b. Hai cô *buôn* được *mấy trăm thúng* dưa lê rồi?  
 two you sell able how.many hundred basket melon pear already  
 ‘You guys must have been chatting for so long, yeah?’ (sell melon and pear = chitchat)

As mentioned above, out of the 69 idioms that consist only of V and a bare N, we found a total of 25 that permit both lexical elements (adjectives and possessors) and functional elements (demonstratives or numerals) to be added in the NP. For instance, the idiom below consists of a V and an N *ngứa mắt*, ‘itch eye’, idiomatic ‘be irritated’. As the following examples show, the bare N ‘eye’ can have numerous functional elements added and still retain the idiomatic meaning. Examples (80a) and (80b) have more or less the same meaning, where (80b) simply adds a classifier. By adding the emphatic *cái* and a classifier, example (80c) has a stronger meaning than the first two. The possessor and demonstrative in (80d) give the strongest interpretation of the idiom.<sup>13</sup>

- (80) a. Thú.thật với anh là tôi *ngứa mắt* lắm rồi!  
 honest with you that I itch eye much yet  
 ‘To be frank with you, I am very irritated.’ (itch eye = be irritated)
- b. Thú.thật với anh là tôi *ngứa con mắt* lắm rồi!  
 honest with you that I itch Cl eye much yet  
 ‘To be frank with you, I am very irritated.’ (itch eye = be irritated)
- c. Thú.thật với anh là tôi *ngứa cái con mắt* lắm rồi!  
 honest with you that I itch Emph Cl eye much yet

<sup>13</sup>Examples similar to those in (80) can be found at:

- <http://www.phuot.vn/threads/4078-Ai-v%E1%BB%81-M%E1%BB%99c-Ch%C3%A2u-%C4%83n-T%E1%BA%BFt-%C4%90%E1%BB%99c-l%E1%BA%ADp-c%C3%B9ngem/page4>
- [https://www.facebook.com/UTCCConfessions/posts/502092393161097?stream\\_ref=5](https://www.facebook.com/UTCCConfessions/posts/502092393161097?stream_ref=5)
- <https://www.facebook.com/UlawConfessions/posts/572246509489019>
- <http://truongton.net/forum/archive/index.php/t-758270.html>

‘To be frank with you, I am so very irritated.’ (itch eye = be irritated)

- d. Thú.thật với anh là tôi ngứa cái con mắt này của tôi lắm rồi!  
honest with you that I itch Emph Cl eye this belong I much yet

‘To be frank with you, I am so very much irritated.’ (itch eye = be irritated)

Another example is given below. The idiomatic reading remains even when functional and non-functional elements are added. The more are added, the more specific and emphatic the idiom becomes.<sup>14</sup>

- (81) a. Bà Ly đã dắt mũi của hai thằng.chả suốt bao năm qua!  
madam Ly Pst lead nose belong two he through how year last  
‘Madame Ly controlled the two guys for so many years! (lead nose = control, make someone obey)
- b. Bà Ly đã dắt hai cái mũi của hai thằng.chả suốt bao năm qua!  
madam Ly Pst lead two Cl nose belong two he through how year last  
‘Madame Ly controlled the two guys for so many years! (lead nose = control, make someone obey)
- c. Bà Ly đã dắt hai cái mũi bự của hai thằng.chả suốt bao năm qua!  
madam Ly Pst lead two Cl nose big belong two he through how year last  
‘Madame Ly controlled the two guys for so many years! (lead nose = control, make someone obey)

These are just a few examples. As mentioned, out of 69 idioms, 25 allow both functional and non-functional elements to be added to them, and another 4 permit just functional elements. This is 29 that permit D, Num, Cl to be added without disrupting the selectional relationship between V and N that is necessary for the idiomatic meaning. The predictions of the DP Hypothesis do not appear to be correct. Rather, functional elements pattern with non-functional elements like adjectives and possessors in not being fixed in verb-object idioms.

#### 4.3.4 Class 2: Functional Elements Included

As in Korean, in Vietnamese, there are not many verb-object idioms in which the object nominal includes one or more of the functional elements, and none includes a demonstrative. In fact, we can only find seven idioms of this type, listed in Appendix B2. Of those 7, there are 3 idioms that include Cl, 2 idioms that include Num and Cl, 1 includes just Num, and 1 includes a totality and a measure noun.

<sup>14</sup>Again, similar examples can be found on the internet, for example:

- <http://ver2.hoangsa.org/forum/archive/index.php/t-26554.html>
- [http://doctruyen.org/hoang-kim-dong/giai-thich-5\\_164744.html](http://doctruyen.org/hoang-kim-dong/giai-thich-5_164744.html)

The following example illustrates the idiom ‘grow Cl banyan.tree,’ which typically occurs with the classifier *cây* used with stick-like objects. As (82b) shows, omission of the classifier does not affect the grammaticality or idiomaticity of the sentence. In (82c), we can see that the sentence is perfectly grammatical and good with the idiomatic reading when it includes a numeral, a classifier, an adjective, and a demonstrative in the noun phrase.<sup>15</sup>

- (82) a. Nam *trồng cây si* với Linh lâu rồi.  
 Nam grow Cl banyan with Linh long already  
 ‘Nam has been pursuing Linh for a long time.’ (grow Cl banyan tree = pursue a girl’s love)
- b. Nam *trồng si* với Linh lâu rồi.  
 Nam grow banyan with Linh long already  
 ‘Nam has been pursuing Linh for a long time.’ (Cl omitted)
- c. Tôi quá dại.dột nên đã *trồng mỗi một cây si già đó* với Ly suốt mười năm qua.  
 I too naive so Pst grow only one Cl banyan old that with Ly through ten year past  
 ‘I tried to pursue a single old flame with Ly for ten years.’ (literal: ‘I grew that one old banyan tree with Ly for ten years.’)

This is not expected on the DP Hypothesis, where DP and NumP should interfere in the selectional relation between V and Cl. Alternatively, V selects D, which selects Num, which selects Cl, but then D and Num should have to remain null, as they typically do not appear in an overt form in this idiom.

Numerals can also be left out just like Cl, as shown in the example below. This idiom is unusual in that it does not have the usual NP-internal order of Vietnamese: the usual order is Num-Cl-N, but this idiom appears as N-Num-Cl. If the order is changed to the usual one, *chỉ năm ngón tay*, V-Num-Cl-N, the idiomatic meaning is not available anymore. As (83b) shows, the idiom permits the numeral *năm*, ‘five’, and the classifier *ngón* to be omitted. The numeral can also be changed to emphasize the idiomatic reading in (83c).<sup>16</sup>

- (83) a. Ly vào bếp rồi đứng đấy *chỉ tay năm ngón*.  
 Ly come kitchen then stand there point hand/finger five Cl

<sup>15</sup>Some attested examples involving this idiom can be found at:

- <http://ask.fm/TylerNhi/answer/115045700957>
- <http://tuongtri.com/2013/09/18/cay-si/>
- <http://text.123doc.org/document/2048372-vai-dieu-thu-vi-ve-cay-si-potx.htm>

<sup>16</sup>Attested examples can be found at:

- [http://ngotruong.blogspot.com/2010\\_04\\_01\\_archive.html](http://ngotruong.blogspot.com/2010_04_01_archive.html)
- <http://xebushanoi.com/forum/archive/index.php/t-7187.html>
- <http://ttvnol.com/threads/english-for-friends-friendsa-t-club-the-6th-floor.478177/page-44>



- ‘Ly came into the kitchen and stood there bossing people around.’ (point five fingers = boss people around)
- b. Ly vào bếp rồi đứng đây *chỉ tay*.  
Ly come kitchen then stand there point hand/finger  
‘Ly came into the kitchen and stood there bossing people around.’ (point five fingers = boss people around)
- c. Ly vào bếp rồi đứng đây *chỉ tay mười ngón*.  
Ly come kitchen then stand there point hand/finger ten Cl  
‘Ly came into the kitchen and stood there really bossing people around.’ (point five fingers = boss people around)

As mentioned above, since there are so few V N idioms in Class 2, we also looked at V N V N idioms that include functional elements. They behave the same way, in allowing the functional elements to be dropped or replaced with another. The following idiom usually occurs with the classifier *con*, but it can be dropped or replaced with another, and other functional and lexical elements may be added:<sup>17</sup>

- (84) a. Hãy biết cách *thả con tép bắt con tôm để thành công mau lẹ*.  
let know way release Cl small.shrimp catch Cl big.shrimp to succeed soon fast  
‘Let’s achieve something big by letting go of the small thing.’ (release small shrimp catch big shrimp = achieve something big by letting go of something small)
- b. Hãy biết cách *thả tép bắt tôm để thành công mau lẹ*.  
let know way release small.shrimp catch big.shrimp to succeed soon fast  
‘Let’s achieve something big by letting go of the small thing.’ (release small shrimp catch big shrimp = achieve something big by letting go of something small)
- c. Hãy biết cách *thả hai ba con tép nhỏ và bắt một con tôm to để thành công mau lẹ*.  
let know way release two three Cl small.shrimp small catch one Cl big.shrimp big to succeed soon fast  
‘Let’s achieve something big by letting go of the small thing.’ (release small shrimp catch big shrimp = achieve something big by letting go of something small)

These examples show that functional elements that typically occur in certain idioms can be omitted, and they can also have other functional elements intervene between them and the selecting verb. As stated above,

<sup>17</sup> Attested examples illustrating these points can be found at:

- <http://dechvn.net/da-den-luc-tha-con-tep-bat-con-tom-v-9425/>
- <http://2s.zing.vn/tin-tuc/chi-tiet.thong-bao.choi-gunny-nhan-qua-2s-bat-dau-dot-thu-2.3569.html>
- <https://www.facebook.com/HuyMeProductions/photos/pb.290309384403049.-2207520000.1410316798./548318765268775/?type=1>

this is inconsistent with the predictions of the DP Hypothesis for classifier languages, which predicts that functional elements will not be able to vary in verb-object idioms.

#### 4.3.5 Summary: Vietnamese

Our survey of verb-object idioms in Vietnamese reveals the same patterns that we saw in Korean and also in English: verb-object idioms consist for the most part only of V and N, and functional elements can be added or changed in between. In general, it appears that it is not important to verb-object idioms whether the object contains D, Num, or Cl. This follows the pattern of selection generally, as discussed above: no verb in classifier languages cares whether its object has a D, Num, or Cl. This fact cannot be captured by the DP Hypothesis for classifier languages, where the only selectional relationship that exists between a verb and its object is between the verb and the functional projections.

Accordingly, we conclude, as we did for Korean, that the DP Hypothesis is not able to capture the patterns of verb-object idioms in Vietnamese. Verbs select directly for Ns, not Ds or any other functional elements. Therefore, the maximal projection of an object has to be NP, not DP.

#### 4.4 Summary: Idioms

The examination of verb-object idioms in English and two classifier languages undertaken here has revealed several striking patterns, some of which have not yet been remarked upon. First, the vast majority of verb-object idioms in the two classifier languages involve only a V and an N, and nothing else. There is a much smaller number of idioms that include V, N, and one or more of Num and Cl. Demonstratives are never part of verb-object idioms, at least in our sample, while Num and/or Cl occasionally are (but when they are, they can usually be varied). One other finding, perhaps expected, is that, when a Cl does occur in a verb-object idiom, it is always the appropriate classifier for the N in its literal use.

The sheer discrepancy in numbers between bare V-N idioms and V-N idioms with functional elements can be taken as itself an argument against the DP Hypothesis. If nominals were really dominated by multiple functional projections, such that verbs selected those projections, we would expect that more idioms would include them. The fact that the vast majority do not indicates that what V selects is actually N, not any functional projection.

Turning to the specific predictions of the DP Hypothesis, we found that, while some verb-object idioms do not permit additional elements to be added, many do.<sup>18</sup> Most of those that seem to include a Num and/or Cl actually permit those elements to be left out or changed, meaning that only V and N are crucial parts of the idiom. In general, when only V and N are part of an idiom, demonstratives, numerals, and classifiers can be added or changed. These findings are not consistent with the DP Hypothesis for classifier languages. According to this hypothesis, verbs could never directly select for N; they could only indirectly select for N, by selecting for D, Num, and Cl. This would lead us to expect that verb-object idioms would often require particular Ds, Nums, and Cls, but this is a pattern that we never find (see also Japanese, footnote 18). It

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<sup>18</sup>According to Kishimoto (2008, note 5), Japanese object-verb idioms do not allow demonstratives, numerals, classifiers, or adjectives at all. Only a bare N is ever allowed. Even this is inconsistent with the DP Hypothesis; see the text.

would also lead us to expect that when Ds, Nums, and CIs can appear in idioms, they would have to be a fixed part of the idiom. Again, this is not what we find. Only V and N are ever fixed elements of verb-object idioms. Similarly, if objects that consist only of a bare N lack the functional projections altogether, we would expect that it would be impossible to add those functional projections to a verb-object idiom, because they would disrupt the necessary selection between the verb and the N. Again, this is not what we find.

We conclude from this that the DP Hypothesis for classifier languages is incorrect, as is the DP Hypothesis for English (and any language, we would venture to say). The head of the sister of the verb must be N, and could not be D, Num, CI, or anything else. More generally, N is the head of the extended nominal projection, in any position (object of P, subject, etc.).

One alternative that a proponent of the DP Hypothesis might offer for our data is that functional elements are free to be excluded from idioms, and in general are. This idea could be wedded either to the selection theory, or perhaps to a theory where idioms are underlying constituents (where possessors and modifiers might be introduced by functional elements, and hence can be excluded from the idiom). In the selection theory, a chain of selection would hold from V through D, Num, CI, to N, such that V and N can be interpreted idiomatically, but D, Num, and CI do not have to be a fixed part of the idiom because they are functional heads.

The problem with this alternative is that it overgenerates massively. For instance, analogizing nominal phrases to clausal phrases, as proponents of the DP Hypothesis frequently do, there ought to be idioms consisting of a matrix verb plus the lexical content of its complement clause, minus all of the functional elements in the embedded clause in between. Such an idiom would look like ‘say (that) the wolves left’, perhaps with a meaning like ‘deceitfully pretend the danger is past’. To the best of our knowledge, no such idiom exists. In contrast, V-N idioms are common in classifier and non-classifier languages alike. There also ought to be idioms that consist of a verb and the nominal object of its complement preposition, excluding the preposition. That is, the verb and NP would be fixed, but the preposition in between could vary. Along with ‘beat around the bush’, one should be able to ‘beat in the bush’ or ‘beat through the bush’, but such examples do not occur.<sup>19</sup> In contrast, V-(NP)-P idioms, with an open slot for the complement of the P, are common (‘light a fire under X’, ‘shed light on X’, ‘turn a blind eye to X’, ‘throw the book at X’; O’Grady 1998, 300–301). This is the exact opposite of what would be expected on this alternative view.

We should note that idioms, then, constitute yet another case where clauses and nominals are not parallel at all. As just noted, V-N idioms, minus the functional material of the nominal phrase, are common. V-V idioms, minus the functional material in the clausal complement of the first verb, are conspicuously absent. Moreover, if the possessor in the nominal were really structurally analogous to the clausal subject, we ought to expect numerous V X<sub>subject</sub> V idioms, with an open slot for a subject, the same way there are numerous V X<sub>possessor</sub> N idioms, with an open slot for a possessor (*get X’s goat, fill X’s shoes*). There are no V X<sub>subject</sub> V idioms. This discrepancy is totally unexpected in the DP Hypothesis.

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<sup>19</sup>O’Grady (1998, 280–281) cites the example of ‘skating on thin ice’ occurring as ‘skating over/close/to/over (sic) thin ice’, but here the idiom seems to be just ‘thin ice’. It occurs frequently as ‘on thin ice’ or just ‘thin ice’ in numerous book and song titles; in fact, in the first 50 hits for “on thin ice” using google and the first 50 hits for “thin ice” (no preposition; searches performed 12/21/2013), the verb ‘skate’ does not occur even once. In contrast, the verbs ‘walk’ and ‘tread’ occur with the PP ‘on thin ice’ a few times. When there is a P, it is usually ‘on’, but one occurrence of ‘across’ did occur in these 100 hits (with no verb).

We conclude that there is no good alternative open to the DP Hypothesis to explain our idiom data. In contrast, the NP Hypothesis gets the facts exactly right.

## 5 Overall Conclusion

Our findings regarding verb-object idioms and selection generally are incompatible with the DP Hypothesis. Clauses and nominals are not parallel at all: clauses *are* headed by functional elements, but nominals are not. When verbs select nominals, they select only the head N. This is true in both classifier and non-classifier languages alike, and is consistent only with the NP Hypothesis, and not the DP Hypothesis.

Let us take stock. We began by going through the usual arguments for the DP Hypothesis, and showed that none of them go through. We then showed that in numerous ways, clauses and nominals are not parallel at all, contrary to the underlying motivation for the DP Hypothesis. We ought to ask, then, whether there is any good reason to maintain the DP Hypothesis in the face of this evidence. Are there any advantages to the DP Hypothesis that are worth maintaining? Does it offer explanations for natural language data that we should try to hold on to? We contend that the answer to these questions is no. We are not aware of a single advantage that the DP Hypothesis has over the NP Hypothesis, nor has anyone been able to present one. We are also not aware of a single explanation it offers for any natural language data. Everything about nominals that is mysterious on the NP Hypothesis is still mysterious on the DP Hypothesis. Phenomena that can be captured in the DP Hypothesis, like extraction through the edge of the nominal (above), can also be captured in the NP Hypothesis. Additionally, most analyses that are couched within the DP Hypothesis can be transformed directly into the structure of the NP Hypothesis. As a recent example, Liao (2015) analyzes English as having the same classifier structure as Chinese at an abstract level, and different locations within this structure explain different readings of the modifier *whole* and its counterpart in Chinese. These results remain unaffected if the labels of the nodes in the trees (e.g., in Liao's (3)) change from "CL," "CLP," "#," and "#P" to "Nom," "Nom," "Nom," and "NP," as in our NP structure.

It might be instructive at this point to compare the DP Hypothesis to another widely adopted theory of similar vintage, the VP internal subject hypothesis (Kitagawa 1986, Speas 1986, among others). The VP internal subject hypothesis is consistent with a strict view of the locality of selection and has been found to have broad empirical support and to explain numerous facts (for an overview, see McCloskey 1997). In contrast, the DP Hypothesis has no empirical support and is not consistent with strict locality of selection, as we have shown here. The DP Hypothesis makes the facts of selection and idioms more difficult to deal with. If the trees that syntacticians posit are meant to capture phenomena like headedness and selection and are not just an overly complicated graphical representation of linear order, then the head of the nominal projection must be the nominal itself. Syntacticians must take this seriously and reject the DP Hypothesis. As far as we can tell, its widespread adoption came about through purely sociological mechanisms, not sound scientific reasoning.

## Appendix A: Idioms in Korean

This appendix and the next present the data from Korean and Vietnamese that we gathered. Each idiom is listed in a sentential context to illustrate its use, with the elements that are a fixed part of the idiom italicized. Any element that is not italicized can be changed.

### A1: N-V Idioms, No Functional Elements

We have found 44 idioms of this type, but do not believe this to be an exhaustive list.

- (1) ipen-ey ne-uy hoysa-ka *mwul-ul mek-ess-tela.*  
this.time-in you-Gen company-Nom water-Acc eat-Pst-Evi  
'I heard that your company lost its prestige or money.' (eat water = lose one's prestige or money)
- (2) ipen il-ey kunye.tul-i *chay-lul cap-ass-ta.*  
this.time matter-in she.Pl-Nom stick-Acc grab-Pst-Decl  
'The women lead on this matter.' (grab stick = lead)
- (3) Na ce kapang *cem ccik-ess-e.*  
I that bag dot mark-Pst-Int  
'I kept one eye on the bag.' (mark dot = keep one eye on)
- (4) sengkongha-myen na-hantey *saykki chye-la.*  
succeed-if I-Dat baby bear-Imp  
'If you succeed (in your blind date), you should introduce me (to a girl).' (baby bear = introduce to)
- (5) ku-ka yaksok-ul cikhi-tolok *sswayki-lul pak-aya kyess-ta.*  
he-Nom promise-Acc keep-in.order.to wedge-Acc drive.in-indeed Fut-Decl  
'We should take steps to make sure that he will keep his promise.' (drive in wedge = make certain)
- (6) wuli-nun *ip-ul mo-ase Hana-lul chingchanha-yess-ta.*  
we-Top lip-Acc collect-and Hana-Acc praise-Pst-Decl  
'We praised Hana all together (without any disagreement).' (collect lips = act unanimously)
- (7) pwuceng kongcikca-uy *ssi-lul malli-kess-ta.*  
corruption official-Gen seed-Acc dry-Fut-Decl  
'We will get rid of the officials' corruptions.' (dry seeds = get rid of)
- (8) wuli-nun *kan-ul coli-ko iss-ess-ta.*  
we-Top liver-Acc boil.down-ko exist-Pst-Decl  
'We were being very nervous.' (boil down liver = be nervous)
- (9) ku-nun *cho-lul chi-nun-tey senswu-i-ta.*  
he-Top vinegar-Acc spread-Adn-Nml player-Cop-Decl

- 'He interrupts very well.' (spread vinegar = interrupt)
- (10) sihem-ey moltwuha-ki wihay chinkwu.tul-kwa *pal*-ul *kkuh*-kess-ta.  
 test-in focus-Nml in.order.to friend.PI-with leg-Acc cut.off-Fut-Decl  
 'I will discontinue a relationship with my friends to focus on my test.' (cut off legs = discontinue a relationship)
- (11) Nay-ka emma-uy *sok*-ul cengmal manhi *kulk*-ess-ta.  
 I-Nom mother-Gen stomach-Acc very much scratch-Pst-Decl  
 'I made my mother worry very much.' (scratch stomach = make worry)
- (12) ku il-i *palmok*-ul *cap*-ase yehayng-ul mos ka-yo.  
 that job-Nom ankle-Acc grab-because trip-Acc cannot go-Pol  
 'The job prevented me from going to the trip.' (grab ankle = prevent, interrupt)
- (13) nay-ka chinhan chinkwu *paltung*-ul *ccik*-ess-ta.  
 I-Nom close friend instep-Acc hack-Pst-Decl  
 'I betrayed my close friend.' (hack instep = betray)
- (14) ye.haksayng.tul-un ku iyaki-ey *cangtan*-ul cal *macchwu*-ess-ta.  
 female.student.PI-Top that story-in rhythm-Acc well set-Pst-Decl  
 'The female students listened to the story carefully and agreed with it.' (set rhythm = listen carefully and agree)
- (15) il.il.kwu kwukup.cha-ka *cho*-lul *tatwu*-e talli-ko iss-ta.  
 one.one.nine emergency.car-Nom second-Acc dispute-e run-ko exist-Decl  
 'The 119 ambulance is running in a very urgent situation.' (dispute a second = urgent)
- (16) ku-nun *somay*-lul *ket*-ko saep-ey-man cennyemha-yess-ta.  
 he-Top sleeve-Acc roll.up-and business-in-only concentrate-Pst-Decl  
 'He took a positive attitude and concentrated on his business.' (roll up sleeve = take a positive attitude)
- (17) ku cong-un *temthe*ki-lul *ssu*-ko cwukim-ul tangha-yess-ta.  
 that servant-Top worry-Acc wear-and killed-Acc suffer-Pst-Decl  
 'That servant got all the blame, and was killed.' (wear worry = get blamed)
- (18) na-nun *chel.phan*-ul *kka*l-ko ku namca-eykey kopaykha-yess-ta.  
 I-Top iron.pad-Acc spread.out-and that guy-Dat propose-Pst-Decl  
 'I was brash, and proposed to the guy.' (spread out iron pad = be brash)
- (19) ku mal-un *simcang*-ul khok *ccil*-less-ta.  
 that word-Top heart-Acc firmly stab-Pst-Decl  
 'That word attacked me; that word gave some hurt to me.' (stab heart = attack an essential part)

- (20) Chelswu-ka ipen sihem-eyse *miyek.kwuk-ul mek-ess-ta*.  
Chelswu-Nom this test-in seaweed.soup-Acc eat-Pst-Decl  
'Chelswu failed this test.' (eat seaweed soup = fail)
- (21) wuli-nun icye kyewu *katak-ul cap-ass-ta*.  
we-Top now barely strand-Acc catch-Pst-Decl  
'We barely understood a situation by now.' (catch strand = get a clue)
- (22) Kim Sanghyen eskheyi-eyse *nalkay-lul phye-ta*.  
Kim Sanghyen SK-in wing-Acc spread-Decl  
'Kim Sanghyen (the baseball player), his dream comes true in SK.' (spread wings = have one's dream come true)
- (23) Kyengswu-nun sihem-i takao-myen hangsang *nal-ul seywu-n-ta*.  
Kyengswu-Top test-Nom approach-if always blade-Acc stand-Pres-Decl  
'Kyengswu becomes always sensitive and nervous whenever the test date approaches.' (stand blade = be sensitive)
- (24) seymwu kemsalo ku hoysa-nun khukey *seli-lul mac-ass-ta*.  
tax inspection-because that company-Top greatly frost-Acc get.hit-Pst-Decl  
'Due to the tax inspection, the company had a great loss.' (get hit by frost = gain damage or loss)
- (25) na-uy uykyen-i thulli-myen *seng-ul ka-n-ta*.  
I-Gen opinion-Nom not.correct-if family.name-Acc change-Pres-Decl  
'I swear that my opinion is correct.' (change family name = swear)
- (26) *sosel ssu-ci mal-ko ttokpalo malhay-la*.  
novel write-ci Neg.Imp-and straightforwardly tell-Imp  
'Do not lie, and tell me straightforwardly.' (write novel = lie)
- (27) celmun yeseng-tul-i *chongtay-lul mey-ess-ta*.  
young woman-PI-Nom gun.stock-Acc carry-Pst-Decl  
'Young women were the representative of the work, and led it.' (carry gun stock = become a representative and lead)
- (28) ku-nun pwumo-nim maum-ey *mos-ul pak-ass-ta*.  
he-Top parent-Hon heart-Dat nail-Acc drive-Pst-Decl  
'He hurt his parents.' (drive nail = hurt)
- (29) kutul-un sikminci thongchi-ey *makak-ul tulenay-ess-ta*.  
they-Top colony reign-in horse.leg-Acc bring.out-Pst-Decl  
'They disclosed the hidden details of their colonization.' (bring out horse leg = disclose hidden details)

- (30) Aiphon-un nul nao-l ttaymata *kakkwang*-ul *pat*-nun-ta.  
 iPhone-Top always come.out-1 whenever limelight-Acc receive-Pres-Decl  
 ‘IPhones always gain popularity whenever their new versions come out.’ (receive limelight = be popular)
- (31) wuli-nun siemeni-ey tayhayse yelsimhi *hopak.ssi*-lul *kka*-ss-ta.  
 we-Top mother.in.law-in about hard pumpkin.seed-Acc peel-Pst-Decl  
 ‘We backbit our mother in law.’ (peel pumpkin seeds = backbite)
- (32) tasi *nasa*-lul *kkawk coi*-ko yelsimhi saynghwal-ha-kess-ta.  
 again screw-Acc firmly tighten-and hard life-do-Fut-Decl  
 ‘I will control my mind and live a life in full.’ (tighten screw = control)
- (33) Hana-ka *ttum*-ul olaystongan *tuli*-ess-ta.  
 Hana-Nom steam-Acc for.a.while let.in-Pst-Decl  
 ‘Hana took an interval of time before she told about something.’ (let the rice settle in its own steam = give an interval of time)
- (34) sensayngnim-i *yel*-ul manhi *pat*-u-si-ess-ta.  
 teacher-Nom heat-Acc much receive-u-Hon-Pst-Decl  
 ‘The teacher got very angry.’ (receive heat = get angry)
- (35) nayil-pwuthe-nun sangsa *palpatak*-ul *halth*-ci anh-kess-ta.  
 tomorrow-from-Top boss sole-Acc lick-ci Neg-Fut-Decl  
 ‘I will not flatter my boss from tomorrow.’ (lick sole = flatter)
- (36) Jwumi-nun motun chongkak-eykey *kkoli*-lul *chy*-ess-ta.  
 Jwumi-Top all unmarried.man-Dat tail-Acc wag-Pst-Decl  
 ‘Jwumi flirted with all the guys.’ (wag tail = flirt)
- (37) Khulusu-nun ecey sicang-eyse *pakaci*-lul *sse*-ss-ta.  
 Chris-Top yesterday market-in bowl-Acc wear-Pst-Decl  
 ‘Chris was ripped off in the market yesterday.’ (wear bowl = be rip off)
- (38) hyeng-i hayko-toy-ese *sonkalak*-ul *ppal* cikyeng-i-ta.  
 elder.brother-Nom fire-become-because finger-Acc suck condition-Cop-Decl  
 ‘Because my elder brother was fired, he is in the situation of starving.’ (suck finger = starve)
- (39) Chelswu-nun *mekmwul*-ul *kkwayna mek*-ess-ta.  
 Chelswu-Top ink-Acc sufficiently eat-Pst-Decl  
 ‘Chelswu has been educated to some sufficient extent.’ (eat ink = be educated)
- (40) kyengki-uy sung.phay-nun *ttwukkeng*-ul *yel*-e-pwaya al-ke-ya.  
 game-Gen victory.defeat-Top lid-Acc open-e-try know-Fut-Int



‘We will know the result of the victory or defeat of the game once the game is done.’ (open lid = find out a result)

- (41) ku cali-nun nay-ka *myengham*-ul *naymil* manhan kos-i ani-ta.  
 that position-Top I-Nom name.card-Acc hold.out worth place-Nom Neg-Decl  
 ‘The position is not the place that I can show my identification (i.e., there are many other people who are more excellent than me. I am not much as competitive as they are).’ (hold out name card = identify oneself)
- (42) pwumo-nim-i casik.tul-eykey *son*-ul *tu-sye*-ss-ta.  
 parent-Hon-Nom children.Pl-Dat hand-Acc hold.up-Hon-Pst-Decl  
 ‘The parents gave away their children.’ (hold up hand = give away)
- (43) wuli hakkyo-uy *ilum*-ul *kel*-ko ku sang-ul *kkok* tha-keyss-ta.  
 our school-Gen name-Acc hang.up-and that prize-Acc certainly win-Fut-Decl  
 ‘I will win the prize to be responsible for my school’s reputation.’ (hang up name = be responsible for one’s reputation)
- (44) sokaything hwu Mina-ka na-hantey *kaci*-lul *chi*-ki-lo yaksokhay-ss-e.  
 blind.date after Mina-Nom I-Dat branch-Acc lop.off-Nml-lo promise-Pst-Int  
 ‘After the blind date, Mina promised me to set up a blind date for me.’ (lop off branch = introduce to, make something subsidiary)

## A2: N-V Idioms with Functional Elements

- (1) kwansim-kwa yelceng-ulo *han wumwul*-ul *pha*-la.  
 interest-and passion-with one well-Acc dig-Imp  
 ‘Focus on one matter with your interest and passion.’ (dig one well = focus on one matter)
- (2) wuli-nun onul-pwuthe *han soth.pap*-ul *mek*-nun-ta.  
 we-Top today-from one cauldron.rice-Acc eat-Pres-Decl  
 ‘From today we live in the same house.’ (eat one cauldron rice = live in the same house; work together in the same team)
- (3) swuswul-i sengkongcekulo *kkuthna*-se icey *han swum*-ul *tolli*-n-ta.  
 surgery-Nom successfully finish-because now one breath-Acc turn-Pres-Decl  
 ‘Because the surgery was successfully finished, now we get relieved.’ (turn one breath = get relieved)
- (4) wuli-nun *han ipwul*-ul *teph*-nun sai-ya.  
 we-Top one blanket-Acc cover-Adn relation-Int  
 ‘We are married.’ (cover one blanket = marry)
- (5) ne-nun sinsa-losse ettehkey *twu mal*-ul *ha*-ni?  
 you-Top gentle.man-as how two word-Acc do-Q

- 'How come do you as a gentleman change your mind so easily?' (say two words = change one's mind so easily)
- (6) Chelswu-nun *yang tali-lul kelci-n-ta*.  
Chelswu-Top both leg-Acc span-Pres-Decl  
'Chelswu is a two-timer.' (span two legs = date more than one person at a time)
- (7) i kos-ey cip-ul sa-myen ancen-ha-ko kyengchi-to coha-se *twu swu-lul*  
this place-in house-Acc purchase-if safety-do-and landscape-too good-because two move-Acc  
*po-nun kes-i-ta*.  
see-Adn thing-Cop-Decl  
'If you purchase a house in this place, you gain double profits because it is safe and its landscape is great.' (see two moves = gain double profits)
- (8) wuli-ka icey *han pay-lul tha-ss-ta*.  
we-Nom now one boat-Acc ride-Pst-Decl  
'We now share a destiny.' (ride one boat = share the same destiny)
- (9) Kim sacang sosik-ey wuli motwu *han pang-ul mek-ess-ta*.  
Kim boss news-in we all one fist-Acc eat-Pst-Decl  
'We were very shocked at the news about the boss Kim.' (eat one fist = be shocked)
- (10) ku-nun sakwa-nun khenyeng *han swul-ul te tte-se hwa-lul nay-ess-ta*.  
he-Top apology-Top rather.than one spoon-Acc more scoop-and angry-Acc make-Pst-Decl  
'He made the situation more worse by getting angry rather than apologizing.' (scoop one spoon more = make the situation worse; outwit)
- (11) Kim sacang-i *han ken-ul olly-ess-ta*.  
Kim boss-Nom one matter-Acc raise-Pst-Decl  
'Our boss Mr. Kim made some achievements.' (raise one matter = make some achievements)
- (12) Min kyoswu-ka haksayng.tul-eykey *han thek-ul sso-ass-ta*.  
Min professor-Nom student.Pl-Dat one tray-Acc shoot-Pst-Decl  
'Professor Min treated his students.' (shoot one tray = treat)
- (13) *han nwun-ul phal-ci mal-ko kongpwu-man hay-la*.  
one eye-Acc sell-ci Neg-and study-only do-Imp  
'Focus on studying.' (sell one eye = not to focus)
- (14) Hana-nun mikwuk-eyse *twu mali thokki-lul motwu cap-ass-ta*.  
Hana-Top America-in two Cl rabbit-Acc all catch-Pst-Decl  
'Hana accomplished what she has planned in America.' (catch two rabbits = accomplish)

## Appendix B: Idioms in Vietnamese

### B1: V-N Idioms, No Functional Elements

The first 28 are immutable, and do not permit any functional elements or modifiers to be added:

- (1) Khi đứng trước Ly, Nam chỉ biết *ngậm hạt thị*.  
when stand before Ly Nam only know hold seed fig  
'When standing in front of Ly, Nam stays so very quiet.' (hold seed fig = be very quiet)
- (2) Thấy mẹ giận như thế, bọn họ *ngậm tăm*, không dám nói gì.  
see mom angry like that they hold toothpick Neg dare say what  
'Seeing their mom being angry like that, they shut down and didn't dare to say anything.' (hold toothpick = be very quiet)
- (3) Nam và Ly đã *chia tay* hai năm trước.  
Nam and Ly Pst divide hand two year ago  
'Nam and Ly broke up two years ago.' (divide hand = break up)
- (4) Nhiều học sinh cho biết đã *vượt rào* từ năm lớp 10.  
Many students give know Pst cross fence from year grade 10  
'Many students said that they have had sex since they were in grade 10.' (cross fence = have sex, usually for the first time)
- (5) Thiệt tình là ghét mấy má *bung lụa* bên đó lắm!  
honest COP hate several mother throw silk side that very  
'I honestly hate those bitches who acts dramatically in the other forum very much.' (throw silk = act/do something very dramatically)
- (6) Bọn họ hứa đủ điều rồi để một mình tôi *ôm sô*.  
they promise all thing then let one self I hug show  
'They promised everything and then let me take care of the whole thing.' (hug show = take care of something by oneself unwillingly)
- (7) Ly trông vậy nhưng nàng đang *ngậm bồ hòn* và không vui về gì đâu!  
Ly seem that but she Prog hold soapberry and Neg happy what where  
'Ly looks like that but she is enduring and not happy at all.' (hold soapberry = bear pain silently)
- (8) Nếu chị không cẩn thận, chồng chị có khi sẽ ra ngoài *ăn phở* đấy!  
if you Neg careful husband you may will go outside eat noodles there  
'If you are not careful, your husband may cheat on you.' (eat noodles = cheat on someone)
- (9) Đừng bao giờ *múa rìu qua mắt thợ*.  
Neg when dance hammer over eye worker

- 'Don't ever show off in front of people who are better than you!' (dance hammer over eye worker = show off in front of someone who is obviously better)
- (10) Ly chỉ giỏi vắt cổ chày ra nước, một đồng cũng không muốn tiêu.  
Ly only good squeeze neck pestle out water one coin also Neg want spend  
'Ly is good at being a skinflint and doesn't want to spend even a coin.' (squeeze pestle out water = be a skinflint)
- (11) Chém gió với bạn bè là một thú vui phổ biến trong giới trẻ.  
slash wind with friend is a hobby popular in world young  
'Bragging with friends is a popular hobby among the young people.' (slash wind = brag, boast, chitchat in a slightly exaggerated manner)
- (12) Nam thực chất đang múa tay trong bị khi sếp Nga quyết định đuổi Ly.  
Nam actually Prog dance hand inside bag when boss Nga decided fire Ly  
'Nam was actually secretly happy when boss Nga decided to fire Ly.' (dance hand inside bag = be secretly happy)
- (13) Bọn họ không dám về làng vì đã trót ăn cơm trước kếng.  
they Neg dare come village because Pst mistake eat rice before bell  
'They didn't dare to come back to the village because they lived together without getting married.' (eat rice before bell = live together without getting married.)
- (14) Khi ông Lý mất, con ông chắc chắn sẽ ăn bùn.  
when mister Lý die child he surely will eat mud  
'When Mister Lý dies, his kid will be played for a fool.' (eat mud = be played for a fool)
- (15) Cuối tháng đứa sinh viên nào cũng treo mỏ như tôi!  
end month Cl student which also hang mouth like I  
'At the end of every month every single student will be starving like myself.' (hang mouth = be starving)
- (16) Cậu tin hắn thì chẳng khác nào cậu muốn bán lúa giống.  
you trust him the Neg different which you want sell rice seed  
'You trusting him is no different from you being fooled completely.' (sell rice seed = be fooled completely)
- (17) Khi Anh nghèo, Ly đã hoàn toàn trở mặt.  
when Anh poor Ly Pst completely turn face  
'When Anh became poor, Ly completely changed about.' (turn face = change about, to treat someone differently)
- (18) Khi lên sân khấu, cô ấy ăn ảnh lắm.  
when go up stage she eat photo much  
'She is very photogenic when she is on stage.' (eat photo = be photogenic)

- (19) Chồng của tôi đã đi *bán muối* lâu rồi!  
 husband belong I Pst go sell salt long ago  
 ‘My husband died a long time ago.’ (sell salt = die)
- (20) Sau một ngày tập võ, tôi thực.sự đã *hết xí.quách*.  
 after one day practice martial.art I really Pst out bone  
 ‘After one day practicing martial art, I am really exhausted.’ (out bone = be exhausted)
- (21) Ly *cầm đầu* băng.đảng trong khu chợ này.  
 Ly hold head gang in area market this  
 ‘Ly is the leader of the gang in this market area.’ (hold head = be the leader)
- (22) Nhận tiền và giờ em định *lật lọng* à?  
 receive money and now you intend flip parasol Q  
 ‘You got the money and now you plan to double cross?’ (flip parasol = double cross)
- (23) Ly đẹp nhưng nàng *xổ* *nho* như một người không có học.  
 Ly beautiful but she conjure Chinese.character like one person Neg have education  
 ‘Ly is beautiful but she swears like an uneducated person.’ (conjure Chinese character = swear)
- (24) Cậu nghĩ cậu là ai mà *lên mặt* với tôi?  
 you think you are who then rise face with I  
 ‘Who do you think you are to act superior to me?’ (rise face = act superior)
- (25) Mọi chuyện hoàn.toàn do Ly *giật dây*, Nam không biết gì.  
 all story completely due Ly pull string Nam Neg know what  
 ‘Linh controlled everything, Nam didn’t know anything.’ (pull string = control)
- (26) Khi chị *vượt* *cạn*, chị chỉ có một mình.  
 when she overcome land she only have one self  
 ‘When she gave birth, she was by herself.’ (overcome land = give birth)
- (27) Mẹ tôi cứ ép tôi đi *coi mắt* dù tôi không muốn.  
 mom I keep pressure I go see eye though I Neg want  
 ‘My mom kept pressuring me to go on an arranged date although I don’t want to.’ (see eye = go on an arranged date, usually very formal)
- (28) Mỗi lần thấy hai cô gái *bán hoa* ấy, Nam thường chạy trốn.  
 every time see two Cl girl sell flower that Nam often run hide  
 ‘Every time seeing those two girls who prostitute themselves, Nam often runs and hides.’ (sell flower = prostitute)

The next twelve permit non-functional elements like modifiers to be added:

- (29) Em định làm tôi *mất mặt* của mình trước bạn bè sao?  
 you intend do I lose face belong I in.front.of friend Q  
 ‘Do you plan to make me look bad in front of my friends?’ (lose face = look bad)
- (30) Nam muốn đi *vuốt râu hùm* ông Lý thì cứ để nó chết.  
 Nam want go pet whisker tiger mister Lý then just let he die  
 ‘If Nam wants to risk himself challenging Mister Lý then let him die.’ (pet whisker tiger = risk life challenging someone)
- (31) Cô *cắt cổ* của khách hàng như vậy mà coi được sao?  
 you cut neck belong customer like this then see okay Q  
 ‘Selling things overpriced like this to customers is okay with you?’ (cut neck = sell things overpriced)
- (32) Nó chỉ giỏi *vuốt đuôi* của mấy sếp!  
 he only good pet tail belong several boss  
 ‘He is only good at fawning upon his bosses.’ (pet tail = flatter someone, fawn upon someone)
- (33) Ly suốt ngày *sửa lưng* của Nam.  
 Ly through day fix back belong Nam  
 ‘Ly always criticize Nam.’ (fix back = criticize)
- (34) Giỏi thì đi *nấn gân* của người khác, đừng giả bộ anh hùng!  
 good then go set vein belong person different Neg pretend hero  
 ‘If you are tough, go threaten other people, don’t pretend to be a hero.’ (set vein = threaten someone)
- (35) Cậu *cân não* tôi thì có ích gì?  
 you weigh brain belong I then have benefit what  
 ‘What’s good for you to influence my mind?’ (weigh brain = affect someone’s mind)
- (36) Nam đã *cắn câu* của Ly!  
 Nam Pst bite hook belong Ly  
 ‘Nam has been fooled by Ly.’ (bite hook = be led on, be fooled)
- (37) Anh định *nuốt lời* anh với em sao?  
 you intend swallow word you with I Q  
 ‘Are you going to break your promise to me?’ (swallow word = break a promise)
- (38) Ly chắc chắn sẽ *bộ đít* mấy sếp.  
 Ly surely will carry ass several boss  
 ‘Ly will surely adulate those bosses.’ (carry ass = adulate)
- (39) Tôi có thể *cầm chân* của hắn đến mai.  
 I can hold leg belong he until tomorrow

- 'I can hold him off until tomorrow.' (hold leg = hold someone off)
- (40) Tôi sợ ông sẽ bắt bài của anh được ngay!  
I afraid he will catch card belong you able immediately  
'I am afraid that he will understand you right away!' (catch card = know someone's strategy)

Four idioms permit functional elements to be added, but not modifiers like adjectives:

- (41) Hai cô buôn được mấy thúng dưa lê rồi?  
two you sell able how.many basket melon pear already  
'How much have you guys been chatting?' (sell melon and pear = chitchat)
- (42) Họ đã giận, nó lại còn đổ thêm một đồng dầu vào lửa.  
they Pst angry he still have dump extra one pile oil into fire  
'He kept making things worse when they were already angry.' (dump oil into fire = make something worse, usually a fight)
- (43) Tôi nói thật là tôi bỏ cả hai tay rồi!  
I say honest that I fold all two hand already  
'To be honest, I already gave up.' (fold hand = give up)
- (44) Hai người nấu được mấy nồi cháo rồi?  
two you cook able how.many pot soup already  
'How much have you guys been talking on the phone?' (cook soup = chat on the phone)

The last 25 permit both functional and non-functional elements to be added:

- (45) Tiểu.Vỹ ăn vài hũ dấm chua rồi!  
Tiểu.Vỹ eat several jar vinegar sour already  
'Tiểu Vỹ got very jealous!' (eat vinegar = be jealous)
- (46) Ly cắm mấy cái sừng to tổ.bồ lên đầu chồng nàng.  
Ly plant several Cl horn big enormous onto head husband she  
'Ly cheated badly on her husband.' (plant horn = cheat on someone)
- (47) Nàng đã đá cái đít tội.nghiệp của tôi từ hai năm trước rồi!  
she Pst kick Cl ass pitiful belong I since two year ago already  
'She dumped me two years ago.' (kick ass = dump someone)
- (48) Tôi phải muối cái mặt này của tôi để đi xin.lỗi Ly.  
I must salt Cl face this belong I to go appologize Ly  
'I have to bear a shame to appologize to Ly.' (salt face = bear a shame)
- (49) Ông rửa hai cái tai của tôi suốt hai tiếng đồng.hồ!  
he clean two Cl ear belong I through two hour clock  
'He yelled at me for two hours.' (clean ear = yell)

- (50) Suốt mười năm qua, nàng luôn đi một đôi guốc nhọn hoắt trong bụng tôi.  
Through ten year ago she always walk one pair sandal sharp pointed inside stomach I  
'She always got everything of me for the last ten years.' (walk sandal inside X's stomach = understand X deeply, know all of their moves, get their nature)
- (51) Nhìn lão thả mấy con dê của lão với lũ gái trẻ thật làm tôi muốn ói!  
see he release several Cl goat belong he with bunch girl young really make I want vomit  
'Looking at him perving over those young girls makes me want to vomit.' (release goat = do perverted things, be pervy)
- (52) Anh định ôm cái chân ba anh đến khi.nào?  
you intend hug Cl leg father you until when  
'When you do plan to stop depending on your dad?' (hug leg = depend on someone)
- (53) Tao thách tụi công.an dám rờ đến cái gáy này của tao đó!  
I challenge bunch cop dare touch to Cl nape this belong I that  
'I challenge those cops to investigate me!' (touch pape = look into, to investigate)
- (54) Dân nhập.cư mà đòi cướp cái chén cơm của tao à? Đừng có mơ!  
native immigrant then demand steal cái bowl rice belong I Q Neg have dream  
'Those immigrants want to take my job? Dream on!' (steal rice = compete for a job)
- (55) Cậu khen hoài làm Nam nở cả cái mũi của nó!  
you praise constantly make Nam rise all Cl nose belong he  
'You praising constantly made Nam overly proud.' (rise nose = be overly happy/proud)
- (56) Bà Ly đã dắt hai cái mũi bự của hai thằng.chả suốt bao năm qua!  
madam Ly Pst lead two Cl nose big belong two he through how year last  
'Madame Ly controlled the two guys for so many years! (lead nose = control, make someone obey)
- (57) Tôi nào dám móc cái họng nào của ai ở đây!  
I which dare hook Cl throat which belong who stay here  
'I don't dare to mock anyone here!' (hook throat = mock)
- (58) Mà đã sáng con mắt của mà ra chưa?  
you Pst brighten Cl eye belong you out yet  
'Have you seen the truth yet?' (brighten eye = see the truth)
- (59) Cô làm.ơn tắt cái đài vô.duyên của cô hộ tôi!  
you please turn.off Cl radio improper belong you for I  
'Please shut up for me!' (turn off radio = shut up)
- (60) Nam đã lòi cái đuôi bẩn.thủ của hắn vào phút chót.  
Nam Pst tick.out Cl tail dirty belong he in minute last



- ‘Nam revealed his bad side at the last minute.’ (tick out tail = reveal a bad side or weakness)
- (61) Anh.ta luôn sẵn.sàng *chĩa* cái *mũi* *dùi* *cắm*.ghét của anh.ta vào tôi.  
 he always ready direct CI point drill hateful belong he towards I  
 ‘He is always ready to attack me!’ (direct point drill = attack someone, usually verbally)
- (62) Nhìn anh đi, chị *đứt* cả đoạn *ruột* của mình.  
 see he go she break all CI intestine belong self  
 ‘Looking at him leaving, she was so so sad.’ (break intestine = be very upset, sad)
- (63) Cậu cứ *chặn* cái *họng* của Linh thì sao nàng nói hả?  
 you keep block CI throat belong Linh then how she talk Q  
 ‘How can Linh talk when you keep muzzling her?’ (block throat = interrupt/muzzle someone in a rude manner)
- (64) Nhiều người trong làng này muốn *đào* cái *mỏ* béo.bở nhà ông Lý ấy lắm!  
 many people in village this want dig CI mine rich house mister Lý that much  
 ‘Many people in this village want to make money by marrying the girl from that family of Mister Lý!’ (dig mine = make money sneakily, usually by marrying a girl from a rich family)
- (65) Mày làm.ơn ngưng *nhúng* cái *mũi* vô.duyên của mày vào chuyện của tao!  
 you please stop dip CI nose improper belong you in story belong I  
 ‘Can you please stop interfering my business?’ (dip nose = interfere in other people’s business)
- (66) Thú.thật với anh là tôi *ngứa* cái con *mắt* này lắm rồi!  
 honest with you that I itch Emph CI eye this much yet  
 ‘To be frank with you, I am so very irritated.’ (itch eye = be irritated)
- (67) Tôi thì tôi *sốt* hết cả cái *ruột* của tôi lên, còn Ly thì chỉ ngồi *đấy* như không.  
 I thì I roast off all CI intestine belong I up but Ly thì chỉ sit there like nothing  
 ‘I was anxious like hell when Ly just sat there like nothing.’ (roast intestine = be extremely anxious)
- (68) Muốn sống thì đừng để ai *bắt* được cái *thóp* nhỏ của em.  
 want live then Neg let who catch able CI fontanelle small belong you  
 ‘If you want to live, don’t let anyone know your weakness!’ (catch fontanelle = know someone’s weakness or soft spot)
- (69) Tôi đợi để *bóc* được cái *tem* bài post của bạn!  
 I wait to peel able CI stamp CI post belong you  
 ‘I waited to be able to be the first person who reads your post.’ (peel stamp = be the first to do something)

## B2: V-N Idioms with Functional Elements

- (1) Hấn đang *trồng cây si* em gái của bạn hấn.  
he Prog plant Cl fig sister girl belong friend he  
'He is in love with his friend's younger sister.' (plant fig = be in love with someone)
- (2) Tùng toàn *ăn quả vả* rồi *trả quả sung* một cách *thản.nhiên* .  
Tùng always eat Cl lychee then return Cl fig one way calm  
'Tùng is always ungrateful like nothing matters.' (eat lychee return fig = be ungrateful)
- (3) Ly vào *bếp* rồi *đứng đây* *chỉ tay* *năm ngón*.  
Ly come kitchen then stand there point hand/finger five Cl  
'Ly came into the kitchen and stood there bossing people around.' (point five fingers = boss people around)
- (4) Hãy *biết cách thả con tép* *bắt con tôm* để *thành công* mau *lẹ*.  
let know way release Cl small.shrimp catch Cl big.shrimp to succeed soon fast  
'Let's achieve something big by letting go of the small thing.' (release small shrimp catch big shrimp = achieve something big by letting go of something small)
- (5) Dầu em có *uốn ba tấc* *lưỡi* tôi vẫn sẽ không *đổi ý*!  
despite you have fold three unit(2.3cm) tongue I still will Neg change idea  
'Even when you try to talk to persuade me, I will not change my mind.' (fold three units tongue = use speaking skill to persuade someone)
- (6) Em làm ơn *đừng suốt ngày* *vơ đũa cả nắm* như vậy!  
you please no through day gather chopstick all hand like this  
'Please don't always stereotype like this.' (gather chopsticks all hand = stereotype things or people)
- (7) Ai có thể *ngờ* Nam đã *ăn ở hai lòng* với Ly?  
who could expect Nam Pst eat live two stomach with Ly  
'Who would have expected that he was unfaithful with Ly.' (eat and live two stomachs = be unfaithful)

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