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Accounting for the Semantics of the NP V NP Construction in English

Abstract: In English the NP1 V NP2 construction typically involves arguments that are construed as Agent and Patient, or Subject and Object. It is associated with the notion of transitivity and analyzed accordingly, even when it exhibits only the syntactic properties of transitivity but not its semantic characteristics. This phenomenon is well-known and has been accounted for by linguists (Lakoff 1977; Hopper and Thompson 1980, among others) as a result of the absence of some prototypical transitive features in the utterance. This paper aims at demonstrating that the NP1 V NP2 structure has a semantic value and conveys a general abstract sense, of which prototypical transitivity represents only one particular realization whose occurrence is determined by the semantic and aspectual properties of the context. It will be argued that the sense of this construction can be explained through concepts that are not usually used in the description of transitive utterances, namely conjunction and disjunction. In some examples, the subject enters a relation of conjunction or disjunction with the object. In others, it is the other way round.

Keywords: constructions, transitivity, semantic roles, prototype, conjunction, disjunction

1. Introduction

The word *transitivity* derives from Lat. *transitivus*, which means ‘something that passes through something else’. The notion has regained interest since it emerged as a flourishing issue for cognitive and functional linguistics. Consequently, many linguists have tried to propose a formal description of transitivity. This has not

proved an easy task, especially from a semantic perspective. So far, the issue has been tackled mostly by identifying a series of features considered as typical of transitive utterances. In consequence, several prototype theories have been proposed, relying on different linguistic backgrounds. Thompson and Hopper (2001) remark that, in terms of frequency, most Subject Verb Object (SVO) utterances do not possess all the semantic features defining prototypical transitivity. Such an assessment highlights the need to account for the existence of non-prototypical transitive utterances. Whereas there is a consensus over the existence of a prototype, there are differences as to the explanation provided for the existence of those utterances. This shall be the object of the first section of this paper. Then we will address the issue of non-prototypical transitive utterances, not by identifying the aspects in which they differ from the prototype, but by bringing into focus their common properties, i.e. how they relate to the prototype. The perspective adopted here is inspired by construction grammars (Goldberg 1988). Accordingly, the idea that each construction, including transitivity, can be associated with a particular sense is set as a premise. By comparing non-prototypical transitive utterances with prototypical transitive utterances, we hope to identify the abstract sense of the SVO construction. Section 2 provides a semantic classification of transitive constructions based on Levin's (1993) verb categories. This classification will be the basis of the analysis developed in section 3, in which we will expose different subcategories of transitivity.

The study proposed here focuses only on accusative constructions NP V NP, which means that double-object constructions, causatives and resultatives as well as prepositional constructions and the passive voice are let aside. Our analysis is corpus-driven and relies on genuine utterances from the *Open American National Corpus (OANC)* and the *Corpus of Contemporary American English (COCA)*.

2. The prototype theories

Though they may differ in their approaches and objects, most studies on transitivity concede particular importance to the existence of a prototypical transitive pattern. The existence of such a pattern is grounded in studies in typology arguing that there is a universal prototypical action generally expressed *via* the transitive construction (see Comrie 1989; Lazard 1998 and 2008). It should be noted though that prototypicality is to be distinguished from primacy since prototypical transitive verbs are not the first transitive verbs is not the first construction acquired by children as shown in Ninio (1999) or Ibbotson et al. (2012). In English, prototypical transitivity is illustrated in example (1):

- (1a) He told the jury Morton **killed** his wife because she wouldn't have sex with him. (*COCA*)

In this example, a typical agent (*Morton*, a human being) willingly initiates a dynamic and telic action (*kill*+simple past, affirmative context) which dramatically affects the patient (*his wife*). This patient can be construed as the subject of a passive voice, as shown below:

(1b) Morton's wife **was killed** because she wouldn't have sex with him.

From a syntactical perspective, transitivity designates a construction in which a verb takes a direct object. The features highlighted above (dynamicity, agency, etc.) refer not to syntactical but to semantic properties. Further investigation of those properties has brought focus on more specific traits.

The need for a definition of prototypical transitivity arises since not all transitive utterances exhibit the same characteristics. From a syntactical perspective, it can be observed that some transitive utterances are not easily turned into the passive voice:

(2a) I **know** a good spot. (*COCA*)

(2b) ? A good spot **is known** to/by me.

Our object here is the semantics of the N1(S) V N2(O) construction and therefore, we will not focus on the passive form (see Rice 1987 for a study of the relation between the passive voice and prototypical transitivity).

The approaches mentioned below are well-known to linguists interested in the issue. They all attempt to provide reliable criteria to define prototypical transitive. Though the works surveyed here are quite homogenous as to the criteria they select as characteristic features of transitivity, they provide different explanations for the emergence of non-prototypical utterances, because they endorse different theoretical prerequisites.

2.1 Functional perspective

Among other linguists, Hopper and Thompson (1980) who adopt a functional viewpoint on the issue, have provided a set of features in order to account for transitivity from a cross linguistic perspective. Thus, they select a set of properties defining prototypical transitivity in every language that exhibits such a construction. In table 1, N1 and N2 are referred to respectively as Agent (A) and Object (O):

Table 1. High and low transitivity

		high transitivity	low transitivity
A	Participants	2 or more participants, A and O	1 participant
B	Kinesis	Action	non-action
C	Aspect	Telic	Atelic
D	Punctuality	Punctual	non-punctual
E	Volitionality	Volitional	non-volitional
F	Affirmation	Affirmative	Negative
G	Mode	Realis	Irrealis
H	Agency	A high in potency	A low in potency
I	Affectedness of O	O totally affected	O not affected
J	Individuation of O	O highly individuated	O non-individuated

Newman and Rice's analysis of the functioning of the intransitive uses of the verbs *eat* and *drink* (2006) is grounded on this set of features. Those features emerge from an in-depth-study that re-examines and imparts the elements already highlighted by Givón (1984, 126), who construes the following elements as a basis for a cross-linguistic study of transitivity:

- Semantic prototype of transitive event
 - a. Agentivity: Having a deliberate, active *agent*.
 - b. Affectedness: Having a concrete, affected *patient*.
 - c. Perfectivity: Involving a bounded, terminated, fast-changing *event* in real time.
- Syntactic prototype of transitive clause

Clauses and verbs that have a *direct object* are syntactically transitive. All others are syntactically intransitive. (...)
- Prototypical mapping between semantic and syntactic transitivity

When the simple clause codes a semantically transitive event (9), the event's *agent* will be the clause's *subject*, and the event's *patient* the clause's *direct object* (10).

According to Hopper and Thompson (1980), non-prototypical transitive utterances are sentences in which one or several of those features is or are missing. In example (2) above (*I know a good spot*), criteria B (kinesis), C (Aspect), D (Punctuality), E (Volitionality) and I (Affectedness) are not fulfilled. Indeed, *know* is a stative verb (criterion B), does not imply the existence of a true Agent initiating the action on purpose (criterion E) and does not trigger any effect on the Object (criterion I), the tense is the simple present and the utterance refers to an event that is not bounded and can be considered as generally true (criteria C and D).

Since it lacks several of the criteria defining prototypical transitivity according to Hopper and Thompson (1980), (2) is perceived as exhibiting a low degree of

transitivity. Semantic transitivity is thus construed by the linguists as a scale whose highest point corresponds to the prototype (example (1): *Morton killed his wife*), and the lowest to utterances that are transitive only from a syntactical perspective (example 2).

Even if Hopper and Thompson's approach is closely related to Givón's functional analysis, there are differences since the latter adopts a cognitive perspective. Consequently, non-prototypical utterances are viewed as extending metaphorically from the prototype. Accordingly, in the typology provided by Givón (1984, 129), (2) illustrates what happens when the agent is construed as being not nominative but dative: it becomes a metaphorical agent: "The agent-subject of the prototype transitive verb is both *conscious* (having volition) and *active* (initiating the event). Dative subjects, on the other hand, are conscious participants in the event without either intending or actively initiating it."

Following Givón's approach, in non-prototypical utterances, either the subject or the object is a metaphorical agent or patient, for it lacks some of the properties that would make it a real agent or a real patient. The main difference between this explanation and the one provided by Hopper and Thompson (1980) has to do with the fact that Givón's analysis does not take some enunciative elements into account, such as Affirmation, Mode or Aspect. It should also be added that since Givón (1984) provides no definition of the concept of metaphor, and since the mechanism of the process of metaphorical extension is not described, the reader can only assume that the syntactical positions of subject and object make their participants be spontaneously construed as agent and patient, either metaphorically or not.

More recently, Naess (2007), without rejecting the validity of Hopper and Thompson's and Givón's approaches, has proposed another model relying on the following hypothesis: prototypical transitivity is characterized by a high degree of distinctness (maximum distinctness) between the arguments. Argument distinctness is a concept inherited from generative semantics (see Chomsky 1995, and Bornkessel-Schlesewsky and Schlesewsky 2008 for a discussion of the relation between argument distinctness and transitivity). In prototypical utterances the agent is volitional, instigating and unaffected by the event, whereas the patient is non-volitional, non-instigating and affected by the event:

Table 2. Agent and patient as maximally distinct categories (from Naess 2007, 44)

	Agent	Patient
Volitionality	+	-
Instigation	+	-
Affectedness	-	+

This approach does not contradict the analyses mentioned above, but it implies that every utterance must be considered individually and it does not allow for generalizations such as the ones drawn by Hopper and Thompson (1980): for example, it does not predict that atelic verbs are unlikely to be prototypically transitive. Nonetheless, Naess's approach enables discrimination between different subcategories of non-prototypical transitive utterances, depending on the feature(s) that deviate(s) from the prototype. Indeed, if we adopt Naess's approach, we can note that (2) does not exhibit the criterion of maximum distinctness of the two participants since neither the agent nor the patient are volitional, instigating or affected by the event described in the sentence.

2.2 Cognitive linguistics

Langacker (1991, 308) also argues that syntactical structures are to be related to a particular abstract sense: "We thus expect a language to exhibit a number of basic clause types, each associated with a conceptual archetype that constitutes its prototypical value." This statement is especially relevant as far as transitivity is concerned since the validity of the prototype theory cannot rely on its frequency.

Langacker's analysis does not differ from the functionalist approaches in so far as it relies on the idea that the agent and the patient of a model transitive clause exhibit a high degree of distinctness: "the arguments of a prototypical transitive clause represent distinct, clearly delimited participants that are sharply differentiated from each other (...)" (1991, 362). The linguist proposes a definition of the agent/subject and patient/object that relates with more abstract notions in Cognitive Linguistics: in transitive clauses, the subject is the Trajector (the most prominent element in the relation) and the object is the Landmark (the ground) of the relation profiled by the verb. Accordingly, the verb establishes a particular relation between the Trajector and the Landmark. At an abstract level, whether or not the subject and object exhibit the properties of a real agent and a real patient is of no importance.

In the perspective of construction grammar, Goldberg (1998, 189) construes the SVO construction as meaning *X acts on Y*. Besides, in previous work, she considers that verbs such as *possess* or *acquire* refer to a basic pattern of experience that is different from verbs such as *cube*.

Consequently, an example such as *Bill has a good job* will be considered as less transitive than *John killed Mary* by Hopper and Thompson, as metaphorically transitive by Givón (1984), as transitive with an unvolitional agent by Naess (2007), and as not transitive but possessive by Goldberg (1998).

In this very short survey, we wish to remind the reader of the problematics inherent in the notion of transitivity, but many other linguists, whose work is not mentioned here, have dedicated studies to this particular phenomenon (Taylor 1995,

section 12.4, and Croft 1988 among others). Anyone willing to find a more detailed and complete survey of the different approaches to transitivity should find Naess 2007 rather useful. However, we hope that the section above is extensive enough to show that the relative homogeneity that is reached when it comes to defining the prototype cannot be extended to the explanations provided as to the existence of non-prototypical transitivity.

3. Towards another definition of transitivity?

Our approach¹ differs in that we consider, like Langacker (1990; 1991) that syntactical transitivity, i.e. N1 V N2, is correlated with a particular abstract meaning. Therefore, we will not try to highlight the differences between non-prototypical and prototypical utterances. On the contrary, we will focus on their common properties to find out what primitive semantics they share.

3.1 Preliminary remarks

The different prototype theories seem to rely on the semantic prerequisite stating that there is one prototypical event – in which a volitional entity intentionally initiate a dynamic telic process that affects a passive entity – and that such an event is somehow primary in our cognitive representations. Indeed, there is no indication otherwise that prototypical transitivity should be primary in languages. It has been noticed by other linguists (Thompson and Hopper among others) that, in English at least, when it comes to frequency, the prototype is far from prevailing.

We have worked on two sub-corpora in order to statistically identify the verbs most frequently used transitively. Both sub-corpora come from *OANC*²:

– The sub-corpus “face-to-face” (Conversation), 60,330 words, 7,069 occurrences of the transitive construction.

– The subcorpus “Press papers” (a collection of articles from Slate), 62,478 words, 5,801 occurrences of the transitive construction.

We have used collocation analysis (Stefanowitsch and Gries 2003) and applied Fisher’s exact test to highlight the propensity of the different verbs of the corpus to appear in the transitive construction.

The results show that the verbs whose propensity to appear in a (syntactic) transitive utterances is highest are often very unlikely to be prototypical, because they do not tend to refer to prototypical events, as shown in tables 3 and 4 (we only give the first 20 verbs in decreasing order of attraction):

Table 3. Verbs most strongly attracted to the Transitive construction in “Conservation”

Verb	Verb frequency in Conversation	Verb frequency in the transitive construction	Collostruction strength
take	129	78	39.04
have	1098	280	36.42
see	128	65	26.59
read	136	51	14.1
hit	19	17	13.71
put	61	29	11.35
thank	12	11	9.22
leave	36	17	6.86
buy	16	11	6.85
bring	21	12	6.15
appreciate	19	11	5.76
encourage	6	6	5.59
set	14	9	5.32
share	14	9	5.32
love	45	17	5.21
open	9	7	5.06
visit	16	9	4.66
spend	24	11	4.49
break	11	7	4.19
treat	11	7	4.19

Table 4. Verbs most strongly attracted to the transitive construction in “Press papers”

Verb	Verb frequency in Conversation	Verb frequency in the transitive construction	Collostruction strength
get	168	74	31.6
make	146	56	20.56
see	58	31	16.71
put	35	24	16.62
take	72	33	15.15
ask	46	25	13.83
use	60	26	11.39
quote	34	19	10.95
include	39	19	9.58
defend	16	12	9.29
have	749	120	8.54

run	44	19	8.47
contain	13	10	7.98
carry	15	10	7.04
know	75	23	6.77
mention	31	14	6.7
read	16	10	6.65
support	13	9	6.59
answer	6	6	6.19
undermine	6	6	6.19

Events denoted by verbs such as *have* are unlikely to affect the referent of the object. Nonetheless, such events are denoted by the verbs whose collostructional strength is highest in our sample. If frequency and propensity to appear in a transitive construction were considered criteria valuable enough to determine prototypicality, *have*, in (3)

(3) “We don’t **have** any milk!” (*OANC*, Conversation)

would be more prototypical than *kill* in (4):

(4) The NYT brings word that nearly 12 years after Palestinian terrorists **killed** a disabled passenger (...) the Palestinian Liberation Organization has settled for an undisclosed sum a lawsuit brought by the Klinghoffer family. (*OANC*, Press papers)

Again, the prototypical character of *kill* relies only on its propensity to express what is construed as a prototypical event.

3.2 What transitive relations express

If we take a closer look at the corpora, a classification of the basic semantic categories the construction denotes can be provided³:

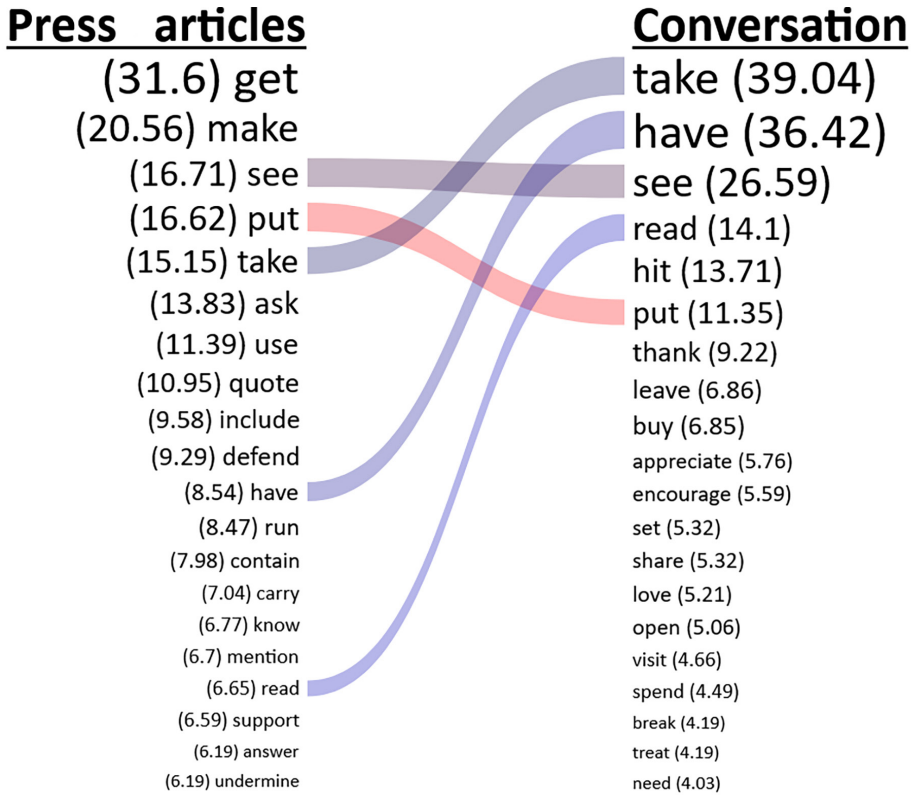
Fig. 1. Verbs common to the two sub-corpora

Table 5. Relations expressed *via* transitivity

Type of relation	Verbs in English
“abandon” verbs	<i>abandon, leave</i>
“accompany” verbs	<i>accompany</i>
“admire” verbs	<i>support, like, love, hate, value, appreciate</i>
“advance” verbs	<i>reach, leave</i>
“amuse” verbs	<i>bother, disturb</i>
“appear” verbs	<i>open</i>
“assess” verbs	<i>study</i>
“balance” verbs	<i>open</i>
“begin” verbs	<i>keep</i>
“bring” verbs	<i>take</i>
“carry” verbs	<i>carry</i>
“characterize” verbs	<i>choose, value, take, use, appreciate</i>
“conjecture” verbs	<i>know</i>
“cost” verbs	<i>take, carry</i>
“crane” verbs	<i>open</i>
“create” verbs	<i>create</i>
“decrease” verbs	<i>appreciate</i>
“destroy” verbs	<i>destroy, annihilate</i>
“dub” verbs	<i>make</i>
“eat” verbs	<i>eat, drink</i>
“engender” verbs	<i>create</i>
“entrust” verbs	<i>leave</i>
“ferret” verbs	<i>seek</i>
“fit” verbs	<i>take, carry, use, contain</i>
“get” verbs	<i>get, keep, choose, reach, buy, rent, leave</i>
“give” verbs	<i>rent, sell</i>
“hug” verbs	<i>hit, meet, help, support, contain</i>
“keep” verbs	<i>keep, leave</i>
“learn” verbs	<i>learn, read, study</i>
“marvel” verbs	<i>bother</i>
“meander” verbs	<i>run</i>
“meet” verbs	<i>meet</i>
“pain” verbs	<i>bother</i>
“pedal” verbs	<i>drive</i>
“perform” verbs	<i>take</i>
“prepare” verbs	<i>run</i>
“price” verbs	<i>value</i>
“quote” verbs	<i>ask</i>
“run” verbs	<i>run</i>
“see” verbs	<i>see, watch</i>
“sight” verbs	<i>discover</i>

“steal” verbs	<i>take</i>
“swarm” verbs	<i>run</i>
“touch” verbs	<i>touch, stroke</i>

The most striking aspect here is the instability of some of the verbs in relation to the categories in which they are classified. Indeed, the tables do not provide any indication as to the context in which the verbs appear, and therefore, polysemic verbs are likely to give rise to different interpretations. But even with verbs whose meaning is less ambiguous, things are not so obvious. Thus, in examples (5) and (6), the verb *leave* functions as an “abandon” verb as it expresses social relationship between two people in (5),

(5) ‘Did you mean to **leave** him?’ ‘He **left** me first.’ (*OANC*, Conversation)

whereas it functions as an “advance” verb, since it expresses a change of location in space for the referent of N1 in (6), because it is associated with the mention of a place. Therefore, it is necessary to provide an analysis allowing to take into account different categories of criteria (semantic, aspectual, enunciative):

(6) Yes, he did talk of strains in his marriage and suggested the he’d be “alone” after he **left** the White House. (*OANC*, Press papers)

Furthermore, the verbs listed in table 5 follow two main trends: either they tend to express contact (in a broad sense: *know, see, realize, study, love, choose, reach, touch, meet*) between the entities referred to by the subject and the object, or they express absence of contact (*ignore, forget, lose, leave, hate*) between these entities. Such contact can be physical (between two people for example) or geographical, as illustrated in example (7):

(7) (...) it’s [Robinsville’s] at the tip of North Carolina and Tennessee, it’s in North Carolina but it **touches** Tennessee. (*OANC*, Conversation)

In (7), the relation between the referents of *Robinsville* and *Tennessee* corresponds to such closeness that *Robinsville* is considered as being almost in *Tennessee*, since it is on its border.

In association with a cognitive verb, cognitive contact is expressed, i.e. the idea that an element is or becomes part of the representations of a human being. This is expressed in the particularly interesting example (8) below:

(8) It’s also his standard demeanor, which features a permanent I-**know**-a-secret-that-I’m-not-telling-you grin.

In (8), *a secret* is part of the knowledge, that is to say, of the cognitive representations of the referent of *I*, but the referent of *you* is denied access to it. The particular relation between *I* and *a secret* is one of cognitive connection.

Verbs denoting perception also express a particular type of contact between the perceiver and the entity that is perceived. Through their sensations, the perceiver is aware of the existence and perhaps of some of the characteristics of the object:

(9) I've, you know, **seen** it [Fiddler on the roof] on television, but I've never read it.

(9) gives information as to the type of contact that exists between the referents of *I* and *it* [*Fiddler on the roof*]. Such contact is not cognitive (*read*) it is perceptive (*see*). The type of contact is correlated with the properties of *it* (the fact that *Fiddler on the Roof* can refer to a film, a play or a book). Contact may also have to do with social relations in examples such as (10):

(10) And **having first met** someone she had the ability to quickly make them feel they had been in the family, and not only in the family, but a loved member and close member of the family.

Indeed, example (10) indicates what happens when the referent of *she* happens to share their location with a person. Here, contact is social interactions.

In all the examples above, there is contact between the referents of the subject and the object, but as mentioned above, transitivity may also express the absence of contact between those entities. To be more accurate, contact can be reached, maintained, aimed at, or it can be broken or perceived as inadequate. The word contact is used here in its common meaning and is not associated with any theoretical background. In consequence, to account for the two trends we have just mentioned, we will resort to the concepts of *conjunction* (reached, maintained or aimed at contact) and *disjunction* (broken, inadequate contact). We use the concepts of conjunction and disjunction here as linguistic basic operations and we propose that N1 (subject) V N2 (object) can be analyzed thus: the construction expresses either conjunction or disjunction between the referents of N1 and N2.

- N1 ∨ N2 (conjunction)
- N1 ∧ N2 (disjunction)

3.3 Categories of verbs expressing disjunction

It is worth noting that some of the semantic categories proposed by Levin (1993) always express disjunction between N1 and N2. This occurs with the “abandon” verbs, which, unsurprisingly, refer to the separation of N2 from N1 (see example (5) above), but also of other verbs appearing in the corpus but not listed by Levin: *forget*, *ignore*, *lose*, or *refuse*.

- (11) But I was like, **forget** it, I'm going to eat lunch I was hungry. (*OANC*, Conversation)

What is expressed in (11) is the desire of the speaker for cognitive contact to stop between the referents of N2 (*it*), and N1 (the subject of the imperative, i.e. the addressee). In (12), contact ceases between the referents of N1 and N2, but this time, not accordingly to N1's will:

- (12) (...) But we only **lost** one CIA pilot there (...) (*OANC*, Conversation)

As for (13), this example expresses the fact that there has not been any contact between the referents of N1 and N2, because N1 (*she*) was not willing to.

- (13) (...) she **had refused** an interview. (*OANC*, Press papers)

In examples (11) to (13), disjunction between N1 and N2 is expressed. According to the meaning of the verb, disjunction can be cognitive (11), concrete/physical (12), or social (13).

3.4 Categories of verbs expressing conjunction

On the other hand, some categories will always be associated with the expression of conjunction. That is the case with "touch", "see" and "eat" verbs among others. Thus, in (14), there is necessarily physical contact between the referents of *Man* (N1) and *something* in (N2):

- (14) These [headlines] are all unnecessarily off, kind of like running "Man **Bites** Something" without mentioning that the bitee (sic!) was a dog. (*COCA*)

In (15), the referent of *thousands of people* (N1) reaches access to *the service* (N2) thanks to *giant television screens*. Therefore, the service becomes perceptible to the *people* :

- (15) (...) there was spontaneous applause in the church and on the expansive meadow of Hyde Park jammed with thousands of people who **were watching** the service on giant television screens. (*OANC*, Press Papers)

Examples such as (16) also express conjunction between N1 and N2 insofar as the content of *too many bottles* (N2) is ingested by *he* (N1):

- (16) It won't bother me because he **drinks** too many bottles right now. (*OANC*, Conversation)

Again, in all the examples examined in this section, the semantic nature of the relation expressed depends on criteria such as the meaning of the verb, but the verbs appearing in (14) to (16) can be construed as denoting conjunction (perception, ingestion of the referent of N2), as they all convey the idea that some connection exists between the referents of N1 and N2.

3.5 Categories expressing either conjunction or disjunction

Levin's categories are helpful as they provide a solid basis for a consistent semantic classification of the English verbs. However, some categories refer to meanings that are much more specific than others. Thus, the "abandon" verbs are not very numerous and tend to convey a homogenous meaning, whereas the "advOANCe" verbs include all the verbs that express intentional change of the location in space of an animate being, either to or from a particular point. The "admire" category includes verbs expressing either like or dislike, admitting thus a positive or a negative connotation.

Categories that convey a wider range of meanings often involve verbs that can express conjunction as well as verbs that can express disjunction between N1 and N2. Thus, it is conjunction that is expressed in (17), in which N2 becomes the location in space of N1:

(17) When he **reached** Washington Street, two things changed (...) (*COCA*)

In (17), the result of the event is that the referent of *he* (N1) is now located in *Washington* (N2). On the contrary, in (6), *the White House* (N2) ceases to be the location of *He* (N1).

It is also conjunction, this time in the domain of appreciation, that is expressed in (18).

(18) Russia doesn't **like** the idea of expansion, period. (*OANC*, Press Papers)

In example (18), the fact that *Russia* (N1) might enjoy appreciative contact with *the idea of expansion* (N2) is ruled out, as the appreciative conjunction denoted by *like* in the transitive construction falls under the scope of the negation expressed by *doesn't*. The possibility of a contact between N1 and N2 is considered, and then denied.

On the contrary, in example (19), *I* (N1) rejects *the smell of peanut butter* (N2) out of the domain of the things they enjoy.

(19) (...) she would eat peanut butter cups, and she knows that I **hate** the smell of peanut butter (...) (*OANC*, Conversation)

In consequence, it is appreciative disjunction that is expressed in example (19).

As can be seen, some semantic categories can be associated with either conjunction or disjunction.

3.6 Junction

A limited number of verbs can express junction, that is to say the fact that an already existing conjunction between N1 and N2 is maintained. Those are mostly and unsurprisingly verbs belonging to the “keep” category.

Thus, in example (20), N1 (*they*) was initially the owner of N2 (*that part of the building*), the situation could have changed because an event likely to trigger a modification of this state of affairs happened (*because they sold it to some woman in New Orleans*). Eventually though, the relation of conjunction between the owner (N1) and their property (N2) is not altered.

(20) And eventually they, they were, Livingston, in his older, in his old age, was relegated to the, to the kitchen in the sub-basement of the building because they sold it to, to some woman in New Orleans, but they’d **kept** that part of the building and he loved it, that was, for him that was like, that was the greatest. (*OANC*, Conversation)

It is therefore possible to find a common basic sense to all transitive utterances in English. Depending on the meaning of the verb and on the properties of N1 and N2, they express conjunction, disjunction or junction between N1 and N2. Most of the verbs mentioned in this section appear in non-prototypical utterances. However, the analysis we propose to develop can also account for prototypical examples. Conjunction, disjunction and junction are concepts that enable us to describe, as shall be seen in section 3 the functioning of all transitive utterances, either typical or non-typical. Therefore, those primitives allow for a classification of all transitive utterances. To provide such a classification, it is necessary to impart our analysis by accounting for the ambiguity of some of the verbs appearing in different semantic categories (Levin 1993).

4. Towards a new analysis of transitivity

4.1 Domains of reference

Such semantic variation occurs in (21) and (22), with the verb *integrate*. A similar phenomenon was noted about utterances (5) and (6) above, involving the verb *leave*:

- (21) What's important is how you **integrate** that experience, and how fully you work through your own neurotic material. (COCA)
- (22) I think that's the same kind of thing we heard when we **integrated** the armed forces years ago. (COCA)

In (21), *that experience* (N2) becomes part of the cognitive sphere represented by *you* (N1) and the relation. In (22), *we* (N1) becomes included in *the armed forces* (N2). Both examples express conjunction between N1 and N2, but with a difference: indeed, N1 and N2 are not equally prominent in (21) and (22). Thus, the semantic variation noticed between (21) and (22) is triggered by the fact that in (22), N2 refers to a well-known group of people with a particular function. In consequence, the reference of N2 is more stable than that of N1. An operation that expresses the existence of a connection or disconnection between N1 and N2 has to give information as to the hierarchical relation that exists between them. One of them is indeed likely to have a more prominent, stabilized reference than the other. This one will be considered as the locator in relation to which the other one is located. It can thus be construed as the domain of reference in relation to which conjunction or disjunction is established. The existence of such a hierarchy gives rise to the following effect: the relations of conjunction and disjunction can correspond to five different scenarios.

- N1 comes into conjunction with N2 and N1 is the domain of reference
- N1 comes into conjunction with N2 and N2 is the domain of reference
- N1 comes into disjunction with N2 and N1 is the domain of reference
- N1 comes into disjunction with N2 and N2 is the domain of reference
- N1 and N2 remain in junction

The concept of domain of reference, by implying the existence of a locator and a locatee may remind the reader of the TR and the LM as they are construed in cognitive linguistics (see section 1.3 *supra*). The reason why we chose not to use those terms is the following: according to Langacker (1991), in the N1 V N2 construction, N1 is always the TR and N2 the LM. We think that those roles can also be distributed the other way round, as in (21), depending on parameters such as the meaning of the verb or the prominence of the referents of N1 and N2.

The existence of a particular domain of reference allows for the following classification of transitive utterances.

4.2 Conjunction (N1∨N2), N2 is the domain of reference

Figure 2 illustrates this particular scenario:

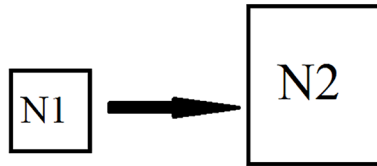


Fig. 2. Conjunction with N2 as domain of reference

N2 can be construed as the locator in particular when it refers to a location in space, as mentioned above (see examples (5) and (6) with *leave*), in examples such as (23) and (24):

- (23) When the first Mariner spacecraft **reached** Mars in the 1960s, reality was disheartening. (*COCA*)
- (24) So far the couple has burned up \$10,000 in legal fees over this, and the husband had to abandon his business here to **rejoin** his wife. (*OANC*, Press papers)

In examples (23) and (24), N1 comes into conjunction with the domain of reference N2: its location becomes that denoted either directly (*Mars*) or implicitly (with *his wife*) by N2. Examples (23) and (24) involve non-prototypical transitivity, but actually, prototypical transitivity can be assimilated with this scenario, since it implies the same basic operations, as will be shown below. More accurately, with prototypical transitivity, N2 undergoes a change of state or condition by being involved in the process denoted by the verb.

This process can be creation:

- (25) I got the bread machine and we always **make** a big loaf of bread. (*OANC*, Conversation)

In (25), the initial condition of N2 is that of non-existence and the verb describes a process allowing it to come to existence, which corresponds to its final condition. Prototypical transitivity here denotes passage from non-existence to existence for the referent of N2.

It is possible to have the contrary, i.e. passage from existence to non-existence, with verbs such as *destroy*, *annihilate*, *kill* :

- (26) The NYT brings word that nearly 12 years after Palestinian terrorists **killed** a disabled passenger (...) the Palestinian Liberation Organization has settled for an undisclosed sum a lawsuit brought by the Klinghoffer family. (*OANC*, Press Papers)

In other cases, prototypical transitivity is associated with a more minor alteration of the properties of N2:

- (27) I don't always appreciate what Disney has done with it, now, because they have **commercialized** it so, but, um, that's one of the few things, I, I never really was a cartoon kid? (*OANC*, Conversation)

In example (27) the referent of N2 becomes available to customers by undergoing the process denoted by *commercialize* and instigated by the referent of *they*.

- (28) Then he'd **dress** me, and, uh, he'd set the injection on me (...) (*OANC*, Conversation)

In example (28), the referent of *me* undergoes a process through which they are first *not (completely) dressed*, then, they become *(completely) dressed*.

Some verbs denote a change of location in space for N2 :

- (29) (...) Palestinian terrorists killed a disabled passenger, Leon Klinghoffer, by **pushing** the wheelchair bound man off the hijacked cruise ship (...) (*COCA*)

In example (29), the initial location of the referent of *the wheelchair bound man* was on the *hijacked cruise ship*, his final location is *off the hijacked cruise ship*.

So, depending on the meaning of the verb and on the references of N1 and N2, the alteration of the properties of N2 can be more or less important. Anyway, this alteration always occurs under the impulse of N1, which could be glossed thus : *N1 initiates an event whose effect is to make N2 shift from an initial state to a final state*.

Some contact occurs between N1 and N2, which means that a phenomenon of conjunction is at work. This conjunction has the peculiarity of being causative in the sense in which Langacker (1991) defines causation in the billiard-ball metaphor. So, first, N1 comes into conjunction with N2 (N1 \vee N2), and as a consequence of this contact, the properties of N2 are altered (N2 \Rightarrow N2'). The only difference between prototypical transitivity and non-prototypical transitivity as illustrated in (23) and (24) is the fact that an additional operation is added, as shown in figure 3:

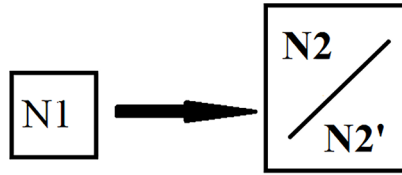


Fig. 3. Prototypical transitivity

The reader may have noticed the fact that this representation, by construing N2 as the domain of reference, makes our analysis quite similar to the description of transitivity by Langacker (1990, 1991). Indeed, we think that Langacker's description is accurate for prototypical transitivity, but that it does not allow for consideration of the sentences in which the domain of reference, i.e. the more prominent element, is N1.

The only difference between (23) and (24) on the one hand, and (25) to (29) on the other hand is the fact that in the latter group N2 undergoes a change of state as a consequence of N1's coming into conjunction with it. It is worth noting that in all the examples of this sub-section, the subject is not always volitional but it is always instigating, to use Naess's terminology.

4.3 Conjunction ($N1 \vee N2$); N1 is the domain of reference

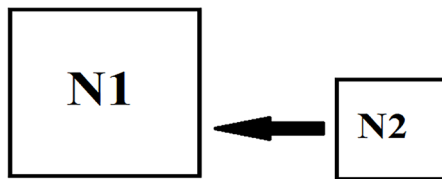


Fig. 4. Conjunction with N1 as domain of reference

As has been said earlier, the domain of reference corresponds to the term that is more prominent in the examples we investigate. Here, N1 refers to the cognitive, physical, perceptive sphere N2 becomes part of.

This second scenario corresponds to what can be observed with a large number of verbs denoting perception, with which N2 becomes part of the representations of the human being referred to by N1:

- (30) (...) she **saw** the names of her paternal grandparents in an inscribed list of Holocaust victims. (*OANC*, Press papers)

It can also be observed with verbs of cognition, when N2 becomes part of the knowledge, experience or awareness of N1 :

- (31) It's very lonely here and people don't really **understand** that. (*COCA*)
 (32) And **believe** it or not that was in the 40's, 50's. (*OANC*, Conversation)

The same pattern is at work with verbs denoting possession such as *have*, *own*, etc.

- (33) Slim, diffident, Princeton, he is an engineer who **owns** several copper mines near Santa Fe, New Mexico. (*COCA*)
 (34) The 52 camps that agreed to participate in the study **had** a total of 1076 residents. (*COCA*)

Both in (33) and (34), N2 belongs to the domain represented by N2.

Those verbs express (reached or aimed at) conjunction of N1 with N2, with N2 coming into contact with N1.

4.4 Disjunction (N1 \wedge N2); N1 is the domain of reference

On the contrary, disjunction expresses the absence of connection between N1 and N2. Such absence or lack of contact may be construed either as the rejection or as the upholding of N2 out of the domain of reference represented by N1:

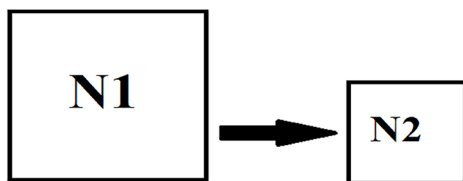


Fig. 5. Disjunction with N1 as domain of reference

With cognitive verbs, this scenario occurs with verbs such as *forget*:

- (35) They say they drink to **forget** their troubles and then that's all they talk about. (*OANC*, Conversation)

In example (31), *their troubles* cease to be part of the cognitive sphere of the referent of *they*.

In the domain of social relations, this scenario occurs with the verb *ignore*:

- (36) (...) Poe **ignored** me for five minutes. I waited patiently, saying nothing.
(COCA)

In example (36), *Poe*, by refusing to acknowledge the presence or the existence of the referent of *me*, rejects this person out of their domain of representations.

In a more concrete sphere, it can be encountered with *lose*:

- (37) (...) her parents weren't one of these that had money in the bank that they actually **lost** anything anyway. (OANC, Conversation)

In (37), what is implied is that N2 could have been disconnected from the sphere represented by *they*, but this did not happen (*her parent weren't one of these that had money*).

Those verbs all express relations of (aimed at or actual) disjunction of N1 with N2.

4.5 Disjunction ($N1 \wedge N2$); N2 is the domain of reference.

In this scenario, N2 is the locator, the domain of reference out of which N1 is rejected or maintained. This can be observed with *leave* in (38):

- (38) (...) and so they just **left** town (...) (OANC, Conversation)

In (38), the event described corresponds to a change of location for N1 (*they*), which ceases to be part of the domain represented by N2 (*town*), which can be represented as follows:

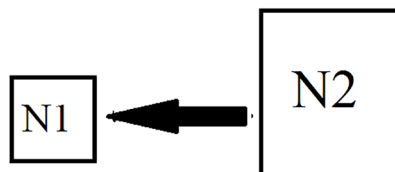


Fig. 6. Disjunction with N2 as domain of reference

In the domain on social relations, this can be observed with verbs such as *abandon*:

- (39) (...) and the husband had to **abandon** his business here to rejoin his wife.
(OANC, Press Papers)

In (39), the conjunction that once occurred between N1 *the husband* and N2 *his business* does not exist anymore. In utterances (38) and (39), N1 is located in a relation of (spatial or social) disjunction with the domain of reference N2.

4.6 Junction between N1 and N2

When transitivity expresses junction between N1 and N2, it seems to be compatible with only one possible domain of reference: only N1 can be construed as the locator, which means that N2 is maintained inside the sphere represented by N1:

(40) We sold that on speculation, and **kept** the money. (*COCA*)

In (40), N1 (*they*) was the owner of N2 (*the money*), the situation could have changed, they could have spent the money, but they haven't. This can be represented as follows:

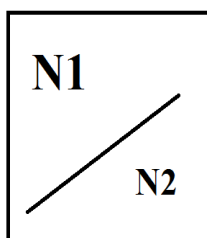


Fig. 7. Junction

The verbs appearing in a transitive relation of junction are not very numerous in our corpus and tend to express the ownership or sameness of location maintained.

4.7 Synthesis and conclusion

The analysis presented here involves a limited number of concepts. It relies mainly on the opposition between conjunction and disjunction of N1 and N2:

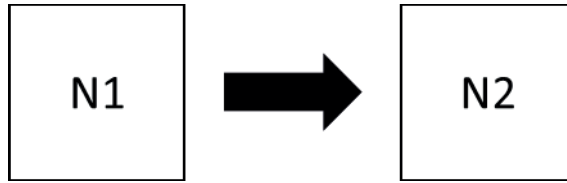


Fig. 8. Conjunction



Fig. 9. Disjunction

Combined with another variable, the domain of reference, the theoretical model gives rise to five scenarios, recapped in table 6 below:

Table 6. Synthesis: the five scenarios

Domain of Reference	Conjunction	Disjunction	Junction (Conjunction maintained)
N1	(...) people don't really understand that (...) he saved up his money they found this house	(...) Poe ignored me for five minutes. I'll just skip that. Granny hated that	(...) they'd kept that part of the building (...) Fannie Mae ['s agency] has always preserved its lucrative privileges [The magazine] Gear (...) retains certain elements of the old men's mag ethos (...)
N2	(...) he reached Washington Street (...) (...) we always make a big loaf of bread (...) she used to visit her sister	(...) they just left town (...) we finished the school To abandon it [the program] would leave Russian cosmonauts jobless	∅

By concentrating all the different senses that can be expressed through transitivity into five scenarios, our approach provides an economical and consistent classification of the great variety of meanings that may be encountered in transitive

utterances: it does not discard the prototype theory but includes prototypical transitivity in a wider system and resorts to a limited number of criteria. As a consequence, prototypical utterances may easily be compared and contrasted with less prototypical transitive utterances.

We have worked on two sub-corpora: research on a larger corpus could provide interesting statistics as to the distribution of those scenarios in use.

Also, we have noted that some verbs inherently convey conjunction or disjunction of N2, especially with a plural noun phrase but also with collective nouns:

(41) But Sundays are the perfect time to gather the family together (...) (COCA)

(42) (...) the Iranians (...) dispersed the hostages outside Teheran. (COCA)

In (41) and (42), the conjunction of N1 and N2 results in the conjunction or disjunction of a N2. It is due to the semantics of the verb and the (internal) plural of N2. In (41), the members of the family, initially scattered, come together and therefore come into conjunction within each other. In (42), the hostages are initially gathered (conjunction) and become separated (disjunction) as a result of the action of the subject. However, further reflexion on examples such as (41) and (42) may lead to comparison with some resultative construction, especially complex transitive ones. This shall be the topic of another study.

Notes

- 1 This approach is developed and illustrated for French in Legallois 2022.
- 2 <https://anc.org/>
- 3 The classification in Table 5 is based upon Levin's semantic categories (1993).

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The Dynamics of Postnominal Adjectives in Middle English*

Abstract: Middle English was a period of transition between the free word order of Old English, with functional variation of adjective form and position with respect to the head noun, and the fixed prenominal placement of single attributive adjectives in Modern English. Aided by the *PPCME2* of the Penn-Helsinki corpora, this corpus-driven study explores the range of adjectives attested frequently after the head noun, as well as their relative attraction to the position and, sampling the ME period with emphasis on variables in the corpus metadata, compares the frequencies of postnominally placed adjectives in various genres, capturing their declining overall frequency over time. These general tendencies are commented against the background of postpositives in PDE.

Keywords: adjective position, Penn-Helsinki corpora, Middle English, postnominal adjectives, genre

1. Introduction

In Middle English, noun postmodification by adjectives “was not infrequent” (Fischer 1992, 215), even though attributive adjectives were mainly prenominal (Raumolin-Brunberg 1994, 161). It has also been shown that the ratio of pre- and postnominal uses correlates with register (genre) characteristics, and that

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postnominal adjectives are attested in ‘learned and technical’ text-types most frequently (for detailed accounts e.g. Moskowich 2009; Sylwanowicz 2016; Bator and Sylwanowicz 2020).

Taking into account the situation in PDE, where the range of adjectives appearing postnominally is restricted to a definable set of recurring items (Šaldová 2021), this study aims to identify adjectives frequently used in the postnominal position in ME texts (Section 4), determining their relative degrees of attraction to the post-head position (Section 5). As most previous studies focused on specific genres only, we would like to take a broader view of single adjectival postmodifiers in the Middle English period as recorded in the *Penn-Helsinki Parsed Corpus of Middle English* (PPCME2 henceforth), with metadata information on its fifteen textual categories covering the period from 1150 to 1500. As the corpus metadata also provide information about the region of origin and original/translation, we hope to determine whether any of these variables can predict the frequency of the postnominally placed adjectives in ME texts (Sections 6 and 7 respectively).

2. Preliminaries

In Present Day English, the position of adjectives relative to other clause and phrase elements is strongly fixed, and even the order of adjectives modifying the same head within the NP is not arbitrary (e.g. Matthews 2014). The general rule is for a single adjective to precede the noun it modifies (*a happy child*); indefinite pronouns, on the contrary, are followed by the restrictor adjective (*something new*). Quirk et al. (1985, 418-419) observe that single adjectives placed post-nominally represent a minor type of postmodification in the sense that, unless an adjective phrase is heavy (i.e. modified or complemented), its appearance after the head noun is limited to but a handful of contexts, including institutionalized terminological expressions such as *heir apparent*, set coordinated phrases (*truth pure and simple*, *creatures great and small*), *a*-adjectives (*house ablaze*), and *-able/-ible* adjectives accompanied by the superlative, by *only*, or by the general ordinals.

Huddleston and Pullum (2002, 445-446) describe postnominal adjectives with the aid of four broad groups, excluding cases where the position of an adjective is motivated syntactically by the principle of end-weight, i.e. cases where the adjective is in coordination, is modified or complemented (*the instruments necessary for the operation*). A corpus-based survey using the written component of *The British National Corpus* (Šaldová 2021) indicates that the two groups of adjectives limited to the post-head use (*a child asleep*, *bars galore*) and Anglo-French legal terminological expressions originating in the Middle English period (*heir apparent*, *princess royal*) are quite infrequent (1.7% and 2.8% of postnominal adjective uses, respectively). The only two groups with substantial representation (95.5%) are adjectives with a lexicalized change in meaning in the post-head position (*the*

people present, the students concerned) and adjectives formed with *-able/-ible*, *-ed* and *-ing* affixes (*the only day suitable, stars visible*), amounting to 46.7% and 48.8% of all postnominal occurrences, respectively (Šaldová 2021). In other words, only instances ending in *-ble* and the de-participial forms are productive in the post-head position, while other adjective types appear only in contrastive antonymic patterns (Šaldová 2021).

This nowadays infrequent ordering is often believed to be largely the result of French influence dating back to Middle English, when adjectives which were postnominal in Old French were adopted along with their position relative to the modified noun (Fischer 1992, 214). However, this view is not shared by all scholars, as Lightfoot argues that French influence is not to blame, since “in contemporary French adjectives normally occurred prenominally” (Lightfoot 1979, 206). Moreover, adjectival postposition is well-attested in Old English (cf. Grabski 2020) and pertains to native (Germanic) adjectives as well as those originating from Old French and Latin. This ordering was, presumably, facilitated by free word order and the inflectional nature of the language, involving two forms of adjectives agreeing with nouns in number, case, and gender (Matthews 2014, 50).

Adjectival postposition in Old English was not only widespread, but also functional. Fischer’s numerous studies on adjectival postposition in Old English include references to iconically motivated adjectival position, which can be observed especially in Old English texts, and can be traced to Middle English period, albeit to a lesser degree. As a rule, the post-head adjective in Old English had strong declension and was most often used to provide new information. Adjectives conveying known information would have a weak ending and appear prenominally (Fischer 2011). Furthermore, postnominal position was a common strategy for adding emphasis (new or extra information), reflecting the ‘linear arrangement’ as discussed in Bolinger (1952). (For PDE, cf. Bolinger 1952; 1967; or ‘focus semantic value’ in Blöhdorn (2009, 161-162)).

The levelling of endings (the overall decline of the inflectional system) and the simultaneous stabilization of word order led to the loss of the weak/strong distinction, which perhaps by itself would have made the distinction between pre- and post-modifying adjectives all the more valuable. However, the newly emerging determiner system provided new ways of expressing the distinction between the theme and rheme, rendering one of the principal functions of adjectival position useless. Fischer (2004) additionally notes that the possible confusion of adjectives with adverbs modifying the verb may have been another catalyst in the decline of postnominal adjectives.

Middle English was a transitional period between the free word order of Old English and the fixed positions required in Modern English (Fischer, De Smet and van der Wurff 2017, 90). The generally accepted view is that by the Middle English period, with the changes on both morphological and syntactic levels, word order became more fixed and the number of adjectives available to postposition gradually declined, anticipating the PDE status of postpositives as a ‘minor’ type of postmodification.

As “we can never be sure when uses are or become syntactically restricted” (Matthews 2014, 53), we are interested in identifying the range of the postnominally attested adjective types in the transitional Middle English period. Previous studies have shown that postmodification was possible, but premodification prevailed (e.g. constituting 92.3% of adjectival modifiers in prose texts (Raumolin-Brunberg 1994, 161)).

Several studies examined the positions of adjectives in specific registers (romances studied in Lampropoulou (2020); often with focus on scientific texts, e.g. in Moskowich (2009), or medical texts in Sylwanowicz (2016)), indicating that the post-head placement of an adjective is a complex issue correlating with a number of factors, often of extralinguistic nature (etymology, learned vs. non-learned text-types, and the technicality of phrases (Moskowich 2009)) and, as such, can be expected to appear in different genres with varying frequencies.

3. Postnominal adjectives in Middle English: the *PPCME2* dataset

To survey the range of single post-head adjective types, their frequencies and distribution across text-types, the *Penn-Helsinki PPCME2* is used. This 1.2 million-word corpus covering the Middle English period (1150–1500) features samples from 57 texts with a detailed genre classification. The corpus is meticulously annotated by hand, which gives reason to expect consistent tagging with low error rates in POS tags. In this trade-off between the size of a corpus and the accuracy of its tagging, we chose to favour the latter, as the possibility to rely on POS tags is especially useful in the initial phase of data collection, i.e. when retrieving all instances of single adjectives in the post-nominal position. Such a dataset then allows us to focus on a selected adjectives in postposition, especially on those with the highest frequency of occurrence.

Table 1. Size of the *PPCME2*, split into time periods

Period	Composition date	Manuscript date	Word count	Comment	Final word count
MX1	unknown	1150–1250	62,596		62,596
M1	1150–1250	1150–1250	195,494		195,494
M2	1250–1350	1250–1350	93,999		111,012
M23	1250–1350	1350–1420	17,013	joined w/ M2	
M24	1250–1350	1420–1500	35,591	removed	
M3	1350–1420	1350–1420	385,994		485,988
M34	1350–1420	1420–1500	99,994	joined w/ M3	
MX4	unknown	1420–1500	5,168	removed	
M4	1420–1500	1420–1500	260,116		260,116
Total			1,155,965		1,115,206

Table 1 shows the representation by word count of the respective time periods as they had been defined by the creators of the *PPCME2*. It is clear that the corpus is not balanced in terms of size across periods. For this reason, a decision was made to merge the underrepresented periods M23 and M34 with M2 and M3, respectively. The effect of varying size of the respective time periods in our corpus is further reduced once all results are normalized to instances per million words (ppm) or, due to the relatively low frequencies involved, instances per 10,000 words. Further, the time periods M24 and MX4 of the *PPCME2* corpus have been removed due to the disparity between their composition and manuscript dates, which would have, inevitably, diminished the significance of the results recorded in these periods.

In the retrieval of sequences of a N(oun) + an Adj(ective), morphological rather than syntactic tags were used to search the corpus in order to make the results more readily comparable to the findings of Šaldová (2021), where a syntactically tagged corpus had not been available. The following CQL query was used: [tag="(N.*)"(.*\+N.)"] [tag="(A.*\+VA.)(ADJ)"]. The query was formulated to allow for the inclusion of passive and present participles (verbal or adjectival). These items are not numerous, however, and include mainly instances of *aforesaid* and *everlasting*, regarded as adjectives in PDE.

A total of 2,983 concordances were retrieved, which contained a number of false positives as well as instances of adjectival postposition relatable to more general tendencies in the language (most notably complex/heavy adjective phrases and supplementive clauses). Manual filtering narrowed the sample down by some 50%, resulting in the final sample of 1,456 N+Adj occurrences. The items which had to be discarded may be represented roughly by the categories listed below as (1a)–(1i):

- (1a) object complements (*to couer His heuede and leue His body bare*)
- (1b) predicative use as a subject complement (*then was Anne **aferde** of hys angeles worde*)
- (1c) genitive (*þat was Crystys **holy** apostull*)
- (1d) dative (*ðat tu art gode **unhersum** [disobedient]*)
- (1e) supplementive absolute clauses (*hys lyppys wexyn blew, hys face **pale**, hys een **zollow***); these instances may also be analyzed as an ellipsis of the verb *wexyn* from the preceding clause
- (1f) end weight (adjective is the head of a complex postmodifying phrase) (*hur-tyng of hooly thynges, or of thynges **sacred** to Crist, blod þat ran out of þe fyue wondys **principale** of hys body*)
- (1g) adverbs (*on a day **long** befor þis tyme*)
- (1h) following a word incorrectly identified as noun (*þingus þat weren not **profiztable***)
- (1i) adjective modifying another noun (*on the morowe **certayne** men kepte the gatys of the brygge*)

One anticipated difficulty was that of duplicate results (recurring noun-adjective collocations among the concordances), which is most often the case of quotations from the Bible appearing in several different sermons or other religious texts. As such instances cannot be filtered out easily due to their left- and righthand contexts often not being identical, they were removed when sorting the results, and so, consequently, all the 1,456 concordances in the final sample originate from phrases or sentences which are unique within the given data set and do not represent duplicate occurrences.

4. Adjective types

The final sample consists of a large number of individual adjective lexemes occurring only once or twice in the post-head position (e.g. *shameful, shameless, singular, spontaneous, stable, steadfast, stern, subtle, sufficient, sundry, thick, timely, unworthy*). On the other hand, certain high frequency adjectives are represented as salient also in the post-head position. Table 2 lists the 26 most frequently recurring post-nominal single adjectives along with their absolute frequencies in the *PPCME2* (cut-off at 10 instances). They make up 6% of a total of 433 attested adjective types (following our manual lemmatization of the results), constituting 38% of the concordances in our sample. (In PDE, ten most represented lexemes account for 80% of postnominal occurrences (Šaldová 2021, 156)).

Table 2. The 26 most frequently occurring post-head adjectives in *PPCME2* (n = 558)

lemma	count						
<i>almighty</i>	120	<i>spiritual</i>	21	<i>fleshly</i>	13	<i>leof (beloved)</i>	11
<i>great</i>	46	<i>holy</i>	20	<i>abovesaid</i>	12	<i>perdurable</i>	11
<i>good</i>	42	<i>aforesaid</i>	19	<i>bodily</i>	12	<i>strong</i>	11
<i>full</i>	25	<i>alone</i>	17	<i>clean</i>	12	<i>fast</i>	10
<i>everlasting</i>	23	<i>deadly</i>	17	<i>dear</i>	11	<i>whole</i>	10
<i>ghostly</i>	22	<i>long</i>	16	<i>equal</i>	11		
<i>dead</i>	21	<i>right</i>	14	<i>free</i>	11		

As Table 2 indicates, the adjective types are varied both from the morphematic and semantic points of view. The most represented forms are *-ly* adjectives (99 instances). Interestingly, there is no pattern as yet, pointing to the dominance of the *-ble* forms in the post-head position, as we know it from PDE (28 instances ending in *-ble* were attested in the dataset). Neither is there a pronounced overall tendency for Romance adjectives to dominate (cf. Sylwanowicz 2016, 58).

These results indicate that in the ME period, unlike in PDE, the postnominal position is not reserved for a particular group of adjectives, namely adjectives with a specific morphematic structure or a lexicalized difference in meaning, but rather available for adjectives of various types (albeit with varying degrees of attraction of the individual lexemes to the grammatical pattern, cf. Section 5).

5. Attraction of specific adjectives to the postnominal position

To assess the interaction between specific adjectives and the postnominal position, a collocation association analysis (following Stefanowitsch and Gries 2003) was applied to the most represented postnominal adjectives in the corpus (Table 3 below). A collocational analysis using the Fisher exact test (Stefanowitsch and Gries 2003, 218) was carried out for the 10 most frequent postnominal adjectives to determine the strength of attraction that a given adjective lexeme had with the postnominal position.

In order to calculate the test, ADJ+N queries were constructed to include all the spelling variants of the ten most represented adjectives obtained in Section 4, and additional efforts were made to include any other spelling variants that may not have been present in the results, with the help of the MED (*Middle English Dictionary*). This resulted in regular expressions such as “e?sp[iy]r[iy]tu[ea]e?ll?e?” for the lemma *spiritual*. Finally, the results were manually sorted in order to ensure that all of the adjectives returned by the query were of the same lemma. The full queries are listed in the Appendix.

As Table 3 shows, the collocation association strengths for the postnominal position of the most represented adjectives range from the (relatively) weakest at $p < 3.36E-04$ for *holy* to the strongest at $p < 3.01E-231$ for *almighty* (i.e. the lower the number, the stronger the attraction of the given lexeme to the position). Disregarding the outlier *almighty*, the attraction to the postnominal position of *everlasting*, *spiritual*, *alone* or *aforesaid* is more pronounced, in relative collocation strength, than is the case with *holy*, *full*, *dead* and *good*. The low attraction of *holy* to the post-head position, when contrasted with *almighty* from the same lexical field, suggests that factors other than semantics itself are involved (e.g. idiomaticity, phonological and morphological factors).

Table 3. The collocation strength of the 10 most frequent postnominal adjectives

lemma	[N + lemma]	lemma in other constructions	Fisher test p<
<i>almighty</i>	120	83	3.01E-231
<i>everlasting</i>	23	25	2.74E-42
<i>spiritual</i>	21	38	2.69E-35
<i>alone</i>	17	84	1.31E-22
<i>aforesaid</i>	19	159	3.48E-21
<i>great</i>	46	2416	6.55E-17
<i>good</i>	42	3969	6.64E-08
<i>dead</i>	15	1035	4.01E-05
<i>full</i>	17	1296	4.29E-05
<i>holy</i>	20	1995	3.36E-04

Also worth noting is the fact that *alone* can still appear in the prenominal position at this stage (as it rarely does in PDE), attested by the single occurrence in (2a). Examples (2a) through (2h) illustrate the pre- and post-head uses of the frequent adjectives we tested:

- (2a) oon **aloone** prophete of God (CMPURVEY,I,30.1499)
 (2b) Salomon seith that he ne foond nevere womman **good** (CMCTMELI,220.C2.137)
 (2c) hony of **euere-lastyngge** swetnesse (CMAELR3,45.592)
 (2d) gloryfyed by your passyng in lyfe **everlastyngge** (CMINNOCE,3.34)
 (2e) be fulfeld more profitably of **spiritual** delices (CMAELR3,37.332)
 (2f) This blisful regne may men purchase by povert **espiritueel** (CMCTPARS,327.C2.1674)
 (2g) hij laiden þe **dede** bodis of þi seruauntz mete to þe foules of heuen (CMEARLPS,98.4279)
 (2h) So sir Pedyvere departed with the lady **dede** and the hede togydir (CMMALORY,208.3458)

The strongest attraction to the postnominal position of *almighty* correlates with the fact that this postnominal adjective collocates with only four head-nouns (Table 4), thus displaying the highest degree of fixedness to a head noun lexeme among the adjectives surveyed. The 43 instances of *almighty God* vs. 120 of *God almighty* in *PPCME2* can be compared to the proportion in PDE, with *almighty God* (77 hits) vs. *God Almighty* (60 hits) in the *British National Corpus*, as well as with no clear preference for either position in Google N-gram viewer. In addition,

the variety of collocating nouns is higher for *almighty* as a premodifier, where it collocates with *God* (43), *power* (3), *weldende* (1), *nule* (1), *fader* (1), [*Goddys*] *sof* (1), *jesu* (1), and *gastes* (1).

As the four adjectives in Table 4 selected for illustration show, the degree of combinability with a range of head nouns is of scalar character, ranging from the combinations on the verge of becoming fossilized (restricted to few head nouns from one lexical domain, i.e. *almighty*), to those which appear, for semantic reasons, to have no clear selectional preferences for their nominal collocates (*aforsaid*).

Table 4. Noun collocates of postnominal adjectives *aforsaid*, *almighty*, *everlasting*, and *Christian* in the sample (superscript values = number of occurrences where $n > 1$)

Adjective	token/type	noun
<i>aforsaid</i>	19 / 15	maner ³ forme ² Marchale ² assye Catusby causes cure frerys Kateryn Orlyauce remnaunt resouns swellynge wirchyngis women
<i>almighty</i>	120 / 4	God ¹¹⁰ Father ⁶ Lord ³ Christ
<i>everlasting</i>	23 / 10	lyf ¹³ dyape ² zates zeres dampnacioun erpe glorie ioie liuyer waie
<i>Christian</i>	5 / 5	man grace nonnes selue court

Aforsaid, with its numerous spelling variants and wide range of collocates, can be grouped together with its synonyms *aboueseid* and *be-forn-wretyn*, below as (3a) and (3b), constituting 141 instances, i.e. 9% of the entire sample. Such de-participial compound adjectives do not correlate with the lexical domain of the genre, as they function at the referential and text-organizing level (cohesion), specifying the referent of the NP (Carter and McCarthy 2006, 345). Although previous studies found classifying adjectives to prevail in the post-head position (Sylwanowicz 2016, 64), frequent postnominal phoric items such as *aforsaid* deserve further attention, both from the point of view of their functions as well as position within the NP.

(3a) to the whiche paiement truly to be made in the fourme **aboueseid**
(CMREYNES,320.671)

(3b) hys bretheryn in þe worshepful town **be-forn-wretyn** (CMKEMPE,58.1317)

6. Effects of genre and period

Frequencies of adjectives in specific functions (attributive, predicative) vary in different registers (Biber et al. 2021, 504). Sylwanowicz demonstrates that “the frequency of attributive adjectives and their position in nominal phrases is largely dependent on the level of the source text” (2016, 61), with postposed adjectives dominating in

recipes from ‘learned’ writings. The overall relative normalized frequencies in *Middle English Medical Texts* examined in Sylwanowicz (2016, 60-61) show that not only do overall frequencies of adjectives differ in ‘Remedy books’ (24.7 per 10,000 words) and ‘Specialized texts’ (55), but so do the frequencies of post-head adjectives, with 9.8 per 10,000 words in ‘Remedy books and 27.1 in ‘Specialized books’.

The texts in the *PPCME2* are divided into fifteen separate categories according to the Penn-Helsinki classification of genre as follows: ‘Bible’, ‘Biography, Life of Saint’, ‘Fiction’, ‘Handbook Astronomy’, ‘Handbook Medicine’, ‘Handbook Other’, ‘History’, ‘Homily’, ‘Philosophy’, ‘Philosophy, Fiction’, ‘Religious Treatise’, ‘Romance’, ‘Rule’ (prose documents featuring guidelines such as rituals for the ordination of nuns), ‘Sermon’, ‘Travelogue’.

The results of our analysis were recorded for each genre separately. However, for the sake of clearer visualization (Figure 1), those which might be considered sub-genres were merged into an overarching category, resulting in seven groups. In Figure 1, ‘Romance’ and ‘Fiction’ are represented by the category ‘Fiction’, while ‘Bible,’ ‘Homily,’ ‘Sermon,’ ‘Religious treatise’ and ‘Biography, Life of Saint’ are joined under the comprehensive category ‘Religious.’ The genre ‘Handbook’ contains non-fiction prose, most notably ‘Medical’ and ‘Astronomical’ texts.

To test the influence of genre and translation, a linear mixed model analysis (Bates et al. 2014) was conducted. In addition to genre and translation, we also tested the fixed effects of period and region. As random effects, the text source was included (Barr et al. 2013). The frequencies of adjectives in postnominal position were z-scored and extreme outliers with a z-score > 3 were excluded from the analysis (120 counts of *almighty*), resulting in a sample size of 1,336 observations, involving 432 lemmas and 55 text sources.

As an overall test of the influence of the fixed effects, a likelihood ratio test was conducted (Dobson and Barnett 2002; Forstmeier and Schielzeth 2011), and the full model was compared with a respective null model that lacked a specific fixed effects but was otherwise identical to the full model. The significance of individual fixed effects was tested by comparing the full model with a respective reduced model lacking the effect to be tested. Collinearity did not appear to be an issue, with maximum generalized VIF < 1.5 (Field 2005; Fox and Monette 1992). The models were implemented in R (R Studio Team 2020) using the function *lmer* of the package *lme4* (Bates et al. 2014). Collinearity diagnostics were obtained with the package *car*.

The results suggest that genre had significant effects on the frequency of adjectives in post-nominal position (estimate=-0.08, standard error= 0.09, $\chi^2=12.46$, $p=0.05$), while translation did not appear to have a significant effect ($p=0.5$). In addition, period was also shown to have a significant effect on the distribution of postnominal adjectives (estimate=0.047, standard error=0.05, $\chi^2=9.96$, $p=0.041$), while region did not ($p=0.17$).

Figure 1 shows the z-scores of post-head single adjectives, with the highest values in the texts of the ‘Travelogue’ and ‘Rule’ genre categories. It must be noted,

however, that the ‘Travelogue’ category contains only one document, *Mandeville’s Travels*, while being responsible for 73 (5%) of the 1,456 N+Adj pairs in the sample.

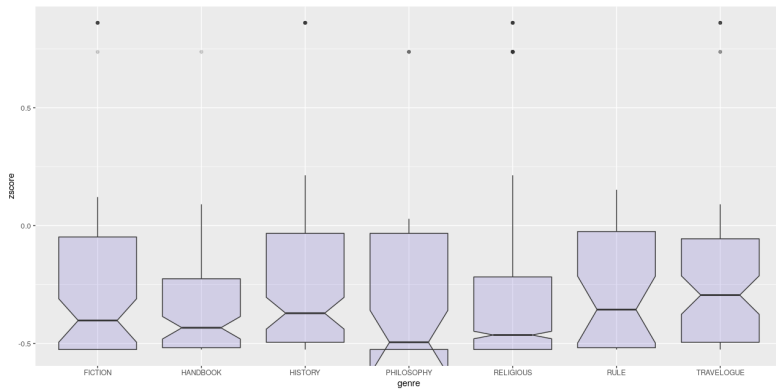


Fig. 1. The z-scores of N+ADJ for the fixed effect of genre (broader categories) in *PPCME2*

Table 5 provides a detailed break-down into all text-categories in the *PPCME2*, showing the total as well as relative frequencies of single postnominals.

Table 5. Absolute and relative frequencies of the N+ADJ construction in the *PPCME2* genres

Genre	N+ADJ	per 10,000 words
Handbook Astronomy	67	46.0
Biography, Life of Saint	64	20.1
Handbook Other	20	19.3
Handbook Medicine	8	11.7
Homily	238	13.8
Travelogue	72	13.2
Religious Treatise	533	13.5
Philosophy, Fiction	25	12.7
Philosophy	12	9.9
Fiction	9	9.3
Bible	50	6.4
Sermon	132	8.5
Romance	59	7.7
Rule	36	6.8
History	131	5.9
Total	1456	Average: 11.1

The genres display varying frequencies of bare postnominal adjectives, and, naturally, they differ in the adjectival lexemes represented. The various genres subsumed under the heading ‘Religious’ contain adjectives from the spiritual domain in high concentration. *Everlasting* in examples (4a) and (4b) is quite interesting, since no example of its post-head use is given in the OED (“*everlasting*”, adj1), although our data indicate that almost 40% of its occurrences appear after the head noun and, as Table 3 shows, it is attracted to the postnominal position. It also stands to reason that specialized scientific terms should be found exclusively in scientific texts, for example *cercle equinoxiall* and *lyne meridional* in the sub-genre of ‘Astronomy’ (examples 4c and 4d). The high concentration of adjectival postpositives in religious and scientific texts (‘Astronomy’ had the highest relative frequency of 46 occurrences per 10,000 words) can be related to extensive borrowing of terminology from French and Latin in these areas of interest. The reasons and effects are discussed in Moskowich (2009) and Sylwanowicz (2016) in detail.

(4a) to gloire & to blisse **purchwuninde** [everlasting] (CMANCRIW-2,II.271.420)

(4b) dampnacioun **euerlastand** (CMEARLPS,68.3001)

(4c) evermo thys cercle **equinoxiall** turnith justly from verrey est to verrey west (CMASTRO,666.C2.111)

(4d) set the degre of the sonne upon the lyne **meridional** (CMASTRO,673.C2.381)

(4e) þat is to seye god **glorious**, god **victorious** & god ouer all thinges (CMMANDEV,21.500)

The ‘Travelogue’ genre (example 4e) contains one text only, so the author’s individual preferences must be considered in addition to the effect of genre and topic, as postpositives can also serve as “indexicals of group membership” (Pahta 2004, 81; as quoted in Sylwanowicz 2016, 62). Such caution pertains to a number of texts with preferences for certain adjectives regardless of genre, notably *Gregory’s chronicle* and *The Parson’s Tale*. *Gregory’s chronicle* (example 5a) contains four out of five instances of *royal* in the sample. *The Parson’s Tale* (examples 5b and 5c) contains ten out of 11 instances of *perdurable*, as well as all 11 instances of *espritueel* (or eleven out of twenty-one instances if the variant *spiritual* is to be included).

(5a) castelle **ryalle**; custarde **ryalle**; vyant **ryalle**; servyse **ryallys**

(5b) dampnacioun **perdurable**; joye **perdurable**; lyf **perdurable** (7x); goodes **perdurables**

(5c) fader **espritueel** (2x); herte **espritueel**; lyf **espritueel** (2x); poverte **espritueel**; thyng **espritueel**; thynges **espritueel** (2x) remove space; goodes **spirituels**; weyes **spirituels**

7. Development over time

Plotting the normalized frequencies of single postnominal adjectives in the corpus over the Middle English period, Figure 2 confirms a steady decline. This is also confirmed by the mixed linear model analysis, which shows the time period to have significant effects on the frequency of adjectives in post-nominal position (estimate=0.047, standard error=0.05, $\chi^2=9.96$, $p=0.041$).

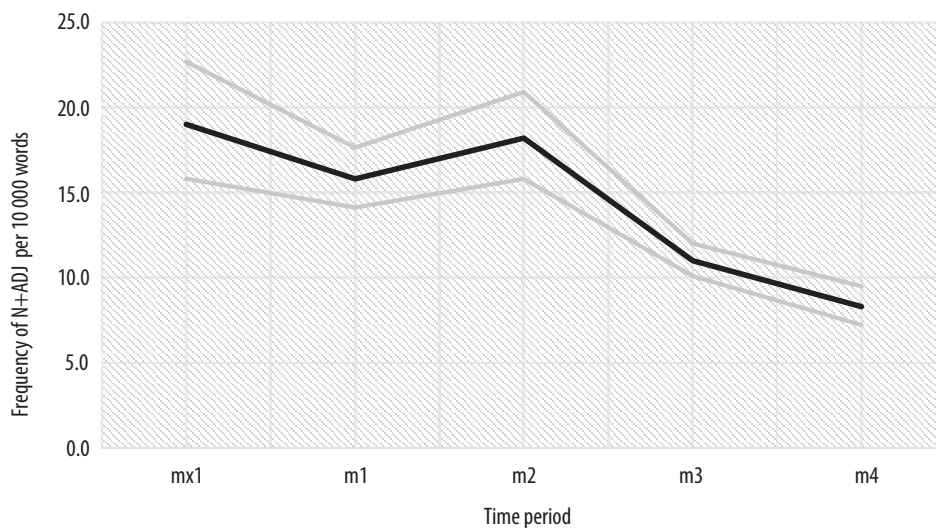


Fig. 2. Relative frequency (per 10,000 words) of the N+ bare ADJ construction by time period (1150-1500, cf. Table 1), with confidence intervals for $p \leq 0.05$

The nonconforming spike in M2 can be explained by looking at the documents representing this period in the corpus. M2 contains only four documents, three of which fall under the category of religious texts, notorious for their relatively frequent use of postnominal adjectives (Table 5). Although the frequencies for the individual periods have been normalized, in the case of too few texts per period the data can be especially sensitive to other variables, such as the effect of idiolect and genre. This issue is addressed with the aid of confidence intervals for $p \leq 0.05$.

The uneven (and often missing) representation of genres in the respective time periods does not allow us to plot the development for individual genres over time, although the correlations would be interesting to compare, as e.g. “there was no significant decline in postpositive adjectives, at least in ... medical register” (Sylwanowicz 2016, 61).

8. Concluding remarks

Following previous research on the position of adjectives in ME and PDE, especially the correlations between the occurrence of adjectival postposition and genre, we used the tagged *PPCME2* corpus for the semi-automated retrieval of single postnominal adjectives, with the metadata information on time period, genre, original/translation and region. A linear mixed model analysis indicated that genre and time period had significant effects on the frequency of postnominal adjectives in the sample.

The list of the postnominal adjectives retrieved from the corpus shows that postposition in ME is quite varied, and not limited to a group of complex adjectival forms with de-participial suffixes and *-ble* forms, as is the case in PDE. Despite observations in literature that “postposition (...) was more characteristic of Romance adjectives (especially after Latin or French nouns), whereas Germanic adjectives preceded the noun” (Sylwanowicz 2016, 58), the range of adjective lexemes attested in the postnominal position is broad, containing both simplex Germanic adjectives (*great, good, free, dear*) as well as complex adjectives (*spiritual, perdurable* or *bodily*). When comparing the relative collocation strength of the ten most represented postpositive adjectives in the corpus, however, stronger attraction to the postnominal position is found with frequently used complex forms such as *spiritual* or *everlasting*. Occurrences of *aforesaid*, a high frequency postmodifier with a phoric (textual) function, represent yet another specific type, being similar in function to the PDE postnominal *concerned, present* or *involved*, which lexicalized this anaphoric/deictic meaning in the postnominal position (in the sample such items are present, yet marginal, e.g. *þe act of his cessacion before þese lordis and opir men present*).

The *PPCME2* data attest clearly the overall trend in decreasing frequency of the postnominal bare adjectives over the ME period. Its pace and degree within the individual text categories could not, however, be determined due to the limitations in corpus composition. Mapping the decreasing frequency and an expected narrowing of range of adjective types attracted to the postnominal position in the subsequent centuries should complement this study in the future.

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Appendix

Queries used to search for spelling variants (cf. Table 3)

<i>everlasting</i>	[word="[æ]ll?e?-?m[ayɪ][hgcɜ]h?tt?[iy]?ɜ?g?e?n?"]
<i>great</i>	[word="gr[eæ]a?te?"]
<i>good</i>	[word="g[uo]o?de?"]
<i>aforesaid</i>	[word="a[fb]o[vr]e?s[æ][iy]?de?"]
<i>full</i>	[word="f[u]l?le?"]
<i>everlasting</i>	[word="e[uv]erlast[iya]n[dg]e?"]
<i>dead</i>	[word="dea?dd?e?"]
<i>spiritual</i>	[word="e?sp[iy]r[iy]tu[ea]e?ll?e?"]
<i>alone</i>	[word="all?[ao]o?nn?e?"]
<i>holy</i>	[word="[h]?[ao]i?ll?[yi]e?"]

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The Status of English Modals Prior to Their Recategorization as T and the Trigger for Their Recategorization

Abstract: This is an account of English modals that invokes their exceptional morpho-syntactic tense properties as original preterite-present verbs in order to explain their becoming T elements. Within the framework of minimalist theory, I argue that modal verbs in OE and ME (up to approx. 1470) have an exceptional syntactic status that consists in that they merge directly under v , whereas strong verbs merge as a stem-by-default prior to v , and weak verbs merge as a root with a vowel-by-default also prior to v . Modals necessarily differ from both strong verbs and weak verbs in their τ -licensing, whereas they share with the latter (with both strong verbs and weak verbs) φ -licensing. A specific Probe of T is in charge of the latter for all verbs in the language. Modals pass on to merge directly under T when v ceases to be a locus of *interpretable* τ -features. A symptom that v loses such a capacity is the loss of the Pret.1/Pret.2 ablaut distinction.

Keywords: OE modals; strong verbs/weak verbs/preterite-presents; τ -licensing; φ -licensing; inherent v -status; recategorization as T by Late ME

1. Introduction

The finite T(ense) head in Present Day English (PDE) is standardly argued in generative theory to be not only the locus of tense or τ -features like [+/-past], and of agreement or φ -features like person and/or number, as is typically postulated cross-linguistically, but also the place where (core or pure) modal auxiliaries¹ (1) are merged externally into the derivation.² This circumstance distinguishes English from the rest of (Indo-European) languages and is justified in (synchronic) PDE terms by modals being exclusively or inherently finite elements (that is by their lacking both the infinitive and the participle forms).³

(1) can could may might must shall should will would

The issue of why T is lexical in English (aside from it being the locus of formal features) is nevertheless to be considered primarily a historical or diachronic issue. In this sense, the generalized consensus in the literature is that modals are recategorized as T elements (or I(nflection) elements, in former frameworks) in the early sixteenth century, that is at the beginning of Early Modern English (EMnE), an idea that parts from the seminal work of Lightfoot (1979, 78ff.). The original theory of Lightfoot, which incidentally abides by the framework immediately preceding the Government & Binding model, and makes use of AUX, postulates that *pre-modals*, the term that the author uses to refer to these elements, undergo a radical change from full or lexical verbs in Old English (OE) to the cited AUX in EMnE. This theory is subsequently revised in works like Aitchison (1980), Plank (1984) or Roberts (1985), and later in Warner (1993), Lightfoot (1991), or Roberts (1993), in the sense that the recategorization is analyzed as a gradual series of events.

A general consensus exists in the literature that modals in OE, and less and less markedly so through the first half of Middle English (ME), present a hybrid status between lexical verbs and auxiliaries, which shows quite prominently in regard to argument structure and subcategorization (see e.g. the ability of many of them to select for a direct object nominal on the one hand vs. their frequent co-occurrence with a lexical verb, in the form of a plain infinitive, on the other). Despite this ambiguity, the majority of works argue or have argued that modals are to a large extent regular main verbs from OE up to the beginning of the sixteenth century: Lightfoot (1979; 2006; 2017), Roberts (1985; 1993), van Kemenade (1993), Roberts and Roussou (2003). The original work of Lightfoot (1979, 78ff.) lists a number of changes that serve to identify the demise of properties that are typically found for original lexical verbs (see e.g. the loss of the above-cited object selection capacity; the breakdown in the present/past correspondence in meaning and form; the loss of the infinitive and the participle forms,...). While acknowledging these changes, the highly-influential work of Warner (1993, 103ff.) adopts a different perspective since it comes additionally to emphasize the properties that situate modals (and likewise the copula and the immediate ancestors or candidates to aspectual auxiliaries) much closer to the category of auxiliary verb already in OE than could be the case for any lexical verb proper in the language: namely, the modals' occurrence in verb-ellipsis structures, and similarly their occurrence in impersonal structures where the infinitive after the modal (rather than the modal) determines the case of the nominal; the restriction of some modals to finite forms; their exclusive categorial selection of the plain infinitive as against the *to*-infinitive. By way of relying on the theory that the lexicon is the place where the rules or principles of generative grammar and the principles of cognitive organization are to meet, the core of Warner's proposal as couched within a Head-Driven Phrase

Structure model is that modals (and potential candidates to auxiliaries in general) constitute a distinct *lexical subcategory* already in OE.

I assume that modals become T elements at some specific point in the history of English (see below), or using a minimalist term as above, that modals come to *merge externally* under T, and I adopt the position that modals constitute a separate syntactic class already in OE. As is the case with an important number of works in the diachronic generative literature, in this paper I am interested in analyzing what is the precise status of modals before becoming T (see (2a) below) and why they become T, that is what is the trigger for their recategorization as T (2b). Since the (likewise widely-discussed) phenomenon of V-to-T movement, or rather its loss, appears in the literature variously linked to the recategorization of modals, it is important to ask what connection exists between the loss of V-to-T and the recategorization of modals (2c). Due to space limitations, I deal with this last issue (2c) in a separate paper, though there are references to it in Section 7 of the present work.

(2a) the status of modals previous to their recategorization as T

(2b) the trigger for the recategorization of modals as T

(2c) the timing between the recategorization of modals and the loss of V-to-T movement

The gist of the analysis that I present in this paper is that OE modals get their τ -features licensed⁴ in a different way from both strong verbs and weak verbs in the language, which is due to their being *preterite-presents*, and that this confers to them a distinct syntactic status ever since OE (very possibly from pre-OE times). The specific changes that come to affect τ -licensing in ME, approximately in the decades from 1450 to 1470, leave modals in such a situation that becoming T elements is the only way for them to keep their distinct syntax with regard to the cited τ -licensing. Had they opted for “regularizing” their mechanism of legitimization of τ -features, and indeed the raise of not previously attested non-finite forms in the ME period appears to point in that direction, then they would have become raising verbs or raising auxiliaries, as in other Germanic languages, but not T elements.⁵

Now, for the verbs that become modals to belong originally in OE (and prior to this, in Proto-Germanic (PGmc) and, according to a very extended view in the specialized literature, in Proto-Indo-European (PIE)) to an exceptional class of verbs that exhibit ablaut variation in the Present and create a Past form anew is of course widely acknowledged in the philological and in the linguistic literature.⁶ However, Lightfoot (1979, 103) restricts itself in this sense to emphasizing their preterite-present trait of lacking a third person sg ending as a relevant fact that contributes to modals looking different from the rest of verbs and therefore being recategorized as new elements. And the same emphasis can also be found in Lightfoot (2006, 30-31) or in Lightfoot (2017, 387). And Warner (1993, 140, 259) does

indeed describe core differences between the morphology of preterite-presents on the one hand and both strong and weak verbs on the other, and also refers to “preterite-present morphology as a badge of auxiliary-hood” (Warner 1993, 214): it seems to me though that, in the wake of Warner’s work, a specific analysis of the properties of preterite-presents as might allow modals to maintain an exceptional relation with T is needed, and such is the focus of the present proposal. Indeed, Warner’s suggestion that there could be “already some real link between preterite-present morphology and non-prototypical verbal semantics in Old English” (Warner 1993, 143) could be considered from the perspective of the connections between e.g. *modality* and (perhaps) *defective* morphology as exhibited by the lack of non-finite forms, or also it could be considered from the perspective of the tense values or connections residing in *modality* as ones that are to be matched by elements that maintain a differentiated position with respect to T. My position in the present work is closer to this second sense, though my focus is not on the very content or interpretation of the modals’ τ -features, but on the morpho-syntactic circumstances under which they are implemented.

More specifically, my focus is on the τ -licensing and ϕ -licensing⁷ of modal verbs in contrast to the τ -licensing and ϕ -licensing of both strong verbs and weak verbs in OE, and most of the ME period. I would like to advance that ϕ -licensing will be argued to work in a similar way for both strong verbs and weak verbs on the one hand and for modals on the other: not so at all τ -licensing.

I therefore take the term *modal* as synonymous with *preterite-present* exclusively with regard to the morpho-syntactic operations (in core or narrow syntax) underlying tense markers and agreement markers. I do not deal then with non-modal structures, by which I mean that I do not set to analyze whether these verbs have a double set of categorial selection and/or argument selection properties (see at the beginning of this Section), or whether it is one and the same syntactic structure that needs some additional mechanism in order for any given thematic property to be made available.⁸ In (3) below are listed (in OE form) the elements that are the focus of the present discussion: namely, so-called core modals plus the anomalous verb *willan* ‘will’. In (4) is a list of the remaining elements from the group of preterite-presents in OE, that is, those verbs that have either disappeared from the language, or otherwise have become mixed modals, or just ordinary verbs.

(3) cunnan magan *motan⁹ *sculan willan

(4) āgan *dugan durran mugan *-nugan *þurfan unnan witan

I assume that the elements under analysis are connected already in OE in a systematic way to the concepts of *possibility* and *necessity* or, using the terminology in the seminal work of Kratzer (1981; 1991), that these verbs have the capacity to have or construct a *modal base*, independently of the fact that not all of the uses that modals or would-be modals present in OE can be identified already as modal

uses proper (see Tanaka (2009) for a semantic classification), and independently of the monumental semantic shift that is to affect modals from Late OE and all through the ME period (see Lowrey (2012) and references therein).

The small sample of sentences in (5) is intended to serve the purpose of illustrating OE modals from the set in (3). They are borrowed from what would be characterized as secondary sources or references if the present study incorporated in itself a corpus search, which is not the case.

- (5a) *ðæt he þæs gewinnes mehte mare gefremman*
 that he the victory could better achieve
 ‘so that he could achieve the victory all the better’ (from van Kemenade (1993, 157))
- (5b) *Ne magon hie and ne moton ofer mine est þinne lichoman (...) deaþe gedælan*
 ‘They are not able and are not permitted, against my will (...) to separate your body after death.’ (from Lowrey (2012, 15))

The paper is organized as follows. In Section 2, I specify basic assumptions that I endorse from the literature about the *interpretation* and *valuation* of formal features, and about the architecture of the verbal phrase. In Section 3, I present a list of morpho-phonological properties of modal verbs (or preterite-presents) that is generally acknowledged in the literature, and I dedicate Sections 4 and 5 to an analysis of τ -licensing and φ -licensing for strong verbs and for weak verbs in the language. Having done this, I focus in Section 6 on the analysis of modals (or rather, as I will refer to them in that specific Section, *preterite-presents/modals*). Finally, in Section 7, I give an account of what could possibly have acted as the trigger of the recategorization of modals as T, around 1470. Section 8 is a summary.

2. Assumptions from the literature

The majority of assumptions belong within three different sets or fronts: on the one hand, syntactic theory relative to the licensing of formal features; on the other hand, the basic verbal phrase and clausal architecture that I adopt with regard to OE, and lastly core notions about the semantics of modality. No issue is discussed in this paper explicitly on the semantics of modality, but since reference to τ -features is continuous throughout the discussion, it seems appropriate to specify some aspects.

With regard to syntactic theory, generalized strands within minimalism postulate that the derivation of verbs in core or narrow syntax typically proceeds through the licensing of formal features, as are τ -features (typically, ([+/-past]) and φ -features (that is, features of person and/or number and/or gender). τ -features are to be identified as the abstract counterpart in core syntax of morphological markers of tense, and similarly, φ -features are the abstract counterpart of morphological

agreement markers. As in standard accounts of Distributed Morphology (DM) (Halle and Marantz 1993 et seq.) licensing of features is therefore the morpho-syntactic operation which is subsequently the input to the morphological component, with its rules of *Vocabulary Insertion* (that is, exponency).

The account of OE modal verbs, and also strong verbs and weak verbs in the language that I provide in this paper hinges upon abstract morpho-syntactic objects or operations, and not on their morpho-phonological realization. However, though I assume the basic DM tenet that no correspondence can be *a priori* established between exponents on the one hand and the number and/or type of (prior) operations in core syntax on the other, it can prove useful and, very importantly, it is always enlightening to try and account for (potential) correspondences, a necessary condition for this being not to lose sight of what part of the overall derivation we are in. In this sense, I will frequently use the terms *marker* or *segment* or *exponency* to refer to the overt morphology, and also *Present* and *Past* (in capital letters) to refer similarly to the meaning or place in the corresponding paradigm of overt morphological words or exponents, as opposed to a morpho-syntactic notation proper like [+/-*past*]. With regard to the specific issue of lexical roots ($\sqrt{\quad}$), I assume that these enter the derivation in a phonological form, that is that lexical roots abide by *Early Insertion* (as defended in Embick 2000 et seq.).

In accord with the framework of Chomsky (2000; 2001), two core operations apply at narrow syntax: *Merge*, which combines two syntactic units from the Lexicon/Numeration (external Merge) in order to form a new syntactic unit, and *Agree*, which applies whenever a *Probe* or syntactic unit that has a feature that is incomplete in some way and that must be legitimized, goes in search of a *Goal*, or syntactic unit that the Probe c-commands and that will make feature legitimization complete. The purpose of *Agree* is thus to license or legitimate a given feature. τ -features and ϕ -features are typical examples of features associated with *Agree*, and T is the head typically assumed in main strands within minimalism to act as a Probe of v (its Goal) in the licensing of τ -features and ϕ -features of finite verbs in Indo-European languages generally speaking. In a crucial way, τ -features and ϕ -features attend to the characterization *interpretable* [*iF*] vs. *uninterpretable* [*uF*] on the one hand, and *valued* [*F: val*] vs. *unvalued* [*F: __*] on the other. Following Pesetsky and Torrego (2007), *valuation* and *interpretability* work independently of each other. Feature-*interpretability* refers to the semantic content or contribution of a feature, and feature-*valuation* means that the feature in question is ensured to appear on a specific item. And there happens to be generalized consensus that τ -features in PDE (and in IE languages in general) are *interpretable* but *unvalued* on T, and *uninterpretable* but *valued* on v , and that ϕ -features are similarly *unvalued* on T and *valued* on v , but they are *uninterpretable* on both T and v , it being the DP nominal the source of interpretation. ϕ -features are thus both *valued* and *interpretable* on DP. It is important to emphasize that syntactic (or morpho-syntactic) operations are initiated or begun by a Probe, and that a Probe is

such if it has *interpretable* features itself to *value* against a viable Goal. Further, two observations are needed with regard to the interpretation [$+/-past$] as used or analyzed in the present discussion. One is that the interpretation corresponds here in all cases to the Indicative, since it is matrix T that matters above all. The other observation relates to Condoravdi's (2002) analysis of time for modals (see below in the Section).

With regard to clausal or sentential structure in OE, I assume the availability of a TP on top of the verb phrase, which verb phrase I analyze as being made up of *vP* and a VoiceP projection on top of it (see Pylkkänen 2008). The Voice head introduces the external argument and licenses accusative Case, among other things, and *v* acts as the verbalizer of the root ($\sqrt{\quad}$), which is typically considered to be devoid of categorial features. Aside from the cited role of *v*, this head has a massive role to play in the licensing of formal features since it typically acts in conjunction with T in the corresponding Probe-Goal connection (see above and all through the paper).

In (6) is a simplified labelled-bracketing structure showing the architecture described immediately above, which is the one needed for the present discussion. Throughout the paper, the derivation of verbs will be shown by means of tree-diagrams rather than labelled-bracketing given the more explanatory power of the former. No root is shown in (6) since $\sqrt{\quad}$ is not a functional head. Also, OE is typically analyzed in the literature as both head-final and head-initial in relation to T (that is, VP T alongside T VP) and in relation to V (that is, OV alongside VO). The configuration chosen in the present discussion is head-initial.

(6) [TP [VoiceP [vP]]]

Lastly, with regard to the semantics of modality, the seminal work of Kratzer (1991) postulates that a modal verb in any given proposition attends to a *modal base* on the one hand, which is broadly speaking either *epistemic* or *circumstantial* in the author's own account, and which is defined by the author as a conversational background which narrows down the set of possible worlds the modal quantifies over, and to an *ordering source* on the other hand, which is another conversational background covering values like speaker, addressee, time of utterance, place of utterance, etc. The modal's flavor or meaning (note e.g. 'permission', 'order', 'presupposition', 'ability', etc.) results from the conflation of these two conversational backgrounds, plus arguably other values or parameters. In the traditional literature, and likewise in the diachronic literature, the typical divisions of modality are *root vs. epistemic*, the distinction *deontic vs. dynamic* being also frequent within root modality. Incidentally, epistemic modality – or using, Kratzer's terminology – modals with an epistemic base are quite scarce in the OE period as compared to root modals. Now, Condoravdi (2002) endorses Kratzer's theory and comes to highlight a difference between the *temporal perspective* of a modal, which is the time at which the first of the two conversational backgrounds mentioned above is evaluated, and

the *temporal orientation* of a modal, which is the relation between the modal's temporal perspective and the time of the situation denoted by the lexical verb.

My focus in the paper is not on the content or interpretation of the modals' τ -features, but on the morpho-syntactic operations validating these. However, since there will be continuous reference to [+/-past], it must minimally be acknowledged that these values are massively enriched in the case of modal verbs, and a construct explaining this would be precisely Condoravdi's above-cited notions of *temporal perspective* and *temporal orientation*. Aside from the gross values [+/-past], which any verb can denote (once T acts as a Probe in the appropriate way), the value of *temporal perspective* would be unique to modals, and this in turn enriches the *temporal orientation* denoted by the structure where the modal belongs (though any given linguistic structure has its own *temporal orientation*). Throughout the discussion, I will just assume that Condoravdi's temporal perspective of the modal is an added value to the straightforward [+/-past].

Though I do not deal in this paper with the semantics of modals, I would like to say that I do not agree with the argument in Cowper and Currie Hall (2017) that the elements in (3) do not constitute a semantic class until ME. As observed in Section 1, the selection properties and subcategorization frames for these elements are diverse or heterogeneous in OE: this is nevertheless no obstacle for considering *modals* such elements as take infinitival complements and project no external argument (despite the difficulties in assessing the latter) while denoting modal meanings, that is while incorporating in themselves a root or an epistemic *modal base*.

3. Surface similarities and differences between modals and the two major groups of verbs

I contend that OE modals differ syntactically from both strong verbs on the one hand and weak verbs on the other as regards τ -licensing but not as regards ϕ -licensing. This way, as will be shown in Section 6, the morpho-syntactic principle ruling over subject agreement markers is the same for all verbs in the language, strong verbs, weak verbs, and modals. It is τ -licensing that works differently for strong verbs and for weak verbs, and still in an exceptional way for modals, despite the surface similarities shared by modals and strong verbs on the one hand, and modals and weak verbs on the other. In (7) below are listed the Present and Past (Indicative) forms of a verb like *scīnan* 'shine', which belongs to class I of strong verbs, a verb like *hīeran* 'hear', which belongs to one of the two major classes of weak verbs,¹⁰ and the modal verbs *cunnan* 'can' and **sculan* 'shall'.

The segmentation above is to be taken as morphological (or virtually morpho-phonological) since the forms are *Vocabulary Items* proper. The segmentation will prove useful given that it can be held to correspond quite transparently with

(7)

	scīnan		hīeran		cunnan		*sculan	
	Present	Past	Present	Past	Present	Past	Present	Past
1sg	sc-ī-n-e	sc-ā-n-∅	hīer-e	hīer- <u>d</u> -e	c-a-n(n)-∅	c-u- <u>ð</u> -e	sc-ea-l-∅	sc-(e)old-e
2sg	sc-ī-n-st	sc-ī-n-e	hīer-est	hīer- <u>d</u> -est	c-a-n-st	c-u- <u>ð</u> -est	sc-ea-l-t	sc-(e)old-est
3sg	sc-ī-n-þ	sc-ā-n-∅	hīer-þ	hīer- <u>d</u> -e	c-a-n(n)-∅	c-u- <u>ð</u> -e	sc-ea-l-∅	sc-(e)old-e
pl	sc-ī-n-aþ	sc-ī-n-on	hīer-aþ	hīer- <u>d</u> -on	c-u-nn-on	c-u- <u>ð</u> -on	sc-u-l-on	sc-(e)old-on

the morpho-syntactic processes (that is, the feature-licensing operations) for the majority of items listed, as I aim to show in the following Sections. At this moment I would like to specify that the segments in final position correspond to subject agreement markers (person and number), and that the segments underlined would correspond to the markers for Past tense: the ablaut or apophonic vowel in the case of strong verbs, and the *-d-* suffix in the case of weak verbs and the modals.¹¹ More specifically on modals, and still from the point of view of morphological realization or exponency, these verbs present the widely-acknowledged traits in (8) below.

(8a) Modals in the Present exhibit ablaut variation, as is the case with strong verbs in the Past, though the cited ablaut variation is not organized as it is with strong verbs.

(8b) Modals in the Past exhibit the */d/* suffix, as is the case with weak verbs.¹²

(8c) Modals in the Present and in the Past exhibit subject agreement markers.

I begin Section 4 below by considering ablaut alternations and the */d/* suffix for strong verbs and weak verbs, respectively.

4. The core syntax underlying ablaut variation and the */d/* suffix for strong and weak verbs

The two main groups of verbs that can be distinguished throughout the OE period and likewise, clearly enough, in the first half or so of ME, are of course, as cited in Section 3, the group of strong verbs and the group of weak verbs, their most distinctive morpho-phonological trait being that the former make their Past through the mechanism of ablaut or apophony, that is by changing the vowel in the stem-segment, whereas weak verbs make their Past through the addition of a *-d-* (*/d/*) suffix. The ablaut vowels in strong verbs correspond with: 1- the Present tense, the Infinitive and the Present Participle; 2- the first and the third person sg of the Past tense; 3- the second person sg and the plural of the Past tense; 4- the Past Participle. As is well known, the specialized philological and historical literature relate ablaut in Germanic languages to distinctions of *Aktionsart* or lexical aspect for roots in PIE, and above all to aspectual distinctions operating on stems as formed from

roots, which distinctions follow a three-fold system of *imperfective*, *perfective* and *aurist* or *perfect* (Hewson and Bubenik 1997; Mailhammer 2007; Fulk 2018). Ablaut distinctions in OE strong verbs though (as in Germanic languages in general in their old stages) do not rely on aspect any longer but on tense. In contrast to ablaut, the /d/ suffix of weak verbs is considered to be an innovation in PGmc (see e.g. Bammesberger (1986, 63); Lahiri (2003, 91); Kastovsky (2006, 163)).

Now, I contend that the functional head T is in charge of *interpreting* the [+past] τ -features on weak verbs in OE (that is, the features that expone as the /d/ suffix) whereas it is *v* that *interprets* the corresponding [+past] τ -features on strong verbs (that is, the features that correspond with ablaut).

Focusing first on [+past] τ -features on weak verbs, on the assumption that for PDE to be a T-configurational language entails that a major task of T is actually to *interpret* τ -features (irrespective of the kind of verb)¹³ and it being specifically the case that T in PDE *interprets* the features that expone as a /d/ suffix (for so-called regular or weak verbs in the language), then it seems logical or appropriate to conclude that OE T realizes the same task. With regard then to τ -features, the derivation of a form like e.g. *h̄erde* ‘I/you/he/she/it heard’ from the corresponding column in (7) above would be as shown in the tree-diagram in Figure 1.

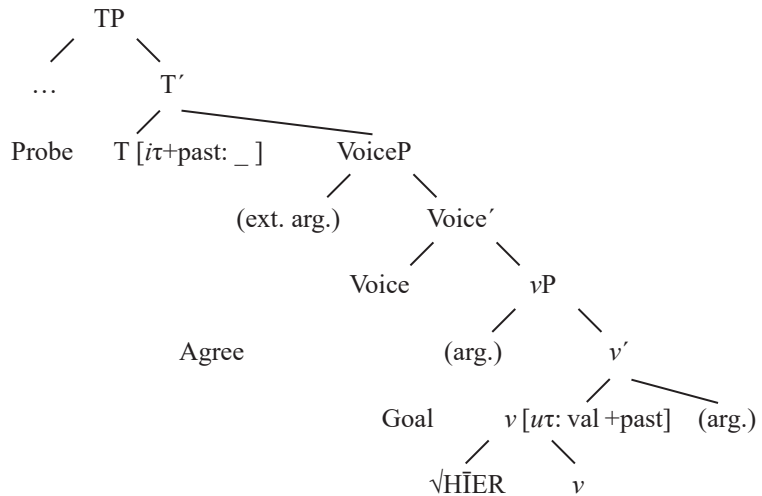


Fig. 1. Derivation of *h̄erde* (licensing of τ -features)

The derivation is shown to begin with the root ($\sqrt{\text{}}$) merging in a phonological form with a so-called categorizing *v* head (see Section 2). Subsequently, the T Probe with its *interpretable* but *unvalued* τ -features goes in search of the corresponding Goal, which is the above-cited *v* head, on which τ -features are *uninterpretable* but *valued*, and *Agree* applies. The notation to the right of *v* in the tree-diagram above,

namely [$u\tau$:val+past], corresponds with the result of the *Agree* operation, that is the stage when the features on v have already received the interpretation [+past]. The Voice head is the one in charge of projecting the external argument (see also Section 2). Incidentally, the Merge site for the external argument, as well as potential Merge sites for internal arguments, appear in Figure 1 within parentheses since their instantiation depends on the specific thematic properties of the verb (that is, whether the verb is transitive, or unaccusative,...).

In contrast to the situation with weak verbs just described, I argue that the T Probe is *not* the one that *interprets* [+past] τ -features for OE strong or ablaut verbs, that is those that exhibit morpho-phonological variation of the stem-segment, as in the column under Past of *scīnan* in (7) above. An absolutely relevant aspect to highlight in this sense is that those verbs exhibit, as is well known, two Pasts – so-called *Preterite 1* and *Preterite 2*, with vowels 2 and 3 from the set specified above in this Section, and that this distinction depends on whether the relevant nominal in the verb phrase (that which is to become the DP subject) is first or third person sg (Preterite 1) or otherwise second person sg or any person in the plural (Preterite 2). The relevance of the distinction in question is that it must be syntactically derived, that is it must be determined at core or narrow syntax, given that *Checking* of person/number with the cited nominal is needed prior to the stage where the corresponding functional head can possibly articulate τ -*interpretation*. T does not seem at all to be the candidate for such τ -*interpretation*, given that no distinction of person/number applies with regard to the Past forms of weak verbs as analyzed above in this Section: that is, the /d/ suffix does not co-vary with person and/or number. If T is not then the functional head *interpreting* [+past] τ -features on strong verbs, such a head must be v . And not only must v be in charge of *interpreting* [+past] τ -features on the cited strong verbs, but also [-past] τ -features, since these features surface or expone similarly as ablaut variation (column of forms under Present of *scīnan* in (7) above).

Now, in an absolutely significant way, for v to have the capacity to *interpret* τ -features means that v itself has the capacity to act as a Probe: the same as the Probe of T *interprets* the τ -features that it finds *valued* on the Goal of v (in the case of weak verbs), so the Probe of v is bound to *interpret* the τ -features that it finds *valued* on the Goal of a head that I will call v^0 (which entails that v is to be referred to properly speaking as v^0). Since v^0 is synonymous with stem, then v^0 could be characterized as a kind of “stem-by-default”. The cited head v^0 or “stem-by-default” would consist of the consonantal segments making up the root ($\sqrt{\quad}$) plus *vowel number 1*, that is the vowel for the Present from the ablaut series.

The tree-diagram in Figure 2 shows the derivation of a form like e.g. *scān* ‘he/she/it shone’ if the nominal in question is third person sg: the “stem-by-default” or v^0 *scīn* will *value* the τ -feature basing upon that information, with the cited result. To note, the same derivation would ensue if the form to be derived were

e.g. *scīnab* ‘we/you/they shine’, the difference being that the “stem-by-default” or v^0 *scīn* would become the Goal of the v Probe and would *value* the corresponding τ -feature, which would be $[-\text{past}]$ on such an occasion.

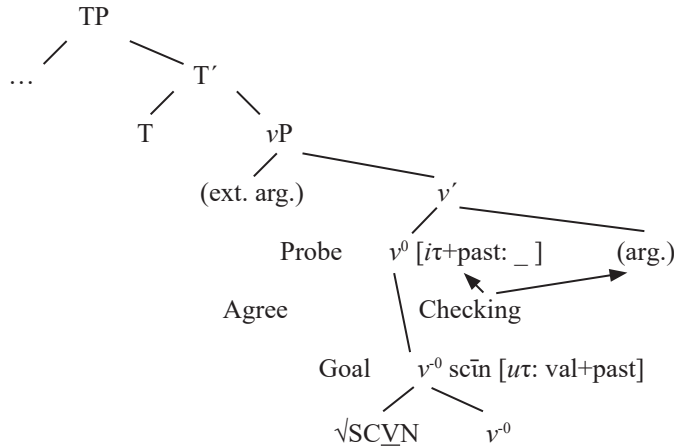


Fig. 2. Derivation of *scīn* (licensing of τ -features)

As justified above, the tree-diagram in Figure 1 differs from that in Figure 2 in that the functional head acting as a Probe is T in the former while it is v in the latter, and likewise in the circumstance that the vocalic segment in the root ($\sqrt{\quad}$) is specified for weak verbs (which vocalic segment figures throughout the full paradigm) but not so for strong verbs: note the use of \underline{V} standing for *vowel* in the tree in Figure 2.¹⁴ As argued above, the ‘vowel-by-default’ for strong verbs is the vowel for the Present, as with weak verbs, though the vowel in question is available in v^0 . To this must be added that no Voice Phrase is projected in Figure 2, in contrast to the tree-diagram in Figure 1. Since the v of strong verbs needs to establish a relation of Checking with the relevant nominal (that is, the nominal that is to become eventually the subject), then that nominal must merge on a site that is minimally m-commanded by v itself: the Spec position of VoiceP would not be local enough for m-command to apply, while the Spec of v position and the internal argument position would be m-commanded and c-commanded by v , respectively. Incidentally, note that the Checking relation is shown in Figure 2 to apply between v and an internal argument (which is to become subject) since a verb like *scīnan* ‘shine’ is to be analyzed typically as unaccusative (rather than agentive or unergative). Before analyzing τ -licensing for modals in Section 6, it is still necessary to account for ϕ -licensing for the two major groups of verbs in OE, that is strong verbs and weak verbs. This is the focus of Section 5 immediately below.

5. The core syntax underlying agreement markers for both strong and weak verbs

Together with tense markers, OE verbs (both strong verbs and weak verbs) exhibit subject agreement markers, to be identified with the last segment for the forms in (7) above. In an important way, if we compare the forms for *scīnan* and those for *hīeran*, we will see that the those for *hīeran* in the Present are the only ones consisting of just two segments. On the other hand, no analysis was presented in Section 4 above for [–past] τ -features on weak verbs: as will be recalled, whereas the tree-diagram in Figure 2 corresponds with either [+past] or [–past] τ -features on strong verbs (all of which expone as ablaut), the tree-diagram in Figure 1 corresponds with just [+past] τ -features on weak verbs. In current research of my own on the role played by T as a top-most functional head providing configurational status in languages descending from PIE,¹⁵ I argue that the answer to both these queries lies in the availability of two T Probes (for virtually all IE languages, though with relevant parametric variations): on the one hand, a T Probe that *interprets* τ -features proper, that is features carrying values relative exclusively to [+/-past], and that I label [τ T] in the corresponding derivations; on the other hand, a T Probe that *interprets* τ -features with an additional ϕ -*interpretation*, that is features carrying [+/-past] values, and also person and/or number values, and that I label [τ AgrT], as a short form for *Agreeing Tense*. Centring upon OE, [τ T] is the T Probe in charge of *interpreting* those features that expone as a /d/ suffix (note the very [τ T] node in Figure 1 above), whereas [τ AgrT] is the T Probe in charge of interpreting the τ -features with additional ϕ -*interpretation* that are to be found for all remaining cases, which includes all the features that expone as the above-cited last segment for the forms in the Present and Past of strong verbs and weak verbs alike. Incidentally, modals will be shown in Section 6 below to abide also in OE by a process of derivation with a [τ AgrT] node at the top, just as any other verb, which entails that their exceptional status does not lie in their subject agreement markers.

In order to show in a clearer way the capabilities of the final segment of both strong and weak forms in (7) above, that is the so-called subject agreement marker, let us consider the paradigms in isolation for the corresponding segments as found in such a widely-known historical work as is Lass (1992, 134). The set of forms in (9) are the endings provided by the author for strong verbs and for weak verbs in the (standard) West Saxon dialect. Van Gelderen (2000, 155-156) is similarly illustrative in this respect.

(9)

	Present		Past	
	Strong	Weak	Strong	Weak
1sg	-e	-e	-∅	-e
2sg	-(e)st	-e(st)	-e	-(e)st
3sg	-eþ	-eþ	-∅	-e
pl	-aþ	-aþ	-on	-on

For the above segments to indicate person and number on the one hand, and [+past] or [-past] on the other shows clearly in that exponents under the *Present* column do *not* coincide with those under *Past* (except for the syncretism in the first and second person sg in weak verbs: note *-e* and *-est*, respectively). I would like to note that the cited empirical observation has been made previously in the literature. One instance of this is Lahiri (2003, 99), who refers to the fact that “inflectional suffixes of the present and past tense of Germanic verbs are different”. Her claim is made though on completely different grounds: more specifically, in order to support her insightful phonological theory about the Germanic /d/ suffix as originating as a verb (in a similar way as in Bengali). The co-variation between agreement and tense that can be discerned from (9) is held on the present account on the derivation/computation of verbs in OE to support a kind of generalized T Probe for all verbs.

I will put an end to this necessarily brief analysis of formal features of OE strong verbs and weak verbs by incorporating on the tree-diagrams in Figures 1 and 2 above the [_T AgrT] Probe that I defend is shared by all verb forms in OE generally speaking, whether they are strong verbs or weak verbs, in the Present or in the Past. The tree-diagram in Figure 3 completes that provided in Figure 1, and the tree-diagram in Figure 4 completes the one in Figure 2. As for Figure 5, the relevant tree-diagram would correspond to a weak verb in the Present, as in e.g. *ic hīere* ‘I hear’. Incidentally, for weak verbs in the Present to necessitate of just one T Probe, by contrast with weak verbs in the Past, would be perfectly compatible with the characterization in the philological or traditional literature of the Present as the “tense-by-default”: more specifically, it should be the tense exhibiting a “vowel-by-default”, present throughout the full paradigm. As for strong verbs, their licensing results from the activity of two Probes, [_T AgrT] on the one hand and the [v] Probe on the other, though the latter is (crucially) to disappear in Late ME (see Section 7).

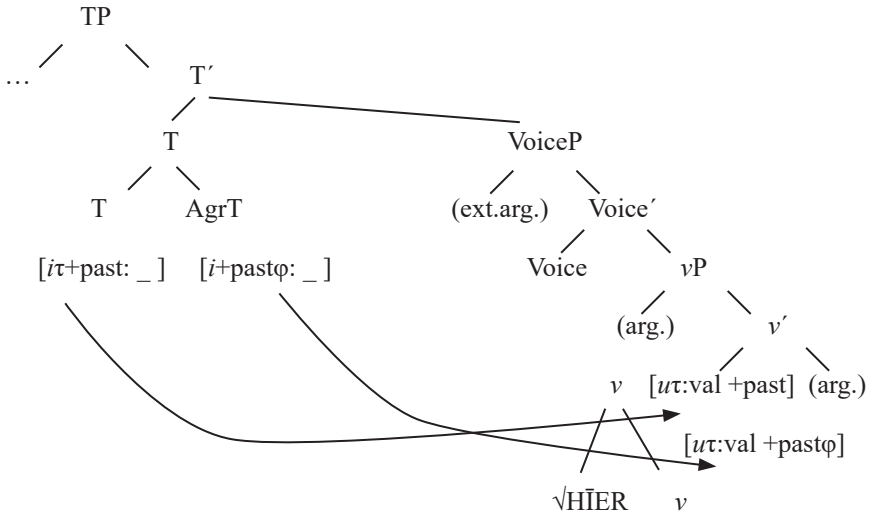


Fig. 3. Derivation of *hēerde* (licensing of τ -features and of τ -features with ϕ -interpretation)

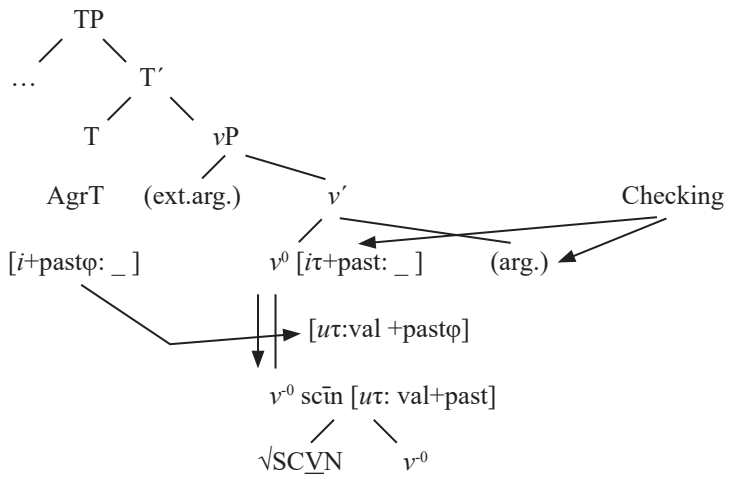


Fig. 4. Derivation of *scān* (licensing of τ -features and of τ -features with ϕ -interpretation)

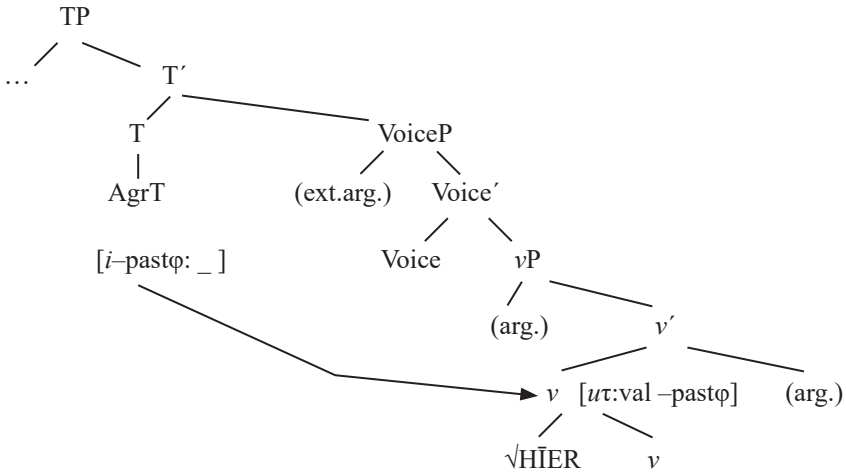


Fig. 5. Derivation of *hīere* (licensing of τ -features and of τ -features with ϕ -interpretation)

6. The exceptional core syntax of modal verbs: their inherent *v*-status

Having reached this point, the focus of the discussion is now on giving an answer to the issue (2a) from Section 1: namely, the status of modals previous to their recategorization as T. As observed in Section 1, the term *modal* is taken in this work as synonymous with *preterite-present* with regard to τ -licensing and ϕ -licensing, and therefore it is appropriate to use the term *preterite-presents/modals* in the discussion that follows, irrespective of the fact that the descriptive traits in (8a) and (8b) (see Section 3 above) appear customized for modal verbs.

Starting with (8a), the first aspect that must be noted is that there is no consensus at all in the literature about the specific class out of the seven classes of strong verbs each preterite-present/modal should or could be related to regarding ablaut variation, and this not only for OE but for all Germanic languages generally speaking: the reader is referred to e.g. Colman (1992, 243-254) or Wojtyś (2017, 16-17) for relevant descriptions and comments on this issue or also, prior to these, Birkmann (1987, chapter 1) where the author similarly concludes that some of the ablaut variations exhibited by the preterite-presents line up with those of Germanic strong verbs but not others.

Having said the above, and focusing on the fact that ablaut variation is actually the case for the majority of preterite-presents/modals in the Present (note e.g. *sceal* vs. *sculon*, or *canst* vs. *cunnon*, but *mōt/mōton* ‘must’), the functional head that is in charge of *interpreting* the corresponding τ -feature (that is, the τ -feature endowed exclusively with a tense value, not the τ -feature with additional ϕ -interpretation)

should be in principle v . However, in a crucial way, for v to be such a head, that is for v to act as a Probe in search of the corresponding Goal, the latter must be available: but it is the case that there is no Goal, that is no v^0 (the head referred to in Section 4 as “stem-by-default”) since there is no *vowel number 1* available as with strong verbs proper.

In effect, if preterite-presents/modals behaved as strong verbs proper, there would be expected to be a “stem-by-default” that is formed with the consonantal segments from the root plus a so-called *vowel number 1*, which “stem-by-default” would merge subsequently as v for this head to *interpret* its [–past] τ -feature. But we get none of this: rather, the forms for the singular exhibit ablaut variation *with respect to* the forms for the plural (and incidentally, they do not even follow the methodology of the Past of strong verbs since, as just observed, it is singular vs. plural, and not first and third person sg vs. second person sg and all the plural). In addition to this, if we look momentarily at (8b), the forms for the Past exhibit, on the one hand, a /d/ suffix, which means that it is a T Probe – specifically [${}_T T$] – that *interprets* the relevant [+past] τ -feature, but on the other hand, they make use of the vowel in the Present plural.

I would like to defend the view that, from a historical or diachronic perspective on the origin of the preterite-present phenomenon, two major possible analyses emerge. According to one analysis, there is an original “stem-by-default”, whose existence has been obscured prior to or at the time of OE (and similarly at the time of the oldest stage of any other Germanic language), and that the elements that can be acknowledged for OE are, on the one hand, what would be identified as a *vowel number 2* for the Present singular (*can(n)*, *sceal*), and on the other hand, what would be identified as a *vowel number 3* for the Present plural (*cunnon*, *sculon*), which happens additionally to be chosen to form the Past forms (*cuðe*, *sceolde*). According to one other possible analysis, instead of an “interrupted” ablaut series, there would just be no ablaut series in origin. More specifically, the forms for the Present singular (*can(n)*, *sceal*) would be originally some kind of past or preterite forms, though crucially not so the forms for the Present plural (*cunnon*, *sculon*): the vowel in these would have been created anew with a view to forming the Past forms (*cuðe*, *sceolde*). These observations relate, as just mentioned, to the issue of the origin of the preterite-present phenomenon on which, as is well known, there is quite a varied literature: note the so-called Grimm’s theory (or strong verb theory), or the Perfect origin theory (defended by Birkmann 1987), or the theory of preterite-present forms as neologisms belonging to a period after PIE (as postulated by Tanaka 2009). The second analysis as sketched above in a completely informal way could possibly appear to be a combination of the Perfect origin theory and the neologisms theory, but I am not ready to discuss this issue in any depth at this moment.

The issue that concerns the present discussion is the derivation at core or narrow syntax of OE modals (or preterite-presents/modals), as compared to that of

strong verbs and weak verbs: more specifically, the focus at this moment is on the derivation of preterite-presents/modals in the Present (note such forms as *can(n)*; *canst*; *can(n)*; *cunnon* or *sceal*; *scealt*; *sceal*; *sculon* in (7) above).

Now, I would like to argue that, irrespective of the diachronic analysis that might be expected ultimately to be postulated, preterite-presents/modals in the Present are verbs that *merge* into the head *v* *directly* from the Lexicon, whereas all other verbs must go through a process involving either a so-called “stem-by-default” or v^0 (in the case of strong verbs) or a root with a “vowel-by-default” (as should be the vowel for the Present in the root of weak verbs). I contend that this entails that preterite-presents/modals in the Present bear inherent τ -licensing themselves, or the same they bear *interpretable* τ -features. They need the Probe of T to complete the derivation, as will be shown below, but the specific Probe of T as intervenes with all other verbs in the language, namely the Probe combining τ -licensing and ϕ -licensing ($[_{\tau}AgrT]$). The answer that I would like to give to the issue in (2a) above is specified in (10), where I turn to the term *modal*, rather than *preterite-present/modal*, for the discussion to be uniformly on modals.

(10) Modal verbs merge directly into *v* in OE and most of ME, prior to their recategorization as T.

The provisional derivation for modals (or preterite-presents/modals) in the Present is shown in the tree-diagrams in Figure 6 below: the diagram on the left would correspond to a form like e.g. *scealt* ‘you shall (sg)’, and the diagram on the right would correspond to a form like e.g. *sculon* ‘you shall (pl)’.

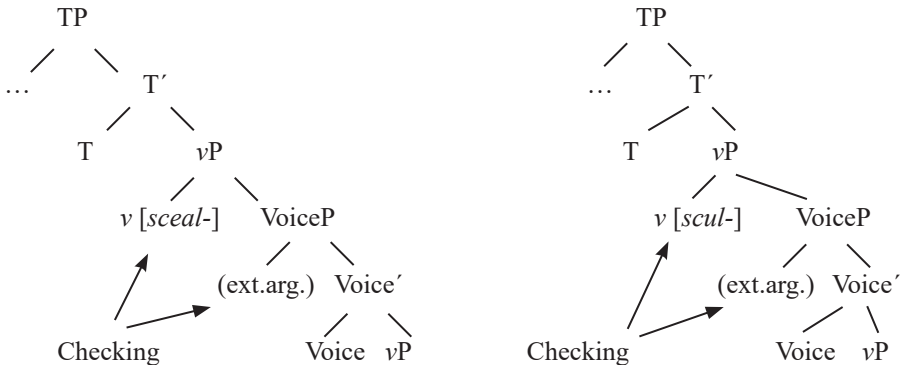


Fig. 6. Derivation of modals in the Present (licensing of τ -features)

As shown in the tree-diagrams, forms like *sceal-* or *scul-* merge in that very phonological form, just as if they were roots, though they merge under the *v* site:

they would thus have a kind of “inherent ν -status”. No τ -licensing in the form of $[\mu\tau\dots]$ or $[\iota\tau\dots]$, as in the tree-diagrams in Figures 1 or 2, or also Figures 3 or 4, is shown in Figure 6, precisely because such must be the way of formalizing that the very verbs bear *interpretable* τ -features themselves. What is needed is for them to establish a Checking relation with the corresponding nominal (as is incidentally also the case for strong verbs and for weak verbs), though in the structure with the modal proper the nominal belongs in the infinitival sequence following the modal itself.¹⁶ Note in this respect that no VoiceP is projected on top of the ν P where the modal is merged, and likewise no Spec, ν position, since these would be potential positions for an external argument and modal verbs cannot select by their very thematic status any external argument or notional subject.

The issue of the status of the cited infinitival structure is of course a very important one, though not with regard to the analysis of formal feature licensing on the modal, which is the proposal here: its importance lies in resolving the puzzle whether the same kind of syntactic tree-diagram as those in Figure 6 would/could be valid for a preterite-present which is not (semantically/thematically) a modal and which specifically selects e.g. for a nominal (rather than an infinitival structure). In other words, the question would be whether the ν head in the tree-diagrams in Figure 6 could actually select for a DP object. As observed in Section 1, I do not deal with that question or puzzle in this paper.

Let us now try and incorporate ϕ -licensing in the derivations above, that is the core syntax process underlying the subject agreement markers that modals (or preterite-presents/modals) in the Present exhibit. For that it is necessary nevertheless to consider also modals (or rather, preterite-presents/modals) in the Past, since the issue at stake is whether the empirical observation that was made in Section 5 above in relation to the subject agreement markers exhibited by strong verbs and weak verbs, namely for tense values and agreement values to co-vary with each other (let us recall (9)), is similarly to be made in regard to modals.

In effect, if we consider the list of forms in (11), we will in principle be able to be more specific about the description in (8c) above, repeated below in an amplified form.

(11)

	Present	Past
1sg	- \emptyset	-e
2sg	-(s)t	-est
3sg	- \emptyset	-e
pl	-on	-on

(8c) Modals in the Present and in the Past exhibit subject agreement markers.

In a more explicit way, modals in the Present exhibit markers that are identical to those of strong verbs in the Past, except for the second person sg, which coincides with the second person sg in the Present of strong verbs and weak verbs; as for modals in the Past, these exhibit markers that coincide with those of weak verbs in the Past.

As suggested above, the significant morpho-syntactic principle (that is, the significant core or narrow syntax principle) that appears to be operating in (11) is the same as that with strong and weak verbs in the language: namely, for there to be a Probe of T (in top-most position) that is in charge of *interpreting* τ -features with additional agreement or φ -*interpretation*. The cited Probe is labelled on the present account [_TAgrT].

The complete derivation that I would like therefore to defend for modals in the Present looks like that in the tree-diagrams in Figure 7 below. The tree-diagrams in question are like those in Figure 6, with the incorporation of the T Probe [_TAgrT]. As in previous tree-diagrams, the Probe-Goal relation is shown with an arrow.

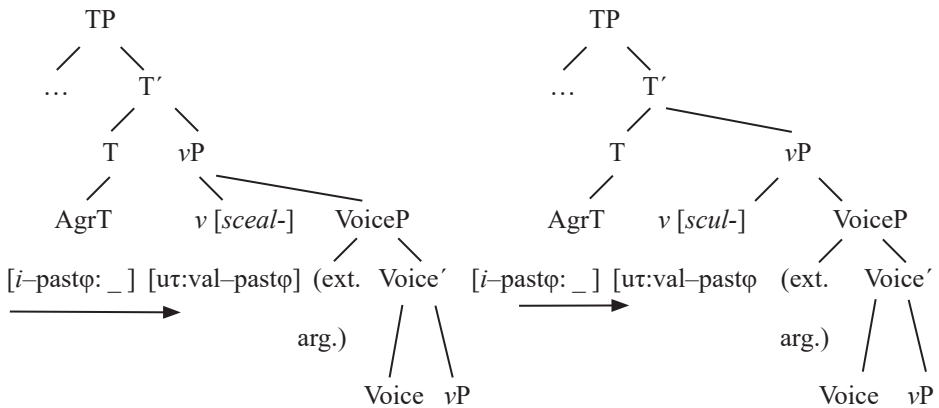


Fig. 7. Derivation of modals in the Present

The remaining issue regarding the derivation of modals is Past forms. We know already that the derivation of the features that expone as subject agreement markers will apply as with modals in the Present (tree-diagrams in Figure 7), and as a matter of fact as with all other verbs in the language (that is, by means of the [_TAgrT] Probe). But we need to analyze τ -licensing for the cited Past forms.

Now, as described in (8b), modals in the Past exhibit a /d/ suffix, which is a sign of weak verbs and makes us think of course of the corresponding [_TT] Probe as interpreting a [+past] τ -feature against the corresponding ν Goal.¹⁷ The big difference that modals in the Past would present as compared to weak verbs is that the cited Goal in weak verbs merges in ν from a root ($\sqrt{\quad}$) (one that contains the vowel in the Present), whereas the ν Goal in the structure with a modal is again a *phonological*

form, specifically one containing the vowel in the Present plural. This way, (10) is also the case for modals in the Past: it must be so, given that, though these forms make use of a “regular” mechanism for τ -licensing as is the $[_v T]$ Probe, they are built from forms that are themselves inherent v -elements. Modals in the Past are therefore to be analyzed also as inherent v -elements (though they not bear *interpretable* τ -features of their own). The tree-diagram in Figure 8 would correspond to a Past modal form like e.g. *sc(e)oldest* ‘you should’.

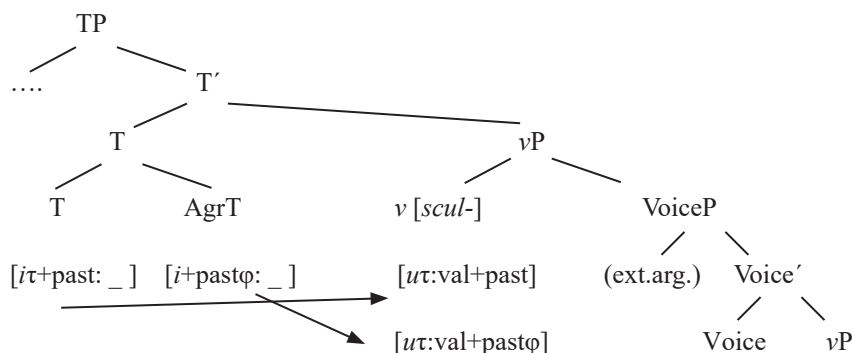


Fig. 8. Derivation of modals in the Past

While it could be thought that the account of the syntactic status of modals that I have proposed in this Section basically contributes a formalization in minimalist terms of statements that can be found in the general literature along the lines that modals bear their own tense values, or that modals bear inherent tense values, I would like to say that the account proposed makes it possible to differentiate τ -licensing from ϕ -licensing, while accounting for the fact that tense and agreement values co-vary with each other in the final segment of all verbs in the language in general.

The line of analysis proposed in this Section for modals should need to be completed with an analysis of the other (very conspicuous) verbal element that, as I defend, shares many of the morpho-syntactic properties of modals, and that also ends up ultimately merging as a T element: namely, the copula. The specific analysis of the copula is dealt with in a separate work. In Section 7 immediately below, I aim to provide an explanation why modal verbs stop merging externally as v -elements and become T elements instead.

7. The recategorization of modals as T

My focus in this last Section is on the recategorization of English modals as T elements: let us recall (2b) from Section 1. On the one hand, given the account

in the previous Section, I propose to explain why modals stop being “inherent *v*-elements”; on the other hand, the explanation to be provided will go hand in hand with an acknowledgment of the more or less precise period of time when this happens.¹⁸

Now, it is well known that ME and EMnE are periods in the language where the verbal system undergoes massive changes. On the one hand, there occur major changes affecting the realization itself of morphological markers, that is exponency, which changes are typically to be scanned by syntactic theory in order to acknowledge whether these correspond or not with changes in the process applying in core syntax. These changes consist in a generalized loss of morpho-phonological substance on several fronts: subject agreement markers begin a process of erosion already at the end of OE that gets stronger through ME and that consists in the generalized weakening of vowels to *-e-* (*/ə/*) and their demise in certain dialects, and also in the frequent and/or dialectal cancellation of the consonantal segment *-n*; weak verb classes initiate likewise a process of attrition by Late OE that continues all through the ME period and that leads to the disappearance of all class variants except one; lastly, strong verbs suffer an even more acute process of loss that affects them on several fronts: on the one hand, the mixing up of forms from one apophonic or ablaut class to another, on the other hand the conversion of many such verbs into weak verbs, and still on the other hand, and very significantly for the issue under analysis here (see below in the Section), the loss of the so-called Pret.1/Pret.2 distinction. The reader is referred to Lass (1992, 131ff.; 1997, 166ff.) for a detailed recording of all these changes.

On the other hand, that is aside from the attrition affecting agreement markers and/or tense markers, the massive changes occurring in the cited periods are identified in the literature as: the recategorization of modals, the loss of V-to-T, and the emergence of periphrastic *do*, and to these should be added the consolidation of the process of combination of auxiliaries (that is, of modals themselves, and of *have*, and *be*) and likewise the development and consolidation of manifold verbal periphrases.

I contend that the loss of the Pret.1/Pret.2 ablaut distinction for strong verbs (see within the former set of changes above) is a clear symptom that *v* stops having the capacity to act as a Probe. Of the two functional heads that, as I argued in Section 4, have the capacity from the beginning of OE to act as Probes since they have *interpretable* features of their own, namely T and *v*, it is only T that remains in such a role: as will be recalled, it was argued then, in Section 4, that *v*'s capabilities (or, in other words, the stem's capabilities) in this respect appeared to be a direct legacy from PIE times, with the caveat that the primary morpho-syntactic feature in the PIE period appears to be aspect rather than tense.

The answer that I would like to propose for (2b) is that modals are recategorized as T elements, that is as elements merging externally or directly from the Lexicon into T, because *v* ceases to be a site where τ -features are *interpreted*. As argued in Section 6, modals bear inherent τ -features, or the same modals have

inherent v -status, which means that they do not rely on any v Probe, in contrast to strong verbs: but still, v is identified throughout OE and part of ME as a locus of τ -interpretation, a circumstance that ceases to be. As a consequence of this, modals pass on to have a site of external Merge – actually, the only one in the language from that time onwards – where τ -features are *interpreted*, and that site is T.

Now, Lass (1992, 132), and prior to this Mossé (1952, 69), refer to the circumstance of the levelling to a single ablaut vowel for the Past of strong verbs (in other words, the loss of the Pret.1/Pret.2 distinction) as showing in quite a generalized way after approx. 1450. And Lass (1997, 177-178) mentions explicitly that the distinction singular *shal* vs. plural *shullen* (and similarly for *can*, *may*,...) disappears around the decade of the 1470s: hence the reference to this specific period (between 1450 and 1470) from the beginning of the paper (Section 1) as the period when English modals change their status. Incidentally, though variation between the preponderance of one of the two vowels over the other is attested (for strong verbs and for modals), a clear tendency is for the vocalic segment in Pret.1 to win over that in Pret.2 of strong verbs, and for the vocalic segment in the singular of the present forms of modals to win over that in the plural.

On the present account then, modals are inherent v -elements, and the timing of the loss of v 's capabilities as a Probe is argued here to lead to the recategorization of modals as T, no later than 1470. Now, in a logical way, independent evidence is needed to support this dating, which happens to antecede in a few decades that most frequently postulated in the literature. In effect, the time period that is generally identified in the literature for the recategorization of modals is one roughly coinciding with the time of the beginning of the loss of so-called V-to-T movement: namely, the start of EMnE, that is around 1500.¹⁹

As I specified in Section 1, I deal with the issue of V-to-T (see (2c)) in a separate work due to space limitations. I would nevertheless like to advance that I defend the view that the loss of V-to-T is to be associated with the attrition of subject agreement markers (see at the beginning of the present Section), which is actually the most widely-defended position in the literature, whereas I contend that the recategorization of modals as T is to be associated, as discussed above in this Section, with the demise of v as a locus of τ -interpretation. However, I still need independent evidence to support the view that modals undergo the big change of becoming T no later than 1470, and I will invoke for this, in an interim way, data from a recent monumental corpus search in the literature, namely that reported in Haeberli and Ihsane (2020), that nevertheless appears to treat in a unified way what I analyze in my research as two distinct historical processes: on the one hand, the recategorization of modals (and the copula) as T and, on the other hand, the loss of V-to-T movement. In this sense, it is important to highlight the fact that modals do not just keep moving to T: rather, modals do become T elements themselves. The specific portion from Haeberli and Ihsane (2020) that I would like to invoke at this moment is that where the authors present detailed statistics of the position of V(erb)

and M(odal) relative to adverb-placement. One of the conclusions of Haeberli and Ihsane’s fine-grained corpus analysis is that the decline of V-to-T in English (which will ultimately lead to its loss) starts in the middle of the fifteenth century, which seems to be perfectly in accord with the generalized argumentation in the literature that the loss of V-to-T is inseparable from the loss of subject agreement markers (see above). They go on to show that modals differ significantly from main verbs from the period 1500–1525 onwards, thus indicating that modals are in T then, but not main verbs, which cease to move.

“The periods 1350–1420 and 1420–1475 show the end of a gradual decline in the frequencies SAdvMV and SAdvV order from Old English onwards, with the low point being reached in 1420–1475. In the following period 1475–1500, we see a significant increase of SAdvX both with modals and with main verbs [...] But whereas this rise continues with main verbs in the period 1500–1525 [...] the rate of SAdvMV order drops in a statistically significant way”. (Haeberli and Ihsane 2020, 163).

The criticism that I develop in a separate work consists in that the authors do not appear to give due importance to the contrast exhibited by SAdvMV as compared to SAdvV in the specific period 1420–1475. In this period, according to Haeberli and Ihsane’s statistics (2020, 163), SAdvV amounts to 8.5% whereas SAdvMV, that is a sequence which would show the frequency of lack of movement on the part of the modal, is only 1.1%. The contrast between the two appears to be significant, and I would like to argue that it indicates that modals, in that period, are already T elements, hence the low frequency of the order where an Adv appears to their left.

8. Summary

I have argued that modal verbs (and arguably in principle preterite-presents in general) have an exceptional syntactic status ever since OE that consists in that they merge externally in v . By contrast, strong verbs merge as a “stem-by-default” (v^0) prior to v , and weak verbs for their part merge as a root (which incorporates in itself the “vowel-by-default” of the Present) also prior to v . Whereas strong verbs rely on a v Probe in order to get their τ -features licensed, which expone as ablaut variation, and weak verbs rely on a T Probe in order to get their τ -features licensed, which expone as a /d/ suffix, modal verbs in the Present have *interpretable* τ -features of their own, and modal verbs in the Past must rely on a T Probe as weak verbs do, but they do so after merging externally in v (like modals in the Present). Modals necessarily differ from both strong verbs and weak verbs in their τ -licensing, whereas they share with the latter (with both strong verbs and weak verbs) agreement or ϕ -licensing. A specific Probe of T ($[{}_T Agr T]$) is in charge of the latter for all verbs in the language, since tense and agreement co-vary with each other in the subject agreement markers of all verbs. Modals pass on to merge directly under T when v ceases to be a locus of *interpretable*

τ -features. A symptom that ν loses such a capacity is the loss of the Preterite 1/ Preterite 2 ablaut distinction.

Notes

- 1 In this paper reference is to core modals, and not to semi-modals or mixed modals like *ought to*, *dare* or *need*. Though the (morpho-syntactic) origin of some of these elements is the same as that of core modals, they demand specific argumentation relative to subcategorization or s-selection properties that cannot be included in the discussion for reasons of space.
- 2 As is well known, *external merge* is the technical term used in minimalist theory to refer to the mechanism by means of which any given element is selected by the speaker from the (abstract) Lexicon in his/her mind in order to operate with it in the syntax.
- 3 Such a characterization applies likewise to the copula forms *am/is/are* and *was/were* within the *be*-paradigm. See brief reference to the copula at the end of Section 6, and also note 13 below.
- 4 Feature licensing refers generally to the validation or legitimatization of properties of elements in the syntax, in the case at hand, tense features (or also agreement features): see Section 2 for the *Agree* operation in this respect. Throughout the paper, the terms τ -licensing and \varnothing -licensing will be frequently used.
- 5 See note 18 below.
- 6 As is well-known, Birkmann (1987) is a referential work within the philological literature of the preterite-present phenomenon covering the full range of Germanic languages. And Wojtyś (2017) is a fine-grained corpus search and analysis of contexts of use of those preterite-presents that have disappeared.
- 7 See note 4 above.
- 8 As one reviewer points out, it is relevant to highlight the fact that not all preterite-presents are attested as both modal verbs and verbs with full lexical capacity, at least not to the same degree at all. Thus, *cunnan* is the element that arguably exhibits both ways of meaning most profusely ('know' vs. 'be able to', 'can'), while **motan* would represent the opposite end of the scale, since it appears to be used exclusively as a modal ('may').
- 9 Following conventions, the asterisk here means that the form in question (in this case, the Infinitives) are unattested.
- 10 As is well known, weak verbs appear variously divided in the literature into two, three or four classes, depending on the criteria implemented.
- 11 In *cuðe* and *uðe*, a fricative interdental rather than /d/ is the case.
- 12 More specifically, the Past forms of modals appear to be construed in a similar fashion to so-called irregular weak verbs, that is those weak verbs where only the Present reflects the effects of umlaut (as in *tēllan/tealde*, *sēcan/sōhte*).

- 13 As assumed generally in syntactic theory, for T to be the functional head providing configurationality means that the order of the subject and object(s) is regulated by the position of the finite verb, that is the verb *valuing* τ -features as *interpreted* by T.
- 14 *V* is actually the way in which the vowels of strong verbs are typically characterized in the philological literature whenever the corresponding root is cited.
- 15 See note 13 above.
- 16 Incidentally, the Checking relation is shown to apply between the modal and the external argument or subject of the infinitival structure in a completely aleatory way: that is, in case the infinitive verb is unaccusative, then Checking will apply between the modal and the internal object of the infinitive (since the latter would trivially select for no external argument).
- 17 See note 12 above.
- 18 As a matter of fact, one other major issue should be added to the two mentioned in the main text, namely, why modals in Germanic languages other than English do not become T, it being the case that, one, the relevant elements are also preterite-presents in those languages, and two, an analysis like the one provided here appears in principle to be on the right track also for those grammars. In separate research I contend that the answer to this puzzle would relate to the different connections existing between modals and the copula in those languages vs. the situation in English.
- 19 As is well known, there is a time gap between the period of loss of V-to-T according to the ordering of medial adverbs (a typical test for verb movement) and the period of loss of V-to-T according to the generalized use of periphrastic *do* (see Haerberli and Ihsane (2016; 2020) and references therein). The period that is the more relevant of the two for the analysis of the recategorization of modals is the first one.

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***Wok* (‘work’) as a Melanesian Cultural Keyword: Exploring Semantic Insights from an Indigenous Tok Pisin¹ Play**

Abstract: This paper offers a preliminary cultural semantic exploration of a key social concept of the Melanesian worldview advanced in the anthropological literature of the area. It is argued that the cultural meaning of this notion can be accessed by focusing on the relevant contextual and semantic properties of the corresponding Tok Pisin lexical unit *wok(im)* (‘work’) examined in a noteworthy cultural text approached as a source of linguistic evidence.

Keywords: Tok Pisin, creole, cultural keyword, cultural semantics, Melanesia, worldview

1. Introduction: between English words and Melanesian values

While the word *Melanesia* itself is not of Melanesian origin (see Lawson 2013 for a critical history of the idea), attempts have been made at identifying a significant group of ‘Melanesian Values’ meant to pinpoint salient cultural commitments of Melanesian peoples. In fact, observing unity in the considerable diversity of local languages and cultural practices has been one of the enduring concerns of Melanesian ethnography, leading to the emergence of the notion of the Melanesian worldview. Following this line of thought, early British ethnographers of Melanesia came up with lists of cultural values, practices, prominent native words, and symbolic items which aimed to capture many – if not all – distinctive characteristics shared by Melanesian societies. For example, one of the early illustrative works of that genre, Francis Edgar Williams’ (1932) Anthropology Report No.12 *Sentiments and Leading Ideas in Native Society* contained a brief description of twelve ‘leading ideas’ of Melanesian societies, spelt out as follows:

(1) ‘Native Conservatism: The Attachment to Tradition’, (2) ‘Corporate Self-Regard: Pride in Culture’, (3) ‘Individual Self-Regard: Self-Display’, (4) ‘Loyalty to Group: Clannishness’, (5) ‘Intra-Group Sentiment: The Sympathetic Sanction’, (6) ‘The Sense of Shame’, (7) ‘Sentiment toward Relatives by Marriage’, (8) ‘Respect for Seniority’, (9) ‘Sentiments toward the Dead’, (10) ‘Tribal Secrets: The Mysteries’, (11) ‘The Economic Balance: Reciprocity’, (12) ‘Pride in Food Production: The Cult of Food’.

When looking at the content and wording of Williams’ list from a cultural semantic point of view (see Wierzbicka 2016), however, one cannot but observe that it was only in number (6) ‘The Sense of Shame’ that Williams went on to associate some actual indigenous words with that particular ‘leading idea’ (1932, 1). In order to clarify his observation, Williams further noted that “the word ‘shame’ is thoroughly embedded in pidgin-English” (cf. its contemporary Tok Pisin sound-alike *sem* (with its original meaning of ‘male or female genital organs’), while “we have *hemarai* as its counterpart in pidgin-Motuan”. Other than that, he surmised that “It is probable that in every native language in the Territory we should find a roughly corresponding term and concept (Orokaiva, *meh*; Elema, *maioka*; etc.)” (Williams 1932, 1).

The relative paucity of linguistic evidence notwithstanding, it appears that a salient feature of the hypothesis of the Melanesian worldview presented in such early anthropological writings, was its marked attention to the local notional factors, clearly conveyed in the title of Williams’ essay, which specified two related groups of target concepts, namely ‘sentiments and leading ideas’. In particular, the reality of a worldview conceived along such lines was ostensibly connected to the nature of Melanesian symbolic constructs and interpretive routines.

In more recent times, however, the postulate of approaching Melanesia as a cultural area has been intertwined with an acknowledgement of the constitutive role of Melanesian Pidgin (cf. Lynch 1998, 221–232; note 1) in sustaining the emergent Melanesian cultural identity. Consequently, the task of identifying Melanesian values became tied to the language which furnished the common lexical and conceptual currency of the area, namely Melanesian Pidgin. Several scholars – both Melanesians and outsiders – routinely pointed to some common cultural priorities clearly favoured by Melanesian societies. For example, as claimed by Vallance, “Melanesian ontology will be grounded in relationships. These relationships will be primarily communal” (2007, 7). Indeed, it appears that this proposal has been shared by both past and present scholars of Melanesian societies, such as Hukula (2017) and Narokobi (1983), who refer to kin-like relatedness as one of the key cultural features of Melanesian societies. It merits attention that the idea of common cultural identity spans many aspects of individual Pacific societies. For instance, as argued by Vallance (2007, 5), it is “Melanesians’ sense of unity within many divisions of languages, geography and levels of socio-economic development, particularly low levels of adult literacy (...)”, which, in their turn “uniquely stamp

the Melanesian world view". Thus, it seems plausible to maintain that the thesis of the Melanesian worldview is hardly controversial anymore, while its precise scope and conceptual content remain relatively flexible if not fully fleshed-out.

2. Melanesian values in Melanesian words: Franklin's (2007) contribution

A valuable contribution to anthropological research on Melanesian leading ideas has been an attempt at capturing their unique significance with specific Melanesian lexical items stemming from Melanesian Pidgin, rather than simply affixing their indigenous cultural meanings with common (and culture-specific) English words. In recent years, the eminent scholar of Melanesian languages and cultures Karl J. Franklin put forward a group of ten values targeted to delineate the Melanesian worldview. His notable paper titled "Framework for a Melanesian World View" (2007) offered a lexically detailed statement of the hypothesised content of Melanesian cultural ideology, encompassing a list of "Some Key Terms When Discussing Values in Tok Pisin" (2007, 42–47). His full list of "Key Terms" includes more than seventy Tok Pisin words and expressions grouped around the following broad values which constitute the conceptual scaffolding of the Melanesian worldview identified by Franklin:

1. The value of land (*graun* or *wara*)
2. The value of the clan (*lain* or *wantok*)
3. The value of reciprocity (*bekim*, *bekim bek*)
4. The value of food (*kaikai*, *mumu*)
5. The value of ancestors (*tumbuna*, *tambaran*)
6. The value of ritual (*tambu*, *singsing*, *lotu*)
7. The value of leadership (*hetman*)
8. The value of education (*skul*)
9. The value of compensation (*peibek*, *bekim*, *birua*)
10. The value of work (*wok*)

However, one can hardly overlook that the ten core Melanesian values pinpointed by Franklin with English words, subsumed a score of Tok Pisin lexical items, an observation which inevitably leads one to consider an interpretive issue of the actual semantic relationship between English words and indigenous cultural concepts expressed in Tok Pisin. While the formal side (spelling and pronunciation) of an English-lexified creole language may superficially remind one of English, it actually (and misleadingly – for native speakers of the lexifier language) bears a complex semantic relationship with its chief lexical donor language, as amply demonstrated by recent studies on the semantics of pidgin and creole languages, both from descriptive-typological and anthropological linguistic perspectives (see,

e.g. Huttar 2008; Hollington 2015) Consequently, in order to access the relevant usage of creole words, their meanings need to be unravelled in their informative cultural context. In the case of this paper, such a context is assumed to be found in a piece of indigenous literature written in Tok Pisin and originally intended to depict the realities of life and the communicative universe of its users, captured in a historically memorable cross-cultural incident.

3. From Tok Pisin literary discourse to Melanesian cultural semantics

Writing about the emergence of literary production in Tok Pisin, Laycock (1985, 504) distinguished three “separate strands of literature” created in this language:

1. folk literature: songs, stories, and speeches of indigenous Tok Pisin speakers, transmitted orally.
2. writings in Tok Pisin by Europeans, for the most part translations.
3. deliberate ‘literary’ creations in Tok Pisin by indigenous writers and published over their own names.

As pointed out by Laycock, “self-conscious creative writing in Tok Pisin by local-born authors is a comparatively new phenomenon; outlets for publication in this field have been available only since 1969” (1985, 504). Adding to Laycock’s division, one might note that during the debates about the social role of Tok Pisin during the pre-independence period of Papua New Guinea, some scholars took up the issue of Tok Pisin’s considerable relevance in the development of local literary discourse. For instance, Roger Boschman, the editor of the literary journal *Papua New Guinea Writing*, addressed its readers in his essay, headed by a pertinent question: “Pidgin for literature?”

There has been much discussion over the years as to the importance of the lingua franca, Neo-Melanesian Pidgin English, to the future of Papua New Guinea. In many minds Pidgin contests heavily with English as the future official national language of Papua New Guinea. (...) What about Pidgin as a language of literature? (Boschman 1973, 1)

A potentially distinct national identity-building role of the chief local contact language has also been noted by other scholars studying sociolinguistic aspects of nationhood building in the late pre-independence period of Papua New Guinea (i.e. shortly before 1975). For example, Romaine (1995, 95), writing about pre-statehood debates which centred around the envisaged political and social status of Tok Pisin in the emerging state of Papua New Guinea, pointed to a simultaneous rise in the use of Tok Pisin as the language of nascent Papua New Guinean literature,

broadly conceived as the expression of “nationalist sentiment”. Significantly, Tok Pisin came to be used in several prominent novels and plays written at that time (Romaine 1995, 95), one of which was Rabbie Namaliu’s “semi-historical” play *Maski Kaunsil* published in 1975. Romaine (1995, 95), who translates the title of Namaliu’s play as *Never Mind Council*, emphasizes the historical context of Tok Pisin literary output of that time, underscoring its significance in the climate of pre-independence Papua New Guinea:

In the period leading up to self-government many felt that they were using literature to express nationalist sentiment and to help create a national identity. Many playwrights became politicians.

Romaine’s observation appears to be particularly apt with respect to the person of Rabbie Namaliu (Sir Rabbie Langanai Namaliu), a former prime minister of Papua New Guinea (1988–1992) and the author of two plays written in Tok Pisin: *The Good Woman of Konedobu* (1970) and *Maski Kaunsil* (1975). The second work has been classified as a “semi-historical” play which is concerned with “village and administrative conflicts” (Goetzfridt 1995, 22). More specifically, the key elements of the depicted conflict were originally fuelled by transitioning from an earlier *luluai* (Tolai³ ‘chief, leader in war’) village administrative system introduced by Germans, towards the development of *kivung na baramana* (Tolai ‘young men’s council or assembly’) and then to the system of local native government councils (*kaunsil*) aimed to “pave the way for fuller participation in government and politics at the territorial level” (see Epstein 1969, 251-252). The play was inspired by an actual event which took place in East New Britain Province of Papua New Guinea, towards the end of 1951. As recounted by Epstein (1969, 251-252), John Keith McCarthy, District Commissioner of Rabaul, visited the village of Raluana to persuade the Tolai people there to accept a new form of local (native) government council – called *kaunsil* in Tok Pisin – as a beneficial form of administration. Yet, the inhabitants remained adamant, and the meeting quickly developed into a brawl, during which McCarthy was struck over his head with a crutch. Subsequently, the villagers who took part in the brawl got arrested and sentenced to a six-month prison sentence.

Before embarking on the actual analysis of the relevant fragment of that text, however, a few clarifying remarks about the use of native literature as evidence in ethnolinguistic research deserve to be presented. Mining an indigenous literary text for insights into links between the cultural meanings of local words and communicative practices of their users is not new in the field of ethnolinguistic studies. For example, the idea of using dramatic scripts as anthropological evidence in linguistic and cultural research on pidgin and creole languages has been pursued by Worman (2006, 35), who pointed to some hard-to-neglect advantages of using certain kinds of indigenous literary production as data for linguistic inquiry:

Staged speech represents the variety of speech that is written to be spoken and may come closest to “ordinary” spoken speech. Not only does staged speech represent the variety “written to be spoken,” but modern drama is in some sense thought to be superior to a corpus based on spoken language since the latter may be less thoughtfully conceived and expressed and thus poorer in reflecting the prototypical tendencies in a language. (Dirven et al. 1982, 6-7)

It is worth emphasizing that the idea of approaching indigenous literature as a source of evidence in studies of languages and cultures has been upheld not only by anthropological linguists, but also by cultural psychologists, such as Murray Thomas (2001, 22), who argued that “communicative and creative products of a culture often mirror important elements of society’s folk psychology”. Taking cue from the preceding recommendation, the present paper seeks to offer a cultural semantic reading of a fragment of one indigenous text, representative of the third group of Tok Pisin literary creations, focusing on one significant lexical item which runs through the verbal exchanges of participants.

4. *Work* and *wok* as respective cultural keywords of Anglo and Melanesian cultures

Williams (1985, 266–268), who counted *work* as one of the cultural keywords of the Anglo English-speaking world, observed that “as our most general word for doing something, and for something done, its range of applications has of course been enormous. What is now most interesting is its predominant specialization to regular paid employment”. While the idea that the word *work* constitutes an example of a culturally prominent lexical and discursive construct in English is by no means surprising (see Goddard and Ye 2015, 69 for another account), it seems interesting to uncover what happened to this culturally salient word, when it was ‘recycled’ – as per Iteanu’s (2015) felicitous phrase² – as *wok* in Melanesian cultural environment, which offered a different linguistic and social picture in this regard.

According to Franklin (2007, 36–38), research on Melanesian languages pointed to a lack of a general translational equivalent of a common English verb *to work*. Characteristically, an indigenous language such as Kewa (studied and described by Franklin) provided a variety of forms depending upon the exact nature of the task, relating them to specific functions within culture, and not to time or payment (Franklin 2007, 37). With the advent of that new meaning contained in the English word *work*, the multiplicity of native words received the salient superordinate Tok Pisin term *wok*, which placed them in an altogether new conceptual order. As Franklin explained, “(...) once “work” was imported into the culture by the government and missionaries, a broader descriptive label was necessary

to refer to the kinds of work that had specific time and wage constraints” (2007, 37). Arguably, one of the valuable anthropological insights afforded by Namaliu’s play is that it furnishes a native literary rendering of an instance of a cross-cultural encounter where the two culturally pregnant Tok Pisin words *wok* (n) and *wokim* (vt) were brought into the communicative focus of village-level activities of collective debating and decision making. As expected, such activities engaged both the local Melanesian people (speaking Tok Pisin and Tolai³) and a prominent Australian administrative officer (speaking Tok Pisin and English) and his party.

Before examining the use of *wok* in a fragment of connected discourse, brief information about the chief linguistic properties of this Tok Pisin lexical item is necessary, as the descriptive linguistic categorisation of *wok* is quite complex. Todd (1984, 191) classifies this lexical element as a multifunctional transitive adjective verb: *wok(im)* AVTM <Eng. ‘work + ‘em’>, which she glosses as ‘build, work, be busy’. Another broad set of glosses given by Baing and Volker (2008, 121-122) includes nominal and verbal English equivalents grouped as (1) ‘work, task, occupation’ and (2) ‘to work, process, produce, grow’. Linguistic reflections of that characteristic cultural scheme identified by Franklin (2007, 37), namely, finer gradations and specifications of ‘work’ which followed the spread of Melanesian Pidgin as the chief tool of intercultural communication in Melanesian societies – are present in a productive nominal compound pattern of *wok* + N(oun), such as e.g. *wok bisnis* (‘business activities’), *wok kamda* (‘woodworking’, work + camden), or *wok mani* (work + money, ‘work for a wage’, paid employment’), etc. At the same time, the formative *wok* also became a part of Tok Pisin’s tense-modality-aspect (TMA) system. Dutton and Thomas (2002, 104-105) point to the ‘*wok long* + verb’ structure, which, they say “is a very common structure that is used for to be busy doing something; to work at doing something”. Significantly, however, this construction does not entail any exertion on the part of a volitional human being at all, the meaning which they illustrate with the following dialogue:

Man: *Ya. Olsem na mi raun i stap bilong painim wok. Tasol ol i no gat wok.*

Yes. And so, I’m going around looking for work. But no one has any.

Isaia: *Nau yu wokim wanem i stap?*

What are you wanting to do now?

Man: *Mi wok long sindaun nating tasol na wetim wok bai i kamap.*

I’m busy sitting down doing nothing waiting for jobs to come up.

While this one, and numerous similar examples adduced by Dutton and Thomas (2002, 104-105) demonstrate that the words *wok* (n) and *wokim* (vt) are part and parcel of colloquial Tok Pisin, their cultural significance merits investigation. As emphasized by Franklin, the concept of *wok* originally surfaced as a ‘recycled’ English notion in specific social settings, i.e. bound to governmental, administrative, and missionary activities. As such, it became welded both to the native concepts

and practices of social administrative power (such as *kivung* – ‘village meeting’), as well as to the new means of redistributing wealth, such as *moni* (‘money’) and *takis* (‘taxes’) introduced by the colonial administration. For example, economic changes brought about in the area represented in Namaliu’s play resulted in the introduction of such novel economic practices and concepts as those of ‘work for wages’, ‘contract work’, and ‘taxes’ (see Epstein 1969, 57–65). In order to facilitate such social changes, the then Australian administration proceeded to introduce a new type of native governing bodies, referred to as local administrative councils, which, however, ended up in conflict with the original *kivung*, which opposed the paying of taxes (Epstein 1969, 57–65).

5. Bringing *kaunsil*, *wok* and *takis* to Raluana: creole words and misread social intentions

Rabbie Namaliu’s play *Maski Kaunsil* (1975) takes four acts to recount the full progress of the memorable 1951 encounter between the inhabitants of Raluana village and John Keith McCarthy, an experienced Australian local administrative officer. The purpose of this section, however, is to offer a translation and a cultural linguistic commentary of a short fragment from Scene Two of the play (1975:17–21), which consists of thirteen adjacent utterances of McCarthy and several villagers, who come to a strong disagreement about the newly proposed type of representative body (named *kaunsil* in Tok Pisin) supposedly connected with various kinds of beneficial *wok* (‘work’) which the introduction of the *kaunsil*-based representative system should enable. However, the villagers of Raluana remain unwilling to accept that new administrative concept (rightly expecting unwelcome shifts in local politics), accuse McCarthy of ‘cheating/tricking’ (*giamanim*) them, arguing instead, that their native *kivung* (‘village meeting/assembly’) serves their needs better.

The translation below follows Duranti’s (1997, 156–157) Format II, which consists of original text and parallel free translation. Whenever necessary, additional types of glossing are used as well. All instances of the key Tok Pisin word **wok** (n) and **wokim** (vt) are in bold, while other contextually relevant Tok Pisin words (e.g. *kaunsil*) are italicized in both the original and the translated texts.

The scene was preceded by an announcement that the current *kivung* (village assembly) has been summoned to announce an important meeting with the local area’s *kia*p (government officer in pre-independence Papua New Guinea) intended to instruct villagers about their *wok* (‘work’) following the gathering. The village crowd has assembled on the grounds of their local primary school.

<p>(1) Scene Two, p.18: Makati</p> <p>Mi bin kam hia bipo long toktok long dispela samting <i>kaunsil</i>. Nau gen mi wantaim ol man hia, yupela ken lukim long painimaut sapos yupela senisim tingting bilong yupela long dispela samting <i>kaunsil</i>. Yupela harim pinis ol bilong Nangananga na Toma. Nason ToKabait em i stap wantaim yumi nau. Ating yupela olgeta i save long em. Olsem wanem yupela strong yet long yupela i no laik kirapim <i>kaunsil</i>, o yupela orait long en. Mi laik tokim yupela gen long dispela samting, sapos yupela kirapim wanpela <i>kaunsil</i> olsem ol ples hia mi tokim yupela long ol, bambai yupela yet inap long ronim sampela samting long ples bilong yupela. Bambai yupela yet inap long kisim takis olsem mani, na bambai yupela yet inap toktok long wanem <i>wok</i> yupela laikim lusim dispela mani long en. Bambai yupela ken nap long <i>wokim</i> dispela mani long en. Bambai yupela ken nap long <i>wokim</i> nupela haus. long skul bilong yupela, long kapa na palang na simen. Olsem tu. bambai yupela inap long stretim ol liklik trabel long ples bilong yupela yet long Raluana. Gavman bambai i givim planti helpim mo long ples bilong yupela</p>	<p>McCarthy –</p> <p>I came here before to talk about this thing, <i>kaunsil</i>. Now, as for me and other men here, you can find out if you changed your mind about this thing, <i>kaunsil</i>. You have heard about (the villages of) Nangananga and Toma. Nason ToKabait is with us now. Perhaps, you know about him. Why are you so hard set against setting up a <i>kaunsil</i>, or are you alright with it? I want to talk to you again about this thing, if you set up a <i>kaunsil</i>, like the villages I'm telling you about you will be able to run some things in your village. Soon, you will receive tax money, and soon you yourselves will be able to discuss what <i>wok</i> you would like to spend your tax money on. Soon you will be able to <i>wokim</i> (use) that money on it. Soon you will be able to <i>wokim</i> (build) a new house for your school, with roofing iron, sawn timber, and cement. Thus, you will be able to settle your small problems in your village of Raluana.</p> <p>Government will give you much more help in your village.</p>
<p>(2) Scene 2, p.18: Kepas</p> <p>Tenkyu tru Makati long toktok bilong yu. (He turns to the crowd and continues) Yumi harim pinis toktok bilong nambawan kiap bilong yumi. Olsem wanem long tingting bilong yupela long dispela samting, <i>kaunsil</i>? Yumi harim pinis ol gutpela samting yumi nap <i>wokim</i> long takis mani. Olsem tu ol bilong Vunamami na Reimber, na Nangananga, ol kirapim pinis <i>kaunsil</i> bilong ol. Nason em i stap wantaim yumi nau, na mi ting em bambai toktok bihain long dispela samting. I gat toktok long yupela long dispela samting?</p>	<p>Kepas –</p> <p>Thank you, McCarthy for your speech. (...) We have heard the speech of our most important kiap. What do you think about this something, <i>kaunsil</i>, then? We have heard about the good things we can <i>wokim</i> with tax money. Also, the villages of Vunamimi and Reimber, and Nangananga, they have set up their own <i>kaunsil</i>. Nason is here with us now, and I think he will speak about this later. Is there anything you want to say about it?</p>
<p>(3) Scene Two, p.18: Tuvi (addressing the crowd and Makati and his party on behalf of the people)</p> <p>Tenkyu tru Mr Makati long toktok bilong yu. <i>Kaunsil</i> em i gutpela samting na i bikpela samting, tasol mipela i no redi long en yet. Yu gutpela pren bilong mipela yet long Raluana, tasol mipela i no ting mipela inap yet long en. Olsem mipela i no laik kirapim wanpela <i>kaunsil</i> yet long ples bilong mipela nau. Ating long bihaintaim, sapos mipela redi pinis orait bambai mipela tokim yu.</p>	<p>Tuvi –</p> <p>Thank you, Mr McCarthy for your speech. <i>Kaunsil</i> is something good and something big, but we are not ready yet. You are a good friend of us here, in Raluana, but we think we are not up to it yet. That's why we don't want to set up a <i>kaunsil</i> in our village yet.</p> <p>Maybe later, when we are ready, we will tell you.</p>

<p>(4) Scene Two, p.18: Makati</p> <p>Mi no ting em i tru. Yupela gat tisa pinis olsem yu Tuvi, na yupela gat planti man tu ol <i>wok</i> long taun na long sampela hap long Papua na Nu Gini. Yupela gat bikpela save pinis long inap kirapim wanpela kaunsil. Wanem kain save yupela laikim? Mi laikim yupela tok save mo long wanem tru yupela i no laikim kaunsil.</p>	<p>McCarthy –</p> <p>I don't think this is true. You all have already had a teacher, like you, Tuvi, and you have also had many men who <i>wok</i> in towns and other places in Papua and New Guinea. You have had sufficient experience/knowledge to assemble a kaunsil. What kind of knowledge do you want? I want you to tell me more, why really you don't want kaunsil.</p>
<p>(5) Scene Two, p.18: Kepas (attempting to calm the crowd)</p> <p>Em i no samting long tok kros long en, em samting long stretim. Mi laikim bambai yumi tok stret long ol. Mi laikim bambai Tuvi i toksave long ol tingting bilong yumi olgeta.</p>	<p>Kepas –</p> <p>This isn't something to speak angrily about, this is something to settle straight. I want us (incl.) to speak straight with everybody. I want Tuvi to explain our thinking to everybody.</p>
<p>(6) Scene Two, p.18: Tuvi (getting up and addressing Makati and his party)</p> <p>Mr Makati, mipela i laikim kaunsil tumas, tasol mipela i nogat save long ronim kaunsil. Mipela i no gat mani long baim takis. Yu save mipela gat kivung pinis. Dispela samting mipela ting em bilong ol pikinini bilong mipela long bihain. Long taim ol i gat planti mani na bikpela save, bambai ol i ken toksave long yu long gavman long kirapim wanpela kaunsil.</p>	<p>Tuvi –</p> <p>Mr McCarthy, we really want a kaunsil, but we don't have knowledge to run a kaunsil. We don't have money to pay taxes. I know, we just have a kivung. This thing is something for our children in the future. When they have a lot of money and a lot of knowledge, then they can inform you in the government to set up a kaunsil.</p>

As observed by Franklin (2007), Tok Pisin words *wok* (n) and *wokim* (vt) characteristically emerged in the administrative discourse of colonial Melanesia. The first utterance of McCarthy (Makati) contains all contextual hallmarks described by Franklin – nouns *takis* ('tax') and *mani* ('money') appear in discourse as linked to the new concept of *wok*. All kinds and materials of work which are described by McCarthy in his introductory words are indicated as clearly conducive to the welfare of the villagers of Raluana (1), who are going to be better off thanks to the availability of modern building materials (sawn timber, roofing iron, etc.) and a possible surplus of money. However, the two villagers Kepas (2) and Tuvi (3) try to tone down and postpone the introduction of the administrative *kaunsil* which might herald such impressive changes, appealing to their own feigned ignorance (Tuvi, 3 and 6) Yet, McCarthy (Makati) refuses to believe the explanations he received, appealing to Tuvi's experience as a teacher, as well as to the fact that many men from Raluana already *wok* ('work') in a number of towns in Papua New Guinea (4) A stand-off ensues, as both McCarthy and the villagers realise that their arguments do not really work as they had expected (8, below).

<p>(7) Scene Two, p.19: Tuvi (talking to Kepas and Penias)</p> <p>Makati i strong yet hia. Yumi no ken pret tumas long tok strong. Yumi mas tok strong long yumi i no laikim <i>kaunsil</i>.</p>	<p>Tuvi –</p> <p>McCarthy is strong here. We mustn't be afraid to oppose (him). We must argue that we don't want a <i>kaunsil</i>.</p>
<p>(8) Scene Two, p.19: Makati</p> <p>Tenkyu tru, mipela harim pinis sampela toktok bilong yupela, tasol mipela tu i no save tru long wanem yupela i no laikim <i>kaunsil</i>.</p>	<p>McCarthy –</p> <p>Thank you, we have listened to some of your words, but we don't really know why you don't want a <i>kaunsil</i>.</p>
<p>(9) Scene Two, p.19: Tuvi</p> <p>Mr Makati, mipela i no gat mo toktok long dispela samting. Mipela tokim yu pinis long olget tingting bilong mipela, i mobeta sapos yumi larim dispela samting.</p>	<p>Tuvi –</p> <p>Mr McCarthy, we have nothing more to say about this thing. We have told you everything that we think, it'll be better if we let go of this thing.</p>

As McCarthy senses that his words achieve no effect, he moves to threaten Tuvi, just like the latter expected (7). Predictably, he threatens to remove Tuvi from his *wok* ('work') conveying that Tuvi is by no means as poor and ignorant as he claims to be (10). At this moment, another local man cuts in, verbally attacking McCarthy (11) and accusing him of trying to trick and confuse (*giamanim*) them with their concept of *kaunsil*, just like the White people (*ol mastas*) used to do before, when they appropriated their land for metal tools and stick tobacco (*tabak*).

<p>(10) Scene Two, p.19: Makati</p> <p>Tuvi, sapos yu tok gen olsem bambai nau tasol mi rausim yu long wok bilong yu. Yu harim? Husat i tok yupela i nogat mani, husat i tok yupela i nogat bikpela save, husat i save <i>giamanim</i> yupela long ol dispela kain toktok? Husat i . . .</p>	<p>McCarthy –</p> <p>Tuvi, if you speak like this again, I will throw you out of your <i>wok</i>. Do you hear? Who says you (pl) don't have money, who says you (pl) don't have much knowledge, who tricks you (pl) with this kind of talk? Who ...</p>
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<p>(11) Scene Two, p.19: Third Man (getting up and talking angrily)</p> <p>Orait Makati, yu ken givim toktok long mipela long wanem samting yu laik. Tasol mipela les pinis long harim <i>kaunsil</i>, <i>kaunsil</i>, <i>kaunsil</i>. Em wanem samting? I nogat arapela samting long toktok long en? Ol taim yupela ol masta i laik kam na giamanim mipela long kirapim kaunsil. Long wanem yupela i no save laik long toktok wantaim mipela liklik long giraun bipo yupela kam stilim long mipela long akis, tabak, na ol hap aen hia? (He shows them a knife)</p> <p>Samting ol tumbuna bilong mipela i nogat save long en, na yupela kam <i>giamanim</i> ol long en.</p>	<p>Third Man (a villager) –</p> <p>Alright McCarthy, you can speak to us about anything you want. But we are fed up with hearing <i>kaunsil</i>, <i>kaunsil</i>, <i>kaunsil</i>. What is it? Isn't there anything else to talk about? You white people (<i>ol masta</i>, 'masters') always come and trick (<i>giamanim</i>) us into setting up a <i>kaunsil</i>.</p> <p>That's because you didn't use to talk about the land you stole from us in exchange for axes, tobacco, and other iron things (like this knife) here?</p> <p>Things that our ancestors didn't know about, you came and tricked (<i>giamanim</i>) everyone with them.</p>
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As of this moment, the second man joins in attacking McCarthy with more accusations of cheating and tricking (*giamanim*), while Kepas encapsulates the definitive conclusion for McCarthy (13), clearly asserting that his people have no need of the institution which McCarthy attempts to impose on them (or more precisely, to lure them into), as their local *kivung* is fully sufficient as far as their current needs are concerned.

<p>(12) Scene Two, p.19: Second Man</p> <p>Em pasin bilong ol masta tasol hia ol laik kam giamanim yumi ol taim</p>	<p>Second Man –</p> <p>This is the way of the white people, they always come and trick us /cheat us</p>
<p>(13) Scene Two, p.19: Kepas</p> <p>Orait, inap Makati harim pinis ol toktok long pipal bilong mi. Mipela i no laikim <i>kaunsil</i> long wanem mipela i gat <i>kivung</i> pinis. Mipela ting dispela samting orait long mipela nau.</p>	<p>Kepas –</p> <p>Alright, that's enough, McCarthy has listened to my people. We don't want a <i>kaunsil</i> because we have a <i>kivung</i>. We think this is something which is alright for us now.</p>

6. Concluding remarks

It has been argued that the communicative events evoked in the studied fragment of Namaliu's play can be construed as evidence in favour of Franklin's (2007, 37) statement linking the emergence of the Tok Pisin (and more broadly, Melanesian) concept of *wok* to colonial administrative settings. Consequently, in order to form a more accurate picture of cultural and contextual significance of this word within Namaliu's work, one should observe that it is prominently juxtaposed with a

novel English-derived administrative term *kaunsil* – which unlike the supposedly equivalent Tolai word *kivung* – remains unclear and contested to the Melanesian inhabitants of the village. Moreover, a prominent linguistic factor which seems to contribute to the notional complexity of the cross-cultural encounter reconstructed in the play appears to be the opaque nature of the concept of *kaunsil* (derived from English) vis-à-vis that of *kivung* (derived from Tolai), attributable to a common Tok Pisin phenomenon of imperfect synonym pairs, characteristic of communication across lectal boundaries (see Mühlhäusler 1985). Consequently, a conspicuous feature of the communicative encounter reconstructed in Namaliu's work appears to be an aura of reluctance surrounding the attempted introduction of a new administrative body, referred to as *kaunsil* in Tok Pisin. Instead, the Tok Pisin and Tolai-speaking villagers of Raluana prefer to stick to their familiar practice of *kivung*, while at the same time it is a clearly perceived lack of equivalence of the social practice of *kaunsil* vs. that of *kivung* that is at stake, as the power balance shifts within the village debate represented in the studied fragment of the play.

On the level of semantic meaning, however, Franklin's (2007, 37) research indicated that the lexical item *wok* surfaced in Tok Pisin as a superordinate term which imposed new temporal and economic constraints on how a continuum of people's activity could be conceptualised and managed. A possible symptom of introducing such a novel notional and cultural perspective might understandably culminate in contradictory evaluations of that activity. For example, within the context of the studied fragment of Namaliu's play, *wok* is described as a kind of activity which results in tangible material benefits (as in example (1) – Makati's opening speech), but at the same time the practice of *wok* can be viewed as yielding to the controlling power of dominant others who can terminate one's activity (*wok*) apparently on a whim. Such potentially confusing and disruptive understanding of human activity anchored in the two English-derived concepts of *wok* and *kaunsil* is highlighted in examples (10) and (11) (Scene Two), where Makati (McCarthy) upbraids a local villager (Tuvi, a schoolteacher), threatening 'to throw him out of his work' (*mi rausim yu long wok bilong yu*), only to be confronted by another villager (Third Man) who retorts with a barrage of accusations ostensibly directed at White people (*ol mastas*) in general, who apparently come only with an intention of confusing/tricking (*giamanim*) and robbing (*stili*) the local people of their land, offering iron tools and tobacco in return.

A well-known Papua New Guinean politician and philosopher Bernard Narokobi (1983, 9) commented on the nature of Melanesian society as follows: "Giving and taking is an integral part of Melanesian society. Co-operation and mutual support, especially in times of need and crisis are a part of our living experience. Confrontation and competition are kept to a minimum". While a certain idealism seems to run through Narokobi's writings (cf. Franklin 2007, 27), the cultural concept of *wok* has clearly become a part of common Melanesian conceptual currency embedded in local networks of kinship and relatedness recounted in Namaliu's play.

Notes

- 1 Tok Pisin (also known as Neomelanesian, New Guinea Pidgin English, Melanesian Pidgin) and English are the national languages of the Independent State of Papua New Guinea, a multi-ethnic and multilingual Pacific state with the population of approximately 7 million people speaking at least 836 individual languages, spread over 600 islands (see Lewis ed. 2013). This extremely complex sociolinguistic situation is further complicated by the fact that several provinces of the country do not rely on Tok Pisin as a language of wider communication and use Hiri Motu (an Austronesian-based contact language) or English instead. Further information about the names given to Tok Pisin (both exonyms and endonyms) can be found in Verhaar (1995, 1–4). The designation Melanesian Pidgin is also used by some linguists “as the cover term for the three languages/dialects known as Tok Pisin in Papua New Guinea, Pijin in Solomon Islands, and Bislama in Vanuatu, spoken in all by perhaps three million people” (Lynch 1998, 220).
- 2 This helpful idea was clarified by Iteanu (2015, 138) in the context of Melanesian cultures and cross-cultural contact with the following words: “By “recycling of values,” I refer to the usage made by a society of ideas, qualities, and objects formerly associated with some secondary value, in order to understand and appropriate a new value that would otherwise be difficult to grasp because of its very novelty”.
- 3 While the Tolai (Austronesian) word *kivung* used in the Tok Pisin of the Eastern part of Papua New Guinea refers to ‘village assembly’, the same word also refers to some local varieties of cargo cults practiced in the western parts of PNG (see Jebens 2004, 157–159 for an anthropological account). A staunch defence of their local *kivung* by the villagers of Raluana depicted in Namaliu’s play might nevertheless be a reflex of their perception that the overwhelming abundance of Western material goods is amenable to a supernatural account only, and not really to the institution of *kaunsil*, or practice of *wok*. For an in-depth study of historical and linguistic contacts between Tolai and Tok Pisin, see Mosel (1983).

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Post-Conquest Forged Charters Containing English: A List*

Abstract: The paper presents a list of sixty-nine forged charters containing English produced following the Norman Conquest of 1066. The list can be considered a supplement to *The Production and Use of English Manuscripts 1066–1220* (Da Rold et al. 2010) – a project conducted jointly at the University of Leeds and University of Leicester collecting all known texts containing English, in order to provide an insight and allow research into “transitional”, post-Conquest English. The paper outlines the significance of charters in the Medieval world, and discusses some key issues and misconceptions related to studying this period in the history of the English language.

Keywords: charter, forgery, Norman Conquest, transitional English, diplomatics

1. Introduction

A charter is a legal document containing some kind of record (Tinti 2021, 2), such as transactions (sales, exchanges, leases, donations), grants of rights, powers, privileges, or functions – from the sovereign power of a state to individuals or institutions. Generally speaking, before 1066, most Anglo-Saxon charters were issued by kings, who would use them for political reasons, as a form of executing and demonstrating their power, whereas after 1066 charters were prevalent throughout all layers of medieval society¹.

The study of charters is known as “diplomatic” or “diplomatics”, from *diploma* – a Classical Latin term² used for a wide range of charters, deeds, and

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writs (Sharpe 1994, 230). As documents referring to property, charters constitute a significant part of archival records (Geary 1998, 169), offering themselves as an interesting object in historical linguistic research, providing data on such areas as social and political relationships, economic organization, or customs and practices; sometimes even allowing an insight into lives of the bottom layers of society, as opposed to e.g. chronicles which tend to focus on those in power³. As written records of oral transactions (McKitterick 1990, 320) they typically contain information on the time, place, participants, and external circumstances of their production⁴, and due to their performative character they furnish information about the spoken language (Tinti 2021, 12).

2. Pre-Conquest English charters

Compared to other Medieval European kingdoms, Anglo-Saxon England produced an impressive volume of vernacular texts (Clanchy 2013, 32). This is mostly due to religion in terms of its political and cultural dimensions – the collapse of the Roman Empire led to the institutionalization and bureaucratization of the Church⁵; both processes were rooted in the Latin documentary culture, reinforcing and disseminating it via the structures of the Church. In the late sixth and early seventh centuries, the introduction of Christianity had two linguistic-literary consequences to the contemporary English kingdoms: adoption of the Roman alphabet, and the emergence of early Christian, almost exclusively literary culture (Tinti 2021, 4). The first known Anglo-Saxon charters are seventh-century Latin diplomas – grants of land issued for religious communities; this means that the Anglo-Saxon documentary culture was established by accepting a foreign language (Latin) validated by religion (Tinti 2021, 5). Nonetheless, even the early Anglo-Saxon charters (dating back to the seventh and eighth centuries) were not entirely written in Latin, as they contained vernacular elements, such as place-names or personal names,⁶ which later led to the establishment of Old English as a written language, and consequently – as the language of record (Seiler 2021, 117–119), ultimately making the Anglo-Saxon documentary culture bilingual (Kelly 1990). When it comes to charters, Old English was especially common in boundaries, i.e. land descriptions (Howe 2007, 32–38), which show the limits of land under conveyance in written form, walking the reader around the perimeter of the estate, citing features which the boundary passes, crosses or follows.⁷ Bounds constituted the most practical aspect of charters for local residents, and as such they were often recorded in the vernacular – especially that Latin was known by only a small portion of society.⁸ Additionally, the legal Latin of charters was highly formulaic, relying on fixed phrases and exemplars, whereas the language of bounds reflected the actual geography of a given parcel, and as such it did not follow conventions as easily; bounds were recorded in a

more *ad hoc* manner than the main text of charters, rendering the vernacular a better choice. Apart from bounds, the English language was also generally used for various documents (for instance, wills or endorsements) (Gallagher 2018), and eventually became a literary and documentary code by the eleventh century (Marsden 1995, 1; O'Brien 1995, 3; Godden 2011, 586; Gretsch 2013, 291). In the words of Treharne (2012, 344):

Extensive manuscripts and numerous documents that survive from multiple points of origin in Anglo-Saxon England bear testimony to the production and use of English as a legitimate and legitimizing phenomenon. Writing in the vernacular was clearly felt to have the potential to save souls, create emperors, rehabilitate society, validate truth, establish lineage, secure status and land and more: its intelligibility was widespread, its demographic ubiquitous.

3. Medieval forgeries

In the Middle Ages documents were widely used in order to prove rights to a given property, which facilitated widespread forgery (Sharpe 1994, 230; Hiatt 2004, 1; Clanchy 2013, 2). According to the classic, simple diplomatic definition,⁹ a forged document is “any piece of writing, which according to the intention of its producer, gives itself for something other than it really is” (Hiatt 2004, 14). The French diplomatist Arthur Giry distinguished three basic types of unauthentic documents: “surreptitious”, “re-written/re-made”, and the “simple” forgery. The first type refers to (typically) authentic documents containing added clauses; the second one – to unauthentic documents which replace lost originals; and the third one – to forgeries produced with fraudulent intentions (Giry 1925, 863-864, in Hiatt 2004, 6). The second type can also include the so-called *retrospective documents* (Tillotson 2005) – i.e. documents produced in order to validate claims sanctioned by the oral tradition (in Giry’s classification, such documents would fall into the “re-written/re-made” category), supporting the title or already established rights,¹⁰ rather than documents devised for fraudulent purposes¹¹ (Sharpe 1994, 230; Clanchy 2013, 31). A more recent approach to medieval forgeries distinguishes between those which have elements of authentic validation (e.g. a seal), and “falsified acts”, i.e. documents whose basis is genuine, but the contents were in some way altered. However, twentieth-century diplomatists seem to be less preoccupied with classifying various documents into types, focusing more on contextualizing them and – given the complexity of the matter – evaluating them in terms of levels of validity, rather than on a simple yes/no basis (Hiatt 2004, 7). Hence, unauthentic documents will be referred to using the umbrella term “forgery” here, regardless of the extent of forgery and exact motivations behind each case.

In the history of England, the “Golden Age” of forgeries refers to the period between the Norman Conquest and the beginning of the reign of Henry II (Hiatt 2004, 22). Those forgeries are today said to be a common testament to the shift from the oral (oath- and witness-based) to predominantly written (charter-based) governmental and administrative record, which were brought about by the aftermath of the events of 1066.¹² This is especially due to the increased reliance on formal documents, and the fact that institutions founded in Anglo-Saxon England sought to ratify their privileges by the new regime; additionally, given that William the Conqueror presented himself as a legitimate successor to Edward the Confessor (Hiatt 2004, 22-23; Clanchy 2013, 31), he was expected to obey the law by recognizing legal claims. On the other hand, one should not underestimate the significance of the pre-Norman written record (Hiatt 2004, 23); the oral and the written traditions should be viewed “in a situation of complementarity, even of interdependence, rather than antagonism” (Guyotjeannin et al. 1993, 374), especially since medieval written texts were both produced (transcribed) and performed¹³ orally for their audience¹⁴ (Geary 1998, 174).

Additionally, numerous religious houses did not have complete documentation, for various reasons, such as loss, destruction, or the said reliance on the oral tradition. This meant that documents had to be produced in order to secure rights to their estates, and in some cases to validate dubious claims (O’Brien 1995, 12; Hiatt 2004, 22). Such a situation facilitated – or even encouraged – forgery, as even repairing and archiving charters would often be associated with replacing them (O’Brien 1995, 11; Clanchy 2013, 160). In fact, some monasteries – especially Westminster, St. Augustine’s and Christ Church, Canterbury, Durham, and Glastonbury – are today somewhat (in) famous for producing forgeries on a massive scale, both for their own benefit, as well as to complete archives of other houses¹⁵ (O’Brien 1995, 12; Hiatt 2004, 22):

The more powerful and ancient the house, the more likely it was that its documents would be forged in a professional manner. Of the seals used by Christ Church, Canterbury, Archdeacon Simon Langton wrote to Gregory IX in 1238: ‘Holy Father, there is not a single sort of forgery that is not perpetrated in the Church of Canterbury. For they have forged in gold, in lead, in wax, and in every kind of metal.’ (Clanchy 2013, 299).

Another reason lies in the feudal system; monasteries were economically reliant on their lands and rural communities residing there, to whom they were feudal landlords (Tillotson 2005). Hence, a monastic house which required a document to support its claim to a property in a lawsuit would often simply fabricate an appropriate charter (Clanchy 2013, 150) – most religious houses, especially those that had been favored in Anglo-Saxon times, would try to avoid losses from the hands of the new lords by producing forged documentation (O’Brien 1995, 11).

4. Post-Conquest English

Following the Conquest, Latin became the language of all formal documentation¹⁶ of the Anglo-Norman kingdom, largely eliminating standard Old English from its formal usage (Gretsch 2013, 291), and thus rendering numerous old documents composed in Old English useless from the legal perspective, which led to either translating them into Latin, or destroying them altogether (O'Brien 1995, 11). There is thus a popular notion that 1066 was a massive historical rupture, which partially stems from the fact that compared to the Anglo-Saxon period, following 1066 Old English was hardly used in formal documentation. In 1912, Ker wrote that “[f]or a long time before and after 1100, there is a great scarcity of English productions (...) This scantiness is partly due, no doubt, to an actual disuse of English composition” (Ker 2020, in Treharne 2012, 94). Davis (1976, 103) comments that “(...) English was relegated to the underworld of the unprivileged”¹⁷ – in fact, writing in the vernacular (as opposed to writing in Latin) was supposed to be a source of embarrassment (Thomas 2003, 387). Da Rold (2006) explains that it is commonly stated that due to Old English completely losing its status, it produced hardly any literature worth academic attention, whereas Treharne (2012) cites scholars claiming that the English literature “disappeared” following the Conquest.

Indeed, compared to the bulk of Anglo-Saxon texts, relatively little new material was produced after the Conquest, which is one reason for describing the period between ca. 1066 and 1200 as “transitional” (Bartlett 2000, 49; Faulkner 2012, 276). The West Saxon *Schriftsprache*, i.e. a focused version of the language, was replaced with local, highly diversified dialects (Barlett 2000, 496; Thomas 2003, 379; Faulkner 2012, 280.). As a result, the post-Conquest circulation of texts was limited, forcing their authors to employ older exemplars, thus making the newly produced manuscripts consciously archaic¹⁸ (Faulkner 2012, 281). This self-imposed belatedness is also related to the issue of forgery: religious communities forged their documentation by resorting to imitating and copying older charters, also to keep up the pretense of genuineness:

Scribal archaism suggests both a consciousness of the past and a distance from it. Just like forgery, which is its textual equivalent, it required modification of the practioner’s usual habits. (...) A draftsman of a spurious charter (...) adopted a consciously discontinuous relationship with the past, importing formulae alien to his normal repertoire, and so introducing the anachronistic elements upon which the detection of a forgery by modern critics depends. (Crick 2015, 160–162)

Although Old English significantly declined as the language of record (O'Brien 1995, 4), having lost the prestige and functionality it enjoyed prior to 1066 (Timofeeva 2013, 204), the process was neither immediate nor complete. In recent years there has been a growing body of research indicating that texts written

in Old English were recycled, copied, and read for a long time after the Conquest (Faulkner 2012). Treharne (2012) demonstrates that – judging by the number of Old English manuscripts that were copied in the twelfth century – there must have been a great interest in the seemingly “lost” culture and language. These texts were not just a symptom of nostalgia; they served numerous functions, such as “teaching, preaching, chronicling, and carrying out all ecclesiastical and pastoral duties” (Treharne 2012, 97). Moreover, those copies typically accommodated for linguistic changes (Gretsch 2013, 288), thus providing an insight into the so-called “transitional” period in the history of English.

5. List of post-Conquest forged charters in English

The myth of the “death” of Old English following the events of 1066 has been put to question especially by the project *The Production and Use of English Manuscripts 1060 to 1220* conducted jointly at the University of Leeds and the University of Leicester. The aim of the project was to

identify, analyse and evaluate all manuscripts containing English written in England between 1060 and 1220; to produce an analytical corpus of material from late Anglo-Saxon England, through the Norman Conquest and into the high Middle Ages; to investigate key questions including the status of written English relative to French and Latin; and to raise awareness of agenda informing the production of so many texts in English during this important period,

which resulted in an extensive catalogue of post-Conquest texts written in English, including glosses, notes, marginalia, etc. The project demonstrated clearly that English texts copied between 1100 and 1200 are under-utilized resources – which is most likely the case due to their status of “copies” (Treharne 2012, 133).

Nonetheless, although the project’s catalogue contains the following charters: (by Sawyer number) 914, 988, **1047**, 1088, 1090, 1222, 1229, 1280, 1313, 1317, 1362, 1377, 1389, **1428**, 1432, 1440, 1443, 1446, 1448, 1452, 1453, 1507 identified as examples of post-Conquest documents written in English, a careful examination of the list of charters on the Electronic Sawyer, an online catalogue of Anglo-Saxon charters, reveals other cases¹⁹ of charters containing English from after 1066: namely, forgeries. It seems that in spite of the attention post-Conquest forgeries have gained from scholars of diplomatics, and the extent of the Leeds & Leicester project, the English language of the post-Conquest forgeries has not been a subject of an extensive, independent study based on a larger number of texts. This is not to say that forged charters have not been studied at all; for example, there is a chapter on post-Conquest English forgeries by Julia Crick (2015) – however, with a few exceptions, Crick’s material is exclusively in Latin.

The list presented here was compiled based on *The Electronic Sawyer – An Online Catalogue of Anglo-Saxon Charters*, available at <https://esawyer.lib.cam.ac.uk/>. Using the catalogue’s browser (*manuscript date category*), all earliest surviving copies²⁰ dating to the period from the mid-eleventh to mid-twelfth century were selected, based on the assumption that the first century following the Conquest was the most intense period of documentary fabrication. Since most charters survive in numerous copies, it was assumed that later copies would have too many linguistic adjustments, and hence the earlier the copy, the more useful it should be for the purpose of analyzing the “transitional” English. Next, all charters which did not contain English (in the main text, bound, or both) were filtered out. Finally, charters which most scholars agree to be genuine were eliminated from the list, leaving sixty-nine forgeries which meet all the criteria stated above.

Confirming a document’s legitimacy is a complex, interdisciplinary issue relying on such fields as history, historical geography, codicology, paleography, to name just a few. Nonetheless, in spite of years of research and advanced technology, there are still numerous documents whose legitimacy is questionable, especially those based on original charters (Tillotson 2005). In the case of the charters included in the list, the identification of forged documents is typically based on the study of paleographical evidence, also considering such features as *mise-en-page*, seal, lists of witnesses, etc. (Sharpe 1994, 230-231). As a type of medieval text, charters were especially meant to appeal to both the mentality and social consciousness of the contemporary people – they had to satisfy expectations in terms of form and appearance (Hiatt 2004, 12). Documents issued by the same authority would display a pattern of a sort,²¹ as well as an adherence to some more or less standardized forms; hence deviation from that pattern may indicate a forgery. Ironically, given that most confirmed documents missed some elements, such as date, place, etc., often it is the abundance of information that gives a forgery away.

In total, the list offers a 14,300-word corpus, and provides details following Sawyer’s Catalogue.²² It is arranged according to Sawyer number. In most cases (forty-six) English is found in bounds, with only twenty-one charters written in the vernacular in the main text – this is to be expected given that the vernacular was common especially in bounds. The shortest sample is fifty-three words long (S 388), whereas the longest is 657 words long (S 1154). Some charters are actually written by the same hand; since charters were hand-written, and *signum* was considered a safeguard against forgery (Clanchy 2013, 305), paleographic analysis is the main way of identifying forged documents (see the “additional information” section under the table, which contains references to appropriate studies on such charters). Unsurprisingly, most of the forgeries listed here come either from Christ Church, Canterbury, or Winchester, Old Minster – the two institutions (especially the latter) are well known for fabricating forged documents following the Conquest (Yorke 1982; Clanchy 2013, 319). Additionally, the Christ Church scriptorium is generally renowned for its post-Conquest activity (Da Rold 2006, 753; Clanchy 2013, 135),

housing a rich archive of Anglo-Saxon manuscripts (offering plenty of exemplars), and being a center of Anglo-Saxon text production long after the Conquest, as evidenced by (among others) the magnificent *Eadwine Psalter*, produced in the mid-twelfth century, which contains an interlinear Old English gloss. In fact, this prolificacy can be seen as an act of rebellion:

Although Anglo-Saxon was not used after the 1070s by the king's government or by the clergy as a whole, it found defenders in the monastic antiquarian reaction which maintained English ways in the face of the Norman conquerors. Those monastic houses (...) were also among those which were most concerned to preserve a knowledge of Anglo-Saxon. Anglo-Saxon texts continued to be copied for a century after the Conquest (...). The reaction at Canterbury took the form of producing bilingual Latin and Anglo-Saxon documents, (...) and a number of royal charters written by scribes at Christ Church. (Clanchy 2013, 214)

The list containing post-Conquest charters written in Old English offered here, compiled on the basis of information found in Sawyer's catalogue can be treated as a supplement to the Catalogue devised by the Leeds team. It should be a valuable resource for any scholar interested in studying the language of post-Conquest forgeries, which – as demonstrated above – is a promising area for investigating not only the English language, but also other aspects of life in England under the Norman rule.

Table 1. List of post-Conquest forgeries containing English.

Sawyer Number	Date	Date of Production	Archive	English	Number of Words
60	770	xi 2	Worcester	bounds	219
72	680	Xii	Peterborough	main text	666
124	785	xi med.	Westminster	bounds	106
179	816	xi 2	Worcester	bounds	561
201	851	xi 2	Worcester	bounds	219
211	866	xi 2	Worcester	bounds	113
216	875	xi 2	Worcester	bounds	114
222	883 x 911	xi 2	Worcester	bounds	108
242	701	xii med.	Winchester, Old Minster	bounds	169
254	737	xii med.	Winchester, Old Minster	bounds	89
272	825	xii med.	Winchester, Old Minster	bounds	335
273	825	xii med.	Winchester, Old Minster	bounds	119
274	826	xii med.	Winchester, Old Minster	bounds	65
276	826	xii med.	Winchester, Old Minster	bounds	310
304	854	xii med.	Winchester, Old Minster	bounds	89
308	854	Xi	uncertain	bounds	65
309	854	xii med.	Winchester, Old Minster	bounds	137
310	854	xii med.	Winchester, Old Minster	bounds	177
325	854	xii med.	Winchester, Old Minster	main text	418
345	882	xii med.	Winchester, Old Minster	bounds	203
351	939	xii med.	Winchester, Old Minster	bounds	66
354	878 x 899	xii med.	Winchester, Old Minster	bounds	224
377	909	xii med.	Winchester, Old Minster	bounds	218
378	909	xii med.	Winchester, Old Minster	bounds	530
381	no date	xii med.	Winchester, Old Minster	bounds	278
382	no date	xii med.	Winchester, Old Minster	bounds	146
383	no date	xii med.	Winchester, Old Minster	bounds	63
386	924x939	xi med.	Exeter	bounds	105
387	924x939	xi med.	Exeter	bounds	76
388	924x939	xi 2	Exeter	bounds	56
389	670 for 924 x 939	xi med.	Exeter	bounds	105
393	905/931x934	xii med.	Winchester, Old Minster	bounds	240
423	933	xii med.	Sherborne	bounds	118
427	963 x 975	xii med.	Winchester, Old Minster	main text	400
433	937	xi med.	Exeter	bounds	91

Sawyer Number	Date	Date of Production	Archive	English	Number of Words
443	938	Xi	Winchester, Old Minster	bounds	166
516	903 for 946 x 951	xii med.	Sherborne	bounds	69
517	945	xii med.	Winchester, Old Minster	bounds	241
540	948	Xi	Winchester, Old Minster	bounds	224
571	956	xii med.	Winchester, Old Minster	bounds	191
669	961	xi 2	Exeter	bounds	145
672	956	xii med.	Winchester, Old Minster	bounds	173
770	969	xi 2	Exeter	bounds	144
783	1021x1023	Xii	Bury St Edmunds	bounds	195
794	974	xi 2	Ely	bounds	90
817	1052 x 1066	xi/xii	Canterbury, Christ Church	main text	283
832	977	xi 2	Exeter	bounds	195
879	996	xi 2	Burton	bounds	182
907	1004	xii med.	Ely	bounds	99
946	984 x 1001	xii med.	Winchester, Old Minster	main text	106
959	1023	xi 2	Canterbury, Christ Church	main text	592
980	1021 x 1023	xi/xii	Bury St. Edmunds	bounds	195
981	x	xi ex.	Canterbury, Christ Church	main text	204
1026	1055	xi/xii	Evesham	bounds	230
1047	1042x1066	xi med.	Canterbury, Christ Church	main text	180
1062	1062 x 1066	xi 2	Westminster	main text	98
1089	1052 x 1066	xi/xii	Canterbury, Christ Church	main text	219
1120	?	Xii	Westminster	main text	167
1124	1042 x 1066	Xii	Westminster	main text	115
1134	1053 x 1066	xii med.	Winchester, Old Minster	main text	99
1137	975 x 978	xii med.	Winchester, Old Minster	main text	197
1138	?	xii med.	Winchester, Old Minster and Winchester, New Minster	main text	512
1140	1062 x 1066	Xi	Westminster	main text	98
1141	948	xii med.	Winchester, Old Minster	main text	96
1142	1042x1066	Xii	Canterbury, Christ Church	main text	290
1154	934	xii med.	Winchester, Old Minster	main text	657
1185	781 x 796	xi 2	Worcester	bounds	117
1227	1046 x 1062	xi 2	Worcester	bounds	87
1428	970	xi/xii	Ely	main text	652

Additional information:

272, 273, 274, 276: forger used charters of the 820s, likely the same hand (Smyth 1995, 253; Foot 2000, 180);
 325, 817, 946: fabricated by the same forger (Chaplais 1966b, 171);
 386, 387, 389, 433: fabricated by the same forger (Chaplais 1966a, 5–9);
 443, 540: fabricated by the same forger (Wormald 1988, 39);
 770, 832: apograph in the same hand (Bishop 1955, 195);
 1185, 1227: identified as related to each other (Ker 1948, 59–68).

Notes

- 1 <https://charlemagneurope.ac.uk/charter-basics/> (Accessed: 10th January 2022)
- 2 The term comes from Greek, in which it literally means a “doubling”, reflecting the idea of a double will behind its production: that of the issuer, and the receiver (Hiatt 2004, 1).
- 3 https://charlemagneurope.ac.uk/charter-basics (Accessed: 10th January 2022)
- 4 Even if some information is missing, it is often possible to deduce it on the basis of what is available.
- 5 “In many areas of life the functions previously fulfilled by Roman institutions and the roles occupied by Roman officials were replaced by a Christian administration”, <https://charlemagneurope.ac.uk/charter-basics/> (Accessed: 10th January 2022)
- 6 Personal names are typically the first lexical category recorded in the vernacular (Seiler 2021, 121).
- 7 *LangScape: The Language of Landscape: Reading the Anglo-Saxon Countryside*. <<http://langscape.org.uk>>, version 0.9, accessed 10 May 2022.
- 8 Timofeeva (2013, 202) estimates that only 0.25% - 0.5% of the population was literate in Latin.
- 9 See *Chapter one: The ‘problem’ of medieval Forgery* in Hiatt 2004 for an extensive discussion regarding this definition,
- 10 In some cases the rights to a property actually extended to times before charters were even expected to confirm oral grants (O’Brien 1995, 12).
- 11 Clanchy (2013, 150) argues that contemporary forgers would most likely not see their work as a crime, but rather as a means for fulfilling God’s or the patron saint’s wishes for their institution to flourish.
- 12 See O’Brien 1995.
- 13 See Geary 1998.

- 14 Lately there have been numerous studies into medieval literacy and the role(s) charters played in aiding access to the written word on different social levels, questioning the application of the modern understanding of “literacy” to the early medieval reality, especially in terms of assumptions regarding the limited role the written word played then. Those studies argue that traditionally-understood illiteracy was no obstacle in participating in the documentary culture, as documents were read out during (often highly ritualistic) proceedings, when communication was conducted via not just speech and text, but also actions, gestures, etc. (Tinti 2021, 1–3).
- 15 The phenomenon was so widespread that monastic forgery practices were commonly shared between various scriptoria (O’Brien 1995, 13).
- 16 O’Brien (1995, 10) argues that the first two decades following the Conquest were characterized by “the linguistic confusion caused by the uncertain hierarchy of three languages” (i.e. English, Latin, and Anglo-Norman).
- 17 Bartlett (2000, 490) observes that English was actually widely used in preaching, and that it definitely was not a “peasants’” language, as evidenced by the fact that Norman aristocracy already spoke it by 1100. According to Davies (1997, 11), the idea that English was purposefully downgraded is outdated; in fact, bilingualism played an important role in the assimilation and shaping of the newly formed Anglo-Norman society (Thomas 2003, 385).
- 18 This also explains the scarcity of evidence for early French borrowing (Faulkner 2012, 281).
- 19 The two charters in bold are deemed forgeries on Electronic Sawyer.
- 20 Documents typically survive in numerous copies (O’Brien 1995, 7).
- 21 Those are also used simply for dating a given charter; they show how attitudes to writing changed over time (Clanchy 2013, 296).
- 22 Information missing from Sawyer is marked with a question mark.

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Conventional Knowledge, Pictorial Elucidation, Etymological Motivation, and Structural Elaboration in a Thematic Dictionary of Idioms

Abstract: The primary focus of this article is on the usefulness of conventional knowledge, pictorial illustrations, and etymological notes in the process of defining the meaning of idioms within the macrostructure of a thematic dictionary of idioms based on cognitive principles of linguistic organization, and on the use of phonological motivation and iconic and scalar ordering as principles for explaining the form of idiomatic expressions. This article makes a noteworthy contribution to the widely-held view in current language teaching and pedagogy that grouping figurative idioms under source domains and conceptual metaphors, using visuals for explaining the literal reading of idioms, providing background information about their literal meanings or origins, as well as drawing students' attention to the lexical make-up of idioms can be conducive to their learning and understanding and especially beneficial for students' retention of the meaning and form of such phrases (Kövecses and Szabó 1996; Kövecses 2001; 2002; Benor and Levy 2006; Boers and Lindstromberg 2008a; Kövecses and Csábi 2014).

Keywords: metaphor, metonymy, idioms, etymology, conventional knowledge, structural elaboration, onomasiological dictionary

1. Introduction

Recent years have witnessed a striking proliferation of publications dealing with potential applications of the theoretical background offered by cognitive linguistics in lexicographic work (see Ostermann 2012; 2015; Wojciechowska 2012; Kövecses and Csábi 2014; Wiliński 2015; 2016; 2017). Ostermann's monograph (2015), for example, presented a cognitive approach to semasiological lexicography, an

approach that used semantic frames, conceptual metaphor, and cognitive views of polysemy to prepare new entries for agentive nouns, new definitions of emotion terms and new microstructural arrangements for particle entries in a monolingual dictionary. Wiliński's (2016) studies, by contrast, concerned the application of the conceptual theory of metaphor and metonymy and frame semantics in the design of an onomasiological learner's dictionary; especially, in the process of defining both the conceptual content and individual lexical items within the appropriate divisions and/or subdivisions of the classificatory scheme.

Some articles (Kövecses and Csábi 2014; Wiliński 2015; 2017) also discussed lexicographic applications of conceptual metaphors, metonymies and semantic frames for the arrangement of idioms and for the explanation of idiomatic meaning. Kövecses and Csábi's (2014) work, for example, focused on the possible advantages of employing cognitive linguistics as a theoretical underpinning for the organization of entries and for the explanation and arrangement of idioms related to fire in dictionaries. Wiliński's (2017) article, in turn, examined the concept of cognitive motivation and explored its lexicographical relevance and usefulness to the elucidation and presentation of cross-cultural and cross-linguistic differences in the use of British and American idioms.¹

To date, however, the issue of the utility of conventional knowledge, pictorials, and etymological notes in the process of defining the meaning of idioms has only received cursory treatment in literature.² In addition, despite the implementation of frames, scripts, conceptual metonymies, and metaphors in an onomasiological dictionary, the inclusion of conventional knowledge, pictorials and etymological notes for the explanation of idiomatic meaning and the application of the notion of phonological and iconic motivation to the explanation of the form or lexical composition of idiomatic expressions have been hitherto neglected, thus deserving more systematic treatment in thematic lexicography. The aim of this article is therefore twofold. First, it aims to demonstrate the practical usefulness of conventional knowledge, visuals, and etymological information in the process of defining the meaning of idioms within the macrostructure of a thematic dictionary of idioms based on cognitive principles of linguistic organization. Second, it attempts to show how the concept of phonological and iconic motivation can be employed in a dictionary entry to help users comprehend and remember the form or lexical composition of idiomatic expressions. In this respect, the article is a further refinement of the cognitive approach to onomasiological lexicography proposed by Wiliński (2016; 2017) in a series of recent publications.³

A further improvement of the approach concentrates on proposing potential alternatives to the explanation of idioms in a thematic dictionary, in particular on employing conventional knowledge, metonymy boxes, etymological notes, and pictorials in the process of defining idiomatic meaning within the macrostructure based on target domains, source concepts, and metaphors. The primary focus is on applying background knowledge and encyclopedic information, provided in boxes under

main dictionary entries, to the elucidation of three types of idioms: non-metaphoric idioms, metonymic idioms, and idioms motivated by conceptual metaphors. Another refinement concerns the use of metonymy boxes, placed under target concepts, as an alternative to the arrangement of metonymic idioms under the headings of specific conceptual metonymies. Finally, the article seeks to consider practical applications of phonological and iconic motivation for explaining the lexical make-up of idioms.

The article is structured in the following way. Section 2 concentrates on the applicability of conventional knowledge in the form of explanatory notes and descriptive definitions to the elucidation of idioms motivated by metaphors, metonymies and domains of knowledge. Section 3 addresses the issue of the potential inclusion of pictorial illustrations of idioms in dictionaries. Section 4 considers the usefulness of etymological notes in dictionaries of idioms. Section 5 discusses lexicographic applications of the notion of phonological and iconic motivation to the explanation of the form or lexical composition of idiomatic expressions. Section 6 offers concluding remarks.

2. Conventional knowledge

Conventional knowledge relates to all the facts that are commonly known and shared between members of a speech community in a given culture (our cultural and embodied experience, traditions, stereotypes, and folk etymologies), thereby being more fundamental to the mental representation of a particular word (cf. Evans and Green 2006, 217).⁴ For instance, conventional knowledge concerning the lexical concept *foot* might include the knowledge that some people in our culture use feet to run and kick a ball or that a foot forms a part of the human body. In addition, some facets of the knowledge about the foot can be used to understand a particular target domain (e.g. the bottom of a mountain can be conceptualized in terms of the part of the body at the end of the leg), while other aspects or parts of this knowledge can stand for a whole or another part within the same domain (e.g. since a foot is a part of a person's body, it can be used to refer to this person). The meaning of many idioms appears to be more predictable and transparent because conventional knowledge allows us to provide a motivational link between an idiomatic expression and non-idiomatic meaning of its constituents.

Conventional knowledge might be of practical usefulness for the explanation of idiomatic meaning under a particular domain or conceptual metaphor indicated by small capital letters (Wiliński 2015; 2017). The meaning of an idiom cannot be comprehended without access to the background knowledge that relates to its constituent words. For example, one would not be able to comprehend the idiom *bury the hatchet* without knowing anything about the situation in the past when it was traditional for each Native American tribe to bury a tomahawk or small axe as a sign of peace after fighting. Thus, the inclusion of the conventional knowledge

associated with this idiom to the elucidation of its meaning could be conducive to learning and facilitative for understanding.

2.1 Background knowledge and non-metaphoric idioms

Background information can be employed in a dictionary entry to elucidate three types of idioms: non-metaphoric idioms, metonymic idioms, and idioms motivated by conceptual metaphors. Non-metaphoric idioms constitute a considerable portion of idiomatic vocabulary. Their meaning is motivated by conventional knowledge of conceptual domains. Such idioms can be grouped under target domains, or concepts, referring to the idiomatic meaning of these expressions. Conventional knowledge, in turn, could be clarified in the box, as proposed in the current article, or incorporated into an explanatory definition (Wiliński 2015). For example, the idiom *off the beaten track* should be elucidated under the target concept of remote place, since the idiom means ‘in a place which is not widely known, far from any main roads and towns’, while the knowledge necessary to understand the meaning of the idiom could be presented in the box under the illustrative examples:

REMOTE PLACE

off the beaten track [British] or **off the beaten path** [American] A place that is *off the beaten track* is in an area where people usually do not live or go: ● *The location might be a bit off the beaten track and served mainly farmers and ranchers who made their living off the land.* ● *We're going to take a road trip now, far off the beaten path.*

CONVENTIONAL KNOWLEDGE

A beaten track here is a footpath or a narrow road in a place which is frequently visited and widely known. If a place is off the beaten track, it is far away from places where most people go and live.

As the above dictionary entry shows, the idiom *off the beaten track* is used mainly in Britain, whereas its variant *off the beaten path* occurs more frequently in the USA. This geographical variant is given as the second headword following the main one. The usage examples introduced by the symbol (●) were derived from the 560-million-word *Corpus of Contemporary American English* and the *British National Corpus* containing 100 million words, while the definitions of idioms, implemented in this entry and the subsequent ones, were created by the author himself on the basis of the explanations found in *Collins Cobuild Dictionary of Idioms* (2002) and *The Free Dictionary by Farlex*. The origin of the first expression is from a beaten track. The box, labeled CONVENTIONAL KNOWLEDGE, provides the explanation of the phrase *beaten track* and contains the information about the knowledge motivating the meaning of the idiom.

2.2 Background knowledge and metonymic idioms

Idioms motivated by metonymies can be grouped under target concepts, stated in small capitals, pertaining to their idiomatic meanings. These target concepts are conceptual elements, key concepts or domains to which an idiom provides mental access. Metonymic motivation and conventional knowledge, then, can be directly implemented into a descriptive definition or be explained in metonymy boxes placed at main dictionary entries for idioms, as proposed below. The idiom *pass the hat*, for example, can be listed under the target concept of collect money, while its metonymic motivation and conventional knowledge should be clarified in the metonymy box found at the entry for this idiom, as demonstrated below:

COLLECT MONEY

pass the hat or **pass the hat around** if people pass the hat or pass the hat around, they collect money for someone or something: ●*He passed the hat at concerts, and raised more than \$8,000 for a new community center in Buenos Aires.* ●*They were passing the hat around with all the names, and I saw nobody was looking.*

METONYMY AND CONVENTIONAL KNOWLEDGE

People, such as musicians or street performers, sometimes use a hat to collect money in. Thus, the activity of passing the hat around can be used to stand for collecting money.

This metonymy box provides the explanation of the conventional knowledge and the metonymic relationship motivating the meaning of this idiom. This “stand-for relation” allows dictionary users to understand the motivation behind the origin of the idioms. The defining pattern (*a/an/-/the X is used to stand for a/an/-/the Y*) is introduced into the explication of this kind. In addition, the idiomatic meaning is explained by the full sentence definition consisting of two components: the left-hand side (a contextualizing part) and the right-hand side (an explanatory part). The first part includes the repetition of the idioms *pass the hat* and *pass the hat around* in the context, while the second part provides a general term (genus proximum) and at least one characteristic feature (differentia specifica) in as similar way as an analytical definition (see Svensén 2009, 236 for a discussion of this definition).

2.3 Background information and metaphorical idioms

Metaphorical idioms can be arranged under conceptual metaphors if their meanings are motivated by metaphorical correspondences. Conventional knowledge, then, is explained in the box. This knowledge usually comes from a source domain, i.e. a more concrete domain from which we draw the words to understand a target

domain. Consider, for example, the use of the idioms *under the counter* and *under the table* illustrated by means of the following sentences:

- (1) It did not bother me to learn that Stefan was selling astral-quality cocaine under the counter at Chez Police.
- (2) Jim can take his salary and use it to hire three immigrants and pay them under the table.

The examples in (1) and (2) show the usage of two geographical variants. The idiom *under the counter* is commonly used in British English, while *under the table* is more regularly encountered in American English. The corpus data indicate that both idioms are variable and frequently function as adjectives. For instance, people often use the adjectives *under-the-counter* and *under-the-table* to denote ‘a payment or deal that is secret, dishonest or illegal’. Since both variants instantiate the metaphor illegal is hidden under something, they should be grouped under the heading of this analogy as follows:

SECRET OR ILLEGAL IS HIDDEN UNDER SOMETHING

To keep something secret or illegal is like hiding it under something, so that other people cannot see it. Being dishonest is like being low down (→ DISHONEST IS LOW DOWN)

Under the counter [British] or **under the table** [usually American] if you buy, pay or accept money under the counter or under the table, you do it secretly because it is dishonest or illegal: ● *Militants had threatened to kill him for selling liquor under the counter at a family business.* ● *Hank worked for meager wages paid under the table.* ► you can also talk about an *under-the-counter* or *under-the-table* payment or deal, meaning one that is secret, dishonest or illegal: ● *Parents and kids have been warned about alcohol and cocaine, but do they know about the danger of under-the-counter drugs?* ● *Bane says he and Rose did an under-the-table cash deal. No paperwork, no sales receipt.*

ETYMOLOGY and CONVENTIONAL KNOWLEDGE

The idiom *under the counter* originated in Britain during the Second World War. Shopkeepers kept some things that were in great demand under the counter. They only sold them to customers who were able to pay much money for them. The expression *under the table* alludes to money being passed under a table in some shady transaction, such as a bribe, or it refers to a situation in which salaries are paid secretly and often illegally.

In addition to the metaphor mentioned above, both idioms seem to be motivated by the metaphor DISHONEST IS LOW DOWN. Hence, the right-pointing arrow inside round brackets provides a cross-reference to the description of this closely related metaphor. Idiom variants are mentioned in the follow-up paragraph at the end of the

definition and examples. This paragraph is introduced by the symbol (►). Finally, the background information motivating the meanings of both idioms is provided in the box.

2.4 Alternative ways of explaining conventional knowledge

A possible alternative to the explanation of conventional knowledge in boxes under a particular conceptual metaphor and to the use of conceptual metaphors as a principle for arranging figurative idioms would be the incorporation of background information directly into a descriptive or explanatory definition and/or a grouped presentation of closely related idioms according to the source domains they can be traced back to. In such an arrangement, conventional knowledge can constitute an integral part of an explanatory definition, i.e. a definition that encompasses encyclopedic information. Such a grouping and explanation proves to be an optimal solution for dealing with the idioms used to understand many target domains or concepts. For instance, it seems to be easier to group idioms originated from boxing directly under the source domain of boxing than to determine the exact number of conceptual metaphors or target domains to which the idioms relate. Hence, the expressions such as *throw in the towel*, *on the ropes*, *lower your guard*, *be down for the count*, and *flex your muscles* should be arranged under the source domain of boxing, either in a random fashion or in an order that corresponds to the expected sequence of events in this domain. The conventional knowledge associated with the idioms, in turn, can be explained within the entries placed under the source concept of boxing. Consider, for example, the elaboration of the idiom *throw in the towel* under the source concept of boxing:

BOXING

throw in the towel or **throw in the sponge** [mainly British] if someone throws in the towel or the sponge, they stop attempting to do something because they realize that they cannot succeed. In boxing, a boxer's trainer sometimes throws a towel or sponge into the ring in order to signal that a fighter can no longer continue a fight: ●*If you've lost weight and gained it back, don't throw in the towel on exercise.* ●*At 28, he threw in the sponge for the security of a job repairing telephone transmission equipment.* ► you can also use verbs such as **toss** and **chuck** instead of **throw**: ●*The Taliban, some pieces of it, are melting into the countryside because they have decided to toss in the towel.* ●*I mean I was a little boy in the '50s and that was when a lot of people were chucking in the towel and selling the house.*

As the description above shows, corpus data indicate that the idioms can be varied by replacing the verb *throw* with *toss* and *chuck*. Both variants are motivated by the background knowledge relating to a boxing bout in which towels and sponges

are sometimes thrown into the ring as a signal of defeat in order to stop the fight before there are any more injuries. It is important to provide the motivation behind the origin of these idioms in a dictionary entry and to inform users of the literal sense of figuratively used expressions. Much experimental evidence supports that knowledge of the literal sense of idioms and their origin helps to make idiomatic uses more transparent and memorable (e.g. Boers 2001; Guo 2007), whereas the arrangement of figurative idioms under the source domain can have a significant positive effect on retention (e.g. Verspoor and Lowie 2003) and be especially useful for students' understanding of the meaning of the idioms (e.g. Boers and Lindstromberg 2008b).

3. Pictorial elucidation

Pictorial elucidation is a process of stimulating an association between a figurative expression and an image through the application of pictorials illustrating a literal reading of this figurative phrase (Boers et al. 2008). These pictorials could be line drawings, schematic and concrete drawings, or photographic visuals. Pictorial elucidation of source domain expressions adds concreteness to the figurative phrases and thus is believed to provide an extra stimulus for dual coding (Paivio 1986; Clark and Paivio 1991) and retention of meaning (e.g. Boers et al. 2008; Boers 2013).

3.1 Previous studies on the effectiveness of visuals in teaching idioms

Cognitive semantic studies (e.g. Tyler and Evans 2004; Boers et al. 2008; Boers et al. 2009; Lindstromberg 2010) have revealed that the dual coding of input (both verbal and visual) encourages the creation of memory traces and the retention of information. These findings have promoted the use of mental imagery in language teaching, where pictorial elucidation has been believed to foster comprehension. Experimental research that has investigated the effects of pictorial elucidation on idiom learning proves that visuals are likely to enhance understanding, but may interfere with the retention of form of idiomatic units if their component words are less familiar to students. Boers et al. (2008), for example, report the results of three experiments where pictures were employed to clarify the literal senses of the target lexical units with the purpose of helping the learners interpret and remember their figurative meanings. The findings of these three case studies indicate that the use of visuals could be an effective mnemonic technique for the purpose of retention of lexical meaning, particularly for students who are high imagers (i.e. learners whose cognitive style predisposed them to think in mental pictures). Boers et al. (2009), in turn, report that pictures enhance recall only in the case of familiar words, while the recollection of unfamiliar words may be hampered by the presentation of pictorials.

The results of experimental research are a sufficient incentive for applying pictorial elucidation to the explanation of idiomatic meaning in a pedagogical dictionary of idioms. The findings of the experiment conducted by Szczepaniak and Lew (2011) have shown that the presence of visuals in dictionary entries for idioms have a significant effect on the immediate and delayed recall of idiomatic form and meaning. For this reason, the inclusion of pictorial illustrations in idiom entries can be an effective method for enhancing understanding of idioms on the condition that such pictorials are well-chosen and congruent with the literal meaning of the phrases they are intended to elucidate (Szczepaniak and Lew 2011). MacArthur and Boers's (in press) research has revealed that many text books and self-study vocabulary books include pictorials that do not at all elucidate the meaning of those idioms. Instead, they are multimodal puns illustrating the clever or humorous use of an idiom. It is doubtful whether such visuals help students understand idiomatic meanings.

3.2 The use of visuals in dictionaries

The application of pictorial illustrations to the explanation of idiomatic expressions in pedagogical lexicography is not a common practice. Of the current editions of English idioms dictionaries, only *Oxford Idioms Dictionary for Learners of English* (OID2) (Parkinson and Francis eds. 2006) and *Cambridge Idioms Dictionary* (CID2) (Walter ed. 2006) include pictorials. The former applies simpler pictures that depict the most important aspects of the scene. The latter, in turn, uses drawings showing many contextual details and those that are not explicable and interpretable, which makes them difficult to decode (Svensén 1993, 169). Furthermore, as Szczepaniak and Lew (2011, 327) note, the dictionaries differ from each other in that OID2 refers explicitly to imagery through humorous drawings, whereas CID2 focuses on the illustration of figurative meaning. Finally, visuals in OID2 include captions or depict illustrative sentences underneath a picture; in CID2, pictures not only contain captions but also show a specific story (Stein 1991, 107).

Pictorials may accompany each type of the presentation of idioms proposed in this article. They can be used to illustrate the humorous use of the literal meaning of an idiom, to depict different aspects of both the literal and figurative meaning, to illustrate the idiomatic meaning, or to represent only the literal meaning. The most effective method, however, seems to be the inclusion of pictorials in idiom entries to the explication of source-domain scenes and the idioms whose component words are familiar to dictionary users (cf. Szczepaniak and Lew 2011). A main advantage of this technique is that the explanation of the literal sense of an idiom helps to make its figurative use more transparent and memorable. The pictures add concreteness to the figurative expressions and thus stimulate dual coding (e.g. Boers et al. 2008).

A facilitative role of visuals in the explanation of idiomatic meaning is also noticed by Kövecses and Csábi (2014, 130), who argue that picture dictionaries, such as Kövecses, Tóth, and Babarci's (1998) *A Picture Dictionary of English*

Idioms, are especially useful when applying conceptual metaphors and metonymies in a dictionary:

Pictures are able to quickly and clearly express the motivation of word and idiom meanings, thus facilitating vocabulary learning with the help of visual images. Using visual images can provide connections to meanings to be stored in memory and provide meaningful links between expressions and their meanings, thus promoting the storage and recovery of items that belong together (i.e., a form and the corresponding meaning) and producing better retention than simple repetition.

3.3 The application of pictorials to the explanation of idioms denoting happiness

Consider, for example, the use of visuals for the explanation of the following idioms related to happiness: *be on cloud nine*, *be on top of the world*, *be over the moon*, *be in seventh heaven*, and *be floating/walking on air*. Since these idioms instantiate the metaphor HAPPY IS UP, they should be grouped and elucidated under the heading of this analogy:

HAPPY IS UP

Feeling happy is like being high up or like moving upwards. Feeling sad or unhappy is seen as being low down or moving downwards.

be on cloud nine if someone is on cloud nine, they are very happy because something good has happened to them: ● *Tammy was on cloud nine when she found out she had been selected from a pool of 7,000 applicants.* ► you can also use the expressions **come off cloud nine** or **come down from cloud nine** to say that someone stops being happy and has to deal with the reality of everyday life after a period of happiness and excitement. ● *Trigger comes off cloud nine as Devils get set for play-offs push at Ipswich.* ● *This afternoon I came down from cloud nine long enough to shoot the best game I've ever had.*

ETYMOLOGY

The most likely explanation for this expression comes from the classification of clouds used by the US Weather Bureau in the 1950s, in which the ninth cloud denotes cumulonimbus, i.e. the highest type of cloud occurring at about 30,000ft.

be on top of the world if you feel on top of the world, you feel very happy: ● *You're feeling on top of the world, holding your newborn baby.*

be over the moon [British, informal] if someone is over the moon about something that has happened, they are extremely happy about it: ● *I mean, we were cheering and smiling and so happy and everyone was just over the moon.*

be in seventh heaven if you are in seventh heaven, you are very happy: ●*Actually, Dr. Benson, Amelia was so thrilled I was pregnant, she was in seventh heaven.*

be floating/walking on air if you are walking or floating on air, you feel very happy or excited: ●*I feel really lucky right now. I'm really grateful. I'm floating on air.* ●*Logically, Norman should have been miserable. Instead, he was walking on air and smiling at small children.*

ETYMOLOGY

In Islam and Judaism, the seventh heaven is the highest sphere in heaven, where God and the most exalted angels dwell.

Consequently, applying this conceptual metaphor as a heading under which the metaphorical expressions are arranged will be facilitative for learning and understanding. Of course, this type of presentation is meant to be accompanied by the application of pictorial illustrations depicting the literal reading of the idiomatic expressions or one of their component words. “Visual representations can only be effective in instructional contexts if they are perceived as bearers of significant, serious information, which is clearly relevant to the task at hand” (Skorge 2008, 266). Hence, such pictures should be as simple as possible, present the idioms whose component words are familiar to learners, and show the most important information about the literal meaning of an idiom. For instance, the picture of *be on cloud nine* may depict a joyful boy lying or sitting on the cloud in the shape of a number nine, — a scene of a boy standing on a globe, *be over the moon* — a person flying on the rocket over the moon or a rocket flying over the moon, *in seventh heaven* — a boy dressed up as an angel standing on a large cloud among many smaller clouds in the shape of a number seven, and *be floating/walking on air* — a boy walking or floating on air over the land. Perfect examples of illustrations designed to help English learners are those launched by Kaplan International Colleges (see Appendix). An advantage of such simple pictorials is that they do not provide too many contextual details and thus are easy to decode and comprehend; furthermore, they are not potentially misleading since they do not give users wrong ideas about the meaning.

4. Etymological notes

The use of pictorials for the explanation of the literal sense of idioms may be supplemented and supported by the implementation of etymological notes elucidating the origin of idioms. Such etymological notes can be inserted at the end of selected entries and introduced by a box, as shown in section 3 and below, when this allows dictionary users to understand the meaning of the idiom. The decision about which idiom should be supplied with an etymological note needs

to be taken individually by each lexicographer. Etymologies incorporated into idiom entries should be short, reduced to the minimum and comprehensible to readers (cf. Svensén 1993, 190; Landau 2001, 102). They should raise awareness of language change and show that idioms have their origins in a particular subject area, customs, or traditions (Szczeplaniak and Lew 2011).

For example, the entry for the idiom *lead with your chin* may contain additional information about its origin. This note can be introduced by a box after the explanation of this idiom to inform a potential dictionary user about its history and etymology:

lead with your chin do or say something aggressively, causing a fight or argument:

- *He is a tough cop who leads with his chin when he talks.*

ETYMOLOGY

The origin of this expression is in boxing. It is used to refer to a boxer leaving his chin unprotected, thus making it easy for an opponent to hit it.

An advantage of such a short description is that it only provides basic information concerning the origin of this idiom and hence this note does not distract users' attention from idiomatic meaning.

Some short explanatory notes can also appear in boxes at the beginning of an entry. These can provide more information about the specific meaning of the primary entry word being a constituent of some idioms. Thus, under the headword *blow*, for example, it is possible to include the following information that helps explain the meaning of idioms derived from boxing:

blow

ETYMOLOGY

In the following expressions, *blow* comes from boxing and means a hard hit from someone's **hand**.

blow-by-blow account a description of an event that gives all its details in the order in which they happened: ● *They gave investigators a blow-by-blow account of what they say happened that night in that bedroom.*

body blow an action that causes someone great disappointment: ● *China is preparing to deliver its own body blow to the U.S. economy.*

Such a brief note provides the motivation for the idioms containing the component *blow*, thus facilitating their learning and understanding.

It is important to note, however, that the inclusion of etymology in idiom entries may divert users' attention from the current meaning and result in some confusion as to what the actual meaning is. Szczepaniak and Lew's (2011, 342) experimental research, for example, revealed that the use of etymological notes in dictionary entries cannot "guarantee deep processing of their content" and that etymologies do not have any positive effect on short- and long-term retention of both form and meaning of idioms. These findings seem not to be in line with the results of the research into the influence of etymological elaboration on idiom learning conducted by Boers (2001) and Boers, Demecheleer, and Eyckmans (2004). These studies point to the effectiveness of etymological elaboration as a technique facilitating the comprehension and retention of idioms and suggest that reading a brief etymological explanation is especially beneficial to the retention of unknown opaque idioms. The differences between the findings, however, are likely to arise from the nature of the activities the subjects were involved in (cf. Boers, Demecheleer, and Eyckmans 2004; Szczepaniak and Lew 2011). Szczepaniak and Lew (2011, 341) argue that their results do not contradict the findings by Boers and his colleagues and conclude that "etymological elaboration encourages learners to invest considerable cognitive effort in intensive processing of imagery before feedback on the actual origins and meaning of the expression is provided".

5. Structural elaboration

The semantic elaboration techniques employed above for the explanation of idiomatic meaning can be usefully supplemented and complemented by structural elaboration techniques intended to help dictionary users remember formal properties of given idioms. The term *structural elaboration* pertains to any mental operation with regard to formal features of a phrase or expression (Barcroft 2002). For instance, as noted by Boers and Lindstromberg (2008a), structural elaboration can be stimulated by recognition or perceiving properties such as affixes, peculiarities of spelling, and salient sound patterns (e.g. repetitions in rhyme).

5.1 Phonological motivation

With a view to fostering retention of form, some researches have sought to explore the scope of phonological motivation, evident in the conventionalization of alliterative and assonant expressions (e.g. *publish or perish*, *curiosity killed that cat*, *first and foremost*, or *the more the merrier*) (Boers and Lindstromberg 2009), and its usefulness for comprehending and remembering the precise lexical makeup of phrases in addition to remembering their meaning (Lindstromberg and Boers 2008a; 2008b). These studies indicated that phonological motivation is highly beneficial for stimulating retention of form (i.e. for learners' recollection of the precise lexical composition

of word combinations). Other studies (Boers and Lindstromberg 2005; Boers and Stengers 2008) concerned the phonological motivation behind the lexical selection in idioms. The results of these studies suggest that during the process whereby a particular multiword expression becomes conventionalized, the phonological features of one lexical item may influence the selection of another. For example, manual counts in the *Oxford Dictionary of Idioms* (Speake ed. 1999) and the *Collins Cobuild Dictionary of Idioms* (Sinclair and Moon eds. 2002) indicate that the lexical choice of approximately 20% of idiomatic phrases in English may be determined by alliteration (e.g. *off the cuff*) and/or rhyme (e.g. *be left high and dry*).

Given that the use of structural elaboration is likely to have a positive influence on learners' recollection of idioms and their exact lexical composition, the notion of phonological motivation can be especially useful for explaining, or drawing users' attention to, the precise lexical make-up of alliterative idiomatic phrases (e.g. *spick and span, neck and neck, first past the post, or black and blue*) in idiom dictionaries. For example, the entry for the idiom *black and blue* may include additional information about its structural motivation. This kind of information can be implemented in the form of notes explaining the lexical composition of idioms. Such notes can be inserted at the end of selected entries and introduced by a box directly after the elucidation of idiomatic meaning:

black and blue if a part of your body is black and blue, it is covered in bruises (= dark marks on your skin caused by being hit or having an accident): ● *I realized she was black and blue on both sides of her face.* METONYMY: The phrase refers to the colour of the skin changing because of an injury. This colour metonymically stands for a bruise. ► You can also say that someone **beats someone black and blue**, meaning that they hit them many times until they are covered in bruises: ● *You can't beat a person black and blue.*

STRUCTURE

Note that the words **black** and **blue** begin with the same consonants or sounds.

As can be seen above, the note titled STRUCTURE contains a brief explanation of the form of the idiom. Bold fonts are used here for emphasis to indicate alliteration, i.e. the repetition of the first or second letter in a series of words. An advantage of such a simple and straightforward description is that it directly draws users' attention to the precise composition of this idiom, hence allowing dictionary users to understand the phonological motivation behind the form. As with etymological notes, the decision about which idiom should be equipped with a structural note needs to be taken individually by each lexicographer.

5.2 Iconic motivation and scalar ordering

Similar explanatory notes can also appear in boxes at the end of an entry in order to provide motivation for the word order in binomials. Some research (Benor and Levy 2006; Boers and Lindstromberg 2008a) has shown that iconic ordering (i.e. first things first, as in *kiss and tell* or *bow and scrape*) and scalar ordering (i.e. crescendo effects, as in *nickel and dime* or *alive and kicking*) are the most significant factors determining the word order in binomial idioms, and that a certain amount of awareness-rising regarding the motivation behind the word order of binomials may help students understand and remember the form of many binomial expressions. For example, Boers and Lindstromberg's study (2008a) found that these types of motivation are highly reliable predictors of the word order in 35.85% of the idioms in their sample of 106 binomial idioms. In addition, they extended the notion of iconic ordering to include cases where the word order reflects the probability of one entity being perceived before another, as in *cloak and dagger*, and cases where the first word serves as frame or ground for the second, as in *milk and honey* (see Boers and Lindstromberg 2008a).

These iconic principles can be applied to the explanation of binomial idioms such as *bread and butter*, *apples and oranges*, *ups and downs*, *safe and sound*, *now or never*, *sooner or later*, *wear and tear* or *bow and scrape*. For example, the binomials *now or never* and *sooner or later*, reflecting temporal succession, can be explained in the following way:

now or never the phrase is used to say that something must be done immediately, especially because there will not be another chance to do it in the future: ● *You're the only one who can do it. It's now or never.* ● *We've only got 10 minutes. It's now or never.*

WORD ORDER

The word order in this phrase reflects a temporal sequence of events: a particular action must be done now or it will not be able to be done in the future.

sooner or later the phrase is used to say that something will certainly happen at some time in the future, although you do not know exactly when: ● *The people of planet earth sooner or later will have to wake up from the present state of ignorance.*

WORD ORDER

The word order in this phrase reflects a temporal sequence of events: something will happen at an earlier or later point in time.

As can be seen above, the boxes provide the motivation behind the form of both expressions by referring to the iconic principle determining the sequential order of the components in the binomials.

A parallel description can be provided to clarify the lexical composition of *wear and tear* or *bow and scrape*:

wear and tear noun [U] the damage, change, or loss that usually happens to something in normal use, making it less valuable or useful: ● *We're going to test them to see how much wear and tear they can take.*

WORD ORDER

This word order reflects the order of events in the literal scenario: a piece of clothing that we wear tends to be torn in its ordinary use during a longer period of time.

bow and scrape (disapproving) to show too much respect for someone powerful or wealthy especially in order to get approval: ● *Where I grew up you had to bow and scrape to the nearest man and keep your mouth shut.*

WORD ORDER

This word order reflects the order of events in the literal scenario: in the past, there was the traditional custom of bowing that involved drawing back one leg and bending the other so that one foot was scraping the ground.

This description indicates that the linear arrangement of elements in both expressions is motivated by the iconic principle of sequential order. In other words, the binomials describe events which routinely occur in the order in which they are expressed.

A different semantic account can be proposed for the elucidation of the word order of the idiom *bread and butter*:

bread and butter noun [U] (informal) 1. The most basic element or the most important aspect of something. Note: bread spread with butter is a basic food: ● *Education is the bread and butter of success.* 2. a job, activity or task that provides you with a steady income: ● *His bread and butter is his club team.* ● *The oil markets are their bread and butter.*

WORD ORDER

The first word is the frame or context for the second one: *bread* in this phrase is used before *butter*, since butter is put on bread, not the other way around.

In this expression the first word serves as the frame or ground for the second one. Thus, *bread* is the context with reference to which the word *butter* is interpreted.

5.3 Frequency as a motivational principle

Apart from iconic ordering, Benor and Levy's (2006) study provided evidence that frequency can be a reliable predictor of word order in binomials: in other words, more common words tend to be used before less common ones, as in *salt and pepper*. The tendency for using the most common word first and the less common word second may be motivated by the ease of retrieval: frequent words tend to be retrieved from memory more easily than less frequent ones (see Boers and Lindstromberg 2008a). This kind of motivation can be applicable to the explanation of the word order of the expression (*risk*) *life and limb*:

risk life and limb if you risk your life and limb, you risk being killed or seriously injured: ● *Men must risk life and limb to protect women and children.*

WORD ORDER

In this idiom the most frequent word *life* comes first because it is probably easiest to retrieve from memory, and the first word has a broader meaning than the second one. Life is more important than limb loss, since if you lose a leg or a member you can still live.

This semantic description explains the word order of the idiom by indicating that the more frequent word tends to precede the less frequent one, and that the word with the broadest meaning tends to precede the word with a narrower meaning. In addition, it highlights that life is far more important than limb loss, which also may motivate the word order of these words.

6. Conclusions

This article has demonstrated that cognitive linguistics is able to provide a useful theoretical background for lexicographers and essential background information about idiomatic meaning and usage, which in turn may assist in the design and compilation of thematic dictionaries, with extensive knowledge about idioms, their meanings and geographical and structural variants. In particular, it has been shown that the use of conventional knowledge, pictorial elucidation and etymological elaboration constitutes an effective method for explaining idiomatic meaning in a thematic dictionary of idioms based on cognitive principles of linguistic organization.

The examples of dictionary entries presented in this article and some experimental evidence reviewed suggest that using conceptual metaphors, metonymies and domains as principles for organizing idiomatic expressions, grouping idioms under the source domain, providing background information about

the literal meanings or origins of such expressions, as well as applying pictorial illustrations depicting the literal reading of idioms or one of their component words can be conducive to their learning and understanding and especially beneficial for students' retention of the meaning of the phrases.

Further experimental research, however, could evaluate the advantages of the proposed techniques, their effectiveness and efficiency in the explanation of idiomatic meaning. The rationale for their implementation is supported when the proposed explanatory techniques are found to result in fuller and deeper understanding of figurative phrases than traditional ways of their presentation and elucidation in current dictionaries. Future work, therefore, might concentrate on the substantiation of the usefulness of the methods for explaining idioms employed in this article. Furthermore, more studies are needed to assess whether the inclusion of etymological notes in dictionary entries can guarantee better understanding of their meaning and thus ensure better retention of idioms, and whether visuals depicting exclusively the actual meaning instead of the literal reading would make a substantial contribution to the recollection of idiomatic meaning. Finally, it would also be interesting to put forward some proposals concerning the presentation and explanation of idioms motivated by multiple cognitive mechanisms (metaphors, metonymies and domains) and to prove the effectiveness of phonological and iconic motivation as an explanatory tool to help users comprehend and remember the form or lexical composition of idiomatic expressions in a dictionary entry.

Notes

- 1 The results of these studies point to the three inevitable conclusions. First, the cognitive motivation of idioms is beneficial for insightful learning that is more effective than rote learning. Second, the use of conceptual metaphors as a motivational principle aids lexicographers and teachers in organizing figurative phrases in groups. Such a systematic arrangement seems to be superior to a semantically random organization of vocabulary. Finally, the cognitive motivation of the meaning of idioms stimulates mental imagery that helps to make idiomatic meanings more transparent and memorable.
- 2 Wiliński's (2017) article about the implementation of conventional knowledge to the explanation of idiom variants and Szczepaniak and Lew's (2011) study into the usefulness of imagery in the form of pictorial illustrations and etymological notes in dictionaries of idioms were two notable exceptions. In his study (2017), Wiliński demonstrated the effectiveness of conventional knowledge in elucidating cross-cultural and cross-linguistic differences in usage between British and American idioms, whereas Szczepaniak and Lew (2011) pointed to a facilitative role of visuals on short- and long-term retention of both form and meaning of idioms.

- 3 This method of presenting idioms assumes that the meanings of lexical units, idioms, phrasal verbs, proverbs, and other expressions might be elucidated in thematic dictionaries with reference to cognitive mechanisms, such as metaphors, metonymies, frames/domains and scripts (Wiliński 2016), and/or by means of pictorials (photographic visuals or drawings). The macrostructure of onomasiological dictionaries may be comprised of three types of arrangement (Wiliński 2016; 2017): (a) metaphostructure – a grouped presentation of figurative expressions under the heading of the conceptual metaphors, (b) metostructure – a grouping of metonymic expressions under specific metonymic relationships within a frame, and (c) framestructure – the arrangement of words and phrases within the frame they evoke and the context in which they are found.
- 4 This constitutes background knowledge involving any level of complexity or structure, e.g. a concept (Evans 2007), a domain (Langacker 1987), a semantic frame (Fillmore 1982) or some other representational space or conceptual complex.

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Appendix

English Idioms: Happiness



'Having a whale of a time.'



'On cloud nine.'



'Tickled pink.'



'On top of the world.'



'Happy as a clam.'



'Buzzing.'



'Over the moon.'



'In seventh heaven.'

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Creativity in Second Language Learning and Use: Theoretical Foundations and Practical Implications. A Literature Review

Abstract: This paper is a comprehensive literature review of the role of creativity in second language (L2) learning and use. It seeks to provide a theoretical background of the concept of creativity and show its practical relevance in the L2 context. The article begins with the conceptualisations of general creativity and narrows down to the concept of linguistic creativity and its instances in L2 use. Next, it presents the empirical research findings that point to an important role and benefits of creativity in L2 learning and use. The paper closes with pedagogical implications and methodological guidelines on enhancing creativity in the L2 classroom.

Keywords: creativity, linguistic creativity, creative language use, L2 learning, pedagogical implications

1. Introduction

Creativity is a fundamental property of the human mind (Boden 2004). Today many people are convinced that creativity is not a luxury but the key to success in nearly all areas of life, and therefore, it should be promoted and educated (Glăveanu and Kaufman 2019). Sawyer (2012) highlights the importance of creativity in different areas of life. On a very basic level, it allows humans to adapt and keep abreast of the rapid changes in the world. On a personal level, creativity allows people to generate useful and novel ideas, solve problems, and have a more fulfilling life. From a social standpoint, creativity is one of the central 21st century skills in the times of globalisation, innovation, communication, advanced information technologies and knowledge (Sawyer 2012).

Creativity has sparked scientific interest in multiple disciplines, such as psychology, arts, economy, management, education, linguistics, and recently second language acquisition. Researchers and practitioners propose various ways of enhancing creativity in different contexts (Sternberg 2019). However, what seems to be missing is a deep understanding of the concept of creativity and the theoretical underpinnings of creative practices. Given the growing interest in creativity in the L2 context, it seems necessary to take a closer look at the nature of creativity in language learning and use and its role in L2 learning. Therefore, this paper attempts to examine the concept of general and linguistic creativity from different theoretical perspectives, demonstrate the effects of creativity on the cognitive and linguistic development of L2 learners, and review the key factors and pedagogical approaches facilitating creativity in the L2 classroom.

2. Definitions, components, and levels of creativity

Creativity is a complex and multifaceted concept, so after over 70 years of creativity research, no comprehensive definition reflects its multidimensional nature (Runco and Jaeger 2012). As Maley (2015, 6) states, “the difficulty of finding an inclusive definition of creativity maybe owing to the latter’s forms and manifestations”. Nevertheless, a consensus has been reached over the two necessary (but not sufficient) components of novelty/originality and usefulness/value in a standard definition of creativity (Runco and Jaeger 2012). Novelty/originality implies something new, surprising, and innovative, while usefulness/value refers to ideas and products that are of high quality, relevant, and appropriate to the purpose for which they were created (Runco and Jaeger 2012). Apart from novelty/originality and usefulness/value, creativity encompasses many other components, such as domain competence, general intellect, divergence and experimentation, emotional involvement and persistence, spontaneity, dealing with uncertainty and ambiguity, independence, and social interaction (Jordanous and Keller 2016). These factors alone or in combination are the building blocks of creativity vital for creative achievements.

Perhaps most commonly, creativity is equated with divergent thinking, defined as the ability to generate multiple new ideas and solutions to a problem (Guilford 1967). Divergent thinking is contrasted with convergent thinking, which seeks correct, conventional, and logical rather than original solutions. Divergent and convergent thinking differ in quality, but both are central for novel and appropriate creative products and ideas (Guilford 1967). Divergent thinking is characterised by *fluency* (the ability to generate a large number of ideas or solutions within a limited time); *flexibility* (the ability to generate different categories of ideas and solutions to a problem); *originality* (the ability to produce original and statistically infrequent ideas); and *elaboration* (the ability to provide many details of an idea)

(Guilford 1967; Runco 2004). Guilford (1967) stressed that creativity is not synonymous with divergent thinking, which is only one crucial component of creativity. Creativity also involves analysis, synthesis, sensitivity to problems, reorganisation, redefinition, complexity, and the ability to solve problems. In this respect, Torrance (1988, 47) understands creativity “as the process of sensing difficulties, problems, gaps in information, missing elements, something askew, making guesses and formulating hypotheses about these deficiencies, evaluating and testing these guesses and hypotheses, possibly revising and retesting them; and finally communicating the results”. This definition implies that creativity emerges from the need to resolve a problem and find incomplete information.

Finally, people create products and ideas with different degrees of impact on personal and social life. Therefore, on the level of magnitude, one distinguishes between Big-C, Pro-c, small-c, and mini-c creativity (Kaufman and Beghetto 2009). Big-C or eminent creativity concerns ideas and artefacts that radically affect the course of human history and make profound changes. Big-C creativity stands for the extraordinary accomplishments of geniuses, renowned inventors, artists, and scientists. Pro-c or professional creativity is achieved after years of expertise and deliberate practice when one becomes a creative professional. Small-c creativity concerns ideas and products recognised as original by other people, but they are not as ground-breaking as in the case of Big-C creativity. Mini-c creativity relates to personally meaningful and new ideas. Mini-c creativity lies at the bottom of the developmental trajectory of creativity, which may turn into small-c and, later, even into Big-C creativity.

3. Theoretical perspectives on conceptualising creativity

The conceptualisations of creativity largely depend on the types of problems to be resolved and the theoretical perspectives applied.

Cognitive theories of creativity investigate how people create, i.e. what cognitive abilities and mental processes are involved in creative endeavours. Thus, from the cognitive perspective, creativity is generally viewed as an intellectual capacity (Boden 2004), divergent and convergent thinking (Guilford 1967), a problem-solving ability (Wallas 1926), and an ability to make associations between disparate ideas (Mednick 1962). Boden (2004, 1) states that creativity is “not a special ‘faculty’ but an aspect of human intelligence in general: in other words, it’s grounded in everyday abilities such as conceptual thinking, perception, memory, and reflective self-criticism”.

Personality studies on creativity investigate people’s traits and behaviours that affect creativity. Research findings show that the key characteristics of creative individuals are openness to experience, curiosity, determination and deep commitment, unconventionality, and attraction to complexity (Feist 1998).

Openness to experience – a personality trait in the Five-Factor Model (Costa and McCrae 1992) – has been consistently reported to have the most substantial impact on creativity. As Costa and McCrae (1992) explain, people with high openness enjoy ambiguous tasks, seek new experiences and sensations, and have better cognitive skills required for creativity.

Socio-cultural research on creativity stresses the role of social factors and the environment where people create. Amabile (1996) states that social factors (e.g. reward, competition, surveillance, peer pressure, modelling, feedback) directly influence creativity by affecting motivation. To enhance creativity, Amabile (1996) emphasises the importance of balancing stability and flexibility, creating interpersonal cohesiveness in a group, and encouraging risk-taking among group members. Creative potential is also developed through dialogue, perspective taking and reflexivity.

Componential theories of creativity emphasise a dynamic interplay of cognitive, personality, conative and emotional factors with the environment (Amabile 1983). According to the componential framework of creativity (Amabile 1983; 1996), three components are necessary for creativity: 1) domain-relevant skills, 2) creativity-relevant skills, and 3) task motivation. If one part is missing, then creativity is not likely to occur. An overwhelming body of research shows that intrinsic motivation is among the most potent drives for creativity (De Jesus et al. 2013). Creativity and motivation have a reciprocal relationship since creativity requires motivation and generates it during the creative process (Amabile 1996). In line with the confluence approach to conceptualising creativity, Plucker, Beghetto, and Dow (2004, 90) define creativity as “the interaction among aptitude, process and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context”.

Given the above, creativity is defined and conceptualised depending on the focus of an investigation, theoretical approaches, and the level of impact. Some conceptualisations of creativity stress radical newness or problem reformulation, while others point to the generation of simple, imaginative ideas meaningful to the creator. Most definitions state that creativity must involve originality and value, while others highlight the interaction of cognitive, conative, personality and social factors. Despite the attempts to understand the nature of creativity, the concept remains vague and elusive (Runco and Jaeger 2012).

The following section will discuss the concept of linguistic creativity and different perspectives on the sources of creativity in language use.

4. Sources of linguistic creativity

Language is a powerful tool to exercise creativity in various contexts, including L2 learning. Several sources make linguistic creativity possible and relevant in

L2 learning and use. First, as posited by Carter (2004, 13), “linguistic creativity is not a property of exceptional people but an exceptional property of all people”. It implies that every L2 learner can be creative and use a second language creatively with proper feedback and guidance.

Second, language is inherently creative by nature. People can understand and use language in novel combinations instead of communicating with pre-learned phrases. This is due to our innate ability to create an infinite number of utterances from a finite stock of linguistic elements (Chomsky 1965). According to Chomsky (1965, 6), “An essential property of language is that it provides the means for expressing indefinitely many thoughts and for reacting appropriately in an indefinite range of new situations”. Furthermore, language is bound by a finite number of rules that allow for recursion or building a large variety of syntactically different sentences (Chomsky 1965). At first sight, rules appear as constraints to creativity. Yet, it is constraints and conventions that make creativity possible. Importantly, creativity requires the knowledge of rules and constraints to utilise them in original ways (Tin 2011). As Jones (2016, 21) puts it, language rules serve as “a necessary matrix against which the violation of them becomes meaningful”. Therefore, the knowledge of the L2 language system and its rules is a prerequisite for linguistic creativity in the L2 context.

Third, the creative potential of language is not limited to its generative properties or the language system alone. Zawada (2006) claims that creativity is primarily an active process of making, recreating, and reinterpreting meanings rather than simply being rule-governed. From this perspective, Zawada (2006, 235) defines linguistic creativity as “an essential and pervasive, but multi-dimensional characteristic of all human beings (...)”, and states that it is “primarily the activity of making new meaning by a speaker (...), and the recreation and re-interpretation of meaning(s) by a receiver. Linguistic creativity is secondarily observable as a feature or product in a language”.

From the usage-based perspective, creative language emerges simultaneously with the general emergence of structure in the process of acquiring and manipulating form-meaning pairings (Eskildsen 2017). Specifically, linguistic creativity develops through the use of simple words, chunks, and prefabricated expressions that gradually evolve into creative language. L2 users build their schematic constructions by finding commonalities among patterns in the process of social interaction. These commonalities are represented as “schemas sanctioning the use, understanding, and learning of novel utterances of the same kind” (Eskildsen 2017, 283). For example, to learn the plural forms of nouns, one needs to rote-learn the plural exemplars to establish a general plural schema, which later allows for novel pluralisations (Eskildsen 2017). All in all, creativity emerges from experience and one’s repertoire of existing constructions that L2 users combine in novel ways.

From the emergentist perspective, linguistic creativity evolves because language is emergent, spontaneous and co-constructed by the speakers as a dialogue

unfolds itself. As Maybin and Swann (2007, 491) state, “language users do not simply reproduce but recreate, refashion, and recontextualise linguistic and cultural resources in the act of communicating”. Effective communication involves the creative adaptation of language to the speaker and the social context flexibly. Using and adapting language in open conversational exchanges is stimulating and challenging for L2 learners. Since the rules of natural conversation are hard to teach explicitly, Maley and Kiss (2018) suggest systematically providing L2 learners with massive input, although it is insufficient on its own.

In sum, the learner’s inherent potential to be creative and the essential features of language make linguistic creativity possible. The next part focuses on the specific forms of linguistic creativity in second language use.

5. Instances of linguistic creativity in the L2 context

Linguistic creativity manifests in different forms and contexts. Linguistic creativity often tends to be associated with the literature domain. However, creative language use is not only linked to poetry or literary works of art. It is a prevalent feature of ordinary language, something that all of us are capable of to various degrees (Carter 2004; Maybin 2016). We use language and its features to express meaning and achieve our communicative goals. Depending on the intended effect and purpose of communication, we often rely on various linguistic devices such as rhyme, repetition, echoing, wordplay (puns, parodies), metaphor extension, slang, proverbs, humour, verbal duelling, hyperbole, alliteration, assonance, idioms, and speaker displacement of fixedness (Carter 2004).

Creativity in L2 learner language can be expressed incidentally or deliberately (Ellis 2016). Incidental creativity emerges when learners have no intention to be creative. Creative acts happen due to the need to communicate the meaning despite limited linguistic resources. In this sense, the L2 learner’s language is creative because it breaks the rules of the target language. It is evident, for example, in structural simplification (the omission of articles, auxiliary verbs, tense morphemes), semantic simplification (the omission of content words), the overextension of grammatical categories (when the constructions are broader than in the target language), or in the creation of non-existing categories (Ellis 2016).

On the other hand, L2 learners can deliberately use language creatively by manipulating L2 forms for fun or special effects. Deliberate creativity is particularly evident in language play. Language play involves the manipulation of sound patterns (rhymes, tongue twisters, alliteration), structures (parallelisms), and new units of meaning (neologisms) (Ellis 2016). The most common products of language play are poems, puns, riddles, jokes, advertisements, newspaper headings, songs, chants, taunts, nursery rhymes, nonsense rhymes, repetitions and folk stories (Cook 2000). In the L2 context, linguistic creativity mainly concerns the learner’s output or the

product of their L2 language. Creative abilities and linguistic creativity perform specific functions in the L2 learning process and contribute to the development of the L2 system in multiple ways that will be discussed below.

6. The benefits of creativity in second language learning and use

Linguistic creativity and creativity as an individual learner characteristic play an important role in L2 learners' linguistic development. According to Ellis (2016), language play, as an instance of linguistic creativity, leads to the creative construction of learners' L2 systems by activating the cognitive processes involved in analysing and manipulating utterances, such as deleting, adding, substituting, and rearranging chunks of language, and making analogies. Ellis (2016) emphasises that these processes are under learners' control, and they may be activated spontaneously in a specific situation or purposefully during instructional activities. Similarly, Tin (2013) states that language play and other creative language activities facilitate second language learning by encouraging L2 learners to transform their language and discover new meanings. Learners attempt to retrieve less accessible language, expand their existing vocabulary and grammar, and combine familiar words and phrases in new ways. These operations prevent cognitive fixation and make language memorable. Furthermore, Cho and Kim (2018) posit that language play develops L2 learners' creativity and raises their metalinguistic awareness, defined as "the ability to focus attention on language as an object in itself or to think abstractly about language and, consequently, to play with or manipulate language" (Jessner 2006, 42).

Tarone (2000) lists several other benefits of language play in L2 learning. First, it lowers affective barriers, such as anxiety, and triggers associations that leave long-lasting traces in the memory. Cook (2000) emphasises the mnemonic power of language play by showing how learners could recall the language encoded through language play despite not using it for years. Second, language play develops socio-linguistic competence, which involves the appropriation of various registers in speech communities where the learner belongs or would like to belong. It gives learners freedom of expression and allows them to construct their own identities without fearing negative consequences. Third, language play destabilises and restructures the learner's interlanguage because, during language play, learners notice linguistic forms and gradually replace their incorrect L2 forms with the correct ones (Tarone 2000). Furthermore, playfulness in language learning can create a state of "flow" or a state of complete absorption into an activity (Csikszentmihalyi 1997), which is a strong motivational factor in the learning process. Finally, the ludic function of language play allows learners to appreciate language as a whole and have fun (Crystal 2001).

Empirical research on the association between creativity as an individual learner difference and different aspects of L2 learning is scarce and non-conclusive.

In terms of the association between creativity and bi-/multilingualism, research shows that bi-/multilinguals outperform monolinguals on different measures of creativity because of bi-/multilinguals' enhanced executive functions, higher generative capacity, and experience with multiple cultures (Dijk et al. 2019). Moreover, bi-/multilinguals have greater cognitive control (Bialystok, Craik, and Luk 2012), enhanced cognitive flexibility (Kharkhurin 2017), and better problem-solving abilities (Leikin, Tovli, and Woldo 2020) than monolinguals.

Regarding the connection between creativity and L2 skills, only a handful of studies explored the role of creativity in L2 speaking and writing. Suzuki et al. (2022) investigated the role of creativity in L2 speaking performance in an argumentative and a picture narrative task. Creativity, measured as a cognitive variable (divergent and convergent thinking) and a personality variable (openness to experience), was correlated with the aspects of speaking performance (fluency, complexity, accuracy, and discourse measures). The results showed that convergent and divergent thinking were associated with discourse aspects of speech (cohesion as indexed by the number of causal and logical connectives) in both tasks, while the total number of words produced was related to divergent thinking fluency in the argumentative task. The personality dimension of creativity (openness to experience) was related to the increased syntactic and lexical complexity in the picture narrative task. The overall conclusion is that creativity affects the lexicogrammatical and discourse aspects of L2 speech production. Suzuki's et al. (2022) findings are similar to the results of Albert and Kormos' (2004) study on the relationship between creativity and L2 speaking performance in picture narrative tasks. Divergent thinking fluency was positively correlated with the total number of words and originality was positively correlated with the frequency of temporal connectives. Originality and the quantity of talk were found unrelated. The findings suggest that creativity, understood as divergent thinking, affects the cohesion of output and the amount of speech. Zabihi, Rezazadeh, and Vahid Dastjerdi (2013) found a positive correlation between creative fluency and L2 fluency in individual writing, and a negative correlation between creative originality and L2 fluency in both individual and collaborative task performance.

As for creativity and language proficiency, Ottó (1998) established significant positive correlations between L2 proficiency, operationalised as L2 English grades, and total creativity, measured as ideational fluency, associational fluency, sensitivity to problems, and originality. Conversely, Albert (2006) found no link between creativity and L2 proficiency. Wang and Cheng's (2016) study indicated that English proficiency significantly predicted metaphoric creativity. Yang et al. (2021) revealed that L2 proficiency influenced bilinguals' cognitive creativity both directly and indirectly through cognitive flexibility, which had a mediating effect on this relationship.

Finally, Fernández-Fontecha (2021) explored the link between creativity and L2 lexical production. The results demonstrated a significant positive correlation

between global creativity (fluency, originality, and flexibility) and semantic fluency. Highly creative participants produced more varied and uncommon responses than learners with lower creativity scores.

Taken together, research on L2 creativity is still in its infancy, but the results suggest a predominantly positive relationship between creativity and L2 skills, proficiency, vocabulary acquisition and lexical production. Therefore, creativity may be a potentially important individual difference explaining learner variation, but more research is needed to confirm the existing findings. Pedagogical implications and strategies for facilitating the learner's creative potential are the focus of the concluding section.

7. Pedagogical implications and methodological guidelines

An L2 classroom presents an excellent opportunity for creative expression because language itself is creative, and every person has creative potential. As previously discussed, creativity and language play facilitate L2 learning in multiple ways. Based on the empirical findings mentioned before, creative play increases L2 learners' metalinguistic awareness and noticing of linguistic forms, increases motivation and lowers anxiety. It allows learners to experiment with language, recontextualise L2, and step beyond the known language forms and common ideas. Enhanced levels of creativity have a positive effect on oral and written task performance, learners' generative capacity, and semantic and associative fluency. These are some of the reasons that make creativity pedagogically relevant in the L2 context. Considering the cognitive, affective and sociolinguistic benefits of creativity in L2 learning and use, learners should receive plenty of opportunities to use L2 creatively.

Communicative and task-based teaching approaches, which involve idea generation, fact-finding, problem-solving, and negotiation of meaning, are particularly conducive to developing and exercising L2 learners' creativity. Tasks and activities that are student-centred, interaction-based, and open-ended expand learners' resourcefulness, flexibility, and productivity of thought. At the same time, complex communicative tasks that rely on creativity can present difficulties for learners with low creativity levels and negatively affect L2 learners' task performance and overall linguistic development (Ottó 1998). Therefore, teachers should explicitly teach about creativity, model creative behaviour, and integrate open-ended and enquiry-oriented tasks into meaningful language practice. According to Fasko (2001), creative pedagogy is based on an enquiry-discovery approach, divergent and convergent thinking, problem-solving and problem finding, and modelling creative behaviour.

Literary texts of different genres (e.g. novels, short stories, poems, comics, songs) are powerful tools for enhancing L2 learners' creativity. Piasecka (2018)

observed that L2 learners find it challenging but incredibly rewarding to work with poetry since it engages the whole person cognitively and emotionally. It allows L2 learners to notice unusual language patterns, awakens their imagination and sensitivity, and develops their L2 knowledge and proficiency. Similarly, Tin's (2011) study shows that writing poetry with high formal constraints results in a more complex and novel L2 language. Tin (2011) concludes that creative language use stretches the learner's linguistic and conceptual world at lexical, syntactical, paradigmatic and syntagmatic levels.

There are three factors to consider when facilitating creativity in the L2 classroom: the teacher's personality and behaviour, environment, and strategies for developing creativity. Richards (2013) characterises creative teachers as knowledgeable, confident, critically reflective, flexible, non-conformist, and risk-takers. They have a rich repertoire of interesting, challenging and meaningful resources; their teaching approaches and techniques are varied and non-repetitive, and they can create effective surprises. Creative teachers encourage learners to actively explore ideas without the fear of being ridiculed, make connections, critically reflect, collaborate with peers, and take ownership of their learning.

With reference to the environment, creativity is inhibited in rigid and test-like conditions (Runco 2004). In contrast, creativity thrives in an environment marked by autonomy and freedom of decision. Such learning environments are characterised by good management, encouragement, positive cooperation, feedback and appreciation, and sufficient resources and time to complete the task or solve the problem (Amabile 1996). Cremin and Barnes (2010, 475) state that the classroom climate for developing creativity should be both "highly active and relaxed; supportive and challenging; confident and speculative; playful and serious; focused and fuzzy; individualistic and communal; understood personally and owned by all; non-competitive and ambitious".

In terms of the strategies for facilitating creativity in the L2 classroom, Maley (2015) recommends trying things out instead of applying ready-made formulas (e.g. doing the opposite), setting constraints (e.g. on activities, time, number of words); making unusual combinations and new associations, withholding information, developing divergent thinking, and implementing a wide variety of materials and resources. Helpful information about creative practices and creative activities in the L2 classroom, such as creative writing, storytelling, drama, literature, using coursebooks creatively, teaching grammar creatively, and fostering creativity in communication can be found in Maley and Peachey (2015).

In sum, integrating and facilitating creativity in L2 teaching and learning is a complex process that requires a combination of factors such as teacher personalities, attitudes and behaviours, a supportive environment, and finally, a rich collection of resources and strategies for creative L2 teaching and learning.

8. Conclusion

Creativity is highly valued in many areas of modern life. The second language classroom seems suitable for unlocking learners' creative potential in general and in L2 use. This article attempted to show what creativity means in different theories and contexts, what benefits it brings to L2 development, and what implications it has for L2 teaching. Solid theoretical knowledge about the nature of creativity and its effects on different aspects of L2 learning is a necessary prerequisite for integrating creativity in the classroom. It will help teachers recognise creativity in learners and themselves, reassess their teaching practice, make sound professional decisions that encourage creativity, and teach the essential content creatively. On the other hand, learners will find learning more challenging, but also more enjoyable and rewarding.

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Teachers' Use of Motivational Strategies in the EFL Classroom: A Study of Hungarian High Schools

Abstract: The present study investigates English as a Foreign Language (EFL) teachers' use of motivational strategies (MS) in Hungarian high schools. It also seeks to identify whether students recognize these strategies. Keller's (2010) motivational model was employed through the instructional materials motivational survey (IMMS) questionnaire that was translated into Hungarian. A population of 117 Hungarian high school students from grades 9 to 12 filled out questionnaires on their teachers' use of MS, and 62 high school teachers completed the same questionnaire to report their MS. Classroom observations were also conducted following the Motivational Orientation of Language Teaching (MOLT) scheme proposed by Guilloteaux and Dörnyei (2008). For each grade, face-to-face and online classes were observed. Quantitative and qualitative methods were used to process the data. The results show that teachers' mean scores for all the ARCS categories were higher than those of students, with significant differences between students' and teachers' views on attention and relevance. Teachers reported using satisfaction-generating strategies most often, while the observation results indicated that the most frequently used strategy was attention. Students' grades had no correlation with students' perception of the use of MS, which might be due to the homogeneity of the sample selected.

Keywords: EFL Motivation, ARCS model, motivational strategies, Hungarian high schools, language learning, COVID19, online learning

1. Introduction

Motivation has been acknowledged as the most important factor in learning a foreign language. Dörnyei (2014, 519) states that “motivation is responsible for why people decide to do something, how long they are willing to sustain the activity, and how hard they are going to pursue it”. An abundance of research suggests that motivation is important for learning in general and for language learning in particular, not only for its pivotal role for the mastery of foreign languages but also because it is the second most serious problem that teachers encounter (Veenman 1984). However, few studies have attempted to shed light on the effective use of motivational strategies by teachers. Teachers may play a key role in enhancing students’ motivation (Bernaus and Gardner 2008). As Keller (2010, 38) claims, “Teachers cannot control student motivation but they certainly do influence it. They can stimulate students’ desire to learn or they can kill learner motivation”. This can be achieved by using some strategies to motivate students which are referred to as ‘motivational strategies’ (Dörnyei 2001). Still, what teachers perceive as motivating may not appeal to the L2 learners. The current study seeks to investigate Hungarian high school EFL teachers’ use of motivational strategies (MS) and whether their students recognize them. It equally highlights whether there is a correlation between students’ English proficiency level and their perception of MS.

2. Theoretical background

2.1 Language learning motivation research

The field of language learning motivation has been thriving for decades. This development will be briefly outlined here with a focus on Keller’s (2010) model, which will be used in this study. Motivation has been the focus of L2 scholars as it represents a key element in studies of individual differences. Cohen and Dörnyei (2002) assert that motivation is the key learner variable, without which learning is not possible. This concept has been studied in terms of distinctions ranging from instrumental and integrative motivation (Gardner 1985) to intrinsic and extrinsic motivation (Deci and Ryan 1985). It then developed into various models of L2 motivation (Crookes and Schmidt 1991; Dörnyei 1994; 2005).

Research on motivational teaching strategies stresses the teachers’ conscious practice and its effect on learners (Lamb 2017). Dörnyei (1994) initiated research on motivational strategies. They are defined as “those motivational influences that are consciously exerted to achieve some systematic and enduring positive effect” (Dörnyei 2001, 28). He proposes four components of motivational teaching: (i) creating the basic motivational conditions, (ii) generating initial motivation, (iii) maintaining and protecting motivation, and (iv) encouraging positive retrospective

self-evaluation. Dörnyei and Ushioda (2011) note that teachers should not try to employ all the aforementioned strategies; they should rather choose those that fit their sociocultural context and go in line with their students' intrinsic motivation.

Another model that was proposed by Dörnyei (2005; 2009), the L2 Motivational Self System (L2MSS) theory, is based on the learners' visions of their future self-image: the ideal L2 self, the ought-to L2 self, and the L2 learning experience. The ideal L2 self refers to the learner's ideal self-image as a proficient L2 speaker; the ought-to L2 self describes the learner's characteristics that he or she ought to have; and the L2 learning experience relates to the L2 learning environment (Dörnyei 2005). These dimensions have been widely applied in foreign language settings both in and beyond Hungary. Still, the third element, the L2 learning experience, has been given little attention (Csizér and Kálmán 2019). Indeed, Maeng and Lee (2015) argue that L2 motivation research has not addressed the classroom environment, including tasks, materials, design, and teachers, hence the need to focus on classroom practices that boost motivation. Keller (1987; 2010) puts forward a motivational design that fills this gap. His model is used in instructional theories and has been applied in various educational contexts, not just to the language learning context (Li and Keller 2018). Keller (2010) views his motivational design as a bridge that connects the study of motivation and the classroom practice to enhance students' motivation.

2.2 Keller's ARCS Model

The ARCS (Attention, Relevance, Confidence, Satisfaction) model is derived from Keller's (1987) macro theory of motivation and instructional design. Keller's (2010) model accentuates the role of teachers to promote learners' motivation, as it provides a thorough view of motivation, including motivational concepts, roles and strategies, classroom implementation, material and task integration, and the responsibilities of the teacher. Ono, Ishihara, and Yamashiro (2015) argue that the ARCS model can be applied in foreign language research.

Keller (1987) developed the ARCS model with four components: Attention, Relevance, Confidence, and Satisfaction. Each component is divided into three subcategories with substrategies that guide the teachers when planning their lessons. Attention refers to learners' interest during learning. It falls into perceptual arousal, inquiry arousal, and variability. Relevance refers to language or examples that are relevant to the learner's needs. It includes goal orientation, motive matching, and familiarity. Confidence refers to positive expectations for success. It encompasses learning requirements, success opportunities, and personal control. Satisfaction is about the reinforcement and conditioning of learning. It is divided into intrinsic reinforcement, extrinsic rewards, and equity.

Keller's (2010) model is classroom oriented, as it highlights the role of the teacher in employing MS. It also gives guidelines on classroom motivational

practices. The teacher should gain the students' attention from the start of the lesson. Strategies include perceptual arousal through an element that teases their curiosity. A second strategy is inquiry arousal when the student is eager to know more about the topic. Variation is very important to maintain attention, since repeating the same strategies will not be appealing to students. After raising their curiosity, students need to perceive the relevance of the content presented. Relevance is about relating the content of the lesson to the students' learning goals, such as relating it to a future job or a travel experience in an English-speaking country. Another strategy would be to use familiar examples that are linked to the students' interests, such as cartoons, Harry Potter stories, or any themes that pertain to their daily experiences. The third element for motivation is confidence. This is achieved when students have a potential chance for success. Students often fear failure and lose confidence when they struggle to understand the teacher's expectations or the learning requirements. By clearly stating the objectives and providing opportunities for success, students can easily build confidence and overcome any challenges. When students are paying attention, are interested in the lesson, and are confident, they will succeed, they are motivated to learn. However, satisfaction is important to maintain their motivation. Satisfaction refers to students' feelings following the learning experience. Students' efforts should be recognized and valued in order to acknowledge their intrinsic feelings of satisfaction and treat them equally. Tangible rewards are also effective either in the form of plus points or a symbolic certificate, for instance.

The ARCS model connects L2 motivation theories that focus mainly on the learner with motivational instructional design models that consider the role of the teacher, the teaching materials, and the learning environment. It is systematic and can be followed by teachers as a guideline for planning their lessons, as well as by researchers who investigate teachers' use of MS and students' perception of these MS in terms of their attention, relevance, confidence, and satisfaction.

2.3 The ARCS model in L2 learning research

The ARCS model has been applied in the area of L2 learning (Maeng and Lee 2015; Karimi and Zade 2019; Min and Chon 2020). However, it was not used in the European context, hence the originality of the present research.

Maeng and Lee (2015) conducted a study on Korean in-service teachers' use of MS. Ten microteaching videos were randomly selected and analyzed according to the ARCS strategies. The findings indicated that attention-getting strategies were strongly used. Teachers did not properly use strategies related to goal-orientation, learning requirements, personal control, and equity. Indeed, the authors put forward the following suggestions. First, teachers should be trained on how to use motivational strategies effectively in their classes. Second, teachers should be reflective on their use of MS and should be open to receiving feedback from their

colleagues. Third, the model should be tailored to teachers' language proficiency, since those with a higher L2 proficiency level were found to have integrated more strategies into their teaching than teachers with a lower English proficiency who tended to use their L1 quite often.

Karimi and Zade (2019) studied the effect of a professional development course based on Keller's model on EFL teachers' use of MS in Iran. The researchers used two questionnaires and class observation for data collection. Regardless of their teaching experience, teachers developed their skills in applying MS after the training. The results also indicated the positive effect of teachers' use of MS on their students' motivation.

Min and Chon (2020) investigated Korean teachers' use of MS and how it affects their students. Both teachers and students participated in a survey study. Eight students were later interviewed to assess their teachers' motivational practices. The findings indicated that the students did not perceive the MS used by their teachers, and their perception of MS largely depended on their proficiency level. Students with a low proficiency level did not value their teachers' use of MS, regardless of their teachers' efforts. Raising students' attention and boosting their confidence were the main predictors in increasing students' proficiency level. It was suggested that MS should be implemented to support communicative language teaching and help fulfill students' professional goals.

2.4 EFL instruction and research in Hungary

Hungary has a reputation of not being particularly successful in foreign language teaching and learning, although some Hungarian scholars would argue that the situation has improved considerably since the 1990s (for an overview of the effectiveness of foreign language teaching in Hungary, see Einhorn 2012; 2015). The causes of this relative failure are not entirely clear, but usually methodological shortcomings of teachers combined with negative attitudes and anxieties of language learners are cited as primary reasons. In this context, the study of motivation is of primary importance, as the results may give clues to what should be improved in classroom teaching.

In Hungary, a variety of foreign language learning programs exist that schools can choose from. This leads to very different learning experiences for students. In the schools that were involved in this study, students had four English classes of 45 minutes per week. Language teaching in Hungary still tends to be grammar-focused, and there is a lot of pressure on high school students to pass a B2 level language exam, as it is a requirement for a degree from Hungarian universities. Although there is no compulsory foreign language to be studied, students in secondary schools are required to study two foreign languages (Csizér 2020). The most frequently learned foreign language is English.

Language learning motivation has been widely researched in the Hungarian

context, with a dominance of cross-sectional questionnaire studies (Medgyes and Nikolov 2014). Studies that involved students pale in comparison to those involving teachers (Heitzmann 2008; Illés and Csizér 2010; Csizér and Magid 2014; Csizér and Kálmán 2019). The main finding of these studies was that teachers did not consider that it was their duty to motivate students. In her review of L2 motivation research in Hungary, Csizér (2012) called for more classroom-oriented research. The present study involves both teachers and students, using a triangulation model that has not been applied in the Hungarian context before.

3. Research questions

Considering the theoretical background stated above and the previous research reviewed, this study seeks to answer the following research questions:

1. What are the motivational strategies that teachers use most often in Hungarian classrooms?
2. Does students' perception of motivational strategies align with their teachers' actual use of motivational strategies?
3. How do students' proficiency levels influence their perception of motivation?
4. What is the relationship between the teachers' self-reported use of MS (assessed by the questionnaire) and their classroom practice (in-class and online observation)?

4. Methodology

The data were collected through the Hungarian translation of the IMMS questionnaire, which was shared via a Google form and through the MOLT observation scheme. Class observations were carried out initially in face-to-face instruction. During the data collection, the Hungarian government ordered the closure of schools due to COVID-19, hence the shift to remote instruction. Observations were done online via both Zoom and Google Classroom.

4.1 Participants

The participating teachers and students were recruited from two state high schools in a southern city in Hungary. Both schools have a high reputation in the city, and the students are probably above average both in terms of academic achievement and motivation. Teachers were selected through a snowball effect via a Google form shared on a Facebook group of teachers of English in Hungary. The teachers helped get their students' parental consent to participate in the study.

The participating students were 117 learners of English between 14 and 18 years of age. They had different levels of English proficiency (pre-intermediate, intermediate, upper-intermediate, and advanced). The students' proficiency levels were measured following their grades. The student participants were all Hungarians, and all spoke Hungarian as their first language. Most students also studied German as their second foreign language besides English. Demographic information about the participating students is detailed in Table 1.

Table 1. Information on the students

Gender	Male	38
	Female	79
Age	14–18	
Grade	1–5	
Level	9–12	

Sixty-two English teachers between 23 and 63 years of age took part in this study. Their teaching experience ranged from 2 to 40 years. Demographic information about the participating teachers is summed up in Table 2.

Table 2. Information on the teachers

Gender	Male	6
	Female	56
Age	Less than 30 years old	4
	30–39 years old	8
	40–49 years old	31
	More than 50 years old	19
Teaching experience	Less than 10 years	8
	10–19 years	21
	20–29 years	22
	30–40 years	11

4.2 Instruments

Two instruments were employed for data collection to answer the research questions of the study: (a) the Instructional Materials Motivational Survey (IMMS) questionnaire, which had a student- and a teacher-version, and (b) the Motivational Orientation of Language Teaching (MOLT) classroom observation scheme.

(a) Questionnaire: Instructional Materials Motivational Survey (IMMS)

The IMMS was designed by Keller (2010). It contains items representing the four categories of Keller's (2010) ARCS model: attention, relevance, confidence, and satisfaction. The adapted version, used by Min and Chon (2020), follows a 5-point Likert scale from not true (1) to very true (5). Each category of the ARCS model is represented through 10 items that are ordered randomly. The attention items ask about the strategies that teachers use to capture students' attention and raise their interest. The relevance items ask about the strategies that teachers use to meet students' goals and relate to their prior knowledge. The confidence items explore the strategies used to boost students' confidence that they will succeed. The satisfaction scale is measured in terms of positive feedback and rewards.

Two complementary questionnaires were designed for teachers and students. The first part of the questionnaire collected demographic data for the students (age, grade, gender) and the teachers (age, gender, years of experience). The second part asked the students to rate their teacher's use of MS. The teachers were also asked to report on their use of MS. The questionnaire was administered in Hungarian, the participants' native language, to guarantee the reliability of answers.

(b) The MOLT classroom observation scheme

The minute-by-minute MOLT is an observation scheme that consists of 25 variables that report teachers' motivational practice and students' motivated behavior. It was employed in several previous studies (Guilloteaux and Dörnyei 2008; Papi and Abdollahzadeh 2012; Moskovsky et al. 2013; Hennebry-Leung and Xiao 2020). Teachers' motivational instruction is presented in four categories: teacher discourse, activity design, participation structure, and encouraging positive and retrospective self-evaluation. Students' motivational behavior is categorized into attention, engagement, and volunteering. It is based on Dörnyei's (2001) theory of motivational strategies as well as Spada and Fröhlich's (1995) observation scheme.

In our study, two classes were observed in each grade. The five participating teachers argued that the students were used to being observed, as they often had teacher trainees or other teachers visiting their classes; hence, they were behaving as usual. Following the study of Guilloteaux and Dörnyei (2008), the teachers' and students' motivational behaviors were observed and recorded minute by minute. As to the coding of different events happening within one minute, the observer followed Spada and Fröhlich's (1995) coding rule that only the event that lasted the longest during a minute should be recorded. The same scheme was used both in classroom and online observation. However, the students' motivational behavior could not be reported in the online setting, since most students turned their cameras off.

5. Data collection and analysis

The data were collected during the fall semester of the academic year 2020-2021. The teachers received the Hungarian version of the questionnaire via email. The questionnaires were then distributed to the students through a Google form. Since new restrictions related to COVID-19 were introduced, half of the lessons were observed online through Google Classroom or Zoom.

A factor analysis was conducted with SPSS 24.0 to sketch out the main MS used (Appendix A). The Bartlett's test of sphericity was significant (4161.832), which suggests that the factor analytic model is applicable to the data. The Kaiser-Meyer-Olkin (KMO) measure (.862) indicates a strong relationship among variables. The number of items with factor loadings above .4 is 24. The reliability with Cronbach's alpha for each factor demonstrated high internal consistency, as values were $>.70$ on all the four factors: satisfaction-generating strategies (.829), attention-getting strategies (.778), relevance-producing strategies (.907), and confidence-building strategies (.701). The first factor was labelled as satisfaction-generating strategies. It contained six items, such as rewards and positive reinforcement. It accounted for 32.45% of the variance in the data. The second factor accounted for 6.64% of the variance in the data and included six items labelled as attention-getting strategies, such as perceptual arousal and variability. The third factor accounted for 5.23% of the variance and included seven items, such as goal-orientation and familiarity, which were labelled as relevance-producing strategies loaded on it. The fourth element accounted for 4.46% of the variance and included five items that were labelled as confidence-building strategies loaded on it. They included items such as success opportunities and personal control.

After the factor analysis, more statistical analyses were carried out to calculate descriptive statistics (means and standard deviation) on the four categories of MS for both the students and the teachers. Then, independent t-tests were conducted to identify any significant difference between the students' and the teachers' perception of MS. Repeated measures one-way ANOVA was conducted within the teacher group and then the student group to identify any differences among the four MS categories. One-way MANOVA was also conducted to look for a correlation between the learners' proficiency levels and their perception of MS.

For the data collected through the MOLT classroom observation scheme, the analyses followed Guilloteaux and Dörnyei's (2008) method. During the observation, the researcher put tally marks indicating the number of minutes for each motivational behavior or practice. The sums of these marks (i.e. the minutes for each practice) were entered and computed in an Excel sheet. Since some teachers started late or ended the lesson early, the length of observed lessons differed. Thus, the scores were divided by the actual length of the class and multiplied by 100 to obtain standard scores. The observation results were first analyzed to identify the most common MS strategies used and to reveal whether there were any

differences between the teachers' use of MS in in-person classes and online classes. Then, z-scores were computed to compare observation results with the teachers' questionnaire results. To make the comparison of observation and questionnaire results possible, the MOLT items were categorized according to the ARCS model, as shown in Table 3.

Table 3. Correspondence of the MOLT items into the ARCS categories

Attention	Relevance	Confidence	Satisfaction
social chat	signposting	scaffolding	tangible rewards
arousing curiosity	stating purpose	promoting cooperation	individual competition
creative element	establishing relevance	promoting autonomy	team competition
attention	promoting integrative values	pair work	neutral feedback
engagement	promoting instrumental values	group work	process feedback
volunteering	referential questions	intellectual challenge	self/peer correction
	personalization	tangible task product	effective praise
			class applause

6. Results

6.1 Questionnaire results

For the first research question, repeated measures one-way ANOVA was conducted to ascertain whether there was a difference in the use of MS within the teacher group (Table 4). There were significant differences between the four categories of MS ($F(.270) = 53,281, p < .001$), and follow-up pairwise comparisons indicated that satisfaction-generating strategies were the most frequently used ($M = 4.59$), while relevance-producing strategies were used least frequently ($M = 3.83$). Relevance and confidence are not significantly different from each other but significantly different from attention and satisfaction. The use of attention-getting strategies and satisfaction-generating strategies are significantly different from each other.

Table 4. Pairwise comparisons for teachers

(I) MS	(J) MS	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Attention	Relevance	.431*	.081	.000	.211	.652
	Confidence	.177*	.061	.030	.011	.342
	Satisfaction	-.338*	.062	.000	-.507	-.169
Relevance	Attention	-.431*	.081	.000	-.652	-.211
	Confidence	-.254	.095	.056	-.513	.004
	Satisfaction	-.769*	.093	.000	-1.024	-.515
Confidence	Attention	-.177*	.061	.030	-.342	-.011
	Relevance	.254	.095	.056	-.004	.513
	Satisfaction	-.515*	.046	.000	-.640	-.389
Satisfaction	Attention	.338*	.062	.000	.169	.507
	Relevance	.769*	.093	.000	.515	1.024
	Confidence	.515*	.046	.000	.389	.640

* $p < .05$

b. Bonferroni correction

Additional results related to the way the students valued the use of MS were found through repeated measures one-way ANOVA. They indicated that the students perceived the four MS categories differently ($F(0, 390) = 59,390, p < .001$). Bonferroni post-hoc tests and pairwise comparisons indicated that there were significant differences between all subscales in the way the learners perceived the execution of the teachers' MS, except for relevance and confidence; the latter were not significantly different from each other (Table 5).

Table 5. Pairwise comparisons for students

(I) MS	(J) MS	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Attention	Relevance	,558*	,057	,000	,405	,711
	Confidence	,383*	,068	,000	,202	,564
	Satisfaction	-,176*	,048	,002	-,305	-,047
Relevance	Attention	-,558*	,057	,000	-,711	-,405
	Confidence	-,175	,070	,083	-,363	,013
	Satisfaction	-,734*	,062	,000	-,901	-,567
Confidence	Attention	-,383*	,068	,000	-,564	-,202
	Relevance	,175	,070	,083	-,013	,363
	Satisfaction	-,559*	,059	,000	-,718	-,400
Satisfaction	Attention	,176*	,048	,002	,047	,305
	Relevance	,734*	,062	,000	,567	,901
	Confidence	,559*	,059	,000	,400	,718

*p<.05

b. Bonferroni correction

As to the second research question, there were significant differences between the students' perception of motivational strategies and those of the teachers ($p < .05$) for confidence and satisfaction. The difference between the students' and the teachers' view of attention-getting strategies and relevance-producing strategies was not significant. The teachers' scores were still higher than the students' scores for all ARCS categories and followed the same frequency pattern (Table 6).

Table 6. Teachers' and students' perceptions of motivational strategies

Strategies	Teachers (N=62)		Students (N=117)		T-test
	M	SD	M	SD	Sig.
Attention-getting	4.26	0.87	4.13	0.99	.19
Relevance-producing	3.82	1.05	3.57	1.13	.06
Confidence-building	4.08	0.98	3.74	1.14	.001*
Satisfaction-generating	4.59	0.68	4.30	0.93	.003*

*p < .05

To answer the third research question, one-way MANOVA was conducted to examine the role of L2 learners' proficiency in their perception of MS. There was no significant correlation between the students' English proficiency and the way they perceived their teachers' use of MS.

6.2 Observation results

The MOLT (Motivation Orientation of Language Teaching) observation data shows the frequency of each teacher's motivational practice in in-person and online classes. The average frequency for each motivational strategy used in each of the 14 observed classes was calculated and added to an Excel sheet to calculate frequencies (Appendix B).

Some strategies were underused, such as promoting instrumental values, tangible task product, creative element, and intellectual challenge. It should be noted that elements like tangible rewards and class applause were not used at all. Some elements increased in online classes, such as social chat, stating purpose, referential questions, individual competition, neutral feedback, process feedback, and self- or peer-correction. Other variables were totally absent in online classes, such as promoting instrumental values, promoting cooperation, promoting autonomy, creative element, and team competition. The students' motivated behavior, as measured through attention, engagement, and volunteering, could not be observed in online lessons; hence, it was removed from the analysis. The observer recorded some examples of strategies used by teachers in class (Table 7).

Table 7. MOLT examples

Strategy	Example
Effective praise	You guys are great, so you'll be able to handle that!
Referential questions	Does anyone have a comfort food?
Personalization	Who visited an English-speaking country?
Promoting instrumental values	We are lucky because we need to learn English!
Promoting integrative values	Did you use an Oyster card when you were in London?
Signposting	We are doing grammar review today.
Social chat	Have you had breakfast today?

As one major purpose of the observation was to find out what ARCS categories are used de facto in the classroom, MOLT elements had to be assigned to the four ARCS categories in order to check which category was used most. This was easily done, since Dörnyei's (2001) model, on which the MOLT scheme is based, follows Keller's (1987) model. The MOLT elements were divided into four groups, following the ARCS (see Table 4 above), in order to check which MS category was used more. It was found that attention-getting strategies ranked the highest in both in-person and online classes. These include social chat, arousing curiosity, and creative elements. Then comes relevance-producing strategies, with elements such as signposting, stating purpose, establishing relevance, promoting integrative and instrumental values, referential questions, and personalization.

The confidence-building strategies ranked third, with scaffolding, promoting cooperation or autonomy, pair work, and group work. The least used were satisfaction-generating strategies that include individual or team competition, neutral or process feedback, self or peer-correction, and effective praise (Table 8).

Table 8. In-class vs. online class observation

	Attention	Relevance	Confidence	Satisfaction
Online observation	1.34	0.67	0.43	0.42
In-class observation	0.53	0.36	0.24	0.23

The obtained results were entered into SPSS to obtain standardized z-scores that compare the MS means of the in-person and online class observations with the teachers' questionnaire results (Table 9). For Teacher 1, the z scores for both in-class and online observation are above the mean, while scoring below the average for the questionnaire. This indicates that either the teacher employed more MS during the observations or that he/she underestimated his/her use of MS. Teacher 2 used less MS in the online class but reported using more MS while answering the questionnaire. Teacher 3 also has a higher score for the questionnaire than for both in-class and online observations. It suggests that, together with Teacher 2, they might have the impression that they use MS more frequently or that they do so with classes other than the two observed. Teacher 4 scored below the average for all scores. Teacher 5 scored the lowest for the questionnaire, which might suggest a negative opinion of his/her efforts.

Table 9. Z scores

	In-class observation	Online observation	Questionnaire
Teacher 1	1.25	1.64	-0.40
Teacher 2	0.74	-0.93	0.97
Teacher 3	-0.71	-0.31	0.97
Teacher 4	-1.15	-0.54	-0.18
Teacher 5	-0.13	0.15	-1.37

7. Discussion

The present study investigated English teachers' use of motivational strategies in Hungarian high schools following Keller's (2010) ARCS model. It contributes to the field of English language motivation research in Hungary, as it provides a comparison between students' views and teachers' reported use of MS. The results have implications on the appropriate use of MS to improve language learning motivation.

The first research question aimed to find out the motivational strategies that teachers use most, following the ARCS categories. The teachers reported using all categories with a focus on satisfaction-generating strategies, followed by attention-getting strategies and then confidence-building strategies. The relevance-producing strategies ranked last with a significant difference.

The second question investigated whether students' perception of motivational strategies was aligned with their teachers' actual use of motivational strategies. Both students and teachers ordered the use of MS in the following way: satisfaction, attention, confidence, and relevance, only with a significant difference between relevance and confidence. The teachers reported using MS more frequently than the students reported them, with a significant difference for confidence-building and satisfaction-generating strategies. These findings align with previous studies that concluded that teachers' MS were not perceived by their students (Bernaus and Gardner 2008; Min and Chon 2020). Indeed, the teachers thought that they provided interesting and relevant activities in the classroom, but the students missed these MS. The reason could be related to the generation gap between teenagers and teachers, as they might have different perceptions of what is interesting or relevant. Moreover, the differences between the teachers' reported use of confidence-building and satisfaction-generating strategies and their students' perception were statistically significant. In other words, students do not think that teachers boost their confidence as much as teachers think they do. In a similar vein, teachers tend to overestimate their own attempts at acknowledging students' efforts. This could be attributed to the teacher's teaching style, focusing on the content of the lesson rather than on students' performance. It is also likely that students expect different forms of rewards than those used by their teachers.

The third question explored the influence of students' language proficiency on their perception of MS. The results indicated that there was no correlation between the students' English proficiency and their perception of MS. A possible explanation for this insignificant correlation is the participating students' homogeneity, as they all have high proficiency levels.

The observation results suggest that teachers lay more emphasis on students' attention. Teachers equally pay attention to stating the aims of the lesson and how it relates to previously learnt material. Confidence is ranked third, followed by satisfaction. The MOLT results of this study echo findings of previous studies that

many motivational strategies are underused (Ruesch, Bown, and Dewey 2012; Hsu 2020). The comparison of the observation results to those of questionnaires indicates that the teachers used the ARCS categories differently. In their questionnaire answers, the teachers reported using satisfaction-generating strategies the most, followed by attention, confidence, and then relevance. However, during the observation, the most frequently used strategy was attention, followed by relevance, confidence, and satisfaction, respectively. In addition, the z-score comparison for each teacher highlighted a difference between the questionnaire answers and their actual behavior in class. It should be noted, however, that a teacher's style might vary with different students, just as it differs in online instruction.

These findings may not be applicable to other schools nor to other learning contexts in which attitudes towards learning English are different. In fact, Wong (2014) claimed that MS are culturally bound after comparing her results found in the Chinese context to other contexts, including Hungary, where maintaining a positive learning environment, promoting students' confidence, setting personal goals, and providing a clear presentation of the learning content are classified as the most important strategies (Dörnyei and Csizér 1998).

8. Conclusion

This study aimed to investigate the relationship between the use of MS by teachers of English and students' perception of these strategies. The results indicate that Hungarian high school teachers tend to primarily rely on satisfaction-generating strategies (questionnaire data) and attention-getting strategies (observation data). These seem to be effective strategies, since students have good grades, indicating that they are successful language learners.

It should be noted that although the teachers and the students ranked MS categories in the same order, there was a significant mismatch between the teachers' and the students' perception of confidence-building and satisfaction-generating strategies. For the strategies to be effective in influencing students' motivation, they must be perceived as such by students. In order to evaluate their use of MS, teachers should reflect on their motivational practices. Feedback from learners in the form of direct questions or end-of-term evaluation questionnaires might be insightful. The ARCS framework can also help teachers further enhance their students' motivation if followed in their lesson plans.

The quantitative and qualitative methodology employed in this study yielded interesting results. However, some limitations are worth mentioning. First, the research context was narrow, as it included participants from just two schools that are considered the best in town. Hence, the findings may not be applicable to other contexts, such as less prestigious high schools with mixed-ability students. As suggested by Reeve (2005), motivation is a process, not an end-product.

Since students' motivation may fluctuate over time, it would be interesting to compare results over a whole semester. Moreover, due to teachers' unwillingness to be observed, their tight schedules, and the current COVID situation, only one observation was carried out for each in-person and online class. Indeed, one researcher was the only observer in this study, which might affect the reliability of the observations. Still, the findings of this study give an insight into English teachers' use of MS and students' motivation that could yield further research in the Hungarian context.

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Appendix A: Factor analysis

	Satisfaction-generating strategies	Attention-getting strategies	Relevance-producing strategies	Confidence-building strategies
Explained variance	32.45%	6.64%	5.23%	4.46%
Cronbach's alpha	.829	.778	.907	.701
1. T makes use of a variety of visual and auditory materials.		.422		
5. T asks a lot of questions and takes care in providing answers to my questions.		.508		
7. T varies teaching materials or presentation style, when necessary.		.522		
9. T uses a variety of teaching methods (e.g. singing in English, cooperative learning, project work, discussions).		.737		
10. T changes the tone of voice as needed (e.g. bold, funny, cute).		.479		
17. T uses anecdotes and stories s/he knows during the lessons.		.544		
11. T explains how each lesson is going to benefit us.			.701	
12. T explains what can be learnt from the course.			.640	
13. T explains in detail how successful learning is going to help me.			.573	
18. T clearly explains the relevance of the lesson to what I already know.			.527	
19. T clearly tells me how the new course content is related to what we know.			.579	
20. T explains course objectives and how the course is going to be run.			.634	
23. T tells me about what I will be able to do after successfully completing the lesson.			.589	
27. T allows us to control the pace of learning.				.517
28. T encourages us to study on our own.				.473
32. T allows me opportunities to help peers when I've completed my work.				.581
37. T provides symbolic rewards for students who have successfully completed activities.				.585
39. Exams are always from what I've learnt.				.499
21. T presents clear evaluation criteria before assessment.	.632			
29. T helps us to review and recycle parts of what we have learnt, when needed.	.661			

31.T provides positive response to assignments and problems that I've completed.	.697			
34.T compliments us when we provide the correct answer.	.709			
35. T rewards us when we win games or activities.	.440			
36. T shows personal interest when I work hard or when I complete an assignment successfully.	.563			

Appendix B: MOLT results

MOLT Variables	In-person Class	Online Class
Social Chat	0.52	1.12
Signposting	0.65	0.35
Stating Purpose	0.7	1.20
Establishing Relevance	0.34	0.08
Promoting Integrative Values	0.20	0.04
Promoting Instrumental Values	0.04	0
Arousing Curiosity	0.35	0.06
Scaffolding	0.73	0.23
Promoting Cooperation	0.17	0
Promoting Autonomy	0.43	0
Referential Questions	0.57	0.74
Pair Work	0.25	0.15
Group Work	0.68	0.18
Tangible Rewards	0	0
Personalization	0.24	0.15
Creative Element	0.04	0
Intellectual Challenge	0.05	0.04
Tangible Task Product	0	0.05
Individual Competition	0.37	1.05
Team Competition	0.10	0
Neutral Feedback	0.03	0.12
Process Feedback	0.05	0.24
Self/Peer Correction	0.25	0.62
Effective Praise	0.93	0.71
Class Applause	0	0
Attention	0.36	0
Engagement	0.41	0
Volunteering	0.82	0

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