

*Globe: A Journal of Language, Culture and Communication*, 12: 4-17 (2021)

## Complementarity and division of labor between endo- and exocentric languages. The case of Danish and Spanish

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**Abstract:** This paper is based on comparative data on Danish and Spanish, and argues that systematic variations between the word-formation (Müller 2013) and syntactic pat-terns dominating these two languages correlate with deep-rooted lexical differences between endocentric (Germanic) and exocentric (Romance) languages. The paper follows the lexical–typological assumption that endo- and exocentric languages complementarily distribute semantic information on the two major word classes, nouns and verbs (e.g. Baron & Herslund 2005; Baron et al. 2019; Korzen 2016). Whereas the former concentrate information in the main verb and leave the nominal arguments underspecified, the latter act oppositely, that is, they tend to use general verbs (e.g. Herslund 2014; Müller 2014, 2019) and specific nouns. With respect to word-formation, a consequence of the vagueness of endocentric nouns, and, thus, their hyperonymic-level lexicalization, is that in order to designate entities at a hyponymic level, the Germanic languages tend to use the composition system. In contrast, exocentric nouns are already semantically saturated, so presumably the Romance languages have not developed a complete system of morphological composition to tackle the task of creating lexical hierarchies. In these languages, either the semantic components are already encapsulated in the simple noun, or they use an alternative strategy, namely, derivation. Therefore, composition in the Romance languages has not generally been routinized as part of a morphological system, but has the status of a syntactic device, prototypically following the formative pattern [N prep. N]. As regards syntactic patterns, the high level of specificity of Danish verbs correlates with a structural flexibility that allows inherently intransitive, manner-expressing activity predicates of this language to be constructed telically. In contrast, the possibility of constructing telic variations of such predicates is generally considered a rather marginal phenomenon in the Romance languages (e.g. Korzen 2003: 85-89 and references therein).

**Keywords:** Clause patterns, general vs. specific verbs, lexical taxonomies, telicity, word-formation.

### 1. Introduction

This paper argues that contrasting word-formation and syntactic patterns in Danish and Spanish correlate with deep-rooted lexical differences between *endocentric* (Germanic) and *exocentric* (Romance) languages.

Specifically, this paper adduces and defends two hypotheses about the assumed link between the basic semantic structure of nouns and prevalent patterns of word-formation in Danish and Spanish, on the one hand, and, on the other, structural tendencies of these two languages to differently encode information into the VP, and, more broadly, the clause as such.<sup>1</sup>

First, I suggest that the integration of composition—especially nominal—into the grammatical system of the Germanic languages as a highly automated and productive morphological word-formation process is directly connected to the observation that Danish simple nouns tend to lexicalize on a generic or hyperonymic-family level (e.g. *tæppe* “carpet” and *vogn* “wagon” in (5) and (6)). A “natural” consequence of the reduced intension, and corresponding broad extension, of its nouns is that to designate entities on a hyponymic level, that is, to create subtypes, Danish is predisposed to

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<sup>1</sup> A preliminary and simplified version of the analysis of word-formation patterns has been published as pre-proceedings by the University of Algarve in Faro (Müller 2013), whereas aspects of the hypothesis concerning encoding different information into the VP have been treated by Müller (2014 and 2019). Moreover, a condensed version in Spanish of the word-formation issue has been accepted for publishing in the proceedings of the CILPR 2019 in Copenhagen (Müller to appear). However, this paper presents a new and unified account of how the structure of the lexicon interacts with morphological and syntactic aspects.

use compounding as a preferred word-formation strategy (e.g. *sengetæppe* “bedcover” and *lastvogn* “truck” in (5) and (6)). In contrast, Spanish simple nouns predominantly lexicalize the hyponymic level, that is, they specify entities on a lower conceptual level (e.g. *colcha* “bedcover” and *camion* “truck” in (5) and (6)), and, therefore, it is assumed that compounding is a relatively marginal phenomenon in Spanish, when compared to Danish, for example. Consequently, Spanish simple nouns are denotatively more precise than their Danish counterparts, which could be an explanation for the extensive use of derivation in Spanish.

Second, I propose that a central element for understanding differences in linguistic event-structuring in the Germanic and the Romance languages is the (im)possibility of, or at least tendency to, accepting manner-verbs in the center of clause, and letting them express both telic and atelic events. In Danish, inherently intransitive manner-verbs are structurally flexible, in the sense that they may systematically project different argument structures, referring to events conceptualized as both having endpoints (telic) and not having endpoints (atelic) (see e.g. the contrast between *sejle bidevind* “sail by the wind” and *sejle agterud* “lag behind” in (19)), whereas in Spanish, generally the possibility of transitivity or causativizing intransitive manner-verbs and using them as main verbs in both telic and atelic event descriptions is very limited (almost non-existent). Generally, Danish is very concerned with the manner in which an event takes place, whereas Spanish focusses on the result of the event, and leaves the semantic component MANNER to be expressed on the periphery of the clause, if at all.

This paper starts by briefly explaining the distinction between endo- and exocentric languages, which concerns the distribution of semantic traits among word classes. This introduction to the framework is followed by an investigation of the two hypotheses outlined above, concerning the relationship between the structure of the lexicon, and morphological and syntactic phenomena. The final section presents a brief conclusion.

## 2. Endocentric vs. exocentric languages

The distinction between the so-called endocentric and exocentric languages takes its point of departure in the basic typological assumption that the Germanic languages, in their prototypical clause formation pattern, concentrate information in the verb, and leave the nominal arguments relatively underspecified semantically. In contrast to this distribution of information, the Romance languages concentrate information in the nominal arguments of the verb, whereas the main verb of the clause itself has a relatively reduced semantic weight.<sup>2</sup> In the case of the Germanic languages, these information-balancing principles prototypically result in a description of the relevant state of affairs as rather concrete relations between underspecified entities (endocentric = concentration of information in the center of the clause), whereas in the case of the Romance languages, the description of the state of affairs in question materializes as abstract relations between specific entities (exocentric = concentration of information in the periphery of the sentence). The following two contrastive examples from Danish and Spanish illustrate this basic difference in information distribution.<sup>3</sup>

<sup>2</sup> The theory of endocentric and exocentric languages has been developed by the Danish research group, TYPOLex, at the Copenhagen Business School (CBS), and it is comprehensively described in various publications, e.g. Herslund & Baron (2003), Baron & Herslund (2005), and Korzen (2016).

<sup>3</sup> In this paper, no interlinear glossing is provided, as the issues studied generally concern the semantic content of lexical items, and the explanations accompanying the examples and the translations into English should make them entirely transparent. However, it must be noted that because of English’s status as a hybrid of Germanic and Romance languages, at least as far as its lexicon is concerned, in many cases it is possible to supply both a Germanic- and a Romance-oriented English translation of the original Danish and Spanish examples. In this context, the Germanic versions of the English translations have been chosen.

- (1) *Chaufføren kørte vognen ind i hallen.*  
*El conductor introdujo el coche en la nave.*  
 “The driver drove the car into the hall.”
- (2) *Tæppet ligger på stolen.*  
*La manta está en la silla.*  
 “The blanket lies on the chair.”

Briefly explained, the Danish main verbs, *kørte* “drove” and *ligger* “lies”, incorporate the semantic component MANNER in their lexical makeup, that is, they specify the way in which the motion event takes place, and the particulars of the positional event, respectively. Consequently, assigning concrete theta-roles to the argument structure is semantically governed and restricted by the main verb, which by definition constitutes the center of the clause. In contrast, the Spanish main verbs, *introdujo* “introduced” and *está* “is (located)”, impose few or no restriction in terms of theta-role assignment, due to their lack of a MANNER component, which indicates that the informational weight of the clause is outside the center.

With respect to the nominal arguments, the nouns, the opposite holds true in the sense that the Spanish nouns are denotationally precise, whereas the Danish ones are vague. The Danish nouns, *vognen* “the car”, and *hallen* “the hall” in (1), and *tæppet* “the blanket”, and *stolen* “the chair” in (2), do not specify which type of *hal* “hall” or *stol* “chair” is actually implied by the nominal expression. The nouns do not explicitly indicate whether they refer to, perhaps, a *dansehal* “dance hall”, *sportshal* “sports center”, *svømmehal* “public swimming pool”, *støbehal* “foundry”, *vaskehal* “car wash bay”, *ridehal* “indoor riding arena”, or *øreklapstol* “wingback chair”, *sækkestol* “beanbag chair”, *tronstol* “throne”, *barberstol* “barber’s chair”, *flugtstol* “deck chair”, and so on.<sup>4</sup> In many cases, the context will clarify the meaning of the nominal to a certain extent, but the point is that the noun itself does not contain information about the subtype. On the other hand, the Spanish nouns have a more precise denotation, in that they explicitly refer to certain specific kinds, or subtypes, of the entities in question. Consequently, *nave* “hall” and *silla* “chair” can never refer to a public swimming pool or a wingback chair, that is, they do not have the status of broad concepts that encompass all kinds of halls and chairs. From this it also follows that it is impossible to translate denotatively non-specific Danish nouns into Spanish without a proper context.

We have seen that Danish verbs and Spanish nouns have a more specified intension than their contrasting counterparts in the other language, which means that the set of entities covered by these linguistic expressions is relatively reduced, that is, an enriched intension is matched by a narrow extension. Conversely, Spanish verbs and Danish nouns have relatively few semantic traits, and, therefore, the set of entities defined by these expressions is broad. This basic distribution of information may be illustrated as in (3).

- (3) **Lexico-semantic complementarity**
- |                                      |        |
|--------------------------------------|--------|
| Endocentric languages (e.g. Danish): | n—VP—n |
| Exocentric languages (e.g. Spanish): | N—vp—N |

Capital letters indicate where the semantic weight is concentrated in the clause, and the distinction between the designations “VP” and “N” (as opposed to a more or less expanded “NP”) specifies that in the case of the verbs, it is predominantly—in my eyes at least—a question of language

<sup>4</sup> The heads of the nominal compounds are marked in bold face to highlight the fact that this part functions as a constant that, used in isolation, has a very broad denotation, but with a prenominal modifier specifies a more precise concept.

use, whereas in the case of the nouns, the difference between the language types lies exclusively in the structure of the lexicon. This last point will be developed later in the paper.

### 3. Simple nouns, compounds, and derivations

Based on the theory of endo- and exocentric languages, this section treats the well-known empirical observation, or morphological fact, that the Germanic languages often use *nominal* compounds to express what the Romance languages convey with simple nouns and derivations (Bally 1932; Rainer & Varela 1992). This means that the translated Danish equivalents of many simple and derived Spanish words are compounds (cf. (3) and (4)) (see Müller 2013 and Müller to appear).

#### (3) Simple noun → compound

<i>butaca</i> – <i>arm-stol</i>	[arm-chair] “armchair”
<i>veterinario</i> – <i>dyr-læge</i>	[animal-doctor] “veterinarian”
<i>manta</i> – <i>slumre-tæppe</i>	[slumber-blanket] “blanket”

#### (4) Derivation → compound

<i>platanal</i> – <i>banan-plantage</i>	[banana-plantation] “banana plantation”
<i>campanario</i> – <i>klokke-tårn</i>	[bell-tower] “belfry”
<i>torada</i> – <i>tyre-flok</i>	[bull-herd] “herd of bulls”

Next, I argue that the variation between the word-formation patterns of the two types of language does not seem to be random, but, instead, correlates to deep-rooted lexical differences between endocentric languages (Germanic) and exocentric languages (Romance).

As suggested previously, the nouns of the two language types show opposite lexicalization structures, cf. (5), (6) and (7).

(5) Endocentric languages [Danish]	Exocentric languages [Spanish]
<i>tæppe</i> [carpet, etc.] <sup>5</sup>	[Ø] lit. transl.
<i>sengetæppe</i> [bedcover]	<i>colcha</i> [bed –]
<i>vægtæppe</i> [tapestry]	<i>tapiz</i> [wall –]
<i>gulvtæppe</i> [carpet]	<i>alfombra</i> [floor –]
<i>væg-til-væg tæppe</i> [wall-to-wall carpet]	<i>moqueta</i> [wall to wall –]
<i>teatertæppe/scenetæppe</i> [curtain]	<i>telón</i> [theater/ stage –]
<i>slumretæppe</i> [blanket]	<i>manta</i> [slumber –]
(6) Endocentric languages [Danish]	Exocentric languages [Spanish]
<i>vogn</i> [wagon, etc.]	[Ø] lit. transl.
<i>personvogn</i> [car]	<i>coche</i> [person –]
<i>lastvogn</i> [truck]	<i>camión</i> [load –]
<i>godsvogn</i> [goods wagon]	<i>vagón</i> [goods –]
<i>sækkevogn</i> [hand truck]	<i>carretilla</i> [sack –]
<i>hyrevogn</i> [taxi]	<i>taxi</i> [hire –]
<i>ladvogn</i> [flatbed truck]	<i>plataforma</i> [platform –]
<i>varevogn</i> [van]	<i>furgoneta</i> [goods –]

<sup>5</sup> The etceteras in (5)-(7) in this position indicate that the English translations are, in fact, more precise than the Danish simple nouns and, therefore, cover them only partially.

(7) Endocentric languages [Danish]		Exocentric languages [Spanish]	
<i>hal</i>	[hall, etc.]	[Ø]	lit. transl.
<i>svømmehal</i>	[swimming facility]	<i>piscine</i>	[swimming –]
<i>ridehal</i>	[riding arena]	<i>picadero</i>	[riding –]
<i>lagerhal</i>	[warehouse]	<i>almacén</i>	[storage –]
<i>slagtehal</i>	[slaughterhouse]	<i>matadero</i>	[slaughter –]
<i>fabrikshal</i>	[factory hall]	<i>nave (industrial)</i>	[factory –]

As appears in the examples above, generally, exocentric nouns—here, Spanish simple nouns—are lexically more content-bearing and precise than the endocentric ones, here, Danish nouns. Whereas exocentric denominations of artifacts tend to lexicalize the formal quale, in a Pustejovskyian sense (1991, 1995 and 2001), that is, regarding the shape, dimensionality, and structure of the object, endocentric, artifact-denoting nouns are inclined to lexicalize only the telic quale, that is, the object’s functional dimension. This exclusive focus on the purpose of the object, or lack of focus on its form, means that in many cases Danish simple nouns are semantically vague, and, therefore, they may function as denominators on a generic prototype level, that is, a general hyperonymic level (also see Rosch 1975, 1978), which frequently does not exist in Spanish. The nouns *vogn* “wagon”, an object used for transportation, *tæppe* “carpet”, an object used for decoration or for covering things, and *hal* “hall”, a large, high-ceilinged room or building usually for some kind of activity, represent family-level lexicalization, whereas the corresponding Romance nouns, because of their lexical specification of form, must denote configurationally defined, specific objects (also see Müller 2013 for a similar description of data).

The high degree of semantic bleaching of the Danish simple nouns corresponds strongly to a specific emphasis on the functional dimension of the object denoted by the noun. According to Wierzbicka (1985), the meaning of artifact-denoting lexemes is always conditioned by our thoughts about the function that these objects have been produced to realize, that is, man-made objects and their linguistic expressions, the nouns, continuously carry a meaning of function in them as an inherent feature (also see Baron 2002: 53). Based on this, we may hypothesize that the polysemic nature of the Danish artifact-denoting nouns, which makes their final denotative interpretation heavily and differentially dependent on their context, is strongly connected to the fact that function defines the fundamental meaning of such nouns. In other words, the functional-meaning dimension is specifically what remains when no other semantic features are present.

As the Spanish nouns also denote artifacts, by definition they also include a functional semantic feature—a *vagón* “goods wagon” clearly has the purpose of transporting goods—but at the same time, they express the configuration of the relevant object. So, apart from being familiar with its function, we know more or less how the entity type denoted by *telón* “theater curtain” looks, that is, we can create a mental picture of it—we might even be able to draw it. Without a proper context, it is impossible to create an image of the entity types denoted by the Danish simple nouns *tæppe* “carpet”, *vogn* “wagon”, and *hal* “hall.” They remain abstract linguistic representations of entity types to which we can ascribe a function—for example, *vogn* “wagon” specifies an object meant for transportation, but offers no information about how this type of entity may look.

The examples above systematically indicate that in Danish, when a level below the general hyperonymic level is needed, this is usually achieved by nominal composition. Subtypes are specified by adding prenominal modifiers to the semantically abstract head noun, and this linguistic process clearly indicates that each compound denotes a subtype of the super-type referred to by the head noun. In contrast, the Spanish simple nouns do not show any family relationships or resemblance to each other at the linguistic level, that is, the Spanish nouns do not specify subtypes of a super-type, because there exists no such expression or concept on the hyperonymic level. In fact, in Spanish there is no

linguistic cue that signals any kind of conceptual association among the various kinds of entities denoted by the nouns.

When it comes to natural kind terms, as opposed to artifact-denoting nouns, we can identify lexicalization patterns similar to those presented above, although apparently to a limited extent. The shellfish taxonomy presented in (8) offers yet another example of how Spanish tends to not have a general hyperonym, only a class term, and, therefore, concrete species of shellfish are not correlated to each other by their linguistic denomination, so to speak. Danish dispenses with a general hyperonym for this category, and its hyponymic level is lexicalized based on compound nouns.

- |     |                              |  |
|-----|------------------------------|--|
| (8) | 1. generic hyperonym, class  | <i>(skaldyr – marisco)</i> [shellfish]   |
|     | 2. general hyperonym, family | <i>(musling – Ø)</i> [mussel, etc.]  |
|     | 3. hyponyms, species         | <i>(blå-musling</i> “blue-,” <i>hjerte-musling</i> “heart-,” <i>kam-musling</i> “comb-,” <i>venus-musling</i> “venus-”<br>– <i>mejillón, berberecho, vieira, almeja</i> )<br>[mussel, cockle, scallop, clam] |

Both Danish and Spanish lexicalize the top class-level with generic hyperonyms (*skaldyr – marisco* “shellfish”), whereas only Danish has a general, intermediate-family-level hyperonym (*musling* “mussel”, etc.), which is then, as a lexicalization strategy, used as head in nominal compounds, to create expressions at the bottom level of individual species (*blå-musling* “blue-” *hjerte-musling* “heart-”, etc.).

It is quite clear that in the case of terms for natural kinds, it would make no sense to claim an intrinsic meaning of function, as these entities are not made by man and, therefore, are not born, as it were, with a built-in purpose. However, it still holds that the noun *musling* “mussel, etc.”, for example, is an abstraction—probably based on a set of common visual features—that does not correspond with a clear mental image of how this kind of entity is supposed to be configured.

Possibly, given the absence of function or purpose, the lexicalization patterns within the realm of natural kinds show a great deal of variation. To give just a few examples, we see hierarchies where both Danish and Spanish have an expression on the family level, as in the case of *træ – árbol* “tree”, but only Danish can lexicalize the hyponymic level by using compounds: *ege-træ – roble/encina* “oak [tree]”, *bøge-træ – haya* “beech [tree]”, *birke-træ – abedul* “birch [tree]”, and so on.<sup>6</sup> Moreover, there are cases where Spanish, to a certain extent at least, seems to follow the Germanic pattern, by lexicalizing the species level based on compound-like structures: *blå-hval – ballena azul* “blue whale”, *pukkel-hval – ballena jorobada* “humpback whale”, *nar-hval – ballena narval* “narwhal”, and so on. However, exceptions to this pattern are terms such as *cachalote – kaskelot-hval* “sperm whale” and *rorcual – fin-hval* “fin whale”, which in most cases seem to appear without *ballena* as the head of the NP.

It seems reasonable to conclude that the nominal lexicalization patterns discussed above are representative of how lexical hierarchies are created in endocentric and exocentric languages, although this study is not based on statistical data. To further support the claims presented in this section, a number of additional examples from various ontological areas are listed below (see Herslund 1997 for similar examples from French, and Müller 2013, where the same examples are used).

<sup>6</sup> In Danish, terms of trees also occur naturally as non-compound structures (simple lexemes), cf. e.g. *eg* “oak” and *bøg* “beech”.

- (9) Professions:  
**læge** → *dyr-læge* “animal-”, *børne-læge* “childrens-”, *øjen-læge* “eye-”  
 “doctor” *veterinario, pediatra, oculista* [veterinarian, pediatrician, oculist]
- Institutions:  
**ret** → *by-ret* “city-”, *lands-ret* “land-”, *højeste-ret* “supreme” – *juzgado, audiencia (territorial), tribunal supremo* [city court, high court, supreme court]
- Artifacts:  
**stang** → *jern-stang* “iron-”, *fiske-stang* “fishing-”, *plejl-stang* “flail-” –  
 “bar/rod” *barra, caña (de pescar), biela* [bar, rod, connecting rod]
- Plants:  
**nød** → *hassel-nød* “hazel-”, *val-nød* “wal-”, *pistacie-nød* “pistachio-” –  
 “nut” *avellana, nuez, pistacho* [hazelnut, walnut, pistachio]
- Animals:  
**ugle** → *horn-ugle* “horn-”, *slør-ugle* “veil-”, *nat-ugle* “night-” – *búho, lechuza, cárabo* [horned owl, barn owl, tawny owl]
- Body parts:  
**skæg** → *fuld-skæg* “full-”, *over-skæg* “over-”, *fip-skæg* “pointed-” – *barba, bigote, perilla* [(full) beard, moustache, Vandyke beard]  
**finger** → *tommel-finger* “thumb-”, *pege-finger* “pointing-”, *lang-finger* “long-”, *ring-finger* “ring-”, *lille-finger* “little-” – *pulgar, índice, corazón, anular, meñique* [thumb, index finger, middle finger, ring finger, little finger]

Up to this point, we have discussed a number of examples that show that Danish, an endocentric, Germanic language, generally has semantically vague simple nouns that, in terms of lexical hierarchies, designate entities on an abstract, intermediate family level. To reference specific species or subtypes of artifacts on a hyponymic level, Danish applies the compositional system as a common strategy, and thereby uses prenominal modification to specify the constitution, shape, purpose, or origin of the non-figurative object in question. In contrast, Spanish, an exocentric, Romance language, in the main lacks abstract family-level expressions, and instead uses specific simple nouns that refer to actual species or artifacts. Against this background, and without assuming teleological necessity or inevitability, it seems reasonable to recognize a relationship between any language’s obvious need to conceptualize and communicate about entities on a specific level, and the existence of a highly automated and productive word-formation system in the form of composition, in the Germanic languages. The main communicative task performed by the compositional system is to specifically narrow down the denotation of the modified head noun. Conversely, it may be argued that the specificity of simple nouns in Spanish, for example, correlates with the fact that the Romance languages have not developed a complete system of morphological composition, following the logic that the Romance simple nouns already encapsulate sufficient semantic information to designate physically configured entities. As a rule, in these languages, either the semantic components are already integrated lexically into the simple name, or they use an alternative strategy, namely derivation, to lead the original lexical unit in another semantic direction, that is, towards greater specificity.

Following the line of reasoning presented above may be a way to strengthen our basis for understanding why composition in the Romance languages has generally not been routinized and incorporated into the grammatical system as a morphological mechanism, but has the status of a syntactic device, prototypically following the formative pattern [N prep. N].

Yet another consideration that supports the assumption of a fundamental typological difference between word-formation patterns in endo- and exocentric languages is the observation illustrated with the data in (10).

(10) <i>banan</i> – <i>bananplantage</i> [banana – banana plantation]	<i>plátano</i> – <i>platanal</i>
<i>bro</i> – <i>broafgift</i> [bridge – bridge toll]	<i>puente</i> – <i>pontaje</i>
<i>høns</i> – <i>hønsehus</i> [hens – henhouse]	<i>gallina</i> – <i>gallinero</i>
<i>klokke</i> – <i>klokketårn</i> [bell – bell tower (belfry)]	<i>campana</i> – <i>campanario</i>
<i>sennep</i> – <i>sennepsglas/-krukke</i> [mustard – mustard pot]	<i>mostaza</i> – <i>mostacera</i>
<i>tand</i> – <i>tandsæt</i> [tooth – tooth set]	<i>diente</i> – <i>dentadura</i>
<i>tyr</i> – <i>tyreflok</i> [bull – bull herd]	<i>toro</i> – <i>torada</i>
<i>ur</i> – <i>urmager</i> [watch – watchmaker]	<i>reloj</i> – <i>relojero</i>

The foregoing examples show that when the semantically under-specified Danish simple nouns appear as heads of compounds, they closely resemble the Spanish derivative suffixes, which are also semantically vague. We generally say that affixes express relatively abstract concepts compared to lexemes, and there is the obvious functional difference between them that lexemes may occur in sentences in their own right, as fully developed syntactic constituents, whereas affixes are licensed in syntactic structures only in combination with a lexeme. However, from a translingual perspective, endocentric head nouns and exocentric affixes actually have a noticeable functional and semantic similarity to each other. From the perspective of dependency linguistics, the functional analogy arises from the fact that both the derivational suffix of the Spanish nominal lexeme and the head noun of the Danish compound function as governors that take a root as their dependents, either the derivational base or the pre-head nominal modifier (Müller 2010). This is to be understood as meaning that in both cases, the governor transforms the root into a noun, that is, the governor instantiates the root as belonging to the word-class of nouns.

Semantically, the assumed analogy relates to the fact that in isolation both the Danish head nouns and the Spanish suffixes do not convey any specific meaning. The analogy is further supported by the fact that Danish nouns, when they function as heads of compounds, are even reduced prosodically, and pronounced with a secondary stress. We may say that they share the characteristic of semantic non-specificity, although as mentioned previously, Danish nouns can function as independent lexemes, whereas Spanish suffixes require a lexical basis to act as independent elements in syntax. In terms of denotation, there is, of course, an obvious difference between lexemes—no matter how vague they may be semantically—and suffixes: Lexemes—and not suffixes—have a lexical meaning which is usually described in a dictionary.

Following the foregoing line of reasoning we might ask ourselves in what sense a lexeme such as *hus* “house” (cf. *hønsehus* “henhouse” in (10)) is supposed to be semantically imprecise. *Hus* means house, and that is that, one might claim. Well, the key point is that *hus* “house” constitutes a lexicalization at the hyperonymic family level, and thus is heavily polysemous. Consequently, the lexeme *hus* “house” lacks a precise equivalent in Spanish and other exocentric languages. To further



illustrate this argument, it suffices for us to ask ourselves whether the correct translation into Spanish (corresponding Danish terms in brackets) should be *pajarero* (*fuglehus*) “bird house”, *rascacielos* (*højhus*) “skyscraper”, *heladería* (*ishus*) “ice-cream stand”, *correos* (*posthus*) “post office”, *ayuntamiento* (*rådhus*) “town hall”, *concha* (*sneglehus*) “snail shell”, *almacén* (*varehus*) “warehouse”, *posada* (*værtshus*) “pub”, or *gallinero* (*hønsehus*) “henhouse”. The fact of the matter is that all these Spanish lexemes match with *hus* “house” in Danish, which makes translating a decontextualized statement such as *hun så på huset* “she looked at the house” into Spanish essentially impossible, although in the most likely scenario, *huset* ‘the house’ would probably refer to some kind of residential building. As mentioned previously, we cannot translate Danish hyperonym lexemes into exocentric languages without access to a context that clearly indicates the type of entity, relationship, or activity involved in each case.

The analyses presented above discuss the fact that Danish nouns are semantically imprecise or ambiguous (underspecified in a denotational sense), and that this factor seems to correlate with a highly productive compositional system. Similarly, we may observe that Spanish has not developed a full morphological system of nominal composition—it presents more difficulties when combining its semantically heavy nouns, one might assume—and that this circumstance correlates with the fact that the exocentric languages make comparatively greater use of their derivational system.

#### 4. Argument structure expansion and telicity

This section focuses on the second hypothesis outlined in the introduction, namely that the different degrees of specificity of the verbs of endo- and exocentric languages show a correlation with verbs’ potential to be constructed telically and with an expanded argument structure.

According to Herslund (2014: 76), endocentric languages favor the use of specific verbs, that is, verbs that generally lexicalize the semantic component MANNER, whereas exocentric languages tend to use general verbs, that is, verbs whose formal definition includes relatively few semantic features. This difference is illustrated by the examples in (11), (12), and (13) (also see Müller 2014: 126 and 2019: 47).

- |      |   |   |   |
|------|---|---|---|
| (11) | <i>lægge kabale</i><br><i>pjække</i><br><i>sno sig/siksakke</i><br><i>strikke</i><br><i>hoppe af</i>  | <i>hacer solitarios</i><br><i>hacer corrales</i><br><i>hacer culebra</i><br><i>hacer punto</i><br><i>hacer defección</i>          | “play solitaire”<br>“play truant”<br>“twist oneself/zigzag”<br>“knit”<br>“defect” |
| (12) | <i>Han stopper bukserne ned i støvlerne.</i><br>“He stuffs his trousers into his boots”<br><i>Hun satte retten ind i ovnen.</i><br>“She put the dish in the oven”<br><i>Han sætter/lægger/stiller tingene på plads.</i><br>“He is putting away/back the things” | <i>Se mete los pantalones en las botas.</i><br><br><i>Metió el plato en el horno.</i><br><br><i>Coloca las cosas en su sitio.</i> |   |
| (13) | <i>Hvalen svømmede ind i havnen.</i><br>“The whale swam into the harbor”<br><i>Fuglen fløj ud af buret.</i><br>“The bird flew out of the cage”  | <i>La ballena entró en el puerto.</i><br><br><i>El pájaro salió de la jaula.</i>  |   |

The Danish verbs in (11) and (12) have a narrow extension, as, in their intension, they include the semantic feature of MANNER, that is, they express the manner in which the relevant verbal activities are carried out. They impose selectional constraints on their internal arguments, either the direct object or the unaccusative, intransitive subject, and, thus cover a relatively limited number of

situations descriptively. On the other hand, the Spanish translational equivalents, *hacer* “do”, *meter* “put”, and *colocar* “place”, do not contain any information about manner in their lexical composition. Therefore, generally, they license all kinds of nominal arguments, and are very little restricted in terms of the real-world events they may be used to represent (also see Müller 2014: 127).

In the more restricted context of motion events, (cf. 13), these reflections on contrasts between the verbal specificity of endo- and exocentric languages have already been discussed by traditional comparative linguists, who were typically oriented to the description of expressions of movement in German and French (e.g. Strohmeyer 1924, Malblanc 1944, Bergh 1948, Vinay and Darbelnet 1958 and Tesnière 1959). In this connection, Talmy’s typological approach (e.g. 2000), which describes the various ways of expressing movement as systematic typological contrasts in the encoding of semantic information in lexical elements, should also be mentioned. Briefly stated, the Danish verbs used in (13) to express the activities in question, conflate the semantic components of MOTION and MANNER, whereas the directionality or path of the movement is communicated by the particles *ind* “into” and *ud* “out of”. The corresponding Spanish verbs integrate MOTION and PATH, and do not specify the manner in which the event takes place. Again, this leads to the general condition that Danish imposes semantic restrictions on the arguments—not all types of entities can swim or fly—whereas this is not the case in Spanish, where the only requirement seems to be that the subject referent can perform a movement.

The examples in (14) and (15) show how in Danish it is systematically possible to construct various types of activity verbs with alternative argument structures, so they denote telic situations, instead of unbounded activities. Thus, Danish activity verbs are highly flexible in terms of the argument structures to which they may give rise, which is generally not the case in Spanish.

- (14) *Ana ror/ kører/ flyver/ sejler/ cykler [Maria] derop//til Norge.*  
 \*<sup>/?</sup>*Ana rema/ conduce/ vuela/ navega/ pedalea [\*a Maria] allí (arriba)//a Noruega.*  
 “Ana rows/ drives/ flies/ sails/ bikes [Maria] up there//to Norway”

In (14), a number of activity verbs are constructed with the post-verbal particle, *derop* “up there”, or an adjunct PP, *til Norge* “to Norway”, each indicating the direction and endpoint of the motion event, and thereby prompting a telic interpretation. This is generally not possible in Spanish, although we do find telic constructions with some activity verbs, such as *remar* “row”, *volar* “fly” (e.g. Müller 2014). The direct object in square brackets, *[Maria]*, shows that in Danish, all these activity verbs may freely occur as transitive structures, whereas transitivity of intransitive activity verbs is generally not licensed in Spanish. Accordingly, the “\*<sup>/?</sup>” sign that introduces the Spanish form indicates the general absence of the possibility of unaccusativization (Levin & Rappaport Hovav 1995), whereas the asterisk in front of the direct object rules out transitivity. Moreover, this argument structure transformation option is not limited to verbs that conflate MOTION and MANNER, but may be applied more generally to both transitive and intransitive, non-displacement manner of activity verbs (cf. (15) and (16)).

- (15) *Brudgom løj sig død for at slippe for brylluppet.*  
 “Bridegroom lied about his death to escape the wedding”  
 www.udeoghjemme.dk (accessed August 20, 2014)
- (16) *Lad sovsen koge tyk i ti minutter.*  
 “Let the sauce boil until thick, for ten minutes”  
 www.femina.dk (accessed March 27, 2020)

The Danish verb *lyve* “lie” is originally intransitive, but here it is made reflexive, and its argument structure is expanded to include a subject predicate *død* “dead”.<sup>7</sup> *Koge* “boil” is transitive, but in (16) it occurs with an object predicate, *tyk* “thick”. Both expressions denote change-of-state situations, in the sense used by Levin and Rappaport Hovav (1995).

- (17) *El novio intentó evadir la boda mintiendo/con mentiras.*  
 “The Bridegroom tried to escape the wedding by lying”

The example in (17) has been included to show that in Spanish and other Romance languages, the MANNER component is standardly expressed on the periphery of the clause with a gerund or a PP complement, and not in the center by incorporating it into the main verb (e.g. Korzen 2003: 85-89 and references therein). Consequently, in Danish the impulse to express manner in the center of the clause overrules the lexically defined, essential argument structure, including telicity marking, of the manner verbs, so that their MANNER component may be exploited in alternative syntactic environments.

The idea behind the template format in (18) is to show that the foregoing argument structure expansion is, in fact, a systematic way to add telicity to inherently non-telic manner verbs, here illustrated with the pair of verbs *sejle* – *navegar* “sail”.

(18) [Danish]	[Spanish]
V = <i>Sejle</i>	V = <i>Navegar</i>
<b>Non-telic use</b>	
S+V+(O) =	S+V
<i>Ole sejler (Pia) rundt langs kysten.</i>	<i>Ole navega (*a Pia) a lo largo de la</i>
“Ole takes (Pia) for a sail along the coast”	<i>costa.</i>
<b>Telic use</b>	
Intransitive	∅ <sup>8</sup>
S <sub>i</sub> +V+[ <sub>RSC</sub> ∅ <sub>i</sub> +A] <sup>9</sup> =	
<i>Ole sejler over Atlanten</i>	
“Ole is sailing across the Atlantic”	
Transitive	∅
S+V+[ <sub>RSC</sub> O+A] =	
<i>Ole sejler Pia over Atlanten</i>	
“Ole is taking Pia for a sail across the Atlantic”	

<sup>7</sup> It is also possible to analyze *død* “dead” as an object predicate and the reflexive pronoun as direct object, but this does not have a decisive influence on the present discussion.

<sup>8</sup> It should be pointed out in this connection that a number of Spanish manner of motion verbs can, in fact, be used in telic constructions if they, according to Pedersen (2010: 181), imply a sense of direction in their lexical make-up (see also Müller 2014: 122-125). A verb like *navegar* “sail” falls under this definition and, therefore, we see it in telic constructions such as *navegar a/hasta América* “sail to America”. However, it must be emphasized that this potential of Spanish manner of motion verbs for being constructed telically is marginal compared to what applies to Danish manner of motion verbs.

<sup>9</sup> “A” stands for “Adject” and is to be interpreted as the third argument, which may materialize as subject and object predicatives, indirect and prepositional objects, particles and certain (bounded) adverbials.

In both languages, *sejle* – *navegar* may be used in non-telic constructions, but only Danish allows for transitivity, as discussed previously. Moreover, and in contrast to Spanish, Danish offers the possibility of constructing both intransitive and transitive telic expressions based on *sejle*. The impossibility of unaccusativization in Spanish is marked by Ø.

The transitive telic use is to be understood as follows: the direct object, *Pia*, becomes the logical subject of the tenseless predicate, *over Atlanten* “across the Atlantic”, that is, a resultative small clause (RSC) is created between these elements (Hoekstra 1988). The state denoted by this RSC specifies the endpoint of the event expressed by the main verb, which makes the whole sentence telic. In the intransitive version, the subject of the small clause predicate, *over Atlanten*, is co-referential with the matrix subject, which is indicated by the subscripts.

Finally, (19) shows a Danish–Spanish dictionary entry for the verb *sejle* “sail.”

(19) **Non-telic use**

<i>sejle bidevind</i> “sail by the wind”	<i>ir/navegar de bolina</i>
<i>sejle på bestikken</i> “navigate by dead reckoning”	<i>navegar a la estima</i>
<i>sejle i ballast</i> “sail in ballast”	<i>navegar en lastre</i>
<i>sejle i konvoj</i> “sail under convoy”	<i>navegar en conserva</i>

**Telic use**

<i>sejle agterud</i> “lag behind”	<i>dejar atrás</i>
<i>sejle forbi</i> “sail past”	<i>pasar (delante de)</i>
<i>sejle en tur</i> “go for a sail”	<i>dar un paseo en barco</i>
<i>sejle over dammen</i> “cross the Atlantic”	<i>pasar/cruzar el charco</i>
<i>sejle uden/rundt om Kap Horn</i> “sail around Cape Horn”	<i>doblar el Cabo de Hornos</i>

As expected, the non-telic use of the verb denotes various sailing activities, and corresponds to the Spanish activity verb *navegar*, whereas when *sejle* is used in telic structures, the Spanish equivalent changes. In these cases, *navegar* no longer works, because it cannot be constructed telically.

## 5. Conclusion

This paper discusses how both morphological phenomena, such as languages favoring either derivational or compositional word-formation strategies and syntactico–semantic phenomena, such as argument structure projection and telicity, are related to deep-rooted lexical differences in *endo-* (Germanic) and *exocentric* (Romance) languages.

On the morphological level, it may be said that, functionally, both endo- and exocentric languages must be able to produce terms that refer to specific types of artifacts and natural kinds, that is, they require a linguistic system to establish hyponymic relationships, but do so in different ways that reveal a correlation with the distinct patterns of primary lexicalization of these two types of

languages. Moreover, the two language families' significant difference in their respective preference for using either specific or general verbs as main predicates is shown to have broad consequences for the syntactic structuring of clauses, including their capacity to express telic events.

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