# Morphological vs. syntactic conversion: Diagnostics and analytical means

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#### Abstract

This paper offers an overview of the variety of phenomena that can be subsumed by conversion and introduces diagnostic criteria to distinguish between theoretically-motivated subtypes and corresponding analytical means to model them. By taking a syntactic approach to these formations and focusing on deverbal and deadjectival conversion nouns and nominalizations, I will argue for three types of conversions, determined by the complexity of their internal structure: root-based conversions, which deserve an underspecified analysis; morphological conversions, which resemble suffixed nominalizations; and syntactic conversions, which show no internal nominal properties, just the external distribution of nouns. The broader point I aim to make is that a purely word-based morphological approach to conversion will miss important distinctions between morphological and syntactic conversion, which can only be detected if the syntactic behavior of these formations is also closely examined.

Keywords: conversion, nominalization, nouns, verbs, adjectives

#### 1 Introduction

This paper is concerned with several morphosyntactic constructions that can be considered as instances of conversion and proposes diagnostics to distinguish between what one may call morphological and syntactic conversion from a syntax-oriented perspective. In addition, I also make the point that some typical cases of conversion deserve an underspecified analysis, in which a root is categorized in context. I will call these root-based conversions. The broader point I aim to make is that a purely word-based morphological approach to conversion will miss important distinctions between morphological and syntactic conversion, which can be detected only if syntactic properties of these formations are also closely examined.

Conversion has long been recognized as a lexicon-morphology-syntax-semantics interface phenomenon – it has been used in the literature to cover various morphological relations between words and has itself been argued to be a subtype of some other morphological processes (see Valera 2015; Valera & Ruz 2021, for recent overviews). Here I use *conversion* to refer to a category change relation between two words (and more complex constructions around these words), in which no overt affix is employed (Bauer 2003: 327). This definition includes standard conversion cases such as English deverbal nouns and denominal verbs as in (1) but also more complex constructions such as the English poss-ing gerund in (2a), which retains the verbal inflectional suffix *-ing*, but no nominal marking besides the external Saxon genitive preceding it (Abney 1987). Like the English poss-ing gerund, we find infinitival constructions in Spanish and Italian in (2b) and (2c), which show the verbal infinitive inflectional marking and no other nominal marking than the definite determiner (see Zucchi 1993: Chapter 7; de Miguel 1995; Ramírez 2003).

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<sup>&</sup>lt;sup>1</sup> Depending on the inflectional properties of the language, converted words may bear category-specific endings and thematic vowels, which, however, do not count as derivational affixes (see Valera 2015 for discussion): e.g. Italian *tagli-are* 'to cut' > *un tagli-o* 'a cut' (masculine).

- (1) a. to walk > the walk
  - b. the tape > to tape
- (2) a. John's refusing the offer (surprised me).
  - b. El haber él escrito esa novela (explica su fama.) the have.Inf he written that novel explains his fame 'His having written that novel (explains his fame.)'
  - c. L'avere egli scritto quella lettera (spiega la sua esitazione.) the-have.Inf he written that letter explains the his hesitation 'His having written that letter (explains his hesitation.)'

Whether conversion is a morphological or a syntactic process has long been debated. In the generative literature, it started at least as early as with Myers' (1984) proposal that conversion is syntactically triggered by attaching inflectional affixes of a new category. Assuming that only verbs and nouns show inflection in English, Myers argues that only these categories can be obtained by conversion, while adjectives cannot. More recent versions of such an account have been labeled *underspecification* approaches, such as in Farrell (2001) and in Borer (2013), which essentially argue that the base of a conversion is categorially underspecified, and the eventual category is determined by the syntactic context in which the base appears.

Plag (2003) argues that conversion should be treated in morphology, because it involves category change, which is a typical morphological process, and because it shows idiosyncrasies that usually do not appear in syntax. That is, inflectional affixes — whether regular or irregular (see past tense in *walked* vs. *ran*) — apply to all lexical items of a category, but conversion does not: it involves lexical gaps, as the deverbal noun conversions in (3) from Cetnarowska (1993) show:

(3) a. to permit > the permit vs. to submit > \*the submit (cf. submission)
b. to flow > the flow vs. to grow > \*the grow (cf. growth)

My approach in this paper follows a syntactic view on word formation, in which the differences between the internally simpler conversions in (1) and (3) and the more complex ones in (2) are cast in terms of which syntactic level in the structure of the base undergoes category change. I will briefly discuss denominal verbs and then focus on deverbal/deadjectival nouns and nominalizations to distinguish between three types of formations that would fall under the definition of conversion formulated above. The first and morphosyntactically simplest type is what could be considered underspecified/root-based formations, in which an uncategorized root will be categorized by one category or the other, as argued in Farrell (2001) and Borer (2013). I believe that Lieber's (2004) creative coinage approach would also apply to these. The second type is morphological conversion, which behaves like suffixal derivations, possibly involving a mixture of properties from both the base and the output category. The third type is syntactic conversion, which bears no inflectional properties of the output category, just its external syntax contributed by the determiner in nominalizations as in (2). An important point I will make in relation to syntactic conversions is that not everything that has been called a syntactic conversion is indeed one. Considering the morphosyntactic behavior of these

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<sup>&</sup>lt;sup>2</sup> It is unclear what Myers thought of adjectival participles such as *broken* in *the broken vase* – whether he considered them not to be conversions and for what reasons – but adjectives as the result of conversion will not concern us here.

formations will lead me to include some in the class of morphological conversions and to treat others as suffixal derivations with overt derivational suffixes that originate in verbal inflectional suffixes that have lost their verbal properties (e.g. the infinitival morpheme in internally nominal counterparts of the nominalized infinitives in (2b, c)).

I start by discussing the underspecified root-based type and distinguishing it from morphological conversions that behave like (zero-)derivations in Section 2. I continue with discussing the behavior of real syntactic conversions from verb to noun in Section 3 and showing that some infinitives homophonous with syntactic conversions as in (2b, c) at the word-level in fact qualify as (overt) suffixal derivations. In Section 4, I turn to conversions from adjectives to nouns and present diagnostics to distinguish between the three types of conversion identified before. Section 5 concludes on these observations and discusses some theoretical implications.

### 2 Morphological conversion vs. category underspecification

Much of the literature addressing conversion in English focuses on denominal verbs, which seem fully productive, to the extent that, given a certain pragmatic context, any noun can be recategorized as a verb, as argued in Clark & Clark (1979), who offer the example in (4) uttered by a tennis commentator:

#### (4) *He wristed* the ball over the net.

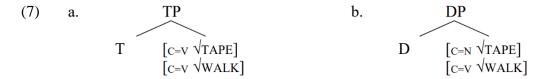
Another observation already made in Clark & Clark (1979) but which has recently gained increasingly more support is that the meaning of the denominal verb cannot be compositionally predicted from the meaning of the base noun. This claim comes against attempts in Kiparsky (1982) and Hale & Keyser (2002) to derive the meaning of denominal verbs by integrating the base nouns as arguments in the verb's event structure. Kiparsky, for instance, distinguishes between instrumental verbs like *tape*, which, in his view, incorporate the meaning of the base noun, and those like *hammer*, which do not. The test he proposes is shown in (5): verbs which incorporate the base noun as an argument cannot allow PPs introducing a different instrument, as in (5a), while the others can, as in (5b):

- (5) a. Lola taped pictures to the wall (\*with pushpins).
  - b. Lola **hammered** the metal (with her shoe).

However, Harley & Haugen (2007) show that even *tape*-verbs allow different instrument PPs as long as these involve the same manner of action, as in (6). The difference between *pushpins* and *band-aids* is that they involve different manners of action, and only the manner of the latter is identical to that involved by taping. Rimell (2012) provides further corpus evidence and argues that base nouns are not compositional arguments in the event structure of denominal verbs, they act as predicates of events, thus only providing some encyclopedic link between the base and the output of conversion. Later quantitative evidence in Kisselew et al. (2016) and Barbu Mititelu et al. (2023) supports this analysis of denominal verbs.

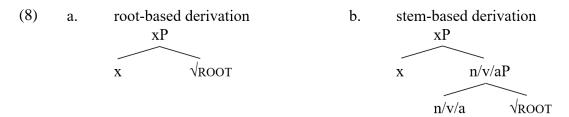
### (6) Lola taped the poster to the wall with band-aids.

The behavior of denominal verbs matches underspecified approaches to conversion, according to which such words are categorially underspecified, and their category is decided by the syntactic context. In Borer's (2013: Chapter 7) syntactic approach, such formations are based on uncategorized roots, which receive their category from some verbal (C=V) or nominal (C=N) functional projection such as T(ense) and D(eterminer), as in (7a) and (7b).



In Distributed Morphology (see, e.g., Marantz 2013) the structures in (7) would additionally involve a v(erb) and a n(oun) head as zero suffixes independently categorizing the root before T/D attach (see Borer 2013: Chapter 7 for discussion and (10) below). The two frameworks differ in their assumptions about zero affixes, which I will not dwell on, as this is unrelated to the different types of conversion that I want to highlight. Importantly, however, both frameworks share the underlying assumption that, once a root has been categorized, any category change above that category must yield a meaning that compositionally includes the meaning of the base category. This type of category change would include what I refer to as morphological conversion or zero-derivation in (10) below.

This contrast relies on the distinction between root-based and stem-based derivation, as lately developed in Distributed Morphology (Arad 2005; Marantz 2013) and summarized in (8). In (8a) a suffix of category x attaches to an uncategorized root and turns it into a word of category x; in (8b) a suffix attaches to an already categorized root (a word/stem).



The two formations show different properties. Root-based derivation displays the following: i) idiosyncratic meaning of the root in the context of the functional morpheme (e.g. in combination with n(oun) the root  $\sqrt{\text{GLOBE}}$  may mean 'sphere' or 'the world/planet', but a(djective) realizes only the latter meaning in *global*; Marantz 2013); ii) selectional restrictions (e.g. some roots are better than others with a particular morpheme: see  $\sqrt{\text{MALIC-}(i)ous/*y}$  vs.  $\sqrt{\text{CLUMS-}y/*ous}$ ; Arad 2005); iii) the meaning of the construction depends on root meaning independent of argument structure operations from functional structure. Stem-based derivation shows opposite properties: i) compositional meaning predicted by the stem (e.g. [glob-al]-ize 'make global'/\*'make into a sphere' inherits the adjectival meaning that it is derived from); ii) no selectional restrictions (see -ness in [malici-ous]-ness, [clums-i]-ness); iii) the meaning of the construction may involve arguments from functional structure.

The underspecification/root-based analysis in Borer (2013) implies that the meaning of the noun and that of the verb are fixed independent of one another, in relation to the encyclopedia or the world knowledge that the root  $\sqrt{\text{TAPE}}$  brings with it: namely, some meaning that can be conceptualized as an object or as a manner of action. Importantly, the object itself

is not understood as an argument in the event structure of the verb and so the verb's meaning does not compositionally include that of the noun. This intuition seems right for denominal verbs, if we think of the flexibility of the verb meaning in relation to that of the base noun. However, if we turn to deverbal nouns, the picture is more complex.

In Borer's analysis, deverbal conversion nouns like *to walk > a walk* are also created as in (7): an underspecified root is categorized as either a verb or a noun, and the link between the two is solely dictated by world knowledge; the meaning of the noun is not dependent on (or composed on the basis of) the meaning of the base verb.<sup>3</sup> It is, however, in this respect that conversion nouns differ from conversion verbs, at least if we consider the properties that are reported of the former in older and more recent literature.

Like other previous approaches, Cetnarowska (1993) recognizes that deverbal conversion nouns receive the same readings that deverbal suffixed nominalizations have: namely, event (e.g. walk, change), state (sorrow, concern), result state (e.g. collapse, meltdown), agent (e.g. cook, guide), cause (e.g. surprise, trouble), and result entity/product (e.g. cut, break) (see also Andreou & Lieber 2020; Lieber & Plag 2022). This means that the interpretation of conversion nouns is dependent on that of the base verb, either as denoting the event/state of the verb or some participant in its event structure. The polysemy of conversion nouns is knowingly richer than that of suffixed nominalizations, some of which show special suffixes for participant readings (e.g. -er for agents) different from those used for action nominals such as -(at)ion, -ment, -ing, and others. Cetnarowska, however, takes conversion nouns to pattern with action nominalizations, as she argues that these also show polysemy with participant-related readings, such as agents (see government, administration) and especially result entities (see examination and proposal as ambiguous between events and result entities/products).

If conversion nouns show the same readings that suffixed nominalizations receive, which are built from the meaning of their base verbs, they require a compositional analysis, similar to overt derivations. Iordăchioaia (2020a) addresses this question and argues for two types of deverbal conversion nouns: some that deserve an underspecified analysis, as in (7b) and (8a) above, and some that must be analyzed as (zero-)derivations from a verb (as in (8b), and (10) below). She bases this distinction on empirical evidence that tells whether the meaning (and the event structure) of the verb is necessarily included in that of the noun. She proposes that this is the case for many conversion nouns based on change of state verbs (e.g. crash, fall) but not for those based on psychological verbs (e.g. shock, surprise, love). The crucial difference is that change of state verbs involve a change event ending in a result state, and their result roots encode the result state, but not the event that leads to that state; the event must come from the verbal categorization, which in many languages involves overt verbal morphology (see Koontz-Garboden 2005 and Beavers & Koontz-Garboden 2020). Psychological verbs, however, belong to the class of verbs built on property concept roots, they are mostly stative and do not require an event or the verb category. States are often adjectives (see angry, sad, happy), besides verbs or nouns; there is no meaning component in them that is dependent on the verbal category.

For conversion nouns based on change of state verbs, this means that if they receive an event reading, the event component must come from the verb – it cannot come from the root alone. To the extent that we find such nouns, their meaning should include that of the base

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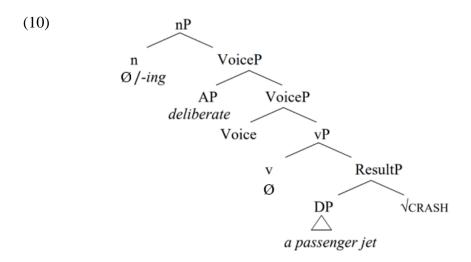
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<sup>&</sup>lt;sup>3</sup> Note here that in Borer (2013) and in underspecification accounts, there is no room for directionality in conversion, or rather directionality does not come about from their internal structure.

verb. Iordăchioaia (2020a) gives several corpus examples in which such conversion nouns express events and also inherit the argument structure of their base verbs, as in (9):

- (9) a. It is the result of the continued fall of the dollar.
  - b. the continuous drop of the budget deficit
  - c. [...] will ultimately lead to a complete crash of the US economy
  - d. the deliberate crash of a Germanwings passenger jet into a mountainside

The modifiers *continued*, *continuous*, *complete*, and *deliberate* in (9) indicate eventive readings, all these conversion nouns realize the internal argument of the base verb, and while (8a–c) display inchoative readings, (9d) shows a causative reading. Following Beavers & Koontz-Garboden's (2020) argument that such readings may only originate in verbs (not in their roots), Iordăchioaia (2020a) concludes that these conversion nouns must be analyzed like stem-derived suffixed nominalizations, as embedding verbal event structure under a zero suffix:



The conversion noun in (9d) involves a derivation similar to the cognate nominalization with the -ing suffix such as the deliberate crashing of a passenger jet as in (10), where the nominalization inherits the VoiceP structure of the verb, which realizes the causative reading (see Alexiadou et al. 2015 on the structure of causative verbs). In (10), the root  $\sqrt{\text{CRASH}}$  undergoes head movement to the v head, then to the Voice head, and ultimately to the n head and incorporates the semantics and the morphophonology of these heads (when overt), leading to the deliberate crash- $\emptyset$ /crashing of a passenger jet. The change of structural case from verbal accusative to nominal genitive is determined by the nominal structure at the top.

For conversion nouns related to psych verbs, Iordăchioaia (2020a) argues that they do not involve nominalizations of verbs, but simple root categorizations, as argued in Borer (2013) in (7). The evidence for this is that, when psych nouns show semantic arguments of the psychological state, they do not mark these with structural genitive case (*of*-PPs) but can only realize special prepositions required by the root such as *at* in (11b, c). For change of state verbs, conversion nouns mark the originally accusative object of the verb in (12a) with genitive case, as in (12b) (cf. (9)), which indicates that it is the same structural argument of the verb, now realized in a nominal environment with a genitive:

- (11) a. The news shocked/surprised Amanda.
  - b. \*the news' shock/surprise of Amanda
  - c. Amanda's **shock/surprise** at the news
- (12) a. The pilot crashed the passenger jet.
  - b. the pilot's crash of the passenger jet

Further quantitative evidence for the semantic difference between conversion verbs and conversion nouns, as well as between the two different classes of conversion nouns can be found in Kisselew et al. (2016) and Barbu Mititelu et al. (2023). Therefore, psych nouns represent root-based conversions, just like denominal verbs. For the sake of completeness, I may add that conversion nouns that resemble participants of the base verb's event most likely also instantiate root categorizations: e.g. not all possible agents of the verb *cook* can be referred to as *cooks*; the noun *cook* has already acquired a more specialized meaning, which can only come from the root and world knowledge, pointing to a derivation as in (8a). However, I will leave this topic open for further investigation.

What is important from this discussion on conversion nouns is that the data in (9) show that conversion may involve more complex constructions than the lexical word (or its root) alone. Given that nouns do not realize argument structure (except for a few, e.g. kinship terms), the source of the internal argument in the examples in (9) can only be the corresponding verbal constructions with event and argument structure. An appropriate account of these conversion nouns is to treat them as nominalizations of verbal constructions without overt morphological marking. This type of conversion of (possibly) phrasal constructions, which I call morphological conversions, also justifies my proposal to include syntactically nominalized constructions as in (2) among conversions, which I return to below.

### 3 Syntactic conversion from verb to noun

In this section I present the case of what I call *syntactic conversions*. Like conversion nouns built from change of state verbs with argument structure, these formations represent nominalizations of phrasal constructions with the difference that the new nominal category shows no morphological but only syntactic properties of nouns – namely, their external nominal distribution in argument positions of verbs. While the nouns in (9) mark the internal argument with genitive case and are modified by adjectives, the English poss-ing gerund, as in (2a), keeps the verbal accusative case on the internal argument *the offer* and can only be modified by adverbs, as in (13a). Its only nominal component is the Saxon genitive *John's*, and no other determiners are allowed in this position. The same holds for the Spanish and the Italian infinitival constructions in (13b, c).

- (13) a. **John's**/\*the/\*that/\*a <u>quickly</u>/\*quick **refusing** the offer (surprised us.)
  - b. *el/\*ese/\*aquel/\*un* (\*constante) criticar a los vecinos the/this/that/a (constant) criticize.Inf Acc the neighbors constantemente/\*constante constantly/constant 'constantly criticizing the neighbors'
  - c. *l'/\*questo/\*quell'* avere egli scritto <u>frettolosamente/</u>\*frettoloso the/this/that have.Inf he written hastily/hasty quella lettera

that letter 'his hastily having written that letter'

All the syntactic conversions in (13) preserve some morphological marking of the base verbal category: the participial morpheme -ing in English and the infinitival suffixes -(a)r and -(a)re in Spanish and Italian. These morphemes have been argued in previous literature to maintain their verbal properties, as also shown by the internal verbal syntax of these constructions (see Chomsky 1970; Abney 1987; Panagiotidis 2014, and others for English; de Miguel 1995; Ramírez 2003 for Spanish; Zucchi 1993 for Italian). This means that they do not include any nominalizing suffix or n head to introduce nominal properties as in (9); the restricted determiner is their only nominal marker. Building on previous research, Iordăchioaia (2020b) analyzes this special use of determiners as a syntactic nominalizer in its own right. A general structure fitting all these patterns in English, Spanish, and Italian is given in (14), where under verbal external projections various construction-specific phrases such as grammatical aspect and tense may be present, which will host the verbal morphemes -ing, -ar, and -are, but no n head for the lexical nominal category and no nominal internal properties such as adjectival modification are available.

## (14) $[DP 's / el / l' [verbal external projections [vP [ <math>\sqrt{ROOT} ] ]]]]$

This is precisely the reason that I treat the constructions in (13) as syntactic conversions: they involve a category change from a verbal into a nominal construction, which is morphologically not marked for the new category. It is syntactically nominalized by the determiner, which imposes the syntactic distribution of nouns on a verbal construction.

Interestingly, however, the verbal morphemes that appear in the constructions in (13) can also be found in formally identical nominalizations that exhibit nominal – and not verbal – internal properties. For the originally participial -ing morpheme in the poss-ing gerund, there is a so-called ing-of nominalization as in (15a), which takes adjectival modifiers, marks its arguments with genitive case and allows any determiner, just like the derivational suffix -al in refusal. Similarly, next to the internally verbal nominalized infinitives, Spanish and Italian show internally nominal nominalized infinitives, as in (15b, c).

- (15) a. John's/the/that/a quick refusing/refusal of the offer
  - b. *el/ese/aquel/un* <u>suave</u> mumur**ar** <u>de las fuentes</u> the/this/that/a soft murmur.Inf of the fountains 'the soft murmuring of the fountains'
  - c. *il/questo/quel mormorare* <u>sommesso</u> <u>del mare</u> the/this/that murmur.Inf soft of.the sea 'the/this/that soft murmuring of the sea'

Previous analyses of these constructions in English and Spanish take the suffixes -ing and -(a)r to act as derivational nominalizing suffixes. In syntactic approaches, they represent an n head, which nominalizes some verbal projection smaller than in (14) and introduces internal nominal properties such as adjectival modifiers and genitive case marking of the originally verbal arguments (similarly to the structure in (10); see various implementations in Zucchi 1993: 224; de Miguel 1995; Ramírez 2003; Alexiadou et al. 2011, among others). The flexibility in allowing determiners also patterns with this internal nominal syntax, as argued in Iordăchioaia (2020b).

From the perspective of conversion, the existence of these parallel – internally verbal vs. internally nominal – constructions is important because the literature dedicated to conversion usually refers to word-level category changes like the nominalized infinitive as cases of syntactic conversion (Gaeta 2013; Müller 2015). However, as Zucchi (1993: Chapter 7) points out for Italian, a nominalized infinitive like *scrivere* 'to write' > *lo scrivere* (lit. the write.Inf) 'the writing' is ambiguous between an internally verbal construction, i.e. syntactic conversion as in (13c), and an internally nominal suffixal nominalization, as in (15c). The same applies to Spanish infinitives, where *el murmurar* may appear either with an adverb (as syntactic conversion), or with an adjective (as a derivation): see (16) from Ramírez (2003):

(16) *el suave murmurar/el murmurar suavemente* 'the soft murmuring'/'softly murmuring'

Thus, I argue that nominalized infinitives in Spanish, Italian (and even German, as in (17)) do not instantiate morphological, but only syntactic conversion, when they form internally verbal constructions, as in (13). See (17) from Ehrich (1991), which shows the same two realizations of nominalized infinitives in German: the internally verbal one in (17a) and the internally nominal one in (17b) (cf. Bücking 2009):

- (17) a. Das Aufsätze <u>schnell</u> **Hinschreiben** (ist sein größter Ehrgeiz.) the articles quickly write.down.Inf is his greatest ambition 'Quickly writing down articles (is his greatest ambition.)'
  - b. Das <u>schnelle</u> **Hinschreiben** von Aufsätzen (ist sein größter Ehrgeiz.) the quick write.down.Inf of articles is his greatest ambition 'The quick writing down of articles (is his greatest ambition.)'

Let us review some of the reasons for which the verbal marker from syntactic conversions as in (13) and (17a) should not be considered to maintain its verbal function in the nominal counterparts of these constructions in (15) and (17b), but rather to have acquired the function of a derivational suffix. I focus on English -ing and Spanish -(a)r.

To begin with, the -ing suffix in English is originally a nominalizer (cf. Proto-Germanic \*- $ing\bar{o}/ung\bar{o}$ ), which came to merge with the participial -ende, eventually also leading to the English progressive (see Alexiadou 2013a; Iordăchioaia & Werner 2019). Synchronically, the suffix -ing in ing-of nominalizations is aspectually similar to the progressive -ing, as shown by its incompatibility with states in (18a, b) (Asher 1993; Borer 2013: Chapter 4). However, the verbal -ing in poss-ing is different, as it can appear with states (18c). Additionally, ing-of denotes events, while poss-ing does not, as the test with took place in (19) shows:

- (18) a. *Helen knows/\*is knowing the truth.* (progressive)
  - b. *Helen's knowledge/\*knowing of the truth* (ing-of)
  - c. Helen's **knowing** the truth (surprised us.) (poss-ing)
- (19) [John's refusing of the offer]/\*[John's refusing the offer] took place at noon.

While the difference in the derivational nature of -ing in ing-of and its verbal status in poss-ing may be straightforward due to the large amount of work dedicated to these constructions, it may not be as clear that there also is a difference between the infinitival marker in internally verbal nominalized infinitives and its homonym in internally nominal infinitives. Some

differences signaled for the Spanish infinitives and the historical evolution of the Romanian infinitive provide evidence that these are different, too. De Miguel (1995) argues for an aspectual distinction between the two nominalized infinitives in Spanish, by noticing that the internally nominal one is not compatible with telic verbs, while the verbal one is unrestricted. While the activity verb *andar* 'to wander/go about' is compatible with both infinitives in (20a, b), the achievement verb *llegar* 'to arrive' is compatible only with the verbal infinitive in (20c) vs. (20d).

(20)	a.	el	andar	el	niño	tan	tarde	(verbal)
		the	go.about.Inf	the	child	so	late	
		'the child going about so late'						
	b.	el	andar	errabundo		del	niño	(nominal)
		the	go.about.Inf	aimless		of.the	child	
		'the aimless wandering of the child'						
	c.	el	llegar	tan	tarde	el	niño	(verbal)
		the	arrive.Inf	SO	late	the	child	
		'Juan's arriving so late'						
	d.	*el	llegar	tardío		de	Juan	(nominal)
		the	arrive.Inf	late.Adj		of	Juan	
		'Juan's late arrival'						

On the basis of this contrast, de Miguel (1995) concludes that the internally verbal infinitive has unrestricted aspect (as typical for a verbal infinitive), while the derivational suffix in the nominal infinitive is specified as atelic/imperfective.

Additional support for the verbal infinitival suffix acquiring a derivational function in internally nominal infinitives comes from the Romanian long infinitive in -(a)re, which synchronically only appears as a nominalization. Rădulescu Sala (2015) argues that Romanian inherited the verbal long infinitive from Latin, which in the 16th century appears on its verbal use also preceded by the preposition a 'to' or de 'of', as in (21a). Gradually, this form also acquired the meaning of an abstract noun and nominal morphosyntactic features, as in (21b), and became ambiguous, as nowadays in Spanish, Italian, and German.

- (21) a.  $s\check{a}$   $aib\check{a}$  a [da-re(a)] Subj. have to give-Inf(the) 'to have in order to give'
  - b. *den împărățiia ceriului [cădea-re-a]* from empire sky.Gen fall-Inf-the 'the fall from the sky's empire'
  - c. de a [mânca-re-a] și de a [be-re-a] și a ne [îmbrăca] of to eat-Inf-the and of to drink-Inf-the and to Rf dress-Ø 'to eat and to drink and to dress'

According to Rădulescu-Sala, to avoid the confusion between verbs and abstract nouns, a short infinitive was created that dropped the suffix -re. After a period of coexistence of the long and short infinitive, as in (21c), the long form gradually lost its verbal usage and was replaced by the short infinitive preceded by a 'to', as in (22a), in contrast to (22b), which is a nominalization.

- (22) a. A venit pentru **a** viziona <u>filmul</u> /\*vizion**are**a <u>filmului</u>. has come for to view film.the.Acc/view.Inf.the film.Gen 'She came to view the film.'
  - b. Vizionarea <u>filmului</u> a avut loc ieri. view.Inf.the film.Gen has had place yesterday 'The viewing of the film took place yesterday.'

Bearing in mind the differences between the internally verbal and the internally nominal constructions in English, Spanish, Italian, and German, next to the diachronic development of the corresponding Romanian infinitive, it becomes clear that -ing in the English ing-of and the -(a)r(e) suffix in internally nominal infinitives in the other languages do not act as verbal inflectional markers anymore but have a derivational suffix status. To conclude, this means that these internally nominal constructions (such as in (15), (17b), (20b), and (22b)) cannot count as conversions anymore, as they bear overt derivational marking. As mentioned before, from these pairs, only the internally verbal constructions count as syntactic conversions.

One may wonder, however, how we should handle the so-called 'infinitival conversions' which have acquired some lexical/result entity meaning and do not count as events realizing verbal argument structure: e.g. Italian *parlare* 'to talk' > *il parlare* 'the idiom' (Manova & Dressler 2005) and German *essen* > *das Essen* 'the food'. If we think of other nominalizing suffixes that form action nominals, we can conclude that there is nothing special about these more lexicalized infinitives; they behave like other suffix-based nominalizations which may form compositional event nominals (as in (15), (17b), (20b), and (22b)) but also lexicalized ones. Ing-of nominals on non-eventive readings like *building*, *heating*, *finding* 'discovery', *washing* 'laundry' are found at the same time with their eventive correspondents. As proposed in previous literature, these would instantiate nominalizations of roots by the corresponding overt suffixes *-are*, *-en* and *-ing*, as in (8a), since they lack the verbal event structure in (10) that their cognates in (15), (17b), (20b), and (22b) inherit from the verb (see Marantz 1997; Alexiadou 2001). Importantly, these formations do not qualify as (morphological) conversions, since they involve overt nominalizing suffixes, as argued above.

### 4 Conversions from adjective to noun

In this section, I illustrate the three types of conversion presented in §2 and §3 for deverbal nouns/nominalizations by looking at category changes from adjectives to nouns. So far, we have identified conversions that should be analyzed as categorizations of underspecified roots (as in (7) or a version thereof: see English denominal verbs and deverbal psych nouns), morphological conversions, which share properties with suffixed derivations (as in (10): see change of state deverbal nouns that realize argument structure), and syntactic conversions, which show no internal properties of the new category (as in (13)–(14): see the poss-ing in English and internally verbal nominalized infinitives in Spanish, Italian, and German).

Conversion of adjectives into nouns is often mentioned in relation to examples such as *rich > the rich*, *clever > the clever* in English, which are considered cases of syntactic conversion but in fact represent morphological conversion, as I will argue below. Manova & Dressler (2005) and Müller (2015) also mention German examples such as *gut* 'good' > *der Gute* 'the good one' as syntactic conversion. However, I believe that these are cases of nominal ellipsis rather than conversion. Note that the determiner may change its gender depending on

the elided N (see Alexiadou & Gengel 2012; cf. Olsen 1989): cf. *das Gute* 'the good one' (neuter) and *die Gute* 'the good one' (feminine). However, German does show a type of syntactic conversion from adjective into noun in the construction in (23), which takes the neuter definite article *das* 'the', allows no other determiner and can be modified by adverbs, not adjectives, similarly to the syntactic conversions in (13) (see McNally & De Swart 2015 for a similar construction in Dutch). In support of its internal adjectival properties, note that degrees of comparison such as the superlative are allowed, and it also bears the adjectival inflectional suffix *-e*. This construction would receive a structure as in (14), with the difference that it inherits adjectival instead of verbal projections from the base (see Alexiadou & Iordăchioaia 2014).

(23) das/\*jenes/\*ein (<u>besonders/\*besondere</u>) **Schön-e/Schönst-e**the/that/a especially/special beautiful-Adj/beautiful.Sup-Adj
an der Sache
at the thing
'the especially/most beautiful part about the business'

Let us now consider English adjectives converted into nouns by means of the definite determiner, as *the rich*, which are usually (wrongly) considered to be syntactic conversions. Glass (2013) argues that there are two types of such conversions: one referring to a group of individuals, as in (24a), and one referring to a property as an abstract mass noun, as in (24b). The former show agreement in plural, the latter in singular.

(24) a. *The pretty are expected to achieve.* (individual) b. *The pretty is boring. There must be strength and power.* (property)

By investigating data from the web corpus, Glass argues that these formations are quite productive and also show other determiners than the definite: the individual reading takes count plural determiners, as in (25a), while the property takes mass determiners, as in (25b). Interestingly, both formations allow both adverbs (as in (26a, c)) and adjectives (as in (26b, d)), and degrees of comparison can be found at least with the individual reading, as in (26e) (from COCA, accessed on July 6, 2023).

- (25) a. **Too many rich** are unwilling to share.
  - b. **Too much sweet** is bad for you.
- (26) a. **The extremely wealthy** are shifting their investment strategy.
  - b. *The stylish young* are reclaiming the necktie as their own.
  - c. *The disgustingly cute is something to be loved.*
  - d. You're on the upside of the healing and most of the mean nasty is behind you.
  - e. Let the rich get richer while **the poorer** get poorer.

The licensing of adverbs and degrees of comparison indicates the inheritance of adjectival structure from the base, similarly to syntactic conversions, as in (23). However, the licensing of adjectives indicates nominal structure from the new category. This means that these constructions cannot be purely syntactic conversions, since they exhibit nominal structure, in contrast to those in (13) and (23), and resemble morphological conversions as in (9)–(10). Thus,

they must involve a nominalizing n head that introduces nominal structure licensing adjectives and possibly different determiners. I consider this n head to be a zero suffix, as in (10). The availability of adverbs is not a problem, since they would modify the lower adjectival part, while adjectives would modify the higher nominal part of the structure of these constructions (see Fu et al. 2001 and Alexiadou et al. 2010 for similar cases with suffixed nominalizations).

In this section we have seen examples of syntactic conversions from adjective to noun in (23) and morphological conversions from adjective to noun in (24)–(26). Before I conclude, I would like to also illustrate conversions from adjective to noun that should be analyzed as root-based or categorizations of underspecified roots, as in (7). This would be the case of color nouns, as discussed in McNally & De Swart (2011) and Alexiadou (2013b). McNally & De Swart address Dutch data in contrast to constructions like in (23) and show that they are mass nouns that take adjectival modifiers and any determiner, as can be seen for English in (27a, b):

- (27) a. *the/this* <u>bright/\*brightly</u> **red** of the apple
  - b. **Too much red** will spoil the contrast.
  - c. the intense/\*intensely redness of the skin

The incompatibility with adverbs in (27a) sets these nouns apart from the morphological conversions in (24)–(26); yet, in English they could be treated as morphological conversions similar to the suffixal nominalizations in (27c). What I think speaks in favor of an underspecified analysis of color nouns, however, is the way they are formed in languages like Dutch in contrast to abstract nouns like the English property nouns in (25b) and (26c, d). Namely, we saw that property nouns include adjectival structure (see adverbial modification in (26c)) in English, and so do they in Dutch, but, unlike in English, the presence of the adjective in Dutch is morphologically visible in the adjectival suffix -*e*, as in (28), adjusted from McNally & De Swart (2015).<sup>4</sup>

(28) [...] dat dit onzeker-e in zijn karakter zit. that this uncertain-Adj in his character sits 'that this uncertainty is in his character'

From the way Dutch behaves with morphological conversions from adjective to noun, adjectival structure is overtly marked with the suffix -e. Interestingly, however, color nouns do not bear such adjectival morphology in Dutch. Unlike in (28), (29) (taken from McNally & De Swart 2011) is a bare adjective/noun.

(29) **het rood** van de aardbeien the red-Ø of the strawberries 'the red of the strawberries'

I take the lack of the -*e* adjectival suffix in color nouns in Dutch to be morphological evidence that color nouns and adjectives represent roots that get categorized as nouns or adjectives in context. The reason that I take this to be a crosslinguistic fact (applying at least to European languages like English and Dutch) is that, just like psychological roots can be categorized as

<sup>&</sup>lt;sup>4</sup> This formation is similar to the syntactic conversion in (23), with the difference that nouns as in (28) are flexible with determiners indicating the presence of nominal structure, besides the adjectival one.

verbs, adjectives or nouns, so can color roots be categorized as both nouns and adjectives. In German, for instance, we see a further case of adjective to noun conversion as root categorization with the adjective *gut* 'good'. This adjective may form all three types of conversion: syntactic conversion in (30a) (similar to (23)), morphological conversion with the adjectival suffix -*e* (similar to (24b), (25b), (26c, d) and (28)), as in (30b), and an underspecified root-based conversion (similar to color nouns in (29)), as in (30c):

- (30) a. **das Gut-e** an seiner Politik the good-Adj at his politics 'the good part about his politics'
  - b. **das Gut-e** im Menschen the good-Adj in human.Dat 'the good(ness) in humans'
  - c. Sein Sohn hat das Gut von seinem Vater übernommen. his son has the good-Ø from his father taken.over 'His son took over the estate from his father'

Importantly, the meaning of (30c) is rather lexicalized, referring to 'goods, property, estate' (Manova & Dressler 2005). The lexicalized meaning is evidence that (30c) must be a root-based conversion, where the meaning of the root is accommodated in the nominal context and differs from that of the adjective (see Marantz 2013).

#### **5 Conclusions**

In this paper I have argued for three types of conversion, for whose identification I have examined the syntactic behavior of various word forms that result from this process. First, I exemplified root-based underspecified conversion with denominal verbs, psychological deverbal nouns, and color deadjectival nouns in English (and possibly other languages). Second, I showed that morphological conversion combines properties from the base and the output category: see change of state deverbal nouns with verbal argument structure, as well as deadjectival nouns that inherit adjectival structure licensing adverbs and degrees of comparison but also nominal structure licensing adjectives and several determiners. Third, I argued that to determine syntactic conversions one must consider the external properties of the converted word. In this category I included English poss-ing gerunds, Spanish, Italian, and German internally verbal nominalized infinitives, as well as internally adjectival nominalizations in German (and Dutch). Importantly, syntactic conversions are complex constructions of the base category embedded under a particular determiner that functions as a nominalizer. Following a syntax-based perspective on word formation, I proposed some general lines of analysis for these constructions, but the empirical distinctions made here do not hinge on this specific implementation. I believe that my claims can prove of great impact for the study of conversion independently of the theoretical framework that one follows, as I have shown that to determine whether a formation is indeed a case of conversion, one needs to also consider its syntactic behavior beyond the word level.

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