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COMPOUNDING WITH A POLYMORPHIC DEVERBALISER IN TURKISH

1. INTRODUCTION

Turkish is well-known for its various types of nominalisations. It marks nominalisations of different kinds with different suffixes. These suffixes are *-mA*, *-DIK*, *-Iş* and *-Im*. We provide an example of each type in (1).

(1) a. *[Ali-nin   ev   yap-ma-sı]   iki   yıl   sür-dü.*
     Ali-GEN   house   make-mA-POSS   two   year   last-PST
     'It took two years for Ali to build a house.'

   b. *[Ali-nin   ev   yap-tığ-ı]   doğru.*
     Ali-GEN   house   make-DIK-POSS   true
     'It is true that Ali built houses.'

   c. *[Ali-nin   ev   yap-ış-ı]   herkes-i   şaşırt-tı.*
     Ali-GEN   house   make-Iş-POSS   everyone-ACC   surprise-PST
     'The way Ali builds houses surprised everyone.'

   d. *[Ev   yap-ım-ı]   zaman   al-ır.*
     house   make-*Im*-POSS   time   take-AOR
     Literal: 'House-building takes time.'

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These nominalisation patterns exhibit different structural properties, suggesting different possibilities for the height of the nominalising suffix. For example, the *-DIK* nominaliser has been argued to attach higher than the *-mA* nominaliser (Kornfilt). In this study, we will investigate the properties of a nominaliser that is nearly as productive as *-DIK* and *-mA* nominalisers, yet has received very little attention in the literature. More specifically, we will examine compounds headed by deverbal nouns derived by the *-Im* nominaliser in Turkish, which, we argue, attaches at an even lower position in the verbal domain than the *-DIK* and *-mA* nominalisers.

The surface morpho-syntax of compounds headed by deverbal nouns derived by the *-Im* nominaliser is identical to the surface morphosyntax of compounds headed by an underived noun, as illustrated in (2).[1]

(2)   a.   *ev   yap-ım-ı*
           house   make-*Im*-POSS
           'house-building'

      b.   *tatlı   kaşığ-ı*
           dessert   spoon-POSS
           'dessert spoon'

Semantically, compounds as in (2a) essentially describe an event, and therefore we will label them as event descriptions. An intriguing fact about compounds headed by *-Im* derived nouns is that they can also correspond to compounds like the one in (3), where the compound appears to denote a predicate of individuals (on a par with simple adjectives) rather than an event description. This is evidenced by the fact that the compound in (3a) modifies a noun while the compound in (3b) occurs in the predicate position.

(3)   a.   *[ev   yap-ım-ı]   kek*
           house   make-*Im*-POSS cake
           'home-made cake'

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[1] Notably, the surface morphosyntax features a suffix that we gloss as POSS for possessive. The distribution of this suffix, which is also called a compound marker in the literature, is notoriously complex. For example, even if the so-called compound marker is distinct from the (third person singular) possessive marker, it interacts with the possessive markers and disappears if any of them is present. We will steer away from the intricacies of this suffix and refer the reader to Lewis, Yükseker, Hayashi, Arslan-Kechriotis (*Case*, *Determiner Phrase*), Göksel, Kunduracı, Boškovic and Şener, Öztürk and Taylan for a comprehensive discussion.

   b. *Bu*   *kek-ler*   *[ev*   *yap-ım-ı].*
      this   cake-PL   house   make-*Im*-POSS
      'These cakes are home-made.'

In this study, we make three claims. First, we argue that -*Im* attaches directly to verbal heads rather than verb phrases as argued for Icelandic Complex Event Nominals by Wood ("Prepositional Prefixing", *Icelandic Nominalizations*, "Verbs"). This argument finds robust support from the syntactic properties of -*Im* nominalisation related to passivisation, aspect, modification and case. Second, we argue that the ambiguity that we observe between compounds headed by nouns derived by -*Im* is systematic. We observe that the theme argument of the deverbalised verb has a distinguished status in both kinds of interpretations of these compounds, namely, event descriptions and predicates of individuals. In particular, when the non-head NP of the compound functions as the theme of the deverbalised verb, the result is an event description, while it is a predicate of individuals that ranges over the theme when the non-head NP has some other relation to the nominalised verb. Finally, we will argue that this observation, coupled with the argument that -*Im* nominalisation of both types has to occur at the verb level has implications for the question of whether the base of a deverbal noun may have any argument structure at all (Kratzer; Marantz; Grimm and McNally). Throughout this paper, we will refer to -*Im* creating event descriptions as -*Im*$_{event}$ and -*Im* creating predicate of individuals as -*Im*$_{relative}$. We will argue that both -*Im*$_{event}$ and -*Im*$_{relative}$ have the unified structure in (4), but the different interpretations result from the type of relationship that the non-head NP of these compounds bears to the verbal base, which will be captured by providing distinct but related semantic entries for -*Im*.

(4)
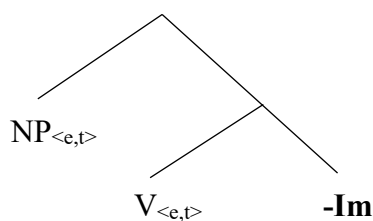
NP$_{<e,t>}$

V$_{<e,t>}$ **-Im**

where
NP = predicate of individuals; of type $<e,t>$

V= function from individuals to predicate of events; of type $<e,<v,t>>$

This paper is structured as follows. In section 2, we will lay out the set of empirical observations that indicate the attachment site of the deverbaliser -*Im* in Turkish. Furthermore, we will discuss the conditions under which the two interpretations arise in more detail. In section 3, we will provide the basic structure that we assume for each type of -*Im* nominalisation, along with the semantic contribution of -*Im*.

Section 4 will be devoted to a discussion of the further restrictions on the type of meaning that *-Im*_{relative} can generate. Section 5 will conclude this paper.

2. EMPIRICAL OBSERVATIONS

In this section, we will lay out the basic set of observations about *-Im* nominalisation. We will first discuss the issue of affixation height. We will show that both *-Im*_{event} and *-Im*_{relative} combine directly with the verb. Then we will turn to the issue of whether the verbal base of *-Im* has argument structure or not. We will see that the theme argument of the verb has a distinguished status in both cases. In particular, we will show that an analysis in which the verb has no argument structure at all is empirically inadequate.

2.1 LEVEL OF AFFIXATION

It has been argued in the literature that nominalisation may target different syntactic levels, which determines various degrees of verbalness in the nominalised structure (see Alexiadou and Borer for a brief survey). In other words, whether a nominalised structure can express certain verbal features such as agentive arguments or modal and aspectual features is dependent on where the relevant nominaliser is attached to the structure. The idea of affixation height has been invoked to account for several properties of nominalisation along with Grimshaw's typology of nominalisation types. In this subsection, we are going to examine what verbal features can/cannot be expressed with *-Im* nominalisation of both types to understand the attachment site of this deverbaliser.

Let us start with the event description construal of *-Im* compounds. The compound in (5) is headed by a noun deverbalised by *-Im*, and it denotes a definite event description, as understood from the fact that it is compatible with a predicate which describes events. Note that the non-head NP of this compound is the theme argument of the verbal base.

(5) *[Fidan   dik-im-i]   üç   saat   sür-dü.*
     sapling   plant-Im-POSS   three   hour   last-PST
     'Planting saplings took three hours.'

-Im-creating event descriptions require the presence of the theme argument. Unless enough contextual information is available to recover it, the theme argument cannot

be left unexpressed as shown in (6).[2] In other words, (6) can only be felicitously expressed if what has been planted is known to the speaker and the addressee.

(6) *Dik-im   üç   saat   sür-dü.
     plant-Im   three   hour   last-PST
     Intended: 'The planting took three hours.'

An obvious question is whether agents can be expressed in these compounds. In examples like (7a), it seems that the external argument of the verb can be expressed appearing as a genitive-marked NP. The sentence in (7a) looks superficially quite similar to the sentence in (7b), which features a nominalisation built by another nominalising suffix, namely -mA. Although these two nominalisations are morpho-syntactically near-identical, they are structurally quite distinct. This is what we will show below.

(7) a. *[Köylüler-in   fidan   dik-im-i]   iki   saat   sür-dü.*
         villagers-GEN   sapling   plant-Im-POSS   two   hour   last-PST
         'The villagers' planting saplings took two hours.'

     b. *[Köylüler-in   fidan   dik-me-si]   iki   saat   sür-dü.*
         villagers-GEN   sapling   plant-mA   two   hour   last-PST
         'The villagers' planting saplings took two hours.'

First, in -Im nominalisation, the object/theme NP has to remain caseless, as in (7a) (Kural). While definite objects necessarily appear in the accusative in -mA nominalisations as shown in (8a), the object/theme NP in -Im nominalisation cannot appear in the accusative, as shown in (8b).

(8) a. *[Köylüler-in   fidan-ı   dik-me-si   iki   saat   sür-dü.*
         villagers-GEN   sapling-ACC   plant-mA-POSS   two   hour   last-PST
         'The villagers' planting the sapling took two hours.'

     b. *[Köylüler-in   fidan-ı   dik-im-i   iki   saat   sür-dü.*
         villagers-GEN   sapling-ACC   plant-Im-ACC   two   hour   last-PST
         Intended: 'The villagers' planting the sapling took two hours.'

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[2] Turkish allows arguments to be left unexpressed in general if they are recoverable from context.

The impossibility of an accusative-marked object to appear in *-Im* nominalisations may suggest that the genitive-marked NP in (7a) is not a true argument, but is introduced as a possessor to the deverbalised structure just as to simplex genitive-possessive nominal constructions, as in (9).

(9) *köylü-ler-in*   *ev-i*
     villager-PL-GEN   house-POSS
     'the house of the villagers'

Indeed, the genitive-marked NP in *-Im* compounds that seems to be the external argument of the nominalised verb does not behave on a par with the external arguments of regular verbal structures, as opposed to the genitive-marked NPs of *-mA* nominalisations. For example, the genitive-marked NPs of *-Im* compounds do not accept agentive modifiers, (10a), unlike those of *-mA* nominalisations, as shown by (10b).

(10) a. **köylüler-in*   *isteyerek*   *fidan*   *dik-im-i*
       villagers-GEN   willingly   sapling   plant-Im-POSS
       Intended: 'The villagers' willingly planting saplings.'

    b. *köylüler-in*   *isteyerek*   *fidan*   *dik-me-si*
       villagers-GEN   willingly   sapling   plant-mA-POSS
       The villagers' willingly planting saplings'

Similarly, the genitive-marked NPs of *-Im* compounds cannot act as a controller as shown in (11a), whereas those of *-mA* nominalisations can, as in (11b).

(11) a. **köylüler-in*   *orman-ı*   *canlandırmak*   *için*   *fidan*   *dik-im-i*
       villagers-GEN   forest-ACC   revive   for   sapling   plant-Im-POSS
       Intended: 'The villagers' planting saplings to revive the forest…'

   b. *köylüler-in*   *orman-ı*   *canlandırmak*   *için*   *fidan*   *dik-me-si*
       villagers-GEN   forest-ACC   revive   for   sapling   plant-mA-POSS
       'The villagers' planting saplings to revive the forest…'

Furthermore, a passivised verb cannot be nominalised with *-Im* to denote an event description as in (12a). This also contrasts sharply with *-mA* nominalisation, which can target structures involving passivisation. Considering that passivisation targets the external argument position in general (Perlmutter and Postal; Perlmutter; Jaeggli; Baker et al.; Bruening), the data in (12), coupled with (7)–(10), indicate that *-Im* has to attach lower than the head that introduces the external argument.

(12) a. *(Yetkililer   tarafından)   fidan   dik-il-im-i
        authorities   by   sapling   plant-PASS-Im-POSS
        Intended: 'The planting of saplings (by the authorities)…'

    b. (Yetkililer   tarafından)   fidan   dik-il-me-si
        authorities   by   sapling   plant-PASS-mA-POSS
        'The planting of saplings (by the authorities)…'

Following Kratzer, we assume that external arguments are introduced by Voice, which means that -*Im* has to merge below Voice. This also amounts to saying that anything higher than the Voice head will be an impossible attachment site for -*Im*, which is indeed borne out. As shown in (13), -*Im* compounds denoting event descriptions cannot express modality or aspect.

(13)   a. *fidan   dik-ebil-im-i
           sapling   plant-MOD-Im-POSS
           Intended: 'being able to plant saplings'

       b. *fidan   dik-miş-im-i
           sapling   plant-PFV-Im-POSS
           Intended: 'having planted saplings'

On the other hand, -*mA* nominalisation can target structures involving (root) modality as shown in (14a). While -*mA* cannot be affixed to a verbal stem that bears an aspectual marker just like -*Im* (14b), -*mA* nominalisation can tolerate aspectual information with the help of an auxiliary, as shown in (15a). On the other hand, -*Im* nominalisation is incompatible with aspectual information, even with an auxiliary.

(14)   a. fidan   dik-ebil-me-si
           sapling   plant-MOD-mA-POSS
           'their being able to plant saplings'

       b. *fidan   dik-miş-me-si
           sapling   plant-PFV-mA-POSS
           Intended: 'their having planted saplings'

(15)   a. fidan   dik-miş   ol-ma-sı
           sapling   plant-PFV   AUX-mA-POSS
           'their having planted saplings'

       b. *fidan   dik-miş   ol-um-u
           sapling   plant-PFV   AUX-Im-POSS
           Intended: 'their having planted saplings'

Hence, we have shown that -*Im* nominalisation does not allow for the introduction of the external argument. We have indicated that the genitive-marked NP which appears to have the semantics of the external argument is not introduced as an agent to the event denoted by the deverbalised verb, but as a possessor to the whole compound. Indeed, the genitive-marked NP 'villagers' in (7a) does not have to be interpreted as the doer of the planting. For example, in the context provided below, they are simply the ones who covered the expenses of dibbling, but the actual agents are members of the foundation.

(16) a. A foundation initiates a planting campaign over wildfires. This campaign is financially supported by different groups, such as students, scholars, teachers, doctors and villagers living nearby. The members of the foundation plant saplings for the students today, and will start the planting for the villagers tomorrow.

b. *Köylüler-in   fidan   dik-im-in-e   yarın   başl[a]-ıyor-uz.*
   villagers-GEN   sapling   plant-Im-POSS-DAT   tomorrow   start-PROG-1.PL

'We are starting the planting of the saplings for the villagers (i.e. whose expenses are covered by the villagers) tomorrow.'

The discussion so far shows that -*Im* creating event descriptions attaches to a syntactic position below Voice. Considering that the theme argument has to be present in -*Im* compounds denoting event descriptions, one might argue that it is attached either to VP or V itself. The two options make different predictions. Essentially, if -*Im* attaches to VP, it should not discriminate between different verb types, namely between those that take objects and those that lack objects. However, the data indicate that -*Im* actually is sensitive to whether a verb has an argument in its object position (*à la* Perlmutter's Unaccusativity Hypothesis). For example, it never deverbalises unergative predicates (17), as opposed to unaccusatives (18).

(17)   a. *çocuk   koş-um-u*
           child   run-Im-POSS
           Intended: 'child running'

        b. *çocuk   konuş-um-u*
           child   speak-Im
           Intended: 'child speaking'

c. *çocuk   kay-ım-ı
   child   ski-Im-POSS
   Intended: 'child skiing'

(18)   *balina*   *doğ-um-u*
        whale   be.born-Im-POSS
        Lit: 'whale being.born'

Hence, our conclusion is that *-Im*_{event} has a very close relationship with the verbal head. Before discussing how we account for its properties mentioned above, we would like to examine *-Im*_{relative} as well. Let us recall that compounds headed by nouns built by *-Im*_{relative} have a modifying function over the theme argument of the verbal head. An illustrative example is provided in (19a), where the compound occurs as a modifier to the noun that follows it, and in (19b), where it is in the predicate position.

(19)   a. *[fabrika   üret-im-i]   çanta*
           factory   produce-Im-POSS   bag
           'a factory-produced bag'

        b. *Bu   çanta   [fabrika   üret-im-i]*
           this bag   factory   produce-Im-POSS
           'This bag is factory-produced.'

We can observe that, just like *-Im*_{event}, *-Im*_{relative} is not compatible with agent-oriented adverbials as in (20), and does not tolerate passivisation (21). Furthermore, compounds headed by nouns built by *-Im*_{relative} cannot receive modality (22) or aspectual markers either (24).

(20)   a. *[bilerek   fabrika   üret-im-i]   çanta*
           willingly factory   produce-Im-POSS   bag
           Intended: 'a deliberately factory-produced bag'

        b. *Bu   çanta [bilerek   fabrika   üret-im-i]*
           this   bag   willingly   factory   produce-Im-POSS
           Intended: 'This bag is deliberately factory-produced.'

(21)   a. *[(terziler   tarafından)   fabrika   üret-il-im-i]   çanta
          (tailors   by   factory   produce-PASS-Im-POSS   bag
          Intended: 'a factory-produced bag (by tailors)'

       b. *Bu çanta [(terziler   tarafından)   fabrika   üret-il-im-i].
          this bag   (tailors   by)   factory   produce-PASS-Im-POSS
          Intended: 'This bag is factory-produced (by tailors).'

(22)   a. *fabrika   üret-ebil-im-i   çanta
          factory   produce-MOD-Im-POSS   bag
          Intended: 'a factory-producible bag'

       b. *Bu   çanta   [fabrika   üret-ebil-im-i]
          this   bag   factory   produce-MOD-Im-POSS
          Intended: 'This bag is factory-producible.'

(23)   a. *fabrika   üret-miş-im-i
          factory   produce-PFV-Im-POSS
          Intended: 'a factory-produced bag'

       b. *Bu   çanta [fabrika   üret-miş-im-i]
          this   bag   factory   produce-PFV-Im-POSS
          Intended: 'This bag is factory-produced.'

(24)   a. *fabrika   üret-miş   ol-um-u
          factory   produce-PFV   AUX-Im-POSS
          Intended: 'a factory-produced bag'

       b. *Bu   çanta [fabrika   üret-miş   ol-um-u]
          this   bag   factory   produce-PFV AUX-Im-POSS
          Intended: 'This bag is factory-produced.'

These pieces of data indicate that -Im$_{relative}$ has also a low attachment site, just like -Im$_{event}$. -Im$_{event}$ cannot attach to external argument introducing head or above, as the compounds produced by -Im$_{relative}$ are incompatible with agentive adverbials, passivisation or modal and aspectual markers. This distribution indicates that -Im$_{relative}$ also attaches either to the verbal projection, namely VP, or the verbal head itself, namely V. We are going to use adverbial modification to determine the attachment site

of *-Im*_{relative}. Note that *-Im*_{event} creates event descriptions, and therefore the resulting compounds are compatible with eventive modifiers, as shown in (25).

(25) a. *[ev-de   saç   kes-im-in]-i   öğren-iyor-um.*
       house-loc   hair.NOM   cut-Im-POSS-ACC   learn-IMPF-1.SG
       Literal: 'I am learning [hair-cutting at home].'

    b. *[badem unuyla   kek   yap-ım-ın]-a   merak sar-dı-m.*
       with.almond.flour cake   make-Im-POSS-DAT   develop.passion-PST-1.SG
       Literal: 'I've developed a passion for [cake-baking with almond flour].'

It is possible to modify *-Im* compounds denoting event descriptions with eventive modifiers, for although these compounds are syntactically nominals, they still denote event predicates. We understand their eventive nature from the fact that they are compatible with predicates describing events (see (26).

(26) *[ev-de   saç   kes-im-i]   üç   saat   sür-dü.*
    house-loc   hair.NOM   cut-Im-POSS three   hour   last-PST
    Literal: '[hair-cutting at home] took three hours.'

On the other hand, *-Im*_{relative} generates a predicate of individuals, which makes the nominalised structure semantically on a par with simple AdjPs. Considering that event modifiers will be unable to modify non-events, the result of *-Im*_{relative} nominalisation must be incompatible with such adverbials. On the other hand, if *-Im*_{relative} attaches to somewhere at VP or above, compounds generated by *-Im*_{relative} must be compatible with VP level event modifiers, for event modification could be introduced right below where nominalisation takes place. This possibility is illustrated by the broad tree structure in (27).

(27)
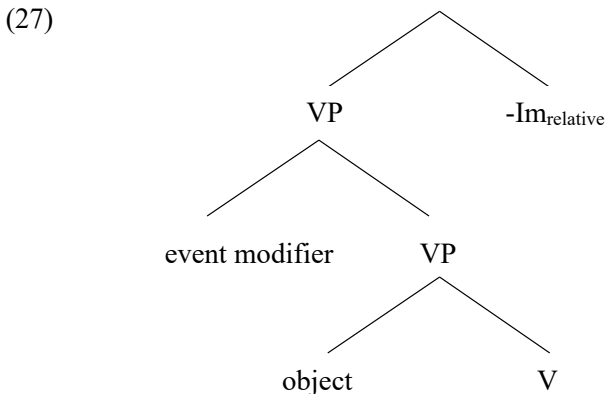
However, event modifiers are never compatible with compounds generated by
-*Im*~relative~. Their ungrammaticality with such modifiers is shown in the examples
below.

(28)   a. *[çok   fabrika   üret-im-i]   çanta
           a.lot   factory   produce-Im-POSS   bag
           Intended: 'a bag that is produced a lot in the factory.'

      b. *Bu   kekler [(*az   malzeme-yle)   [ev   yap-ım-ı]]*
         this cakes   little ingredient-with   house make-Im-POSS
         'These cakes are home-made (-with little ingredients)~intended~.*'

The incompatibility of compounds generated by -*Im*~relative~ denoting predicate of in-
dividuals with event modifiers can only be explained if -*Im*~relative~ directly combines
with the verbal head, leaving no room for event modification as illustrated by the
simple structures in (29).[3]

(29)   a.   predicate of individuals   b.   event description

           V   -*Im*~relative~   V   -*Im*~event~

2.2 THE STATUS OF THE THEME

   As expressed previously, compounds headed by nouns built by the nominaliser
-*Im* can be event descriptions. The relevant examples are repeated in (30).

(30)   a. *[ev-de   saç   kes-im-in]-i   öğren-iyor-um.*
          house-LOC hair.NOM   cut-Im-POSS-ACC   learn-IMPF-1.SG
          Literal: 'I am learning [hair-cutting at home].'

      b. *[badem unuyla   kek   yap-ım-ın]-a   merak sar-dı-m.*
         with.almond.flour cake.NOM make-Im-POSS-DAT develop.passion-PST-1.SG
         Literal: 'I have developed a passion for [cake-baking with almond flour].'

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[3] We set aside the non-head NP of the compounds generated by -*Im* in these diagrams. In the fol-
lowing section, we will integrate them into our syntax and semantics.

These compounds may also denote predicates of individuals just like simple adjectives. They can occur in the predicate position as shown in (31a) and (32a). In addition, they can also occur as a modifier, as shown in (31b) and (32b).

(31) a. *Bu   kekler [ev   yap-ım-ı].*
          This cakes house make-Im-POSS
          Literal: 'These cakes are home-made.'

      b. *[anne   yap-ım-ı]   kek*
          mother   make-Im-POSS   cake
          'mom-made cake'

(32) a. *Bu   çanta [fabrika   üret-im-i]*
          this bag   factory   produce-Im-POSS
          'This bag is factory-produced.'

      b. *[fabrika   üret-im-i]   çanta*
          factory   produce-Im-POSS   bag
          Literal: 'factory-production bag'
   'a factory-produced bag'

We can observe that the ambiguity of these compounds (i.e. event descriptions vs predicate) is systematic. Assuming the simplified structure (to be revised) in (33), the thematic role of the non-head NP is crucial in determining which of the two interpretations will be available.

(33) a.   predicate of individuals

                      /\
                     / \
                    /   \
              NP   Verb+Im
              ev   yap+ım

      b. "home-made": compound denotes a predicate of individuals.
   c. "making-homes": compound denotes an event description.

Just as in synthetic compounds in English (e.g. compounds like *truck-driving*) (Roeper and Siegel; Selkirk; Lieber, "Argument Linking", *Morphology*; Borer), there is a close relationship between the thematic role of the non-head NP of -*Im* compounds and the availability of the event structure, responsible for the event

description interpretation. In particular, if the non-head NP is the theme of the nominalised verb, the only interpretation available is an event description. This is illustrated by the broad syntactic structure in (34).

(34)   a.   compound = event description

                            NP_theme   Verb+Im
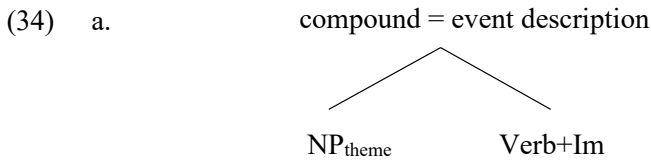
        b. *saç*_theme   *kes-im-i*
           hair   cut-Im-POSS
           'hair-cutting'

If, on the other hand, the non-head NP is some other relationship to the nominalised verb, then the event-description interpretation is no longer available. Instead, the compound denotes a predicate of individuals that range over the theme. This is also illustrated by the broad syntax in (35a).

(35)   a.   compound = predicate of individuals

                            NP_non-theme   Verb+Im
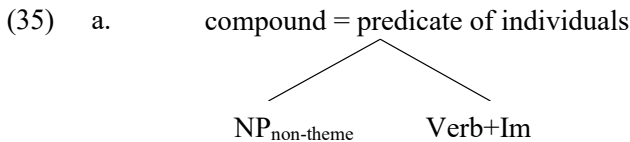
        b. *[fabrika*_location   *üret-im-i]*   *çanta*
           factory   produce-Im-POSS   bag
           'a factory-produced bag'

        c. *[anne*_agent   *yap-ım-ı]*   *kek*
           mother   make-Im-POSS   cake
           Literal: 'mom-made cake'

Thus, the generalisation is that the theme has a distinguished status in these compounds. It either contributes to the event description, or corresponds to a target for 'relativisation'. We will test both of these claims. Let us first examine the suggestion that the non-head NP of the compound has to be the theme in order to generate the event description interpretation. We will show that even in sentences where the available reading is unacceptable due to world knowledge, the event description that does make sense cannot be accessed. In order to show this, we will have to make sure that the compound also cannot be interpreted as a predicate of individuals, since

the non-head NP in these compounds bears non-theme relation to the nominalised verb. In (36), the compound is structurally in a position where it cannot be a predicate but has to denote an event description, for it complements a postposition. This means that the non-head NP has to be a theme, given our generalisation. Indeed, this interpretation is the only one available, although it is odd because of our world knowledge. In particular, we cannot access a reading where the non-head NP 'baby' is construed as the agent—even though that reading does make sense.

(36)   *[bebek tüket-im-i]*   *hakkında*   *bir*   *belgesel*   *izledim*.
        baby   consume-Im-POSS   about   one   documentary I.watched
        Literal: 'I watched a documentary about baby-consuming.'
        <u>intended but unavailable</u>:
        '… a documentary about the consumption behaviour of babies.'
        <u>available</u>:
        '… a documentary about consuming babies.'

The data in (36) indicates that even when the event describing compound is placed in a context where our world knowledge would favour the interpretation where the non-head NP of the compound is the agent, the grammar can only generate the odd interpretation where the non-head NP is the theme, indicating that the non-head NP of the event describing compounds has to be a theme. Our theory of nominalisation must be able to account for this correlation.

    We have also seen that the non-head NP of -*Im* compounds can be non-theme if the denotation of the whole compound is not an event description, but a predicate of individuals as illustrated in (35). In this case, though, the theme of the nominalised verb has to be the target of relativisation. This generalisation makes a clear prediction: if the compound denotes a predicate of individuals, then relativisation cannot target a non-theme position. If it does, the result must be fatal. The data in (37) proves the point that the target for relativisation cannot be a non-theme NP.

(37)   *[çanta üret-im-i]*   *fabrika-lar*
        bag   produce-Im-POSS   factory-PL
        <u>intended but unavailable</u>: 'factories {where bags are produced/that produce bags}'
        <u>available</u>: 'factories produced by bags'

(38)   a. *[çanta_{theme} üret-im-i] fabrika-lar_{location}* (intended but unavailable)
        b. *[çanta_{agent} üret-im-i] fabrika-lar_{theme}* (available but non-sensical)

That the theme somehow has to be present in the meaning and structure of -*Im* compounds, coupled with the observation that -*Im* nominaliser must directly combine with the verb, suggests that the verbal base of -*Im* compounds has argument structure, for the information regarding the presence of a theme argument can plausibly be conveyed through the verbal base to the semantics of the nominaliser. Therefore, we argue that the verbal base has to be specified for the internal argument.
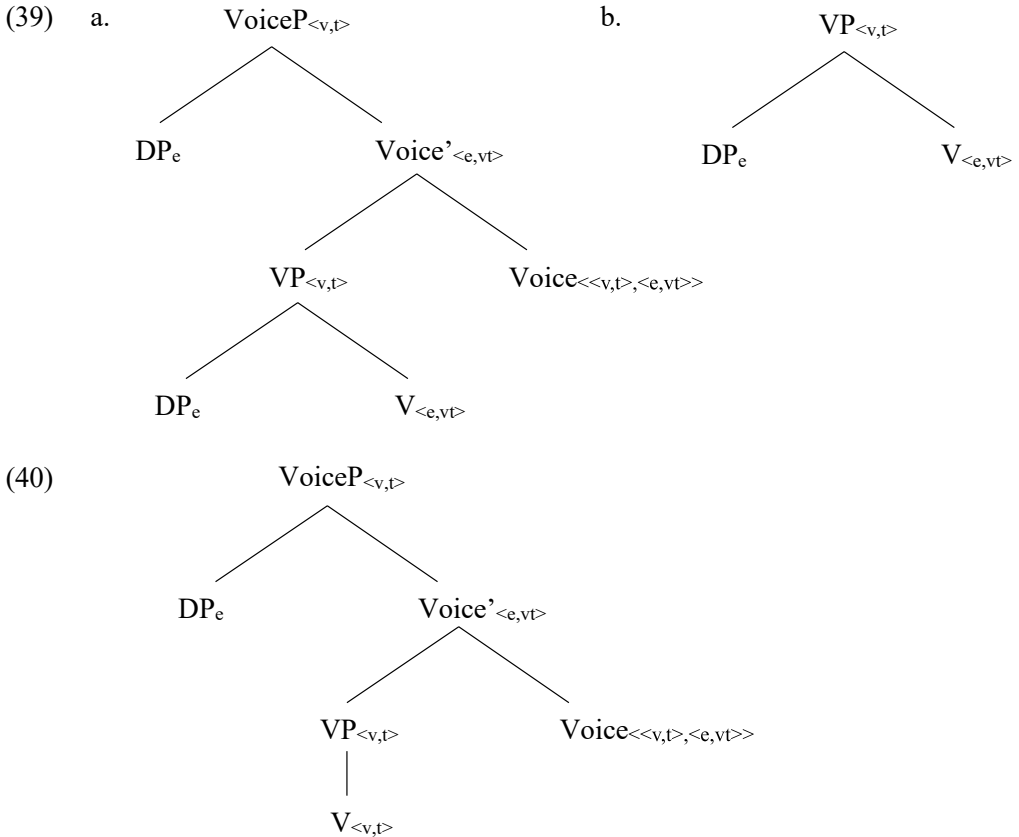
2.3 INTERIM SUMMARY

In this section, we have shown that -*Im* is a low-level nominaliser attaching directly to its verbal base in syntax. Our suggestion was supported by the incompatibility of -*Im* compounds with agent-oriented modifiers, passivisation, modal and aspectual markers. Furthermore, we have pointed out that compounds headed by nouns generated by -*Im* are ambiguous between event descriptions and predicate of individuals interpretation. We have suggested that the ambiguity is systematic. Whenever the non-head NP of these compounds is the theme of the nominalised verb, the result is an event description, whereas if it is a non-theme, then it is a predicate of individuals ranging over its theme. In the next section, we are going to provide an analysis of -*Im* nominalisation that accounts for the presented facts of -*Im* compounds in Turkish.

3. TWO MEANINGS FOR -*IM*

In this section, we will derive the event description and predicate of individual construals of the deverbaliser -*Im* in Turkish. We will argue that -*Im* is polymorphic, in that it is associated with two different but related logical forms. We will further argue that the syntactic position to which -*Im* attaches is the same, namely the verbal head. In order to make our claims more explicit in the discussion that follows, we will first present our syntactic assumptions regarding the event domain.

Following Perlmutter, we assume that the internal arguments of verbs are merged in the complement position of the verbal head. Hence, the themes of transitives and the sole arguments of unaccusative intransitives are complements to verbs. Following Kratzer, we will posit that the sole arguments of unergative verbs are agentive, hence not merged as the complement of the verbal head, but in the external argument position, which we argue to be Voice. For ease of exposition, we will argue that the Voice head merges on top of VP in the functional sequence. Therefore, we

will represent transitive verbs and unaccusative verbs as in (39a) and (39b) respectively.[4] We will represent unergative intransitives as in (40).
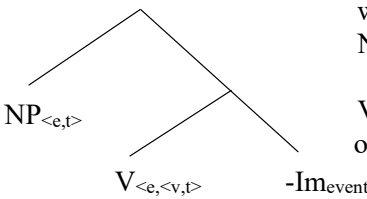
(39) a.

$$
\begin{array}{c}
\text{VoiceP}_{<v,t>} \\
\diagup \qquad \diagdown \\
\text{DP}_e \qquad\qquad \text{Voice'}_{<e,vt>} \\
\diagup \qquad \diagdown \\
\text{VP}_{<v,t>} \qquad \text{Voice}_{<<v,t>,<e,vt>>} \\
\diagup \qquad \diagdown \\
\text{DP}_e \qquad \text{V}_{<e,vt>}
\end{array}
$$

b.

$$
\begin{array}{c}
\text{VP}_{<v,t>} \\
\diagup \qquad \diagdown \\
\text{DP}_e \qquad \text{V}_{<e,vt>}
\end{array}
$$

(40)

$$
\begin{array}{c}
\text{VoiceP}_{<v,t>} \\
\diagup \qquad \diagdown \\
\text{DP}_e \qquad\qquad \text{Voice'}_{<e,vt>} \\
\diagup \qquad \diagdown \\
\text{VP}_{<v,t>} \qquad \text{Voice}_{<<v,t>,<e,vt>>} \\
| \\
\text{V}_{<v,t>}
\end{array}
$$

Hence, both unaccusative and transitive verbs have DP complements. Therefore, they denote functions of the type <e,vt> as illustrated in (39a) and (39b). In contrast, V heads of unergative verbs do not take complements. Therefore, they denote <v,t> type functions. The semantic denotation of VPs in all the three instances are the same, that is, <v,t>. Syntactically speaking, unaccusative verbs are different from unergatives and transitives in lacking the Voice level. Our previous discussion has shown that since -*Im* nominalisation does not allow for external arguments to project, as well as barring passivisation, it is evident that it does not target the Voice level. Hence, it operates lower than Voice, which means that it targets the VP or a lower position. In the discussion that follows, we will argue that it has to directly target

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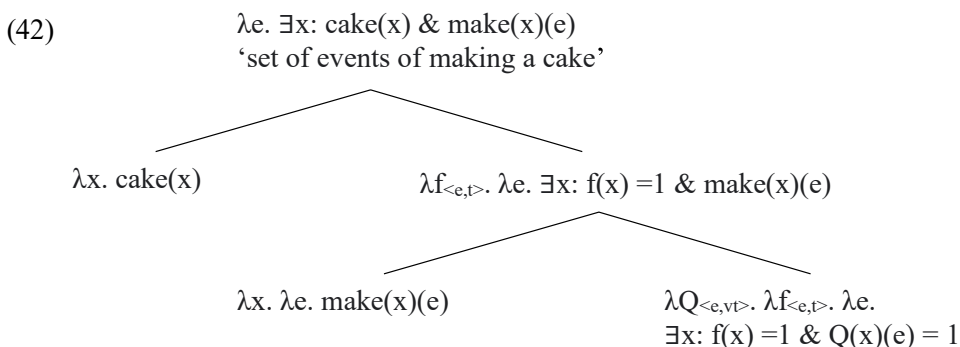[4] For the purposes of illustration, we will assume that the arguments of verbs are syntactically DPs.

the verbal base, for VP level distinguishes between the verb types neither syntacti-
cally nor semantically.

### 3.1 DERIVING EVENT DESCRIPTIONS

Let us recall that if the non-head NP of *-Im* compounds is a theme, the result
has to denote an event description. We argue that the structure creating an event
description is the one provided in (41a), where *-Im* directly merges with an ob-
ject taking verb and the non-head NP is associated with the internal argument po-
sition of the verbal base. In other words, it is the theme argument of the nominal-
ised verb. We further argue that *-Im* has at least two distinct meanings that output
different results, one of which is the event description construal. Compounds head-
ed by nouns built by the deverbaliser *-Im* creates event descriptions if *-Im*$_{event}$ is uti-
lised. By ascribing a particular meaning to *-Im*$_{event}$, we ensure that the non-head NP
is used to saturate the internal argument position of the verb in these compounds.
Adopting Chung and Ladusaw's "Restrict" for incorporation, we propose that
-Im$_{event}$ has the meaning provided in (41b).

(41)   a.

NP$_{<e,t>}$

V$_{<e,<v,t>}$ -Im$_{event}$

where
NP = predicate of individuals; of type $<e,t>$

V = function from individuals to predicate
of events; of type $<e,<v,t>>$

b. $[\![\text{-Im}_{event}]\!] = \lambda Q_{<e,<v,t>>}. \lambda f_{<e,t>}. [\lambda e. \exists x: f(x)=1 \ \& \ Q(x)(e)=1]$

According to the structure in (41a), *-Im*$_{event}$ directly combines with a verb that is look-
ing for an internal argument. The result is then combined with an NP that is associ-
ated with the internal argument position of the verb. In particular, *-Im*$_{event}$ takes an
argument of the type $<e,vt>$ and returns a function that takes an NP meaning (a pred-
icate of individuals). This function is applied to the non-head NP of the compound,
which is construed as the theme/internal argument thanks to the meaning we gave
to *-Im*$_{event}$. Hence, applying *-Im*$_{event}$ to a verb and then an NP derives a set of events
where there is an individual x such that x is the internal argument of the verb. In
other words, *-Im*$_{event}$ simply returns a predicate of events after saturating the theme
slot by using the meaning of the NP, in effect incorporating it (see Harley). A sam-
ple derivation is given in (42).

(42)

$$\lambda e. \exists x: cake(x) \ \& \ make(x)(e)$$
'set of events of making a cake'

$\lambda x. \ cake(x)$

$\lambda f_{<e,t>}. \ \lambda e. \ \exists x: f(x) =1 \ \& \ make(x)(e)$

$\lambda x. \ \lambda e. \ make(x)(e)$

$\lambda Q_{<e,vt>}. \ \lambda f_{<e,t>}. \ \lambda e.$
$\exists x: f(x) =1 \ \& \ Q(x)(e) = 1$

As (41b) shows, $-Im_{event}$ takes an argument of the type $<e,vt>$. This makes sure that it can only combine with verbs having internal arguments, namely transitives and unaccusatives. The particular semantic type that we assign to $-Im_{event}$ explains why unergative predicates cannot be deverbalised with $-Im_{event}$. Since unergative predicates lack internal arguments, and hence denote functions of the type $<v,t>$, they are semantically incompatible with $-Im_{event}$ as illustrated in (43). Let us recall that $-Im$ does not merge at the Voice level. This means that it can be merged either at the VP or V levels. Considering our syntactic assumptions in (39) and (40), its merging position cannot be VP, for the system does not differentiate between the different verbal types at the VP level. Transitives and intransitives have the same semantic denotation at this level. Therefore, if $-Im$ were inserted at the VP level, it would not discriminate between the verb types. Considering that $-Im$ cannot combine with unergative predicates, we argue that it has to directly combine with the verbal base.

(43)

$NP_{<e,t>}$ type mismatch!!

$V_{<v,t>}$ **-Im**
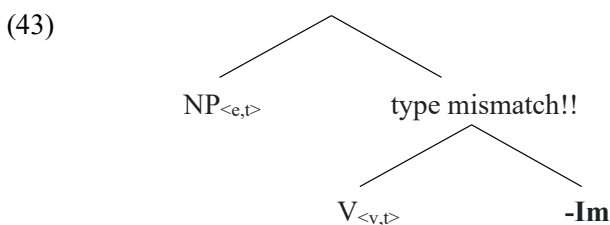
Moreover, let us note that, when applied to a verb with an internal argument and to an NP construed as the theme of this verb, the result is a predicate of the type $<v,t>$, namely a predicate of events as illustrated by the logical form in (44). This explains why -Im$_{event}$ compounds can be modified by event modifiers as shown in (45).[5]

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[5] Note in passing that the result of combining the verbal base with the nominaliser *-Im* has to be a nominal category syntactically. Therefore, the implication of our analysis is that the adverbial modification may target a nominal category if the semantic types match.

(44)
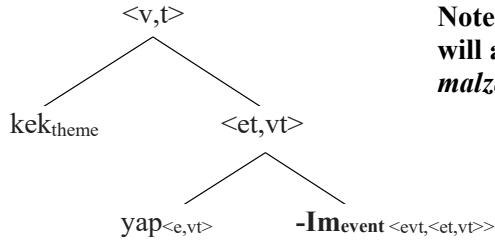
Note that the highest node will accept the modifiers *az malzeme-yle* **and** *ev-de.*

(45) *Az   malzeme-yle*$_{<v,t>}$ *ev-de*$_{<v,t>}$ *[kek   yap-ım]*$_{<v,t>}$ *-ı*
      little   ingredient   house-LOC   cake   make-Im   -POSS
      Literal: 'cake-baking with little ingredients at home'

In addition, it has been noted in the literature that events behave semantically in parallel to entities (Lasersohn). Since the result of combining -*Im*$_{event}$ with a verb and an NP is another nominal that denotes events, we also expect that -*Im*$_{event}$ compounds show nominal properties, such as pluralisability as illustrated in (46a), quantifiability as illustrated in (46b), and compatibility with Link's sum operator, as shown in (47).

(46)   a. *[Fidan   dik-im-ler-in]-i   izl[e]-iyor-um.*
          sapling   plant-Im-PL-POSS-ACC   watch-PROG-1.SG
          Literal: 'I am watching the plantings of saplings.'

       b. *[Hiçbir   fidan   dik-im-i]   başarılı   ol-ma-mış.*
          no   sapling   plant-Im-POSS   successful   be-NEG-PST
          Literal: 'No sapling planting was successful.'

Link's sum operator is used to combine entities in the domain of individuals (D_e). Demirok indicates that the clitic *ile* in Turkish creates pluralities out of individuals by summing them with the sum operator ($\oplus$). Considering that definite event descriptions can be created from predicates of event descriptions, just as definite descriptions can be created from predicates of individuals, we would expect -*Im*$_{event}$ compounds to be conjoined with the clitic *ile* in Turkish.[6] This is borne out, as shown in (47).

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[6] One might argue that the availability of combining two compounds whose heads are built by -*Im*$_{event}$ with *ile* could simply be the result of them being categorically NPs. Indeed, *ile* cannot conjoin

(47)   *[Tarla sür-üm-ü-yle   fidan   dik-im-i]*
      field   plough-Im-POSS-ile sapling plant-Im-POSS

      iki   saat   sür-dü.
      two   hour   last-PST
      Literal: 'Ploughing the field and planting the saplings took two hours.'

Finally, note that the semantics of -Im_{event} essentially incorporates the non-head NP of the compound into the meaning of its verbal base. This predicts that if a theme NP is incorporated, no further NP incorporation is possible. This prediction is borne out, as shown in (48).

(48)   **ev   kek   yap-ım-ı*
      house   cake   make-Im-POSS
      Intended: 'cake-baking at home'

In this subsection, we have shown how we derive event descriptions with -*Im* nominalisation. We have argued that -Im_{event} has to combine with an object-taking verb, the result of which is applied to an NP argument associated with the internal argument position of the verbal base. Therefore, we have pointed out that event descriptions will necessarily involve the theme argument. That the first argument of -Im_{event} denotes an <e,vt> function also accounts for why unergative predicates cannot create event descriptions with -*Im*. Finally, we have shown that the semantic type of -Im_{event} nominalisation allows for adverbial modification, while its syntactic category as an NP combined with its semantic type allows for certain nominal properties,

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two AdjPs or VPs (see (ia) and (ib). However, Demirok notes that semantic types are also important, for *ile* is incompatible with proposition denoting -DIK clauses although they are also syntactically NPs (ic).

(i) a. *O   uzun   {ve | *ile} kel   adam*
     that   tall   and| with bald   man
     'That tall and bald man'

  b. *Ali   otur-du {ve | *ile}   ağla-dı.*
     Ali   sit-PST and| with   cry-PST
     'Ali sat and cried.'   (Demirok 137)

  c. **[Susan-ın   hata-yı   bul-duğ-u]   **ile**   [Merve-nin email-i*
     Susan-GEN   mistake-ACC   find-DIK-POSS with   Merve-GEN email-ACC
     yaz-dığ-ın-ı]   *bil-iyor-um.*
     write-DIK-POSS-ACC   know-PROG-1.SG
     Intended: 'I know that Susan found the mistake and Merve wrote the email.' (Demirok 138)

like pluralisation, quantification and conjunction. In the next subsection, we will show how we derive the other construal of *-Im* compounds, namely predicates of individuals.[7]

3.2 DERIVING PREDICATES OF INDIVIDUALS

Let us recall that if the non-head NP bears a non-theme relationship to the verbal base, the result of *-Im* compounding denotes a predicate of individuals ranging over the theme argument of the verb. We argue that this construal results from a distinct but related type of *-Im*, which we refer to as *-Im*$_{relative}$. Our main motivation in positing a lexical entry distinct from *-Im*$_{relative}$ is syntactic in nature. Let us recall that we have shown that *-Im*$_{event}$ compounds show nominal properties like conjoinability with the sum operator, compatibility with a determiner and pluralisability. We argued that this is the case because they semantically denote events that are on a par with entities denoted by NPs, and they are syntactically NPs. On the other hand, although *-Im*$_{relative}$ compounds denote predicate of individuals just like simple NPs, they have a different syntactic distribution. First of all, let us recall that they are used as modifiers, just like adjectives (see (49)).

(49)   a. *ev   yap-ım-ı   kek*
           house   make-Im-POSS   cake
           'a home-made cake'

       b. *taze   kek*
           fresh   cake
           'a fresh cake'

---

[7] As one of the anonymous reviewers points out, one should address the question of how we ensure the nominal behaviour of *-Im*$_{event}$ compounds, given that they are semantically on a par with verb phrases. There are two issues hinging on this point. First, how the analysis presented here makes sure that the result of combining the verb with *-Im*$_{event}$ cannot function as the verbal core of a sentence. This is semantically possible given that the result is a predicate of events just like regular verbs. However, considering that *-Im*$_{event}$ is a nominaliser, we argue that the syntactic category of the result is of a nominal type, possibly an NP. Therefore, although semantically *-Im*$_{event}$ compounds are on a par with verb phrases, they bar verbal categories like Voice or Aspect from combining with them in the functional sequence because of their syntactic category. Second, there is also the issue of how the nominal properties mentioned above, like pluralization, work. We believe that in these instances not only the semantic type, but also the syntactic categories must be compatible with such operations. Because these compounds are syntactically of a nominal category, they can be pluralised, quantified over, and conjoined just like other nominals. However, their semantic type is also important, as explained in Footnote 6, for not all nominals have such properties. Since *-Im*$_{event}$ compounds are semantically of a predicative type ($<v,t>$), they can be subjected to these operations.

Second, let us note that when used in the predicate position, regular NPs are compatible with the indefinite determiner *bir* 'a' in Turkish. However, adjectives cannot be used with this determiner, as expected. See the contrast presented in (50a) between the noun and adjective with respect to their grammaticality with a determiner. The construction in (50b) shows that $Im_{relative}$ compounds are incompatible with the indefinite determiner on a par with adjectives.
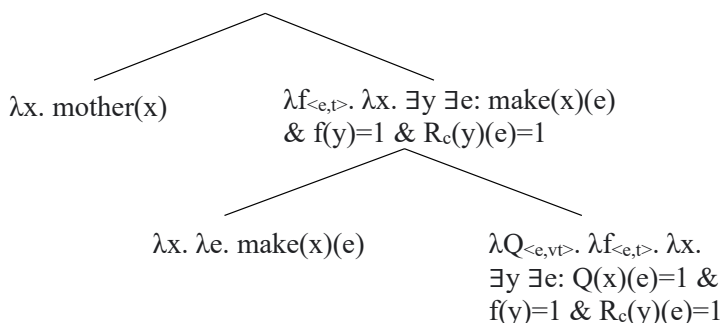
(50)   a. *Bu   bir   {kitap | *taze}*
              this   a   book   fresh
              'This is a {book‖*fresh}.'

       b. *Bu   bir   ev   yap-ım-ı*
              this   a   house   make-Im-POSS
              Intended: 'This is home-made.'

Finally, unlike *-Im*$_{event}$ compounds, *-Im*$_{relative}$ compounds cannot be pluralised as expected, for they are syntactically adjectives (see (51)).

(51)   a. **taze-ler*   kek*
              fresh-PL   cake
              Intended: 'fresh cakes'

       b. **ev   yap-ım-lar-ı   kek*
              house   make-Im-PL-POSS   cake
              Intended: 'home-made cakes'

The data from (49) to (51) indicate that *-Im*$_{relative}$ compounds syntactically yield objects that are semantically and syntactically on a par with adjectives. Considering that *-Im*$_{relative}$ creates a syntactic category distinct from *-Im*$_{event}$, it is quite expected that it has a semantic contribution distinct from *-Im*$_{event}$ as well. Therefore, we argue that *-Im*$_{relative}$ has a lexical entry different to Im_{event}. More specifically, our basic claim is that the construal denoting predicate of individuals has the same broad structure (setting aside the phrasal nodes) as *-Im*$_{event}$ compounds. However, the contribution of *-Im*$_{relative}$ differentiates modificatory use of *-Im* compounds from the event description construal. Accordingly, the structure that we propose for *-Im*$_{relative}$ compounds is provided in (50a). In (52b) we provide the semantic contribution of *-Im*$_{relative}$.

(52)   a.

b. $[\![\text{-Im}_{\text{relative}}]\!] = \lambda Q_{<e,vt>}. \lambda f_{<e,t>}. \lambda x. \exists y \exists e: Q(x)(e)=1 \ \& \ f(y)=1 \ \& \ R_c(y)(e)=1$
(R_c is a contextually retrieved thematic relation.)

The meaning we give to -Im_{relative} abstracts out the theme argument. Hence, we derive a predicate of individuals that range over the theme. Crucially, the non-head NP of the compound is interpreted as a non-theme argument relating to the event via a thematic relation R_c retrieved from the context. We argue that this contextually retrieved thematic relationship enables the non-head NP of the compound to bear different thematic relationships to the event denoted by the verbal base. For example, the non-head NP of the compound is an agent in (53a), is a location in (53b) and an instrument in (53c). Crucially, in all the three cases, what is modified has to be the theme of the verbal base, for the result of applying -Im_{relative} to a verb and an NP is a set of individuals abstracting over the theme argument of the verb. In (54), we provide a sample semantic derivation for how the construction in (53a) can be generated.

(53)   a. *[anne*$_{\text{agent}}$ *yap-ım-ı]*   *kek*
          mother   make-Im-POSS   cake
          'mom-made cake'

       b. *[fabrika*$_{\text{location}}$ *üret-im-i]*   *çanta*
          factory   produce-Im-POSS   bag
          Literal: 'factory-production bag'
          'a factory-produced bag'

       c. *[makine*$_{\text{instrument}}$ *kes-im-i]*   *kumaş*
          machine   cut-Im-POSS fabric
          'a machine-cut fabric'

(54) $\lambda x. \exists y \exists e: make(x)(e)$ & $mother(y)$ & $R_c(y)(e)=1$ | R_c=AGENT
'set of things made by mothers'

$\lambda x. mother(x)$ $\lambda f_{<e,t>}. \lambda x. \exists y \exists e: make(x)(e)$
                              & $f(y)=1$ & $R_c(y)(e)=1$

$\lambda x. \lambda e. make(x)(e)$ $\lambda Q_{<e,vt>}. \lambda f_{<e,t>}. \lambda x.$
                                      $\exists y \exists e: Q(x)(e)=1$ &
                                      $f(y)=1$ & $R_c(y)(e)=1$

According to the derivation in (54), -*Im*_{relative} first applies to a verb that is looking for an internal argument, namely a verb of the type <e,vt>. The output of this function application is a function that takes an NP of the type <e,t> as its argument and returns a predicate of individuals true of the things that are made by mothers. The fact that -*Im*_{relative} takes a verb of the type <e,vt> as its first argument accounts for why unergative verbs cannot be verbal bases of -*Im*_{relative} compounds. (55) shows that the sole arguments of unergatives cannot be the target for relativisation.

(55)   **park*   *koş-um-u*   *çocuk*
       park   run-Im-POSS   child
       Intended: 'a child running in the park'

Additionally, applying -*Im*_{relative} directly to the verbal base immediately closes the event variable. This means that -*Im* compounds denoting predicates of individuals do not have any <v,t> node in their syntax that would accept event modifiers, as illustrated in (56). Hence, the semantic entry that we provided for -*Im*_{relative} explains why -*Im*_{relative} compounds do not accept event modifiers as opposed to -*Im*_{event} compounds. The unavailability of event modifiers with -*Im*_{relative} is shown in (57) again. Notice that if -*Im*_{relative} combined with VPs rather than verbal heads, event modification would be possible, considering that this would allow for it to be combined with VPs to which event modifiers are adjoined. Hence, the semantic entry that we propose for -*Im*_{relative}, along with its proposed attachment site, accounts for why -*Im*_{relative} compounds are incompatible with event modifiers.

(56)

No position of interpretation is available for *az malzeme-yle*.
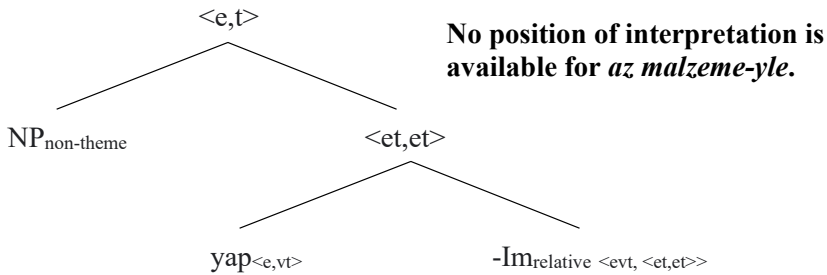
(57)   *Bu   kek-ler   [(*az   malzeme-yle)$_{<v,t>}$ [ev   yap-ım-ı]].*
      this   cake-PL   little   ingredient-with   house make-Im-POSS
      'These cakes are home-made (-with little ingredients)$_{intended}$.*'

To summarise, in this section, we have argued that the deverbaliser *-Im* has a second but related meaning, which creates modifiers from verbs taking objects. We have pointed out that the need for giving a second meaning to *-Im* finds robust syntactic motivation in that *-Im*$_{relative}$ creates a syntactic category different from *-Im*$_{event}$. Finally, we have shown that applying *-Im*$_{relative}$ to a verb and then to an NP outputs a predicate of individuals abstracting over the theme argument of the verbal base. This captures why it is the theme that has to be modified by *-Im*$_{relative}$ compounds. In the following section, we will discuss further meaning restrictions on *-Im* relative compounds. In particular, we will argue that *-Im*$_{relative}$ creates kind level modifiers.

4. FURTHER ISSUES

-Im$_{event}$ and *-Im*$_{relative}$ are both productive. However, *-Im*$_{relative}$ exhibits a more restricted distribution. In particular, building an event description by *-Im*$_{event}$ always seems possible when the NP is a theme. In (58), we provide several examples of *-Im*$_{event}$ compounds to illustrate this point.

(58)   a. *bina   yık-ım-ı*
        building   destroy-Im-POSS
        Literal: 'building-destroying'

       b. *ev   onar-ım-ı*
        house   repair-Im-POSS
        Literal: 'house-repairing'

   c. *saç   kes-im-i*
     hair   cut-Im-POSS
     'hair-cutting'

   d. *tamlama   türet-im-i*
     compound derive-Im-POSS
     Literal: 'compound-deriving'

   e. *balina   doğ-um-u*
     whale   be-born-Im-POSS
     'whale-birthing/being.born' (nb: *doğ* in Turkish is an unaccusative verb)

However, *-Im*$_{relative}$ is more restricted in that it imposes meaning restrictions on what it generates. So far, what we have said predicts that *-Im*$_{relative}$ can combine with any verb that selects for a theme (i.e. verbs of the type <e,vt>). However, we find that *-Im*$_{relative}$ does not generate sensical interpretations with all transitive verbs. For example, *-Im*$_{relative}$ is readily compatible with verbs of creation/production, as in (59).

(59)   a. *[ev   yap-ım-ı]   kek*
       house   make-Im-POSS
       'home-made cake'

     b. *[fabrika   üret-im-i]   çanta*
       factory   produce-Im-POSS bag
       'factory-produced bag'

     c. *[terzi   dik-im-i]   elbise*
       tailor   sew-Im-POSS   dress
       'tailor-sewn dress'

On the other hand, verbs of destruction systematically yield odd meanings with *-Im*$_{relative}$, as shown in (60).

(60)   a. #*[belediye   yık-ım-ı]   bina*
       municipality   destroy-Im-POSS   building
       Intended: 'municipality-destroyed building.'

     b. #*[makine   kes-im-i]   ağaç*
       machine   cut-Im-POSS   tree
       Intended: 'machine-broken tree'

c. #*[makine   kır-ım-ı]   bardak*
   machine   break-Im-POSS   glass
   'machine-broken glass'

Intuitively, the predicate that *-Im*relative generates does not seem to be on a par with the predicate that standard relativisation, exemplified in (61), generates.

(61)   *makine-nin   kestiği   ağaç*
       machine-GEN   cut.REL   tree
       '(the) tree that the machine cut(s)'

Rather, we (try to) understand (62) on a par with how we understand (63). But this yields an odd reading for (62).

(62)   #*[makine   kes-im-i]*
       machine   cut-Im-POSS
       'a kind of tree that comes into existence as a result of machine-cutting'

(63)   *[fabrika   üret-im-i]   çanta*
       factory   produce-Im-POSS   bag
       'a kind of bag that comes into existence as a result of factory-production'

Hence, it seems clear that *-Im*relative does not simply abstract over the theme, giving us a predicate of individuals. Instead, the predicate that it creates seems to be some sort of a kind-level modifier. There is further evidence for the kinds of meanings that we claim *-Im*relative can generate. Some verbs have both a destruction sense and a production sense. For example, let us consider the verb *kes* 'cut'. The construction in (64) cannot refer to the leftover hair on the floor after the hair-dresser has cut it, which corresponds to the destruction sense of the verb 'cut', but has to refer to a specific kind of hair model, namely that made by a hair-dresser (as opposed to self-made or shaver-made ones), which corresponds to the creation sense of the verb. Hence, the example in (64) shows that *-Im*relative compounds cannot use the verb *kes* felicitously in its destruction sense. Compare this with a standard relative clause modifying 'hair' as in (65). Here, the modified noun can certainly refer to the left-over hair on the floor.

(64)   *[berber kes-im-i]   saç*
      barber   cut-Im-POSS   hair

    ✓ 'barber-cut hair' (the kind of hair that comes into existence
      as a result of the barber cutting it)

    ✗ 'left-over hair on the floor after the barber's operation'

(65)   *[berber-in   kes-tiği]   saç*
     barber-GEN   cut-REL   hair
    'left-over hair on the floor after the barber's operation.'

A similar pattern is observed with the verb *sık* 'squeeze'. Although what is squeezed is the orange in (66a), the predicate of individuals created by -$Im_{relative}$ cannot modify it. This follows if (66a) is being forced into the interpretation in (67a). On the other hand, the end product, which is the orange juice, is modifiable by *makine sıkımı* 'machine-squeezed'. And this, again, follows if (66b) is interpreted as (67b).

(66)   a. #*[makine   sık-ım-ı]*   *portakal*
       machine   squeeze-Im-POSS   orange
       'machine-squeezed orange'

    b. *[makine   sık-ım-ı]*   *portakal*   *su-yu*
       machine   squeeze-Im-POSS   orange   juice-ACC
       'machine-squeezed orange juice'

(67)   a. # a kind of orange that comes into existence through machine-squeezing
    b. a kind of orange juice that comes into existence through machine-squeezing

Given the meaning restrictions -$Im_{relative}$ imposes on the predicate it generates, the analysis we sketched for -$Im_{relative}$ is incomplete. It will need to be refined to capture the kind-level modification it seems to be involved in. For the purposes of this study, we leave the formal details of how kind-level modifiers can be compositionally generated to future work.[8]

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    [8] Sağ ("The Semantics", *The Semantics*, "Bare Singulars") argues that kind denoting expressions can also be found in predicative position in Turkish. We leave it to future work whether this is also the case for predicates generated by -$Im_{relative}$. Alternatively, there may be a possibly restricted type shift that converts kind-level modifiers to object-level predicates (see Carlson; Chierchia). We will not be able to resolve this question here.

5. CONCLUSION

In this study, we have examined compounds in Turkish whose heads feature the deverbaliser *-Im*. We have seen that these compounds are ambiguous between event descriptions (home-building) and predicates of individuals (home-made). We ascribe the cause of this ambiguity to *-Im* having two different meanings, namely *-Im*$_{event}$ and *-Im*$_{relative}$. We argued that *-Im*$_{event}$ outputs event descriptions and *-Im*$_{relative}$ outputs predicates of individuals. Notably, under both functions, the theme argument of the nominalised verb has to contribute to the meaning of the compound, in that it either has to contribute to the event description, or it has to correspond to a target for 'relativisation'. We argue that the obligatory presence of the theme argument in these compounds can be captured if the verbal base of *-Im* is not a plain event predicate, but has argument structure. Hence, we propose that the theme has to contribute to something in these compounds, because the verbal base of *-Im* is semantically specified for a theme argument, namely, it is a function of the type <e,vt>. The fact that *-Im* cannot combine with unergative verbs (verbs of the type <v,t>) while it can combine with transitives and unaccusatives supports this claim (cf. Kratzer). Finally, we have investigated some restrictions on the kinds of meanings that *-Im*$_{relative}$ can generate. We have proposed that these restrictions might follow from the idea that *-Im*$_{relative}$ generates kind-level modifiers. We have found this idea to be supported by robust contrasts between predicates generated by standard relativisation vs. those generated by *-Im*$_{relative}$.

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COMPOUNDING WITH A POLYMORPHIC DEVERBALISER IN TURKISH

Summary

This paper is concerned with compounds headed by nouns built by the deverbaliser *-Im* in Turkish. Our basic observation is that they polymorphically correspond to compounds such as 'home-made' as well as compounds such as 'cake-baking'. We argue that the theme has a distinguished status in these compounds, suggesting that the base for *-Im* cannot be a plain event predicate, but has an argument structure. Thus, as we provide a compositional semantics for compounds built by *-Im*, we also hope to contribute to the debate on whether the base of a deverbal noun may have argument structure or not.

Keywords: nominalisation; compounding; affixation height; argument structure.

TWORZENIE ZŁOŻEŃ Z POLIMORFICZNYM ELEMENTEM ELIMINUJĄCYM WŁAŚCIWOŚCI CZASOWNIKOWE W TURECKIM

Streszczenie

Artykuł poświęcony jest złożeniom z nominalnym członem głównym w tureckim, tworzonym za pomocą sufiksu *-Im*, który eliminuje właściwości czasownikowe. Nasza główna obserwacja polega na tym, że złożenia te, w swojej polimorficznej strukturze, przypominają zarówno takie złożenia, jak *home-made* 'domowy' i takie, jak *cake-baking* 'pieczenie ciasta'. Twierdzimy, że temat słowotwórczy ma w tych złożeniach specjalny status, sugerujący, że bazą dla *-Im* nie może być prosty predykat zdarzenia, ponieważ derywatowi towarzyszy struktura argumentowa. Ponieważ proponujemy

model semantyki kompozycyjnej dla złożeń tworzonych z *-Im*, mamy nadzieję wziąć udział w debacie dotyczącej zagadnienia, czy bazy rzeczowników dewerbalnych mogą posiadać strukturę argumentową, czy też nie.