

# The Order of Nominalizations in Turkish<sup>1</sup>

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## Abstract

Verbs of Turkish nominalize in a number of ways. On the syntactic level nominalization occurs when a clause is embedded as a Sentential Object (or Subject), thereby allowing for the expression of tense using the values [+Future] *-(y)EcEk* and [-Future] *-(DIK)*. At this level a further distinction can be made between the expression of 'Fact' versus 'Act', signalled by one of the aforementioned tense markers or the deverbalizing morpheme *-mE* respectively. The possibility to express this distinction is lexically determined: *verdictive* verbs express facts only, *remissive*, *conative*, and *exercitive* verbs express acts only, whereas the choice of the suffix determines what is expressed in the group of *expositives*, *apprehensives*, *putatives* verbs. For *emotive* verbs there is no difference in meaning. In this paper, syntactic nominalization is opposed to the derivational nominalization of the verbal noun in *-(y)Iş*. Such verbal nouns are the product of a predicate formation rule, by means of which the number of arguments is (partially) reduced.

## 0 Introduction

In this paper I will present a survey of several nominalization processes as found in Turkish. The presentation and discussion of the data<sup>2</sup> will be based on the (apparently, not universally accepted) insight that, with respect to the distribution of Turkish nominalization suffixes, a sharp distinction should be made between nominalizations that take place on a syntactic level and those that must be regarded as the result of morphological derivation.

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<sup>2</sup> The discussion of the phenomena focuses only on nominalizations of verbs in object position. Although, roughly speaking, various nominalized verbs may also occur in subject position such constructions should be studied at the background of the type of predicate they are the subject of. Since the present analysis deals with verbal predicates of the main clause only, nominalized subjects of verbal, nominal, and adjectival predicates or those combined with a postposition should be considered as a topic for further research.

As for the former type of formations, a number of recent publications (George & Kornfilt, 1981; Kennelly, 1987; Kural, 1993) focus primarily on the question as to how clauses containing an embedded verb in *-DIK / -(y)EcEK*<sup>3</sup> or *-mE* are related to the general principles put forward within the (predominantly) syntactic approach of 'generative grammar' (GB). Thereby these constructions are classified as 'gerunds' and the two suffixes are analysed in terms of 'tensed' versus 'infinitive' respectively. In this respect such a classification very much resembles that of Underhill (1972), who calls these verbal forms 'gerundives'. In George & Kornfilt (1981) and Kennelly (1987) no attention has been given to the nominalizer *-(y)Iş*<sup>4</sup> at all, but Kural, who claims to provide an alternative classification, opposes the 'tensed' *-DIK / -(y)EcEK* and the 'infinitive' *-mE* to the 'gerundive' *-(y)Iş*, which in turn is identical with Underhill's 'deverbal noun'. A somewhat different terminology is used by Pamir (1995), who divides 'gerunds' into 'action nominals (verbal noun)' and 'factive nominals (nominalization)', corresponding to the forms in *-DIK / -(y)EcEK* or *-mE* respectively.

As will be shown in this paper, yet another (re-)classification of the various types of Turkish nominalizations is possible. This will not be achieved, however, by reshuffling the categories mentioned above on the basis of some syntactic principle, but rather by trying to find out which semantic notions and what morphological processes may be relevant for an accurate description of the data. It will be shown that the type of nominalization (choice of the suffix between *-DIK / -(y)EcEK* or *-mE*) is related to the question 1) how the matrix verb is lexically specified for the type ('order') of linguistic expressions that can be taken as a sentential object, and in a number of cases 2) what is the intended status of the embedded verb, 'fact' or 'act'. Furthermore, it will be advanced that formations in *-(y)Iş* can be considered as the result of a morphological derivation process, and that such forms may easily end up as a lexical item.

The paper consists of three main parts: in section 1 some theoretical background information about the notion of 'order' is provided; section 2 deals with the distribution of nominalizers that are applied on the syntactic level (*-DIK / -(y)EcEK* in 2.1 and *-mE* in 2.2), and of those that can only be found on the morphological level (*-(y)Iş* in 2.2).

Especially for the status of *-(y)Iş* some morphological and statistical arguments will be presented in favour of Underhill's classification as 'deverbal

<sup>3</sup> Morphemes are partially represented by cover symbols which are all phonologically conditioned: D stands for t/d; I for i,ı,ü,u; K for k/ğ; and E for e/a.

<sup>4</sup> 'y' after a root ending in a vowel.

noun'. Finally, section 3 presents a summary of the most frequent types of formations that are (presumably) lexicalised.

### 1 On the Notion of Order

As will often be observed, not only words or constituents referring to 'objects' can occur as the grammatical complement of some verbs, but also constituents that refer to an 'act' or a 'fact'. In Vendler (1972) a classification of verbs of English is presented in which the content of (objects of) performative verbs (such as *say*, *state* and the like) is compared to that of verbs expressing their mental counterparts, that is, verbs that denote a mental act (such as *notice*, *find out*) or a mental state (such as *know*, *think*, *believe*). The common denominator within this classification is that these verbs (basically) express propositions (facts). It is this classification which has functioned as a guideline for the present analysis, both because it provides some terminology as well as because of the insight that facts are, roughly speaking, mostly about acts. Therefore, I felt safe in assuming that most verbs that can be used to convey some fact, can also be used to express an act (but not reversely).

Previous work of Vendler (1967) has had some impact on the development of the linguistic framework of Functional Grammar (henceforth FG), especially with respect to the notion of 'entity order'. For the description of linguistic expressions FG (cf. Dik, 1989; Hengeveld, 1989; Siewierska, 1991) has adopted a multilevel hierarchy, in which each level is the domain of a specific linguistic entity: within a speech act (E), a propositional content (X) is communicated, which in turn describes a certain state of affairs (e), in which one or more individuals (x) are involved. This hierarchy can be understood as a system of building blocks (structural units) and on each level (or layer) a certain type of entity is construed. On the highest level the speech act, a fourth order entity, is represented, the linguistic expression of which is the clause: the actual utterance. This clause contains a proposition, a third order entity, which can be considered as a 'Possible Fact' (cf. Dik, 1989:248). A typical property of third order entities is that they can be 'conveyed' by verbs such as *say*, *mention*, *state*, *claim* and the like, and they can be subject of belief, knowledge, thought, and recollection, which is expressed by verbs such as *believe*, *know*, *think*, and *remember*. Furthermore, Possible Facts (propositions) can be evaluated in terms of truth values. Propositions are built up by predication, second order entities, which describe a certain state of affairs (or 'event', cf. Dik, 1989: 248). This type of entities can be said to *occur*, *take place*, *begin*, *last*, and *end*, and they can be perceived: *seen*, *watched*, *felt*, *heard* etcetera.

As will become clear in the sections below, linguistic expressions (*in casu*: embedded clauses) in Turkish that refer to a fact (proposition - third order entity) may differently be structured than those that refer to an act (event - second order entity). These differences are assumed to be lexically specified for verbs that can take an embedded clause as an object.

In terms of generative aspects, the notion of entity order is not only relevant for linguistic expressions that are ‘under construction’, but also lexical material other than verbs can be assumed to be specified for ‘order’. In this way it can be explained, for instance, that some words can be combined with temporal expressions, whereas others cannot. Consider the following classical example:

- (1) a *Toplantı saat iki-de başla-yacak*  
       meeting hour two-LOC start-FUT  
       ‘The meeting will start at two o’ clock’
- b \**Masa saat iki-de başla-yacak*  
       table hour two-LOC start-FUT  
       ‘The table will start at two o’ clock’

Since *toplantı* ‘meeting’ in (1a) can be considered as a word that denotes an ‘event’, it must be assumed that it is lexically specified as a second order nominal (e), in contrast to *masa* ‘table’ in (1b), which will be specified as denoting a first order entity (x).

As this brief description of ‘order’ of linguistic entities is hopefully sufficient for the understanding of the analysis to be presented here, no further attention will be given to the internal structure of constituting elements within the multilevel hierarchy.

## 2 The Distribution of Nominalizers

In section 2.1 the morphemes *-DIK*<sup>5</sup> and *-mE* will be discussed and it will be shown that these morphemes are distributed over four classes of matrix verbs:

- 1) verbs that take complements in *-DIK* and which express a *fact* only;
- 2) verbs that take complements in both *-DIK* and *-mE* fall into two subgroups:
  - a) the expression of *-DIK* or *-mE* leads to differences in meaning:  
       in the case of *-DIK* a *fact*, and in the case of *-mE* an *act* is expressed;
  - b) the expression of *-DIK* or *-mE* does not lead to differences in meaning;

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<sup>5</sup> For the sake of convenience, from this point onwards reference to *-DIK* includes reference to *-(y)EcEK*.

- 3) verbs that take complements in  $-mE$  and which express an *act* only;
- 4) verbs that take complements in  $-mE$  and which lead to an imperative meaning.

In section 2.2 it will be claimed that, contrary to the case of  $-DIK$  and  $-mE$ , the occurrence of the morpheme  $-(y)Iş$  cannot be accounted for on a syntactic level, and therefore, an analysis in terms of morphological derivation will be proposed. I will argue that deverbal nouns carrying this suffix have a reduced argument structure, and the fact that verb forms in  $-(y)Iş$  have some (but definitely not all) verbal properties (when contrasted to nominalizations to be discussed in section 2.3) will be explained in terms of a one-place nominal predicate (for subjects) or taking refuge to nominal compounding (for objects).

A general characteristic of 'V in head function' is that it 'requires nominalization' (cf. Dik, 1989:64). This is what we typically see in dealing with embedded clauses in Turkish. Before going into any details of the essential matters, let me by way of an introduction give some examples of embedded clauses and explain the most important morphological features of this type of constructions. Consider the following sentences:

- (2) a *Murat-in ses-in-i duy-du-m*  
 Murat-GEN voice-P3s-ACC hear-PAST-1s  
 'I heard Murat's voice'
- b *Murat-in öksür-düğ-ün-ü duy-du-m*  
 Murat-GEN cough-DIK-P3s-ACC hear-PAST-1s  
 'I heard that Murat coughs/coughed'

The object of *duy* 'hear' in (2a) is a NP: the modifier *Murat* (possessor) takes the genitive marker  $-(n)In$ <sup>6</sup>, in this way expressing subject-verb agreement and the head noun *ses* 'voice' takes the possessive suffix  $-(s)I(n)$ <sup>7</sup>, which agrees in person with the possessor noun. And thus, due to the aforementioned 'nominalization requirement', the embedded verb in (2b) takes the shape of the NP exemplified in (2a). In (2b) too, subject-verb agreement is expressed by the genitive suffix, and person agreement by possessive concord, by means of  $-(s)I(n)$ , which follows the nominalizer  $-DIK$ .

<sup>6</sup> 'n' after a vowel.

<sup>7</sup> 's' after a vowel; 'n' before a suffix.

## 2.1 The Morphemes *-DIK* and *-mE*

That differences in order play an important role in the choice between the nominalization suffixes *-DIK* and *-mE* can be demonstrated on the basis of the verb *gör* ‘see’, which can be classified as a verb denoting ‘uncontrolled’<sup>8</sup> perception. Consider the following examples of such usage:

- (3) a *Murat, Berna-nın ev-den çık-tığ-ın-ı gör-dü*  
 Murat Berna-GEN house-ABL leave-DIK-P3s-ACC see-PAST  
 ‘Murat saw that Berna (has) left the house’
- b *Murat, Berna-nın ev-den çık-ma-sın-ı gör-dü*  
 Murat Berna-GEN house-ABL leave-mE-P3s-ACC see-PAST  
 ‘Murat saw that Berna was leaving the house’  
 (= ‘M. saw B. leaving the house’)

The difference in the type of nominalization between (3a) and (3b) – as reflected by the occurrence of the suffix *-DIK* versus *-mE*, and accordingly, the differences in meaning between both sentences – can be ascribed to differences in order of the embedded structures.

In (3a) it is a *fact* (= proposition) that is expressed by the expression based on *Berna-nın ev-den çık-*, whereas the same underlying structure expresses an *event* (= state of affairs) in (3b). These differences are commonly explained by saying that (3a) is ‘factive’ and that by (3b) an ‘act’ is being described. Indeed, ‘fact’ versus ‘act’ sheds some light on Kural’s (1993:3) distinction between ‘past’ for *-DIK* and ‘infinitive’ for *-mE*, as opposed to ‘gerundives’ and ‘gerunds’ as found in Underhill (1972) and George & Kornfilt (1981).

The morpheme *-DIK*, expressing the tense value [– future], can be contrasted with the suffix *-(y)EcEK* for [+ future], as can be exemplified by (4) in which the ‘uncontrolled’ perception verb *duy* ‘hear’ is replaced by *gör* ‘see’.

- (4) a *Murat, Berna-nın ev-den çık-tığ-ın-ı duy-du*  
 Murat Berna-GEN house-ABL leave-[–fut]-P3s-ACC hear-PAST  
 ‘Murat heard that Berna (has) left the house’
- b *Murat, Berna-nın ev-den çık-acağ-ın-ı duy-du*  
 Murat Berna-GEN house-ABL leave-[+fut]-P3s-ACC hear-PAST  
 ‘Murat heard that Berna will leave the house’

<sup>8</sup> With ‘uncontrolled’ I mean that the subject of ‘see’ has no power to determine whether (s)he will see or not, other than by closing the eyes or by ‘not looking’. In that respect ‘look’ is a ‘controlled’ verb.

The sentential objects of both (4a) and (4b) express factivity, the only difference being that what is expressed as a (possible) fact, 'Berna's leaving the house', is located in time in different ways over (4a) and (4b) in relation to the tense of the matrix verb *duy* 'hear'.

For (3b), however, such an opposition is impossible since the temporal aspects of the embedded verb *çık* 'leave' are 'enclosed' by those of the verb in the main clause: the temporal location of *çık* is determined by that of *gör* 'see'. Thus, the suffix *-mE* may be termed 'infinitive' in the sense of (non-factive) 'a-temporal'. The reason that the terms 'gerundives' and 'gerunds' are used by some authors is possibly due to the striking correspondence (in translation) with the gerunds<sup>9</sup> of English.

The examples presented in (3) and (4) all have one thing in common: the verb of the main clause is a verb of 'uncontrolled' perception. These have been presented more or less deliberately because both *gör* 'see' and *duy* 'hear' allow for complements in *-DIK* as well as in *-mE*, whereas their 'controlled' counterparts *seyret* 'watch' or *izle* 'watch' and *dinle* 'listen' may take (are subcategorised for or lexically specified for) nominalizations in *-mE* only. Consider:

- (5) a *Murat'in tenis oyna-ma-sın-ı seyret-ti-m / izle-di-m*<sup>10</sup>  
 Murat-GEN tennis play-mE-p3s-ACC watch-PAST-1s  
 'I watched Murat playing tennis' (= 'I watched how Murat played tennis')
- b *Murat'in piyano çal-ma-sın-ı dinle-di-m*  
 Murat-GEN piano play-mE-p3s-ACC hear-PAST-1s  
 'I heard (listened to) Murat playing the piano'

These differences in meaning between a fact-nominalization and an event-nominalization are also found in other categories of verbs. Performatives (verbs of saying) such as *söyle* 'say', *bildir* 'announce', *açıkla* 'declare', for

<sup>9</sup> Apparently this is the case in Kural (1993:3), who terms the nominalized forms based on *-(y)Iş* 'true gerundive, equivalent to English *-ing*'.

<sup>10</sup> The 'controlled' verb *bak* 'look', requiring the dative suffix, would be inappropriate here, due to semantic differences with *seyret* or *izle* 'watch'. This can be inferred by comparing (5a) with the following (1) below, in which *how* has the connotation of 'manner'.

- (i) *Murat-in tenis oyna-ma-sın-a bak-tı-m*  
 Murat-GEN tennis play-mE-P3s-DAT look-PAST-1s  
 'I (critically) observed how Murat played tennis  
 (<> I observed Murat playing tennis)'

instance, are to be interpreted as ‘expositive’<sup>11</sup> (describing a fact) when used with *-DIK* in the embedded clause, but as ‘exercitive’ (expressing a directive, or ‘indirect imperative’) when used with *-mE*. This can be illustrated by:

- (6) a *Murat, Berna-nın ev-den çık-tığ-ın-ı söyle-di*  
 Murat Berna-GEN house-ABL leave-DIK-P3s-ACC say-PAST  
 ‘Murat said that Berna (has) left the house’
- b *Murat, Berna-nın ev-den çık-ma-sın-ı söyle-di*  
 Murat Berna-GEN house-ABL leave-mE-P3s-ACC say-PAST  
 ‘Murat said that Berna has (had) to leave the house’

Constructions as those of (6) can be compared to ‘real’ exercitive verbs like *emret* ‘order’ or *buyur* ‘order’ (both expressing a command), but these take only embedded forms in *-mE*. In that sense *söyle* ‘say’ in (6b) has the same illocutionary effect as the main verbs in (7):

- (7) a *Hizmetçi-ye beş dakika-da hazırlan-ma-sın-ı buyur-du*  
 servant-DAT five minute-LOC get ready-mE-P3s-ACC order-PAST  
 ‘(S)he ordered the servant to get ready in five minutes’
- b *Kaptan-ımız top-lar-ın hazırla-n-ma-sın-ı emret-ti*  
 captain-P1p gun-Pl-GEN prepare-PASS-mE-P3s-ACC order-PAST  
 ‘Our captain ordered that the guns be prepared’

Similar differences in meaning, due to the application of either *-DIK* or *-mE*, are found among ‘apprehensive’ verbs such as *anla* ‘understand’, *keşfet* ‘discover’, *farket* ‘notice’, and ‘putatives’ such as *bil* ‘know’, *hatırla* ‘remember’, *inan* ‘believe’ (cf. Özsoy, 1996). The latter two classes of verbs exhibit another interesting phenomenon: whereas apprehensive and putative verbs express facts when used in combination with *-DIK*, nominalizations realised by means of the suffix *-mE* express an act which has at the background a shade of meaning that either refers to the ‘reason’ (using an apprehensive verb) or to the ‘manner’ (using a putative verb) in which that act is performed. Consider:

- (8) a *Hasan-ın git-me-sin-i anlı-yor-uz*  
 Hasan-GEN go-mE-P3s-ACC understand-PRES-1P  
 ‘We understand *why* Hasan has gone’

<sup>11</sup> In order to label verbs according to the type of proposition they basically express, I use the terminology of Vendler (1972). These labels will be represented in single quotation marks.



- b *O, kazan-dığ-ı para-yı ye-me-sin-i bil-mi-yor*  
 (s)he earn-PRT-P3s money eat-mE-P3s know-NEG-PRES  
 ‘(S)he doesn’t know how to spend the money (s)he earns’

In the data presented so far we have dealt with verbs of perception (*gör, izle*), performatives (*söyle*), apprehensives (*anla, farket*) and putatives (*bil, hatırla*), which all can take either a complement in *-DIK* or *-mE*, resulting in two different interpretations: fact versus act.

There are verbs (‘emotives’), however, which can take embedded clauses with either suffix without resulting in differences in meaning. An example is represented in (9):

- (9) a *Murat, Berna-nın ev-den çık-tığ-ın-a üzül-dü*  
 Murat Berna-GEN house-ABL leave-DIK-P3s-DAT regret-PAST  
 ‘Murat regretted that Berna (has) left the house’  
 b *Murat Berna-nın ev-den çık-ma-sın-a üzül-dü*  
 Murat Berna-GEN house-ABL leave-mE-P3s-DAT regret-PAST  
 ‘Murat regretted that Berna (has) left the house’

There is another, considerable large group of verbs consisting of ‘remissives’ (such as *affet* ‘pardon’) as well as of ‘conatives’ (such as *iste* ‘want’, *planla* ‘plan’) which may take only embedded verbs in *-mE*. The latter type can be regarded as ‘pure infinitives’, due to the fact that they denote ‘possible future events’ rather ‘realised events’ (facts), as shown in (10).

- (10) *Berna, Murat’ın ev-den çık-ma-sın-ı iste-di*  
 Berna Murat-GEN house-ABL leave-mE-P3s-ACC want-PAST  
 ‘Berna wanted Murat to leave the house’

Finally, a relatively small class of ‘verdictives’ (*san* ‘think / believe’, *zannet* ‘think / believe’) can take complements in *-DIK* but not in *-mE*:

- (11) *Berna, Murat-ın bütün viski-yi iç-tiğ-in-i san-ıyor*<sup>12</sup>  
 Berna Murat-GEN all whiskey-ACC drink-DIK-P3s believe-PRES  
 ‘Berna thinks/believes (takes it as a fact) that Murat drank all the whisky’

<sup>12</sup> An alternative expression is *Berna, Murat-ı [bütün viski-yi iç-ti-(3s)] san-ıyor* where *Murat* is the direct object of the matrix verb. For studies that go into raising phenomena of Turkish in some more detail, see Brendemoen & Csató (1986); George & Kornfilt (1981); Kennelly (1987); Kural (1993); and Pamir (1995).

These observations can be summarised as follows. According to the type of verb of the main clause, the verb of the embedded clause is nominalized in different ways. The distribution of oppositions according to the different types of verbs of Turkish is tabulated below:

verb type	verb	-DIK/-EcEK	-mE	illocution
verdictive	san	+	–	fact
	zannet	+	–	
expositive	söyle	+	+	fact versus act ('imperative')
	açıkla	+	+	
apprehensive	anla	+	+	fact versus act ('reason')
	inan	+	+	
putative	bil	+	+	fact versus act ('manner')
	hatırla	+	+	
emotive	üzül	+	+	no difference in meaning
	kız	+	+	
remissive	affet	–	+	act
	beğen	–	+	
conative	iste	–	+	act
	planla	–	+	
exercitive	emret	–	+	act ('imperative')
	buyur	–	+	

The constructions discussed here are all clauses based on a transitive main verb, the direct object (second argument) of which is a clause itself (a sentential object)<sup>13</sup>. Since the embedded verb is not used in head-function of the main clause the embedded predication cannot be expressed as a sentence, so the verb must nominalise and the embedded predication takes the shape of a noun phrase. Thus, the subject is expressed with the genitive case marker, the embedded verb stem takes a nominalizer, subject-verb agreement is realised by a possessive suffix, an expression of tense is possible. Therefore, this type of nominalization was referred to as 'syntactic' nominalization. At this level there are two types of nominalization, each with different types of nominalizers. The occurrence of either one of these is related to the lexically given

<sup>13</sup> To a great extent the properties of sentential objects can be ascribed to sentential subjects too, and similarly, the selection restrictions determining the type of nominalization are lexically coded for each predicate that can take sentential subjects. For further comments, see footnote 1.

properties of the (transitive) verb of the main clause, and it is these properties which primarily determine what kind of sentential objects (facts or acts) can be expressed. This lexical specification can be formalised in terms of 'sub-categorisation' or 'selection restrictions'. This information, then, would among other things reveal or predict that a 'verdictive' verb such as *zannet* 'think/believe' takes third order complements only (always with fact-reading); that 'expositive' verbs such as *söyle* 'say/tell' may take both third (cf. (6a) - about a fact) and second order objects (cf. (6b) - about an event), and that 'remissive' verbs such as *beğen* 'like' are not specified for facts but only for events (and for first order entities, 'things', as in *Viski-yi beğenmedi* 'He didn't like the whisky'). Also for verbs of perception (and possibly for some other types as well) we may even assume that they are specified for three orders: they may take objects referring to facts (cf. (3a)), events (cf. (3b)), and things, as in *Murat Bernayı bir daha görmedi* 'Murat didn't see Berna any more'.

To be more specific with respect to the lexical 'coding' of these properties, the second argument of transitive verbs could be specified for the type of objects by including a term variable that specifies its order. Disregarding the semantic functions of the first and second arguments, we would get the following types of categorisation: *san* (x) (X) 'think', where 'X' specifies objects referring to a proposition (fact); *söyle* (x) (X,e) 'say/tell', with 'X' for propositions and 'e' for events; *üzül* (x) (X/e) 'regret' with 'X/e' indicating that there is no opposition between facts and acts; *beğen* (x) (e,x) 'like' with 'e' for events and 'x' for things; and finally, *gör* (x) (X,e,x) 'see' for which it is specified that terms referring to facts, events, and things can be expressed as the object of the verb of the main clause.

On the morphological level, the opposition between third and second order is expressed by means of suffixes: [-future] facts are signalled by *-DIK*, [+future] facts by the suffix *-(y)EcEK*, and events by *-mE*.

## 2.2 The Morpheme *-(y)Iş*

Whereas in George & Kornfilt (1981) and Kennelly (1987) only the syntactic behaviour of the suffixes *-DIK* and *-mE* are treated, Kural (1993) makes an attempt to analyse the usage of *-(y)Iş* by contrasting it with *-DIK*. Along the lines of Kural's approach such an opposition could be exemplified by the following pair of constructions:

- (12) a *Murat, Berna-yı öp-tüğ-ün-ü hep unut-uyor*  
 Murat, Berna-ACC kiss-DIK-P3s-ACC always forget-PRES  
 'Murat always forgets that he kissed Berna'

- b *Murat, Berna-yı   öp-üş-ün-ü           hep   unut-uyor*  
 Murat, Berna-ACC kiss-(y)Iş-P3s-ACC always forget-PRES  
 'Murat always forgets kissing (=how he kissed) Berna'

Kural (1993: 10,14) claims that the differences between (12a) and (12b) can be accounted for by saying that (12a) expresses the fact that 'Murat kissed Berna' is forgotten, whereas (12b) is about the event (act) itself. As an old saying goes, however, appearances are deceptive, so two remarks are in place. Firstly, presenting these data in the fashion practiced here might easily suggest that (12a) and (12b) are syntactically equivalent, since the objects of the embedded verb have the accusative marker and both nominalized verbs carry comparable morphological material: a nominalizer plus a possessive suffix followed by an accusative. I will return to this matter shortly.

Secondly, in discussing the relation between *-DIK* and *-(y)Iş*, Kural (1993: 14) explains for (12a) that 'he forgets that the kissing event ever happened', and in analysing the opposition between the suffixes *-mE* and *-(y)Iş* he states (Kural, 1993: 10) for (12b) that 'he always forgets a certain instance of kissing Berna'. His description of (12a) may indeed be paraphrased by saying that 'he (= Murat) does not remember the fact that he kissed Berna', that is, 'he (= Murat) does not know whether he kissed Berna or not'.

As for the interpretation of (12b), I think that Kural touches on a point which is very crucial for the way some of the verbal forms in *-(y)Iş* should be understood. The point is that the 'act' or 'event' described in (12b) is indeed 'a certain instance' (in Kural's words), but more specifically, it is *a single instance* of kissing Berna that is referred to. He seems to be somewhat puzzled, however, with *-(y)Iş*, since a comment made later on (12b) is quite contradictory to the one quoted here. In his second comment he states: 'he may remember that the kissing event occurred, but have no memory how it happened or how it felt'. In my opinion this is a description that would fit a fact, but not a single instance of an act where (12b) is actually about: 'Murat always forgets *how* he kissed Berna', in which the word 'how' does not refer to 'manner' but to that 'single instance' as such. Furthermore, contrary to what has been claimed by Kural (1993: 6) verbs in *-(y)Iş* cannot be modified for frequency adverbs as they denote a 'single instance' of an event (13a), although his own example (13b) might suggest the opposite. Consider:

- (13) a *Murat, Berna-yı   (\* sık sık )   öp-üş-ün-ü           hep   unut-uyor*  
 Murat, Berna-ACC   often   kiss-(y)Iş-P3s-ACC always forget-PRES  
 'Murat always forgets often kissing (= how he often kissed) Berna'

- b ?*Bu ülke-de bebek-ler-in sık sık öl-üş-ü*  
 this country-LOC baby-PL-GEN frequently die-(y)Iş-P3s  
 ‘Babies frequently dying in this country’

Apart from the question as to whether the fragment of Turkish in (13b) is grammatical at all, the frequency adverb *sık sık* ‘often’ is not modifying *ölüş* in the sense of ‘repetitive dying’ of (particular) babies<sup>14</sup>, but should rather be understood as an adverb that pertains to the occurrence ‘babies die in this country’, namely that ‘it frequently occurs that babies die in this country’. Most of my informants reject (13b) and suggest that it would become more grammatical if the adverb *sık sık* ‘often’ would be ‘moved’ to the position directly after *bu ülkede* ‘in this country’, e.g. *Bu ülkede sık sık bebeklerin ölüşü*.

A more fundamental issue, however, is related to the observation that there are apparently two verb forms that make reference to an ‘act’ as opposed to ‘fact’: besides verb forms having the suffix *-(y)Iş* there are forms in *-mE* that can be used for the same type of reference. As we have seen in section 2.1, there are several verb classes of Turkish which are lexically specified (categorised) for the type of verbal complement they can take: some of them can take only complements denoting a fact (signalled by the suffix *-DIK*), others may only take complements expressing an event (expressed by the suffix *-mE*), and additionally, there is a considerable large class of verbs that allow for the expression of both morphemes. With the exception of the class of ‘emotives’, they all differentiate between fact or event, depending on the nominalizing suffix being applied.

Now, given this system in which each verb is categorised for the type of complement, and which thereby allows for a grammatical differentiation between facts and events, isn’t it at least remarkable that there seems to exist a third morpheme that expresses an act rather than a fact? And in connection with this, we might reformulate the question as: are the forms in *-mE* and *-(y)Iş* equivalent or perhaps complementary, that is, are there any verbs that categorise for *-(y)Iş* but not for *-mE*? In seeking an answer to the latter question, it can be observed that using verbs like *hatırla* ‘remember’ and *unut* ‘forget’ does not give any clear indication, in terms of entity order, for the type of complement that can be expected, since in principle any type of entity is possible: we may remember or forget facts and events, but also things (referred to by first order entities). So both nominalizations in *-DIK* and *-mE* as well as other complements may be expected, and thus, the notion as such of

<sup>14</sup> If they could do so they even might be able not to do so, and most probably they wouldn’t do so, unless ‘die’ has another meaning here than what is generally agreed upon.

categorisation for the type of complement seems in this case not to have any relevance.

An alternative approach is to reconsider the problem in terms of the question as to whether all three morphemes can be compared with one another on the same (syntactic) level. Although this seems to be the case on the basis of (12) and (14), we can simultaneously observe that the only verbs that allow for such an opposition are *hatırla* ‘remember’ and *unut* ‘forget’, as we have commented upon above. The full range of possibilities for the expression of an event with *unut* ‘forget’ and likewise, with *hatırla* ‘remember’, are represented in (14) and (15). Consider:

- (14) a    *Murat,                      Berna-yı      öp-me-yi                      unut-ma-dı*  
              Murat,                      Berna-ACC kiss-mE-ACC                      forget-NEG-PAST  
              ‘Murat has not forgotten to kiss Berna’
- b    *Murat, Ali-nin      Berna-yı      öp-me-sin-i                      unut-ma-dı*  
              Murat, Ali-GEN Berna-ACC kiss-mE-P3sACC forget-NEG-PAST  
              ‘Murat has not forgotten how Ali kissed Berna’

Due to the fact that the subject of (14a) is co-referential with the subject of the matrix verb, it yields the interpretation of a future event (‘non-realised’, ‘infinitival’), whereas that of (14b) does not. The embedded clause of (14a) is about Murat’s *own* (future) event of kissing Berna, but (14b) about a (realised) event in which *Ali* and Berna were involved. The single event reading for its parallel form in *-(y)İş* seems, in terms of ‘laboratory circumstances’, equally well formed, although expanding (15a) with adverbial expressions for time and frequency leads to an increasing sense of reluctance with respect to acceptability, as is shown in (15b). For (15b) two alternatives are available: when reference is made to an event the suffix *-mE* must be used, and in case reference is made to a fact, very much expectedly, the morpheme *-DIK* will occur. These are represented by (15c) and (15d) respectively:

- (15) a    *Murat, Ali-nin      Berna-yı      öp-üş-ün-ü                      unut-ma-dı*  
              Murat, Ali-GEN Berna-ACC kiss-mE-P3sACC                      forget-NEG-PAST  
              ‘Murat has not forgotten how Ali kissed Berna’
- b    \**Murat, Ali-nin      o akşam      Berna-yı      sürekli      öp-üş-ün-ü      unut-ma-dı*  
    that evening                      constantly  
              ‘Murat has not forgotten how Ali constantly kissed Berna that evening’
- c    *Murat, Ali-nin      o akşam      Berna-yı      sürekli      öp-me-sin-i      unutma-dı*  
              ‘Murat has not forgotten how Ali constantly kissed Berna that evening’

- d     *Murat, Ali-nin o akşam Berna-yı sürekli öp-tüğü-ün-ü unutma-dı*  
       ‘Murat has not forgotten that Ali constantly kissed Berna that evening’

The fact that expansion with adverbs in embedded clauses based on the *-(y)Iş* forms leads to a lesser degree of acceptability may be taken as an indication that those embedded verbs are to a certain extent ‘less verbal’ than their *-DIK* and *-mE* counterparts, and moreover, it may very well indicate too that the formation of *-(y)Iş* forms cannot be dealt with on a syntactic level. If this view is correct, it would not only imply that these forms should not syntactically be compared with forms in *-DIK* or *-mE*, but also that an alternative for the formation of forms in *-(y)Iş* should be proposed.

This is corroborated by the statistics we obtained by looking at the distribution of the *actual* occurrence of *-(y)Iş* forms in a body of coherent utterances, that is, by taking into account how they are used in the production of spoken and written Turkish. In order to get some statistical insight in their actual usage, a series of machine readable texts (based on literature, news bulletins, interviews, and spontaneous speech production, etcetera) was investigated for the degree in which *-(y)Iş* forms are combined with (embedded) subjects, direct objects, indirect objects, and adverbs. The table in (16) shows how these constituents are distributed in terms of percentages, related to a total number of 88 different verb stems.

(16)	subject	38 %	adverbial	10 %
	direct object	0 %	‘bare’ noun	25 %
	indirect object	11 %	compound	25 %

The criteria for the determination of the syntactic category of these constituents are as follows. In a broad sense, all forms in *-(y)Iş* are nominalized and occur as the subject, object or some other constituent of the matrix clause, so they occur as zero marked (subject), they can have the accusative marker (direct object) or some other case marker, depending on the type of constituent they represent. Thus, these distinctions play no role in the distribution represented in (16). In a narrow sense, however, the *-(y)Iş* forms are the (presupposed) ‘head’ of the embedded clause and they may take the same type of constituents as mentioned above. Embedded subjects always have the genitive marker, and thus, constituents having the genitive marker are taken to be the subject of the embedded verb. Constituents preceding the embedded verb and carrying the accusative suffix are considered to be the direct object of the embedded verb, and those having other case markers (such as dative, locative, ablative, or instrumental) are the indirect object if they are obligatory, otherwise they are regarded as adverbs. Nouns and nominal compounds are those

constituents which are preceded by either a demonstrative pronoun, an indefinite article, a quantifier, an adjective, or combinations thereof. Structures that were considered a compound consist of a head noun (the derived noun in *-(y)Iş*) preceded by a noun which is unmarked for case.

One of the most striking results is the clear absence of direct objects: their expression is taken care of by the (unmarked) complement of nominal compounds, which attribute to some 25 % of the stock. Together with another 25 % of ‘bare’ (nominalized) nouns they constitute 50 % of the sample, and in not less than 38 % of the occurrences the subject is expressed. Whereas direct objects are absent, the expression of indirect objects (11 %) and adverbials (10 %) does occur, but not very frequently. As for the expression of subjects, the distribution among transitive, intransitive and passive verbs does not show any peculiarities: 17 % of the nominalized forms were based on a transitive verb, 11 % on an intransitive verb, and 10 % on verbs with passive morphology.

Before going into the question as to how the figures of (16) should be interpreted, let me present some typical examples of the categories mentioned here.

(17) *Subject only (intransitive verb):*

- a *Hayat-ımız-ın yürü-yüş-ü bu-ydu işte*  
 life-P1p-GEN go-(y)Iş-p3s this-PAST thus  
 ‘This was the course of our life, thus’ (= the way our life ‘went’)

*Subject only (intransitive verb):*

- b *Anne-m hep titr-iyor, dudak-lar-ı-nın titre-yiş-i*  
 mother-P1s all shiver-PRES lip-PL-P3s-GEN tremble-(y)Iş-P3s

*göz-le bile gör-ül-ebil-ir*  
 eye-‘with’ even see-PASS-POT-PRES

‘My mother shivers all over, the trembling of her lips can even be seen by the bare eye’

(18) *Subject plus indirect object (intransitive verb):*

- a *İzin-den dön-üş-ümüz-de çocuk-lar-ı oraya götür-dü-k*  
 holiday-ABL return-(y)Iş-P1p-LOC child-PL-ACC there bring-PAST-P1  
 ‘Returning from holiday we took the children there’



- b *Ziffereo, Bağdat'a gel-iş-in-de yap-tı-ğ-ı açıklama-da*  
 Ziffereo Baghdad-DAT come-(y)Iş-P3s-LOC do-DIK-P3s statement-LOC  
 'In a statement he made when coming to Baghdad, Ziffereo ...'

(19) *Subject plus adverb*

- a *1958-1962 yıl-lar-ı arasında nüfus-un hızla art-ı-ş-ı*  
 year-PL-CM between population-GEN rapid increase-(y)Iş-P3s<sup>15</sup>  
 'The rapid increase of the population between the years 1958 and 1962'
- b *Bu, bazı-ları-nın geri dön-üş-ün-ü bir az çabuklaş-tır-abil-ir*  
 this some-PL-GEN back go-(y)Iş-3s-ACC a little speed up-CAUS-POT-PRES  
 'This may speed up the 'return-back' of some of them a little'

(20) *Subject plus nominal compound*

*Ruble-nin ABD para birim-i karşısında değer yitir-iş-i*  
 rouble-GEN USA money unit-CM against value lose-(y)Iş-P3s  
 'The value-loss of the rouble in relation to the US money unit'

(21) *Indirect object plus 'direct object' (= compound)*

*Suudi Arabistan'a F-15 sat-ı-ş-ı*  
 Saudi Arabia-DAT F-15 sell-(y)Iş-CM  
 'The sale / selling of F-15's to Saudi Arabia'

(22) *Nominal compound*

- a *Cumhuriyet dönem-in-de hızlı nüfus art-ı-ş-ı*  
 republic era-CM-LOC rapid population increase-(y)Iş-CM  
 'The rapid population growth in the period of the republic'
- b *Yol çizgi boya-sı sat-ı-ş-ı*  
 road stripe paint sell-(y)Iş-CM  
 'The sale / selling of road striping paint'

<sup>15</sup> Since the compound *değer yitiriş* 'value loss' is contained in the possessive construction the head of which is *ruble* 'rouble' the compound marker is not expressed, but 'overruled' by the possessive suffix P3s. In this respect, (20) can be contrasted to (21) and (22a). For details, see Van Schaaik (1992,1996).

## (23) 'Bare' noun

- a *Her çıkış-in bir iniş-i var-dır*  
 each ascend-(y)Iş-GEN a descend-(y)Iş-P3s 'exist'-emph.  
 'Every 'up-going' has its 'down-going''
- b *Şef-imiz-in her uğrayış-in-da aynı söz-ler-i söyle-di*  
 boss-P1p-GEN each visit-(y)Iş-P3s-LOC same word-PL-ACC say-PAST  
 'At every visit of our boss he spoke the same words'
- c *Bu üniversite-de yüz-de kırk-lık bir kapasite artış-ı*  
 this university-LOC 100-LOC 40-adj a capacity increase-CM  
 'An increase of capacity of 40 percent at this university'

In (17 a-b), both being based on an intransitive verb, the embedded subjects have the genitive and, accordingly, the nominalized verb forms show person agreement as expressed by possessive markers. In the examples of (18a-b) there is no overt subject, but the implicit subject status comes to the fore by the occurrence of person agreement: the possessive suffixes *-(I)mIz*<sup>16</sup> 'our' in (18a) and *-(s)I(n)* 'his' in (18b). Adverbs are included in (19a-b), which both resemble (17a-b). The phrase of (20) contains a genitivized subject as well as a zero marked direct object, and furthermore, an adverbial clause. An alternative way of handling *değer\_yitiriş* 'loss of value' is to say that it constitutes a nominal compound (cf. Van Schaaik, 1996), which is expressed as *değer\_yitiriş-ı* 'value loss-CM' when it is used as a 'free' NP, but which takes a possessive marker in a possessive environment (as is the case in (29) because of *ruble-nin* 'of the rouble'). Also the text fragment from which (21) was taken does not contain a subject. Its heading 'indirect object plus direct object' may be somewhat misleading, but what (21) at least demonstrates is that the compound *F-15 satış-ı* 'the sale of F-15s' has (still) the verbal property that it is expandable by an indirect object. Similar observations can be made in (22a), where *nüfus artış-ı* 'increase of population' is expanded by two adverbial phrases. In contrast to the case of (21), *satış* 'sale' of (22b) does not exhibit any verbal properties since it occurs as the head in a complex (right branching) compound which is entirely based on nominal material: *((yol (çizgi boya)-sı) satış-ı)*. The examples of (23) are based on nouns: in (23 a-b) these nouns are individuated by the quantifier *her* 'every' and for (23b) this yields the (alternative) interpretation 'Every single time the boss drops by...'. Finally, (23c) shows again that a *-(y)Iş* nominalization may end up as a full

<sup>16</sup> The 'fourfold' vowel 'I' occurs after a consonant.

(lexical) noun. It functions here as the head of a compound which is modified by the adjectival phrase *yüzde kırk-lık* 'of forty percent'.

Returning to the figures tabulated in (16), they highly suggest that embedded constructions based on the suffix *-(y)Iş* cannot be considered to represent a formation type that is equivalent to that of *-DIK* and *-mE* nominalizations. The expression of direct objects seems to be impossible, only in a limited number of cases indirect objects and adverbials occur, and in much less than 50 % of the cases there is an overt subject. And hence, speaking in overall terms, the comparison of *-(y)Iş* formations with finite clauses (as those in *-DIK* and *-mE*) fails to be successful.

When we compare the degree of 'expressibility' of constituents in the constructions under discussion with the analyses of nominalizations described in Mackenzie (1996) and Koptjevskaja-Tamm (1993), we see that the general type of (non-)finite construction that comes closest to our *-(y)Iş* forms is a 'genitive gerund' or a 'productive nominalization'. Mackenzie, who follows Ross (1973), distinguishes 'gerunds' (e.g. *my horse winning the race*), 'genitive gerunds' (e.g. *my horse's winning the race*), and 'productive nominalizations' (e.g. *my horse's winning of the race*). Typically, gerund constructions contain subjects and direct objects that are expressed as in finite clauses; in constructions termed genitive gerunds only the subject is expressed by a genitive, whereas in productive nominalizations both subject and direct object take a genitive (or possessor-like) marker. According to Mackenzie, these distinctions match well with the findings of Koptjevskaja-Tamm, which were produced in a cross-linguistic study based on 99 languages: the gerund type of construction equals her 'sentence type', a characteristic of which is that all constituents retain sentential marking; the genitive gerund corresponds with her 'possessive-accusative' type of construction, where the subject takes the genitive and all other constituents have sentential marking; and finally, the 'ergative-possessive' and 'nominal' types as described in Koptjevskaja-Tamm correspond to the category nominalization of Mackenzie. Roughly speaking, the main characteristic of the latter types is that either subjects and/or direct objects genitivize.

In the case of Turkish, however, there is only a parallel with the distinctions given above as far as *-DIK* and *-mE* nominalizations are concerned: subjects take the genitive, but other constituents retain sentential marking. On the basis of this observation this type of nominalizations can be categorised as 'genitive gerunds' (cf. Underhill's 'gerundives'). As for the *-(y)Iş* nominalization, however, such parallels cannot be drawn, due to the mere fact that direct objects do not occur other than with zero-marking. The closest approximation

is Koptjevskaja-Tamm's so-called 'incorporating' type (Mackenzie's *race-winning of my horse*), characterised by genitive expression of subjects and incorporation of the direct object. This type of nouns was termed nominal compound in the present analysis, and constitutes 25 % of the actual occurrences in our sample.

On the basis of the foregoing it is safe to claim for the data presented so far, that the types of formation in *-(y)Iş* are basically produced by a productive nominalization process which delivers a deverbal noun in the first place. According to Mackenzie<sup>17</sup> (who follows Vendler (1957)), such nouns are formed, then, to denote 'abstractions' (second order entities) or, according to Lees (1960), they denote 'ways of doing something' (cf. (14b), (15a), (17a)). As for the 'expressibility' of constituents, Mackenzie (1985, 1986) defends the hypothesis that such deverbal nouns are in principle a-valent (as formalised by the Valency Reduction Hypothesis), but that arguments and 'implied' satellites can easily be reintroduced. For Agents and Patients the situation in Turkish is immediately clear: subjects can be expressed (as they do by means of the genitive), but contrary to what might be expected, direct objects do not occur. The notion of 'implied' satellite needs perhaps some clarification here. As Dik (1978, 1989) observes, for action verbs (and also for those denoting a Position or a Process) 'the way in which such an action' is performed is necessarily implied, e.g. saying that 'John danced' implies that he danced in a certain way, which can be optionally expressed by a manner adverb. In quite a similar fashion<sup>18</sup>, using *dön(-işi)* 'return' in (18a) implies a 'direction' (to somewhere) or a 'source' (from somewhere, here: *izinden* 'from vacation'), and *gel(-işi)* 'coming' in (18b) implies 'source' or 'direction' (in casu *Bağdat-a* 'to Baghdad'). And even for (23c) we could say that if there is a '40% capacity increase' that it must be located 'somewhere'. Hence, *bu üniversitede* 'at this university' would constitute an implied locational satellite. In this view, also the indirect object of (21) *Suudi Arabistan-a* 'to Saudi Arabia' could easily be taken as an 'implied' constituent, for 'selling' means 'selling something to someone'. However, for the direct object of (22b), *yol çizgi boyası* 'road striping paint', it is impossible to assume some degree of 'impliedness'. Finally, for verbs denoting a process, such as *art* 'increase' in (19a), (22a), (23c) or *yitir* 'lose' in (20), some additional (= implied) informa-

<sup>17</sup> For a detailed survey of the syntactic, semantic, and pragmatic effects of nominalizations, see Mackenzie (1996).

<sup>18</sup> I am aware of the fact that there is a principled difference between the argument status and satellite status of constituents (see Dik, 1989:72-75), but I assume that these differences are, at least for non-first arguments, irrelevant with respect to deverbal nouns.

tion about size, degree, volume, speed, and the like may be expected in any case.

Now, stipulating that a deverbal noun in *-(y)Iş* may take subjects and implied constituents by (re-)introducing them would mean for Turkish that (constituent) sequences such as represented in (24) can be accounted for in 84 % (= 38 % subjects; 11 % indirect objects; plus 10 % adverbials and 25 % ‘bare’ nouns) of the occurrences of *-(y)Iş* forms:

- (24) (subject-GEN) (indirect object) (adverbial) verb-(y)Iş

On the other hand, it is at least remarkable that in our sample not a single occurrence of a direct object marker with the accusative was found. The sole example (as attested in a recent newspaper) which could be considered as one containing a direct object was the following:

- (25) *Bu toprak ürün-ler-in-in satış-ı*  
 this soil produce-PL-CM-GEN sale-P3s  
 ‘The sale of these agricultural products’

However, expanding (25) by an Agent phrase leads to an ungrammatical sequence, which implies that the simultaneous expression of a subject and a direct object is ‘blocked’. This can be shown by the following:

- (26) *\*Köylü-ler-in bu toprak ürün-ler-in-in satış-ı yasaklan-dı*  
 farmer-PL-GEN this soil produce-PL-CM-GEN sale-P3s forbid-PAST  
 ‘The sale of these agricultural products by the farmers was forbidden’

Even (25) was not equally well excepted by my informants. Most of them proposed to replace *satış* by its passive counterpart *satılış*, which makes *bu toprak ürünlerin-in* ‘these agricultural products’ the subject of the embedded verb. Contrary to what Mackenzie’s model predicts, the simultaneous expression of subject and direct object in the form of (two) Possessors (as in (*my horse’s*) *winning (of the race)*), this seems possible only in a very limited number of cases in Turkish.

Clearly, there is a difference between *-(y)Iş* nouns derived from intransitive verbs and those made on the basis of a transitive verb. Following the model of Mackenzie, that is, assuming a productive mechanism that derives such nouns, ‘ready for use’ so to speak, implies that a verb is ‘deprived’ from its arguments and satellite positions, which can (at least in a number of cases) be (re-)introduced after that nominalization has taken place. Now, if we presume

that such productions are made ‘on the fly’ or ‘whenever desired’ (as if it were comparable to what I have called ‘syntactic’ nominalization) the question might be raised: ‘Why all this trouble of reducing argument and satellite positions if they are going to be reintroduced anyhow?’. If such a nominalization is carried out to create a noun denoting an ‘abstraction’ (in the sense of Vendler (1957)), with different semantics as reflected in the reduced argument structure, it seems reasonable then, that such a new predicate is stored lexically, just because of the ‘derived’ semantics it brings along. Furthermore, lexical storage involves re-indexation for the newly obtained lexical category. Similar to the indexations ‘V’, ‘N’, ‘A’ for the basic predicates verb, noun, and adjective, the additional indexation could be thought of in terms of ‘N<V’, NV, Nv, or whatever seems appropriate<sup>19</sup>, in which the ‘N’ stands for the new status of the predicate, meaning that it should primarily be used as a noun, that is, that it has in principle obtained all properties of a basic nominal predicate. That implies that it can be specified for definiteness and that it can take case markers and possessive suffixes etcetera, but that the possibility of pluralisation is probably excluded since such deverbal nouns constitute a denotation for a ‘single event’. Its co-indexation ‘V’, then, means that the predicate (still) retains some of its verbal properties, but certainly to a limited extent, as is reflected by its reduced argument structure.

Whereas ‘real’ nouns are a-valent in Mackenzie’s view, it remains to be seen if this could be said for the *-(y)İş* nominalizations of Turkish as well, especially when it comes to a more detailed classification. Taking verbs as predicates with a full argument structure on the one hand, and say, basic nouns as a-valent predicates on the other one, it will be clear that there are some arguments in favour of the view that verbal nouns take a position somewhere between these extremes. To be more concrete, I would suggest that for a first argument (the subject) of an intransitive verb it is not very likely that its argument position is reduced and possibly reintroduced later, but that it remains part of the predicate structure. The reason is equally simple as straightforward: due to the (still somewhat) verbal character of the verbal noun a subject is always to be presupposed. Talking about *akış* ‘flow’ always presupposes that ‘something flows’, in other words, it is not feasible to talk about an abstraction of some event by using a deverbal noun without, sooner

<sup>19</sup> Assuming that there are three basic lexical categories, V, N, A, a system of co-indexation could be set up for the six theoretically possible transitions between these categories. For Turkish, however, the transitions N<A and A<N are hardly utilised, so I give only examples of the four most common derivations: N<V *açılış* ‘opening’; A<V *unutulmaz* ‘unforgettable’; V<N *sula* ‘to water’; V<A *çabuklaş(tır)* ‘to speed up’. For a thorough treatment of word formation in Turkish, see Lewis 1967.

or later, having a subject in mind, irrespective of the fact whether its subject is something tacitly in the background or that it is overtly expressed. Especially when we bear in mind that the statistics showed 38% overt subjects, leaving room for 12% (= 62% minus 50% nouns, including compounds) additional cases of unexpressed subjects (although verb-subject agreement was shown throughout).

For transitive verbs we get the following picture: both the subject and direct object argument positions are reduced. The most frequent way of expressing a direct object is by means of a nominal compound. Passives (derived intransitives) on the other hand, are much like 'real' intransitives: the direct object of the 'original' transitive verb takes the place of the first argument of the passive. Hence, it will be expressed with the genitive marker in combination with a deverbal noun, as can be exemplified by the following:

- (27)a *Eskişehir-in düşman işgal-in-den kurtul-uş-u*  
 Eskişehir-GEN enemy occupation-Ps3-ABL to be liberated-(y)Iş-Ps3  
 'the liberation of Eskişehir from the occupation by the enemy'
- b *toplantı-nın aç-ıl-ış-ın-da*  
 meeting-GEN open-PASS-(y)Iş-Ps3-LOC  
 'at the opening of the meeting'

Taking into account that the expression of direct objects is 'blocked' for transitive verbs and that its subject never appears in such nominalizations, we may assume that these verbs constitute the only category of verbal nouns which have a fully reduced argument structure. As a consequence such deverbal nouns are fully lexicalised and a-valent. This view is supported by the observation that in *-(y)Iş* nominalizations of passive verbs only the original direct object can be expressed, and, as can be expected, as the genitivized subject. Deverbal nouns based on a passive verb stem can be compared with intransitive deverbal nouns. In terms of a morphological derivation process, the effects of nominalization can be summarised as follows:

- (28) a *Intransitive verb* *Example*
- |         |                                       |                           |           |
|---------|---------------------------------------|---------------------------|-----------|
| Input:  | $\text{pred}_v (A_1)$                 | $\text{ak}_v (A_1)$       | 'to flow' |
| Output: | $\text{pred}-(y)\text{Iş}_{Nv} (A_1)$ | $\text{ak-ış}_{Nv} (A_1)$ | 'flow'    |

- b *Transitive verb* *Example*
- |         |   |  |           |
|---------|---|--|-----------|
| Input:  | pred <sub>v</sub> (A <sub>1</sub> ) (A <sub>2</sub> ) | sat <sub>v</sub> (A <sub>1</sub> ) (A <sub>2</sub> ) | ‘to sell’ |
| Output: | pred-(y)İş <sub>Nv</sub> (A <sub>1</sub> )            | sat-ış <sub>Nv</sub> (A <sub>1</sub> )               | ‘sale’    |
- 
- c *Passive verb (= derived intransitive)* *Example*
- |         |   |  |                |
|---------|---|--|----------------|
| Input:  | pred-PASS <sub>v</sub> (A <sub>2</sub> )        | aç-ıl <sub>v</sub> (A <sub>2</sub> )     | ‘to be opened’ |
| Output: | pred-PASS-(y)İş <sub>Nv</sub> (A <sub>2</sub> ) | aç-ıl-ış <sub>Nv</sub> (A <sub>2</sub> ) | ‘opening’      |

It should be noted, however, that once a deverbal noun in *-(y)İş* based on an intransitive verb has been lexicalised the first argument position may ‘erode’, thereby losing its ‘event’-reading. There are many examples of a transition of e-noun to x-noun. For instance, the noun *çıkış* can be considered as an e-noun meaning ‘(way) of going out’ and allowing for the expression of a subject (type (28b)), but also as an x-noun when it refers to ‘exit’. In the latter case the occurrence of a genitive complement can of course not be interpreted as a subject.

As we have seen, the deverbal nouns under consideration are to be considered as ‘abstractions’ for which it can be expected that ‘expressibility’ of constituents is more limited than in finite embedded clauses. The abstractions were described as ‘single instances’ of some action, as has been illustrated on the basis of the ‘kissing event’ of (12). In some data which have not been introduced yet, the element of singularity of (an individuated) event, as singled out from a series of (possible) events, seems in a number of cases however to be hardly distinct from a fact-reading or ‘circumstance’-reading. The category of verbs that exhibit this property are verbs which contain the verbal negator *-mE*, as can be demonstrated by the following:

- (29) a *Bence bun-un neden-i bir erkek arkadaş-ım-ın*  
 I. m. v. this-GEN reason-P3s a male friend-P1s-GEN
- ol-ma-yış-ı ve ev-im-e akşamları erkek-ler-in*  
*ol-NEG-(y)İş-P3s and house-P1s-DAT evenings man-PL-GEN*
- misafir olarak gel-me-yiş-i-dir*  
 guest as come-NEG-P3s-emph

‘In my view the reason of this is *that* I don’t have a male friend and *that* there don’t come men to my house as a guest in the evening’



- (29) b *Birbirin-i sev-mi-yen insan-lar-ı evlen-dir-ip sonra*  
 eachother-ACC love-NEG-PRT person-PL-ACC marry-CAUS-CONV after

*da geçin-eme-yiş-ler-in-e şaş-ıyor-lar*  
 and cope-NEG-POT-(Y)İş-PL-Ps3-DAT surprise-PRES-P3

‘And after they have married off people who do not love one another, they are surprised *that* they are not able to cope (with each other)’

Yet another small number of verbal expressions based on *-(y)İş* nouns were found which could be advanced as possible counter-examples for the point of view defended here, namely, that ‘full blown’ deverbal expressions are not likely to occur frequently. As a matter of fact, without any exception, these examples were taken from texts that were translated into Turkish, and what is more, these translations are not of a very recent date. Compare the following examples, which all allow for a ‘facts’ or ‘manner’ reading:

- (30) a *Bütün gece eğlen-ir-ler, fakat bu eğlence aynı zamanda*  
 whole evening amuse-PRES-3P but this feast same time-LOC

*genç kızın baba ev-in-den ve kız arkadaş-lar-ın-dan*  
 young girl-GEN father house-P3s-ABL and girl friend-PL-P3s-ABL

*ayrıl-ış-ın-ı sembolize eder*  
 leave-(y)İş-P3s-ACC symbolise-PRES

‘They have fun the whole evening, but at the same time this feast symbolises (the moment) *that* the young girl leaves her father’s house and her girl friends’

- b *Karı-m-ın piyano-nun ön-ün-de sahte bir kayıtsızlık-la*  
 wife-P1s-GEN piano-GEN front-P3s-LOC false a indifference-INSTR

*otur-uş-un-u hatırlı-yor-um*  
 sit-(y)İş-P3s-ACC remember-PRES-1S

‘I remember (that moment) *that* / *how* my wife was seated in front of the piano with a false air of indifference’

- c *Koca dolap-lar-ı araba-dan tek başına indir-iş-i de*  
 giant closet-PL-ACC car-ABL alone unload-(y)İş-P3s too

*güçlü ol-duğ-un-u göster-iyor-du*  
 strong be-DIK-P3s-ACC show-PRES-PAST

‘And also that moment / *how* he unloaded the giant closets from the pick-up  
 was showing that he was strong’

- d *Ben-i kucakla-yıp kemik-ler-im-i kırar-casına sık-tı, öp-tü*  
 I-ACC embrace-CON bone-PL-P1s-ACC break-‘asif’ press-PAST kiss-PAST  
 ‘(S)he embraced me, squeezed me as if to break my bones and kissed me’

*‘Dişle-di’ demek daha doğru ol-ur, öylesine sert idi öp-üş-ü*  
 bite-PAST say more just ol-PRES that hard was kiss-(y)Iş-P3s  
 ‘To say ‘bit me’ suits better, that hard was it, her/his (*way of*) kissing’

As can be observed by looking at texts written by Turkish authors, such ‘expanded’ expressions do not occur (at least in our sample). A possible explanation for the occurrence of such *-(y)Iş* forms plus complements in translations (thereby taking the appearance of a finite clause – comparable to those in *-DIK* and *-mE*) may be found in interference with the source texts. Another factor that may have contributed to the usage of *-(y)Iş* forms rather than suffixes for finite forms is possibly the *Zeitgeist* (‘spirit of the age’). The translations from which the examples were taken are not very up to date, the oldest one dates back to the late forties (of this century) and the most recent one has been published some fifteen years ago. In order to get an impression of how modern speakers of Turkish would select an appropriate suffix, 10 informants were asked to complete a number of sentences from which the suffix *-(y)Iş* had been left out. The results<sup>20</sup> indicate unequivocally that the preference for this suffix is not very high in most cases, even when a ‘manner’-reading is possible. In the case of (30d) the *-(y)Iş* form was selected unanimously (10 times), but for (30b) not more than four respondents filled in *otur-uş* ‘way of being seated’, whereas six respondents opted for *-DIK*, two of which provided an alternative in *-mE*. This can, of course, be explained in terms of ‘fact’ versus ‘act’ reading (cf. section 2.1). Also for (30a) there was a high preference to ‘act’ (8 times *-ma(sı)*) over the usage of the deverbil suffix *-(y)Iş* (2 times), whereas for (30c) the *-(y)Iş* form in the translation was replaced by the ‘act’ suffix *-me(sı)* in 100 % of the cases.

<sup>20</sup> The degree of reliability or to what extent these results are representative should of course be investigated on a more solid basis, for instance by taking a much larger group, the members of which are well distributed over age, level of education, social class, geographical region etcetera.

### 3 A brief Note on Lexicalisation

As was indicated in the introduction, Pamir (1995:182/3) makes a distinction between ‘action nominals (verbal nouns)’ and ‘factive nominals (nominalization)’. Although the constructions in *-mE* as discussed in 2.1 all have nominal morphology, these forms (consisting of a verb stem plus *-mE*) should be considered as the result of a nominalization that takes place at the syntactic level, and therefore they are to be regarded as inflectional rather than derivational forms. The genitive case marker, nominalizing morpheme, and possessive suffixes are used to express subject, tense, and subject-verb agreement only in a specific environment: when a predication is used as an embedded clause. Similar arguments can be advanced for the expressions referred to by Pamir as ‘nominalization’, that is, the forms in *-DIK/-(y)EcEK*. Hence, both formations in *-mE* and *-DIK/-(y)EcEK* should be termed either ‘verbal nouns’ or ‘nominalization’, since for all formations the same process underlies. Furthermore, the term ‘verbal noun’ is not very adequate either, because what is usually meant by this term is a type of predicate that is produced by derivation and not produced via an inflectional path.

So, the term ‘(de)verbal noun’ should only be used for those forms in *-mE* which are brought about by some derivational rule that is applied to produce a new predicate. Such predicates indeed exist, especially since the underlying formation rule is highly productive. One should bear in mind, however, that there is a fundamental difference between seemingly equal *-mE* forms which occur in embedded clauses or in some other domain. Many forms containing *-mE* are lexicalised (deverbal) nouns, and they not *a priori* the result of an inflectional formation, as discussed above. This can be exemplified by the following:

- (31) a    *Berna, Murat-ın araba-sın-ı süsle-me-sin-i beğen-me-di*  
           Berna, Murat-GEN car-P3s-ACC decorate-mE-P3s-ACC like-NEG-PAST  
           ‘Berna didn’t like how Murat has decorated his car’
- b    *Berna, Murat-ın süsleme-sin-i beğen-me-di*  
           Berna, Murat-GEN decoration-P3s-ACC like-NEG-PAST  
           ‘Berna didn’t like Murat’s decoration’

In (31a) *süsle-me-si* ‘his way of decorating’ is the result of a series of inflectional operations, whereas *süsleme-si* ‘his decoration’ in (31b) is based on the lexicalised form *süsleme*.

A typical property of lexical *-mE* forms is that in many cases they seem to denote also first order entities (things) besides second order entities (events).

For instance, *süsleme* ‘decoration’ also refers to a thing, the ‘result of decorating’ or the ‘things one decorates with’; *bağlama* (< *bağla* ‘to tie, bind’) is not only ‘tying; binding’, but also a certain ‘musical instrument’ or ‘brace; cross-beam’; *besleme* (< *besle* ‘to feed, to nourish’) is not only ‘feeding, nourishing’ but also (formerly) ‘servant brought up as a member of the household’; *çıkartma* (< *çıkart* + *caus* ‘to remove’) means ‘having removed’ and ‘sticker’ or ‘transfer’; *havalandırma* (< *havalandır* ‘to air, to ventilate’) refers primarily to a device (‘air-conditioning’) and secondarily to the event of ‘airing, ventilating’; *açıklama* (< *açıkla* ‘to explain, clarify’) ‘explanation / statement / comment’ can be used to denote an act (of explaining) or to refer to a certain type of document (or text). Similarly, the predicate *alıştırma* (< *alıştır* ‘to train, exercise’) means ‘doing an exercise / training’, but also the more concrete, textual representation of what should be exercised or trained.

A possible interesting parameter for a further investigation as to how deverbal nouns may eventually end up in the lexicon (as e-nouns or as x-nouns) might be the opposition transitive - intransitive of the underlying verb. The same would hold for the fate of nominalizations in *-(y)Iş*. Since these forms are derivational by nature, it may be expected that a sizeable proportion has been lexicalised. Indeed, this is confirmed by a superficial survey of an electronic dictionary (Redhouse, 1996).

Lexical forms in *-mE*, however, far outnumber the forms in *-(y)Iş*. Also for this latter type of lexical formations many instances of a shift in entity order can be observed. Apart from the example *çıkış* ‘act of going out’ and ‘exit’, the following predicates may illustrate this point: *giriş* ‘entering’ (event) and ‘entrance’ (thing); *geçiş* ‘passing’ (event) and ‘passage’ (thing); *görüş* ‘act of seeing’ and ‘opinion’; and last but not least, *iniş* ‘going down’ and ‘downward slope’.

A special category of interesting lexicalised forms are some 35 ‘doublets’, that is, derivational forms in both *-mE* and *-(y)Iş* based on one verb stem, e.g. *akma* - *akış* (< *ak* ‘to flow’); *çekilme* - *çekiliş* (< *çekil* ‘to be drawn’). How such forms can be further classified in terms of entity order (or other relevant notions such as ‘result’ or ‘manner’) remains, however, for further investigation.

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