On the position of sonra and önce

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In grammar books of Turkish, as well as in other publications in Turkish linguistics, the "words" *sonra* and *önce* are traditionally regarded to belong to the lexical category of postpositions. This view is to the extreme defended by Erdal (1994(but disputed by Kornfilt (2000), who analyses these elements as adverbs only.

In the present article it is claimed that certain nouns are lexically coded for denoting Place or Time and that *sonra* and *önce* should be analysed as nouns of the latter category. Given a great number of nominal properties that can be ascribed to *sonra* and *önce*, their function as postposition and occurrence in adverbial phrases can easily be explained.

Introduction

This paper aims at unravelling the confusion that arises when one tries to answer the question what lexical category *sonra* and *önce* belong to in a straightforward way. The views that form the basis for the approach presented here are Erdal (1994) who claims that *sonra* and *önce* are postpositions and Kornfilt (2000) whose article purports that they are adverbs.

After a short section on the function and make-up of adverbial phrases, the reader will be introduced to the idea that in the lexicon a special section should be reserved for nouns denoting *place* and *time*, because such nouns have properties different from 'ordinary' nouns, such as those denoting persons and things. For *time*- and *place*-nouns it will be shown that they can be used as the core for an adverbial phrase in which the occurrence of the dative case marker is triggered by the factor 'telicity'. The same semantic feature underlies its occurrence in the com-

plement of postpositions, and once a number of relevant phenomena have been introduced, the way is paved for further contemplations on *sonra* and *önce*.

Although these words in certain usages do bear the semblance of postpositions and despite the fact that they occur in adverbial environments, much effort is put in showing that they belong to neither category.

Both the properties of *sonra* and *önce* that pushes an analysis in either direction – postposition or adverb, can be adequately described when they are lexically categorised as *time*-nouns. Things are nouns when they have nominal properties and *sonra* and *önce* have such properties, for they can take plural, possessive and case marking, form adverbial phrases, they can be the complement of a postposition and be used attributively.

1 On adverbials

By *adverbial* I understand any linguistic unit that can fulfil the function of providing additional information about some other linguistic unit. In this way, the noun *lunch* can be expanded by the adverbial phrases *in the kitchen* – which can be termed Locative Phrase, and *at noon* – which in a similar fashion can be called Temporal Phrase. Expansion with other adverbial material is possible:

- (1) a We had lunch.
 - b We had lunch in the kitchen.
 - c At noon we had lunch in the kitchen.
 - d (During our) lunch in the kitchen at noon today ...

Adverbials comprise *adverbial phrases* and *lexical adverbs*. The relation between these notions can be explained as follows. A very common type of adverbial phrase in Turkish is freely formed by a noun phrase based on a lexical noun plus a case marker or a postposition, e.g. *mut-fak-ta* 'in the kitchen' and *kardeş-im için* 'for my brother'. Another, and certainly not less common, type of formation is based on a 'bare lexical

adverb' instead of a noun phrase, e.g. *ansızın* 'suddenly'. On the analogy of (1 b-d), this can be illustrated by:

- (2) a *Bölüm-ümüz-de* bir toplantı düzenle-n-di. department-P1P-LOC a meeting organise-PASS-PAST1 'In our department they organised a meeting.'
 - b *Bugün bölüm-ümüz-de bir toplantı düzenle-n-ecek.* today department-P1P-LOC a meeting organise-PASS-FUT 'Today they'll organise a meeting in our department.'
 - c Geçen hafta bölüm-ümüz-de ansızın bir toplantı düzenle-n-di. last week dept.-P1P-L OC suddenly a meeting organise-PASS-PAST1 'Last week they suddenly organised a meeting in our department.'

Lexical adverbs can be found in adverbial expressions for *manner*, in *temporal* and *spatial* ('locational') expressions, and there is a category of *modal* adverbs. Whereas the first three types of adverbials operate on the level of the predication proper and relate some event to 'the way in which', 'the place where' and 'the time when' (e.g. *Yesterday evening John was dancing wildly at our school party*), modal adverbials are usually applied on a level that leaves room for adding a subjective flavour to the actual content of the things being said, e.g. *ansızın* 'suddenly', *kanımca* 'in my opinion', *hakikaten* 'really', *maalesef* 'unfortunately'.

As Schroeder (2001) observes, following Banguoğlu (1990), the lexical category 'adverb' in Turkish is rather limited with respect to the number of non-derived forms. Examples of non-derived forms are *daima* 'always', *asla* 'never', *derhal* 'at once', *artık* 'no more', *halen* 'still', *bazen* 'sometimes'. As we shall see below, most temporal expressions in Turkish are based on a noun.

2 On nouns

In terms of their denotation, nouns can be grouped in several ways. As has been pointed out by Weigand (1990) and Mackenzie (1992, 1999)

nouns denoting *persons*, *animals*, and *things* can be regarded *first order entities*, and those denoting *events*, *processes*, and *states* are *second order entities*. A similar division can be made for *qualities* ("non-entities") and this group comprises nouns denoting *attributes* (such as *temperature*, *colour*, and *number*) as *first order qualities*, and nouns denoting a *circumstance* (including nouns for *place*, *time*, and *manner*) form a group of *second order qualities*.

The distinctions referred to above are relevant for the present discussion because they cast some light on the question why certain constructions in Turkish are grammatical and others not. Since for instance *to-planti* 'meeting' is an *event*-noun (second order noun), it is not surprising that it can be specified for *Place* and *Time*, similar to an expression based on a verb, whereas this is impossible with *Time* for a first order noun, such as *masa* 'table'. Compare (3a) with (4b), and (3b) with (4c):

- (3) a *Bölüm-ümüz-de-ki toplantı* ... department-P1P-LOC-*ki* meeting 'The meeting in our department ...'
 - b Bugün-kü toplantı today-ki meeting 'The meeting today ...'
- (4) a Geçen yıl bahçe-miz-de büyük bir masa var-dı. last year garden-P1P-LOC big a table EX-PAST 'Last year there was a big table in our garden.'
 - b Bahçe-miz-de-ki masa ...
 garden-P1P-ki table
 'The table in our garden ...'
 - c *Geçen yıl-ki masa ...

The question now arises whether constructions such as *bölüm-ümüz-de-ki toplantı* 'the meeting in our department' and *bugün-kü toplantı* 'the meeting today' are formed by simply expanding a noun phrase by an ad-

verbial expression (in the way such is done in a verbal environment, e.g. (2 a-c)), or that some other mechanism is in force.

Inspired by a functional approach to linguistic analysis (Dik 1989, 1997), it was advanced in Van Schaaik (1996: 80f) that locative expressions such as (4b) can be regarded as the result of a phrasal restrictor when applied to a noun, by analogy with an adjectival restrictor applied to a noun. In a simplified way such formations can be represented as:

The difference in expression between (5a) and (5b) can be accounted for by assuming a grammatical rule in Turkish which states that the application of a non-adjectival restrictor to a noun must be signalled by the suffix -ki.

In a similar way we can account for temporal expressions like (3b) and temporal expressions that require the locative case marker, as in (6b).

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(6) a toplanti (x) : {(bugün)<sub>Loc</sub>} (x) \rightarrow bugün-kü toplanti 'the meeting today'

b toplanti (x) : {(1999)<sub>Loc</sub>} (x) \rightarrow 1999'da-ki toplanti 'the meeting in 1999'
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The function Location in (6a) and (6b) is expressed differently due to different lexical nominal subtypes, as will be explained in the next section.

2.1 Time-nouns

Many temporal expressions in Turkish are based on a noun (7 a-b), a cardinal number (7c) or a combination (7d), as can be shown by:

- (7) a *Dün ev-de-ydi-m*.
 yesterday house-LOC-PAST-1s
 'Yesterday I was at home.'
 - b *O gün çok eğlen-di-k.* that day much have.fun-PAST1-1P 'We had a lot of fun that day.'
 - c *Biz buraya 1998'de gel-di-k.* we hither 1998-LOC come-PAST1-1P 'We came here in 1998.'
 - d *Biz buraya 1998 yıl-ın-da gel-di-k.* we hither 1998 year-CM-LOC come-PAST1-1P 'We came here in the year 1998.'

Words denoting a interval, such as *dün* 'yesterday', *gün* 'day', *yarın* 'tomorrow', *sabah* 'morning', *akşam* 'evening', *gece* 'night', *hafta* 'week', *ay* 'month', *yıl* 'year', *sene* 'year' et cetera, are nouns because they can occur with nominal morphology, i.e. plural, possessive, and case marking, as in (8 a-e). Furthermore, they can be preceded by demonstratives (8a) and adjectives (8 d-e), and by quantifiers (8 f-g).

- (8) a *O gece-ler-i hatırlı-yor mu-sun?* that night-PL-ACC remember-PRES1 Q-2s 'Do you remember those nights?'
 - b *Yarın-ı* düşün-meden yaşı-yor-lar. tomorrow-ACC think-PRIV live-PRES1-3P 'They live without thinking of tomorrow.'
 - c *Tarih boyunca yarın hep dün-ü sil-di*. history along tomorrow all the time yesterday-ACC erase-PAST1 'Throughout history tomorrow has always wiped out yesterday.'
 - d *Uzun sonbahar ve kış gece-lerin-i yapayalnız geçir-di.* long autumn and winter night-PLUR-CM-ACC all alone spend-PAST1 '(S)he spent the long autumn and winter nights all alone.'

- e Çok soğuk bir Aralık sabah-ın-da gel-di. very cold a December morning-CM-LOC come-PAST1 '(S)he came on a very cold morning in December.'
- f Altı sene orada-ydı-m. six year there-PAST-1s 'I was there for six years.'
- g Her Salı gün-ü oraya gid-er. every Tuesday day-CM thither go-PRES2 '(S)he goes there every Tuesday.'

Clearly, by the examples of (8) it is shown that *time*-nouns form a subgroup of the lexical category noun. They can be used as the head of a noun phrase and such temporal phrases can function as an adverbial expression.

As for the morphological properties of temporal phrases, they are transparent throughout.

First, when a temporal phrase is used referentially, it is expressed with a case marker; i.e. in the accusative (cf. (8 a-d)) or in its 'absolute form' when it functions as subject, as in: *O gece uykusuz geç-ti*. 'That night passed sleeplessly' and *Gün bitmek bil-me-mişti*. 'There came no end to that day.'

Second, assuming that the mechanism for the expression of a temporal phrase as an adverbial rests upon a locative metaphor in the sense that some event is positioned in Time as if it were in Space, and *ergo*, that the representation {(temporal phrase)_{Loc}} given in (6 a-b) is applicable, we could say that the function Location is expressed as *zero* if the temporal phrase is built on a 'bare' *time*-noun (cf. (2 b-c) and (7 a-b)) or when two *time*-nouns form one unit in which the second noun specifies the first one, e.g. *dün akşam* 'yesterday evening' and *yarın sabah* 'tomorrow morning'.

This type of expression applies to temporal phrases modified by an adjective as well: *sıcak bir gün* 'on a hot day', *ılık bir akşam* 'on a warmish evening', *soğuk ve sisli bir sabah* 'on a cold and misty morning'. Temporal expressions which allow for a habitual, iterative or frequenta-

tive interpretation (expressed by *-lErI*) are included too: *Salı gün-leri spor yapıyorum* 'On Tuesdays I work out.' and *Yaz akşam-ları kitap okurum, kış gece-leri tele-vizyon seyrederim* 'I read books on summer evenings and watch TV on winter nights.'. Other forms, being based on a compound¹ or a numerator, require the expression of the function Location as the locative case marker *-TE*. Besides (7c-d) and (8e) the following expressions were attested: *I Ocak sabah-ın-da* 'on the morning of January, 1', *güzel bir yaz akşam-ın-da* 'on a beautiful summer evening', *o sıcak Ankara akşam-ın-da* 'on that hot evening typical for Ankara'.

It should be noted that indefinite temporal phrases (often modified by an adjective) take the locative marker when used in a sentence based on a verb that describes and event for which a 'termination point' (cf. Comrie, 1976: 44) is expressed. Such expressions are said to have the feature [+Telic] and an adverbial phrase based on a *time*-noun expresses the time span in which that event is terminated. This can be illustrated by the following two examples:

- (9) a Hepsi bir gece-de düşün-ül-dü! all one night-Loc devise-PASS-PAST1 'All has been thought out in one night!'
 - b Karanlık, ıslak bir gece-de düş-meden oraya nasıl dark wet a night-Loc fall-priv thither how

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tırman-dığ-ı anlaşılmaz bir şey. climb-PRT1-P3s incomprehensible a thing
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'How he climbed up there on a dark and wet night without slipping / falling is something incomprehensible.'

Expressions for *duration* and *frequency*, as in (8 f-g) are always found without the locative marker.

¹ For a comprehensive treatment of compounds based on temporal expressions, see Van Schaaik, 2002: 246ff.

2.2 Place-nouns

The *place*-nouns which are relevant for our discussion are *aṣaḡi* 'lower place', *yukarı* 'upper place', and to a lesser extent also *dıṣarı* 'outer place' and *içeri* 'inner place'. These nouns form the basis for a number of expressions that can be categorised in several ways.

First, they occur as nouns, as in Genitive Phrases used adverbially:

- (10) a Kaya-nın yukarı-sın-da manzara-lı bir çamlık var. cliff-GEN upper.part-P3s-LOC view-with a pine grove EX 'Above the rock, higher up the cliff, is a scenic pine grove with a view.'
 - b *Pencere-den bak, sokağ-ın aşağı-sın-da deniz-i gör-ür-sün.* window-ABL look street-GEN lower.part-LOC sea-ACC see-PR2-2S 'Look out of the window; down the street you'll see the sea.'

Second, these *place*-nouns are used in Locative Phrases (11 a-b) and Ablative Phrases (11c) and indicate a place relative to some other place:

- (11) a *Leyloş-un aşağı-da saklan-mış ol-duğ-un-u anla-dı-m*.

 L.-GEN down hide-PRT3 *ol-*PRT2-P3S-ACC understand-PAST1-1s

 'I realized that Leyloş was hiding downstairs / somewhere below'.
 - b *Yukarı-da ne yaz-dığ-ın-ı sor-du-m*. up there-Loc what write-PRT2-P3S-ACC ask-PAST1-1s 'I asked what (s)he had written above / up there.'
 - c *Kale-ler yukarı-dan, siper aşağı-dan bomba yağdır-ıyor-du*. castle-PL above-ABL trench below-ABL bombard-PRES1-PAST 'The castles were bombarding from above and the trench(es) from below.'

Third, they figure in adverbial expressions in combination with a verb expressing motion. Their meaning correlates with English prepositions: aṣaǧi 'down', yukarı 'up', as in the following:

(12) a Merdiven-den aşağı in-er-ken ... stairs-ABL down descend-PRES2-'while' 'While (s)he was going down (via) the stairs ...'

- b Merdiven-den yukarı çık-tı. stairs-ABL up ascend-PAST1 '(S)he went up (via) the stairs.'
- c 'Hadi şekerim, yukarı gel!' de-di. come.on sweetie upstairs come say-PAST1 '(S)he said: "Come on sweetie, come upstairs".'

When used adverbially, these expressions can be modified:

- (13) a Bugün bu sayı biraz daha aşağı düş-müştü. today this figure little more down fall-PAST3
 'Today this figure has sunk a little more.'
 - b *Hep* daha yukarı tırman-ıyor-lar. all the time more up climb-pres1-3p 'They climb higher and higher.'
 - c Baş-ın-ı daha da aşağı indir-iyor-du. head-P2S-ACC more even down lower-PRES1-PAST '(S)he lowered the head even further.'

Whereas the examples represented in (12) and (13) all contain an adverbial expression based on *aşağı* and *yukarı* in their 'bare' form in combination with a verb of motion, in the following examples these *place*-nouns take the dative case marker, which, in turn, adds some meaning to the whole. Compare (14 a-b) with (14 c-d):

- (14) a Merdiven-den aşağı-ya in-di-m. stairs-ABL down-DAT descend-PAST1-1S 'I went / came down (via the stairs).'
 - b Merdiven-den yukarı-ya çık-tı. stairs-ABL up ascend-PAST1 '(S)he went upstairs.'

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c Merdiven-den aşağı in-er-ken ... (= 12a)
stairs-ABL down descend-PRES2-'while'
'While (s)he was going down (via) the stairs ...'
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d Merdiven-den yukarı çık-tı. (= 12b)
stairs-ABL up ascend-PAST1
'(S)he went up (via) the stairs.'
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The difference between (12) and (14) can be explained in terms of the aforementioned feature [±Telic]. In (14c/12a) is it merely stated that someone is 'moving down' without revealing how much progress is actually being made or how much distance has been covered: we only know that the person in question is somewhere on the stairs. Firstly, because this is expressed by the adverbial *aṣaḡi* 'down', which is interpreted as a global direction, and secondly, because of the verb form *iner-ken* 'while descending', which makes clear that the act of descending takes place simultaneously with some other event. Also for (14d/12b) we could say that the only logical inference we can make is that someone moved up via some stairs but we do not know, nor can we infer, how much progress has been made or whether that person has reached the landing or not.

In (14 a-b), however, the extent to which the termination point is reached is expressed as such by means of the dative. The logical inference for (14) is that the referent of the subject is not on the stairs anymore: by (14a) it is expressed that '(s)he is some place upstairs' and from (14b) we can infer that '(s)he is some place downstairs'. Similarly, *Aşağı indik* 'we went down.' is a [-Telic] expression and *Aşağı-ya indik* 'We came down.' is [+Telic]. In other words, both the sentences describe an action and the adverbial in the former specifies its *direction* while the latter specifies its *destination*, since the inflected noun *aṣağı-ya* refers to a place that has been reached.

Typically, expressions which are further specified for the time span in which some action is accomplished (cf. (9 a-b)) are interpreted as [+Telic].

- (15) a Rampa-dan aşağı-ya beş dakika-da in-en Sejourner ... ramp-ABL down-DAT five minute-LOC descend-PRT1 Sejourner 'The Sejourner, which gets off the ramp in five minutes, ...'
 - b *Aşağı-ya, düzlüğ-e 3 saatlik bir mücadele-den sonra in-ebil-di-k.* down-DAT plain-DAT 3 hours a effort-ABL after descend-POT-PAST1-1P 'We were able to descend, to a plain, after an effortof three hours.'

An interpretation in terms of 'off', as in (16), is quite common among the uninflected (bare) forms of aşağı as well, witness:

- (16) a *Bu ben-i at-tan aşağı yuvarla-dı*. this I-ACC horse-ABL down 'kick'-PAST1 'This knocked me off the horse.'
 - b *Petrov bir hamle-de vagon-dan aşağı atla-dı*.

 Petrov one rush-Loc wagon-ABL down jump-PAST1

 'Petrov jumped off the wagon in a single leap.'
 - c sedye-den aşağı sark-an kuşak stretcher-ABL down hang-PRT1 sash 'the sash hanging down from / off the stretcher'

Schroeder (2001) attempts to relate these differences in expression ('zero' versus 'dative') to syntactic placement and also to verb semantics and valency. He rejects the possibility of 'topicality' (for the occurrence of the 'dative') as advanced by Kornfilt (1997), and rightfully so, because the example leading to his conclusion clearly shows that some *place* (as a terminal point) and not *direction* is the sole factor that determines the choice between 'zero' and 'dative':

(17) Aşagı-ya, dış kapı-ya in-di. down-DAT outside.door-DAT descend-PAST1 '(S)he came (all the way) down, to the front door.'

That this expression is [+Telic] follows from the fact that the place referred to by *aşağı* is equated with *dış kapı* 'outside door'.

Furthermore, Schroeder (2001: 16) gives a number of indications that *place* as an underlying notion plays an eminent role in explaining the aforementioned opposition for verbs that are not intrinsically [+Telic]. But it remains unclear to me why he does this so hesitantly, for isn't it fully obvious that *place* opposed to *direction* are the crucial factors underlying the difference between (18a) and (18b) on the one hand and between (18b) and (19) on the other?

- (18) a *Aşağı-ya bak-tı-m, yürüyen merdiven-ler-in ön-ün-de dur-uyor*. down-dat look-past1-1s escalator-pl-gen front-p3s-loc stand-pres1 'I looked down and she stands (there) in front of the escalators.'
 - b *Aşağı bak-mak baş-ım-ı dön-dür-üyor.* down look-INF head-P1s-ACC turn-CAUS-PRES1 'Looking down makes me dizzy.'

There is no doubt that the person in (18a) is not just 'looking around' but 'looking at' some place, namely at the very place where the woman stands. In (18b), in contrast to (18a), it is the act of 'looking down' as such that causes the vertigo, no matter what object or place could be looked at; such is simply not specified.

Also in the next example the key notion is place rather than anything else, because the place inherently referred to by aşağı is put in the plural. Moreover, the usage of $g\ddot{o}r$ - 'to see' provides further evidence that the act of looking (bak-) is carried out in an active way, that is, in such a way that its purpose is to see something, and, needless to say, this can only be achieved by looking at some place.

(19) Aşağı-lar-a bak-tığ-ı zaman bütün gör-ebil-diğ-i bir çocuk-tu. down-pl-dat look-prt2 when all see-pot-prt2-p3s a child-past 'When (s)he looked down / below, all (s)he could see was a child.'

One phenomenon Schroeder is unfortunately not able to analyse in a satisfactory way concerns *place*-nouns combined with the 'directional' postposition *doğru* 'to'. Although we will deal with these constructions in the next section, let me present some typical expressions by way of an appetizer:

- (20) a *At, baş-ın-ı yukarı doğru kaldır-dı ve kişne-di*. horse head-p3s-ACC upward lift-pAST1 and neigh-pAST1 'The horse lifted its head up and neighed.'
 - b *Aşağı-ya doğru kay-ma-ya başla-dı*.
 down-DAT slide-INF-DAT begin-PAST1
 '(S)he began to slide down (to a certain point downhill).'

The difference between *yukarı doğru* in (20a) and *yukarı-ya doğru* (cf. (20b)) will be explained in section 3.

Lastly, a few words should be devoted to the adjectival and other usage of expressions in which *aşağı* and the like can figure. First, *aşağı* can be applied as an adjective in the sense of 'lower, inferior':

- (21) a *Bun-lar*, *ne* aşağı bir adam ol-duğ-un-u göster-iyor-du. this-PL what lower a person be-PRT2-P3S-ACC show-PRES1-PAST 'All this made clear what an inferior person he is.'
 - b *Onlar-ın göz-ün-de yerli halk aşağı bir ırk-tan-dır.* they-gen eye-p3s-loc local people lower a race-ABL-EMPH 'In their eyes the local people belong to a lower race.'

Second, combined with an expression for age, *aşağı* means 'younger than, under' and *yukarı* 'older than, over', as in the following examples.

- (22) a On sekiz yaş-ın-dan aşağı kadın-lar ... eighteen year-CM-ABL under woman-PL 'Women younger than / under eighteen ...'
 - b *Kırk yaş-ın-dan yukarı yurttaş-lar* ... forty year-CM-ABL over compatriot-PL 'Compatriots older than / over forty ...'

In fact, the expressions in (22 a-b) resemble those represented in (16 a-c), because they occur after a noun phrase in the ablative. However, there is a fundamental difference between these types of expression. Whereas the complements in the ablative, adding information about the

vertical direction in which an action is performed, as well as *aṣaḡi* 'off', could be left out in (16 a-c), this is not possible in (22 a-b). Leaving out the age-phrase in (22a), for instance, would at best give an interpretation similar to (21): 'inferior'.

In the expressions of (22) aşağı 'under, younger than' and yukarı 'over, older than' must have an age related complement, and in that respect they come close to the adjectives küçük and büyük, which mean 'smaller than, under' and 'bigger than, over' when used with an ablative complement, e.g. on-dan (on yaş) büyük '(ten years) older than (s)he' and onsekiz yaşından küçük 'younger than / under eighteen'.

3 On postpositions

In Turkish there are two types of postposition, one of which takes phrases based on nouns denoting *place* and *time* as a complement and a group that takes other types of complement. The second group comprises postpositions that get complements such as first or second order nouns, pronouns, and demonstratives, e.g. *senin gibi* 'like you', *bunun için* 'for this; therefore', *senden başka* 'except you', *grevden dolayı* 'because of the strike', *buna rağmen* 'despite this' etc. Since their semantics is not related to *place* or *time*, this group does not play a role in the present discussion.

The first group² can be illustrated as follows:

(23) Place Time a kasaba-ya doğru sabah-a doğru towards the town towards the morning

b *köy-e kadar* sabah-a kadar until the village until the morning

² This group includes the postpositions *dek* or *değin* and *karşı*, which are in many a respect synonymous with *kadar* and *doğru* respectively. Because of space limitations they are left out of the discussion.

Further specifications are possible for *time*, as was indicated in section 2.1, e.g. (*sabah saat beş*)-e doğru 'towards five o'clock in the morning' and (*akşam saat dokuz*)-a doğru 'towards nine o'clock in the evening'. What the postpositions of (23) have in common is not only that they both require the dative case marker for the complement (argument), but also that they both express the measuring of a distance, either in space or in time.

Although *doğru* in (23a) is traditionally translated as 'in the direction (of)' or plainly as 'to(ward)' and *kadar* in (23b) as 'until', it might be worth while to reconsider a number of properties of these postpositions. When we say *He walked until the village* a certain distance is expressed by the phrase 'until the village', no matter how vague or imprecise this is. Clearly, a person has set out to cover some distance and the only thing we know for sure is that the distance is subject to a certain *limitation* expressed by 'until' and its complement. Similarly, reclining the offer *How about a drink?* by saying *I wait until dinner* conveys the idea of (a limited) duration, and this could be thought of as the temporal equivalent of space.

With *direction*, as expressed in Turkish by *doğru* in the traditional view, a picture not much different emerges. Given a verb expressing some motion, it can be expressed in what direction that motion takes place, and again, temporal complements give an insight in a certain point towards which the flux of time is directed. The expressions of (23a) do not include a terminal point that is being reached at some stage, and hence, the best characterisation that can be given is one of *approximation*.

In a similar fashion, the constructions dealt with in (7), (8e), (10) and (11 a-b) can be characterised as *positioning* some event in space or time. Interestingly, positioning goes with 'static' verbs and requires the locative case marker, whereas approximation and limitation require the dative, as they are associated with 'dynamic' verbs.

Before we go into the properties of *doğru* and *kadar* when applied to the spatial nouns introduced in 2.2, let us first take a look at some environments in which these constructions are generally found. Since we are dealing with approximation and limitation (due to events evolving in some direction), it is not a big surprise that a phrase denoting a starting

point can be included as well. A starting point, functioning as *standard*, is found with comparatives as well, e.g. *Histanbul*, *Ankara'dan* (*daha*) *büyük* 'Istanbul is bigger than Ankara', and they typically take the ablative case marker. Consider:

(24) Place Time

a İzmir'den deniz-e doğru sabah-tan öğle-ye doğru from Izmir towards the sea from the morning towards noon

b İzmir'den deniz-e kadar sabah-tan öğle-ye kadar from Izmir until the sea from the morning until noon

It should be pointed out that the standard is optional and cannot be regarded an argument of the postposition, as can be shown by leaving out the constituent denoting the place that is in the scope of approximation or limitation.

(25) a *İzmir'den doğru *sabah-tan doğru

b *İzmir'den kadar *sabah-tan kadar

As for the type of complement these postpositions can take, particularly verb based complements are highly frequent:

- (26) a *Ortadan kaldırıl-ma-sın-a doğru alınmış ol-an tedbir-ler* ... eliminate-PASS-NOM-P3S-DAT towards taken be-PRT1 measure-PL 'Measures (having been) taken towards ("aiming at") its elimination ...'
 - b *Uzay istasyon-un-un tamamlanma-sın-a kadar* ... space station-CM-GEN completion-P3S-DAT until 'Until the completion of the space station ...'
 - c *Lucy iskelet-in-in bul-un-ma-sın-a dek* ...
 Lucy skeleton-CM-GEN find-PASS-P3S-DAT until
 'Until the skeleton of so-called "Lucy" was found ...'

A related but very small group of time-related postpositions comprises *beri* and *itibaren*. Although they can be regarded as measuring *duration*

given a certain starting point, the application to place oriented expressions is rather limited. For *itibaren* 'since' the following examples are representative:

- (27) a Bura-dan itibaren ...
 here-ABL since
 'From here on(wards) ... / Beginning here and then onwards ...'
 - b *İlk adım-lar-dan itibaren* ... first stem-PL-ABL since 'From the first steps on(wards) ...'
 - c *Cumhuriyet-in ilân-ın-dan itibaren* ... republic-GEN proclamation-P3s-ABL since 'As off the proclamation of the Republic ...'
 - d (Öğle-den sonra saat beş)-ten itibaren ... noon-ABL after hour five-ABL since 'As off 5 o'clock in the afternoon ...'
 - e (Ön-ümüz-de-ki hafta)-dan itibaren ... front-p1p-LOC-ki week-ABL since 'As off next week ...'
 - f Atatürk, Samsun'a çık-ma-sın-dan itibaren ...
 A. Samsun-DAT ride,out-NOM-P3S-ABL since
 'Since (the moment) he rode out to Samsun, Atatürk ...'

In (27a) an expression denoting *place* forms the complement, in (27 b,c,f) this is an *event*, and in (27 d-e) the complement is a *temporal* expression.

The postposition *itibaren* 'since/as off' is, like *doğru* and *kadar*, monovalent, i.e. some terminal point is not expressed by another argument but by a second postpositional expression:

(28) Gelecek yıl-dan itibaren 2006 yıl-ın-a kadar ... next year-ABL since 2006 year-CM-DAT until 'Beginning next year until 2006 ...'

Other postpositions of this kind are *beri* 'since' and *bu yana* 'since', which usually have a temporal complement with the ablative case marker, denoting the beginning of some interval, but occasionally an *event*-noun (29a), a *place name* (29b) or a verb based complement (29 c-d) is found that functions as a characterisation for a certain period.

Besides relatively simple constructions such as *baş-tan beri* 'since the beginning', *lise yıl-lar-ım-dan beri* 'since my high school years', we have for *beri*:

- (29) a Felaket-ten beri ...
 disaster-ABL since
 'Since the disaster (took place) ...'
 - b Eyüp'ten beri zaman-lar çok değiş-ti. Eyüp-ABL since time-PL much change-PAST1 'Times have changed a lot since Eyüp.'
 - c *Şu masa-ya otur-duğ-umuz-dan beri* ... this table-DAT sit.down-PRT2-P1P-ABL since 'Since we sat down at that table ...'
 - d *Homo habilis fosil-ler-in-in bul-un-ma-sın-dan beri* ... Homo habilis fossil-PL-CM-GEN find-PASS-NOM-P3S-ABL since 'Ever since (the) fossils of *Homo habilis* have been found ...'

Expressions with *bu yana* 'since', being a postposition that takes a starting point (as signalled by the ablative), are similar to those with *beri* 'since':

- (30) a 1992 yıl-ın-dan bu yana ... 1992 year-CM-ABL since 'Since 1992 ...'
 - b Claudia Cardinale-den bu yana ... Claudia Cardinale-ABL since 'Since Claudia Cardinale ...'
 - c Sekiz yaş-ın-dan bu yana ... eight year-CM-ABL since 'Since the age of eight ...'

d On yıl-dan bu yana Almanya-da-yım. ten year-ABL since Germany-LOC-1s 'I am in Germany since ten years.'

Summarizing our findings presented so far, we could say that there are two types of postposition that take an argument based on *place* nouns and *time* nouns. The first group can be termed *ingressive* ('to') postpositions and comprise *doğru* ('towards') denoting *approximation* and *kadar* ('until') which denotes *limitation*. The ingressive nature of this group is corroborated by the fact that their complements take the dative maker, a device that is also in use with [+Telic] verbs. Furthermore, expansion with a complement denoting some *starting point* is possible, comparable to expressions functioning as the *standard* with the comparative of adjectives.

The second group can be termed *egressive* ('from') and comprises the postpositions *itibaren*, *beri* and *bu yana*, all of which take a complement with the ablative case marker. Contrary to the first group, postpositions of the latter cannot be expanded by a second noun phrase indicating some termination point, figuring as the mirror image of the starting point in ingressive expressions (cf. (28)).

Both groups are deployable in the realm of spatial and temporal expressions, and this implies that each of the postpositions referred to above can take an argument that is based on such an expression.

However, with the spatial nouns introduced in 2.2, i.e. *aşağı* 'lower place', *yukarı* 'upper place', *dışarı* 'outer place', and *içeri* 'inner place', there is seemingly a problem when they are used to take up the argument position of *doğru* and *kadar*. This holds for *ileri* 'forward place' and *geri* 'backward place' as well, and these are mentioned here because they are typically used to express movements back and forth in time and space.

Let us now turn to the examples of (20) in section 2.2. Consider again:

(31) a *At, baş-ın-ı yukarı doğru kaldır-dı ve kişne-di*. horse head-p3s-ACC upward lift-pAST1 and neigh-pAST1 'The horse raised its head and neighed.'

b Aşağı-ya doğru kay-ma-ya başla-dı. down-DAT slide-INF-DAT begin-PAST1 '(S)he began to slide down (to a certain point downhill).'

The elements of interest are of course yukarı doğru and aşağı-ya doğru, and more particularly, the occurrence of a dative marker in the latter expression, while this marker which is absent in the former. The question here is how this can be accounted for in terms of the analysis presented for the dative alternation in expressions based on such place nouns. For those constructions we have concluded that it is a matter of telicity which is expressed by the dative: with Aşağı-va baktım it is said that the subject looked at and focussed on a certain place situated below the position (s)he takes, and with Aşağı baktım merely the fact is expressed that the act of looking was directed downward. Taking the traditional translation of doğru as 'in the direction of', it is tempting to try to analyse yukarı doğru of (31a) as 'in the direction of up' or 'upward', and indeed, that would fit the bill, albeit that it would be synonymous with yukarı as we have seen in (12), (13) and (16). On the other hand, analyzing aşağı-va doğru of (32) in a telic sense (because of the occurrence of the dative case marker) would at first sight lead to something possibly contradictory: the general (and thus vague) sense of directionality but telic – that is, some point or destination in time or space that is being reached.

Before I will try to formulate a possible answer to these questions, let me note something about the distribution of these two types of construction over *place* nouns and over the postpositions *doğru* and *kadar*.

First, in a 48 megabyte corpus of Turkish texts (6 million words), comprising 289 texts of different genres, an abundance of forms in *doğru* was attested, both with and without the dative. The complements include not only *aşağı* 'lower place' and *yukarı* 'upper place', but also *ileri* 'forward place' and *geri* 'backward place' and to a somewhat limited extent constructions based on *dışarı* 'outer place' and *içeri* 'inner place'. Second, a similar basis was taken for the investigation of forms based on *kadar* and interestingly enough, several examples were found for the

type that can be represented by *yukarı-ya kadar*, but not a single instance was attested for this form without the dative.

For possible combinations of a *place*-noun (*aṣaĕı*, *yukarı* and the like) and the postpositions *doğru* and *kadar* the following picture emerges:

```
(32) a aşağı-Ø doğru
b aşağı-ya doğru
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(33) a aşağı-Ø kadar (not attested)
b aşağı-ya kadar
```

Now, analyzing (32) as an adverbial expression in which *doğru* may be considered redundant would make them equivalent to bare place nouns used adverbially. Indeed, this seems a good option since *doğru* can be left out without any 'loss of meaning', as can be shown by³:

(34) a *At, baş-ın-ı yukarı kaldır-dı ve kişne-di*. horse head-P3s-ACC upward lift-PAST1 and neigh-PAST1 'The horse lifted its head up and neighed.'

```
b Merdiven-den yukarı çık-tı.
stairs-ABL up ascend-PAST1
'(S)he went up (via) the stairs ...'
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Hence, we will consider formations like *aşağı doğru*, side by side with their bare counterpart *aşağı*, as 'free variants' of adverbial expressions, which do not differ in meaning and which are fully interchangeable.

Next, constructions with *doğru* which are preceded by a place noun in the dative, such as *aṣaḡi-ya doğru*, should be re-analyzed as [+Telic] and denoting *limitation* (distance) rather than *approximation* (direction). Thus, their meaning shifts to 'until' or 'to a certain point' or 'as far as', implying that a certain distance has (totally) been covered. This can be demonstrated by the following:

-

³ Strictly speaking is *yukarı* 'up' redundant as well in (34 a-b) because of the semantics of *kaldır*- 'to lift, to elevate' and *çık*- 'to go up'.

(35) a *Aşağı-ya doğru in-er-se-n*, down-dat UNTIL descend-pres2-cond-2s

kilise-nin bahçe-sin-e var-ır-sın. church-GEN garden-P3S-DAT arrive-PRES2-2S

'If you walk down (to a certain point), you reach the garden of the church'.

- b *Ceket-im-i yukarı-ya doğru düğmele-di-m*. jacket-P1S-ACC up-DAT UNTIL button.up-PAST1-1S 'I buttoned my jacket all the way up.'
- c Kapı-nın her iki yan-ın-da yukarı-dan aşağı-ya doğru door-gen both two side-p3s-loc above-abl down-dat UNTIL

alt alta dizil-mış resim-ler var-dı. under each other line.up-PRT3 picture-PL EX-PAST

'On both sides of the door, from above until below, there were pictures, lined up one under the other.'

Also constructions based on *dişarı* 'outer place', *içeri* 'inner place', *ileri* 'farther on(wards); down, up', and *geri* 'back, rear, space behind' provide us with ample evidence that the analysis presented here is correct. A single example based on *ileri*, contrasting direction with distance, will suffice:

- (36) a Sefer kol-lar-ın-ı ileri (doğru) uzat-tı.

 Sefer arm-PL-P3S-ACC forward stretch.out-PAST1

 'Sefer stretched his arms forward.'
 - b Sefer kol-lar-ın-ı biraz ileri-ye doğru uzat-tı.
 Sefer arm-PL-P3S-ACC little forward-DAT stretch.out-PAST1
 'Sefer stretched his arms out (to a point) a little farther forward.'

As for the construction with *kadar* plus a dative complement (cf. (33b)), its overall meaning has shifted too: whereas a 'normal' noun with this postposition expresses *limitation*, with a *place*-noun (*aṣağı* and the like)

as its complement (and dative), it expresses something beyond that, a distance *in excess of* that limitation, as it were. Consider the following examples:

- (37) a Yukarı-ya kadar çık-ma-yayım, acele-m var! up-DAT until ascend-NEG-OPT1s, hurry-P1s EX 'Let me not go all the way up, I'm in a hurry!'
 - b *Sırt-ım-dan aşağı-ya kadar ürper-di-m*. back-P1S-ABL down-DAT until shudder-PAST1-1S 'I had goose bumps all the way down my back.'
 - c *Göz-ler-im-in seç-eme-yeceğ-i yer-e gelince*, eye-PL-P1S-GEN make.out-NEGPOT-FUT-P3S place-DAT coming

bir basamak in-er, böylece aşağı-ya kadar gel-ir-di-m. a stair descend-prs1 this way down-dat until come-prs1-past-1s

'Coming to a place my eyes could not make out, I went down a stair and in this way I came all the way down here.'

Regarding the expressions aşağı and aşağı doğru as synonymous, both meaning 'downward', we could say that they occur in [-Telic] adverbial phrases, whereas aşağı-ya doğru is a [+Telic] postpositional (adverbial) phrase meaning 'until, as far as'. Forms such as [-Telic] aşağı kadar were not attested, but its [+Telic] counterpart aşağı-ya kadar 'all the way down' does occur. Schematically, these results can be represented as follows:

(38) Adverbial Phrase [-Telic] Postpositional Phrase [+Telic] aşağı (doğru) 'downward' aşağı-ya doğru 'until', 'as far as' aşağı kadar not attested aşağı-ya kadar 'all the way down'

4 On sonra and önce

In the final section of this paper I will defend the thesis that *sonra* and *önce* are *Time*-nouns. Over the past decade there has been some debate

over the classification of these "words", and two more or less extreme positions have been taken: Erdal (1994) regards them as postpositions and Kornfilt (2000) points out that they should be considered as adverbs. In order to illustrate the first point of view, consider the following examples.

- (39) a Geceyarısın-a doğru doktor yeniden gel-di. midnight-DAT towards doctor again come-PAST1 'Towards midnight the doctor came again.'
 - b *Yarın-a kadar bekle-yeme-z mi-ydi*? tomorrow-DAT until wait-NEGPOT-PRES2 Q-PAST 'Couldn't (s)he wait until tomorrow?'
 - c Sabah-tan beri siz-i bekli-yor. morning-ABL since you-ACC wait-PRES1 '(S)he is waiting for you since the morning.'
 - d *Öğle-den sonra bir köy-e ulaş-tı-k.* noon-ABL after a village-DAT reach-PAST1-1P 'In the afternoon we reached a village.'
 - e Akşam-dan önce Eskişehir'e var-dı-m. evening-ABL before Eskişehir-DAT arrive-PAST1-1s 'I arrived in Eskişehir before the evening.'

Indeed, it cannot be denied that the structural and morphological similarities of the adverbial phrases in (39) are striking. First, (39 a-c) are formed with a 'genuine' postposition preceded by its complement which, in turn, takes a case marker, and so do *sonra* and *önce* in (39 d-e). Second, the case markers applied are all related to the nature of the postposition in question: the arguments of ingressive postpositions (*doğru*, *kadar*) take the dative (39a-b) and those of egressive postpositions (*beri*, *sonra*, *önce*) the ablative case marker (39 c-e).

So far, so good, but a disturbing factor, for Kornfilt (2000:219) at any rate, is that constructions such as (39 d-e) are different from (39 a-c). She observes that "while postpositions typically govern just one ob-

ject, these two items are apparently able to govern two", as in the following:

- (40) a Yemek-ten yarım saat önce ... diner-ABL half hour before 'Half an hour before dinner ...'
 - b Cinayet-ten on iki yıl sonra ... murder-ABL twelve year after 'Twelve years after the murder ...'

Taking the stance that *sonra* and *önce* are indeed postpositions, a related problem would be then, why one argument is expressed with the ablative marker while the other remains uninflected. For Erdal (1994), who proposes a homogenous analyses for *sonra* and *önce* in all instances, this seems to be non-problematic, whereas the fact that they are not monovalent tips the scales in favour of an analysis as adverbs for Kornfilt (2000).

Leaving the intricacies of case marking theories aside, let us turn now to the argumentation she develops in order to show the plausibility of her analysis. First, some material is presented that makes clear that *sonra* and *önce* have properties different from those of other postpositions. Either of the complements in (40) can be left out, whereas this is impossible with similar constructions (having an extra complement) based on for instance *doğru* 'to(ward)' and *kadar* 'until'. Compare (41) with (42):

- (41) a Yemek-ten önce ... diner-ABL before 'Before dinner ...'
 - b *Yarım saat önce* ... half hour before 'Half an hour earlier / before (this/that) ...'
- (42) a *Sabah-tan akşam-a kadar çay iç-er-ler*.

 morning-ABL evening-DAT until tea drink-PRES2-3P

 'They drink tea from morning till evening.'

- b Akşam-a kadar çay iç-er-ler. evening-DAT until tea drink-PRES2-3P 'They drink tea until the evening.'
- c *Sabah-tan kadar çay iç-er-ler. morning-ABL until tea drink-PRES2-3P 'They drink tea from the morning.'
- d *Sabah-tan* beri çay iç-er-ler. morning-ABL since tea drink-PRES2-3P 'They drink tea since the morning.'

Postpositions such as *kadar* 'until' obviously have only one argument because the complement with the ablative marker is not 'obligatory' since it can freely be added or, departing from (42a) and arriving at (42b), left out. Now, 'deleting' the complement based on *akşam* 'evening' in (42a) leads to the ungrammatical (42c), which can only be repaired by replacing *kadar* by an appropriate postposition, as for instance *beri* in (42d). Indeed, the conclusion seems justifiable that *sonra* and *önce* are quite different from other postpositions: they take two arguments, either of which can be left out.

Next, Kornfilt (2000: 233) observes that there is a neat parallelism between *sonra* and *önce* and certain constructions of English, on the proviso that one would be prepared to take their basic meanings as 'later' and 'earlier' respectively (cf. (41b)) rather than 'after' and 'before'. This parallelism can be exemplified by:

- (43) a Aliye came [two minutes] later / earlier [than Ali] .
 - b Aliye came [two minutes] after / before [Ali] .

That the constituents in square brackets can be left out in both (43 a-b), together with the fact that *two minutes* corresponds to unmarked constituents (cf. *yarım saat* 'half an hour' in (40a)) and *than Ali* of (43a) to ablative constituents (cf. *yemek* 'dinner' in (40a)), leads obviously to the conclusion that 'later' and 'earlier' can be compared with *sonra* and *önce*.

Although all this would in itself not provide a solid enough basis, according to Kornfilt, to justify an analysis in terms of adverbs, she is still strongly inclined to do so, witness her remark "But if these items are not postpositions, what else could they be other than adverbs?" Apparently, this cry of despair is motivated by the wish to present, like Erdal does, a treatment of *sonra* and *önce* that puts them in *one* lexical category⁴, facilitating an analysis of all instances (cf. Kornfilt, 2000: 237). But that this should entail a binary choice in terms of "either adverb – or postposition", thereby excluding other possibilities, remains unclear to me.

Another area from which Kornfilt tries to find a way to ferret out arguments concerns comparatives of adjectives and adverbs. A remaining problem with regarding *sonra* and *önce* as adverbs is, as it happens, the occurrence of ablative case marking, or, more precisely, where it comes from. The solution is found in the assumption of a 'comparative operator' that is applied to adjectives and adverbs. Consider:

(44) [Galata kule-sin-den] (daha) yüksek Galata tower-CM-ABL more high 'higher than the Galata tower'

In (44) the comparative form *(daha) yüksek* 'higher' can be thought of as the result of an operator (or, for that matter, a derivational rule) that transforms the adjective *yüksek* 'high' under the introduction of a complement, being the *standard* of comparison (see section 3). This mechanism⁵ works equally well for all gradable adjectives and adverbs. Typically, while English has a morphological comparative in many cases (e.g. high - higher and late - later), Turkish has only a synthetic one, *daha* 'more', an element that can be left out (as indicated by the brackets) if the standard is present.

⁴ In Brendemoen and Hovdhaugen (1992) *sonra* and *önce* are sometimes adverbs and sometimes postpositions.

⁵ A similar, but less widespread, type of formation underlies constructions like *deniz seviye-sin-den az yüksek* [sea level-CM-ABL less high] 'lower than sea level'.

However, a number of objections can be raised against this comparison, and more particularly, against equating the constructions under scrutiny. Firstly, comparative adjectives are usually brought about by an operator or derivational rule that introduces the standard as an argument, as well as the optional element daha 'more'. This is not the case with sonra and önce because they are not derived: there is no such thing as son 'late' or ön 'early' that forms the immediate input for a structure comparable to daha yüksek plus its obligatory standard. Secondly, the element daha 'more' is not an essential part of the output of such an operation or derivation. Rather, it is more frequently absent than present in constructions with sonra and önce, and if it occurs there is a difference in meaning, no matter how marginal this may seem. Surely, daha 'more' does occur in combination with sonra and önce; however, not through application of an operator or a derivational rule, but by modification. For isn't there a difference between "earlier" and "much earlier", as there is in (45)?

(45) Ben atlı ve siz yayan ol-duğ-unuz-a göre, I by horse and you on foot be-prt2-p2p-dat since

siz-den daha önce orada ol-ur-um. you-ABL much earlier there be-PRES2-1s

'As I'm on horseback and you on foot, I'll be there earlier than you.'

Thirdly, and this summarises where Kornfilt's argumentation falls short, the status of the ablative complement is not clear. On the one hand, we would have a general device for adjectives (also used as adverbs) that has the properties as outlined above, but on the other, we need at the same time a special rule for *sonra* and *önce* precluding the occurrence of *daha* 'more' and granting a greater tolerance with respect to the omission of the ablative complement. Kornfilt proposes the status of 'adjunct' for such phrases that go with the adverbs *sonra* and *önce* and has case assigned by an operator, all in all a rather contrived way to make two rules resemble each other.

Wouldn't it be more attractive and much simpler to explore the area which is the natural domain of modification, case marking, and apposition of (case-marked) nouns ('adjuncts'), namely that of noun phrases?

5 Sonra and önce are nouns

In order to provide an alternative to the analyses represented above, claiming that *sonra* and *önce* are postpositions (Erdal, 1994) or adverbs (Kornfilt, 2000), I will show that they are *time*-nouns, having the meaning 'period after' and 'period before' respectively. In this way they are comparable to the *place*-nouns *aṣaği* 'place above' and *yukarı* 'place below', as discussed in 2.2.

The nouns *sonra* 'period after' and *önce* 'period before' can be used in numerous expressions of different types, such as noun phrases functioning as object, they occur as possessive and other referential expressions, and they can form the head of nominal compounds (5.1). Furthermore, as nouns *sonra* and *önce* can be modified with an appropriate quantifier (5.2), they are used as the core element of adverbial phrases (5.3) and they can figure in the complement of a number of ingressive and egressive postpositions (5.4). Lastly, just like *place*-nouns and other phrases in the locative, *sonra* and *önce* can be used attributively (5.5). In the remainder of this paper we shall go into these properties one by one.

5.1 Sonra and önce have nominal properties

The nominal properties supporting the claim that *sonra* and *önce* are nouns can be summarised as follows. First, they can bear case markers. An example with the genitive is the following:

(46) 1637'den sonra-nın Descartes'ı 1637-ABL after-GEN Descartes-P3s

> bir bilim adam-ı ol-mak-tan çok bir filozof-tur. a science man-см be-ілғ-авь much a philosopher-емрн

'Descartes after 1637 is more a philosopher than a man of science.'

Despite the fact that *sonra* is translated as 'after', the structure of *sonra-nın Descartes-ı* is basically that of a Possessive Phrase and an alternative to 'of after 1637' would be '(the) Descartes of the *period* after 1637'.

The next example, in the accusative, shows again that 'period after' underlies the usage of *sonra*:

(47) Koca-n öğle-den sonra-yı benim-le telefon-da geçir-di! husband-P2s noon-ABL after-ACC I-with phone-LOC spend-PAST1 'Your husband has spent the afternoon with me on the phone!.'

With the locative case marker, constructions based on *sonra* and *önce* are usually translated as 'later' and 'earlier', but it is nonetheless beyond doubt that they are nominal in character.

(48) Bildiri-yi önce yayımla-r ve sonra-da İzmir'de bir kongre-de sun-ar. paper-ACC first publish-PRS2 and later I.-LOC a conference present-PRES1 'He first publishes the paper and presents it later at a conference in Izmir.'

Expressions with the ablative are lexicalized but still show their nominal origin: *önce-den* 'at first', *sonra-dan* 'subsequently'; compare *şimdi-den* 'already', *eski-den* 'in the old days'. Dative marked expressions will be dealt with in 5.4.

Second, referential expressions based on *sonra* and *önce* occur both in the singular, as well as in the plural. Typical constructions are:

- (49) a Sonra-sı malum.
 period.after-P3s known
 'What followed is known.'
 - b Sonra-sı için ...
 period.after-P3s for
 'For later / the period after (that/this) ...'
 - c *Yeni kanıt-lar tarih-i* 7 milyon yıl önce-sin-e at-ıyor. new proof-PL history-ACC 7 million year before-P3s-DAT throw-PRES1 'New evidence puts history to a period seven million years prior to this.'

- d *Sonra-lar-ı* da Bizans üzerinde makale-ler yaz-dı.
 period.after-PL-P3s and Byzantium about article-PL write-PAST1
 'And in later periods (s)he wrote articles about Byzantium.'
- e *Bu ilk ay-lar-da*, *hatta daha önce-ler-i* ... this first month-PL-LOC even many period.before-PL-P3S 'In these first months, even (in) periods long before (that) ...

Third, *sonra* and *önce* can occur as the head of compounds. Their meaning is again 'period after' and 'period before' / 'prior to', as can be exemplified by the following:

- (50) a Birinci Dünya Savaşı sonra-sın-da ... first world war period.after-CM-LOC '(In the period) after / Following the First World War ...'
 - b *Netanyahu sonra-sın-da* ... Netanyahu period.after-CM-LOC 'In the post-Netanyahu period ...'
 - c *tarih önce-si* history period.before-CM 'prehistory / prehistoric'
 - d evlilik önce-si marriage period.before-CM '(the) period prior to marriage / (the) premarital period'
 - e 1980 sonra-sın-da ... 1980 period.after-CM '(In the period) after 1980 ...'
 - f 17 Mayıs ve sonra-sın-da ... 17 May and period.after-CM '(On) May 17 and after (that) ...'

Lastly, other clear examples of the nominal character of *sonra* and *önce* are noun phrases with the indefinite article *bir* 'a':

- (51) a *Çalışma-lar belirsiz bir sonra-ya kal-acak.* work-PL indefinite a period.after-DAT remain-FUT 'The works will postponed for an indefinite later period.'
 - b *Bu bir önce-den katılma-dır*. this a period.before-ABL contribution-EMPH 'This is a contribution from a previous period.'

What comes clearly to the fore in (46)-(51) is that not only case marking but also their usage in referential expressions, compounds and indefinite noun phrases strongly point to the nominal nature of *sonra* and *önce*.

5.2 Sonra and önce can be quantified

Further support for the claim that *sonra* and *önce* are no postpositions or adverbs but *time*-nouns can be provided by demonstrating how they are quantified in essentially the same way as *place*-nouns. While *place*-nouns such as *ileri* 'place forward' and *geri* 'place backward' are used for *positioning* some event or object in space (cf. 36), *sonra* and *önce* do the same thing in time.

- (52) a *iki yıl önce* two year period.before 'two years back'
- a' *daha önce* more period.before 'more back'
- b *beş hafta sonra*five week period.after
 'five weeks onward'
- b' biraz sonra little period.after 'somewhat onward'
- (53) a *iki kilometre geri* 'two kilometres back'
- a' daha geri 'more back'
- b *otuz metre ileri* 'thirty metres onward'
- b' *biraz ileri* 'somewhat onward'

It should be noted that the type of quantification is not of the regular kind as we find in expressions such as *beş kitap* 'five books' or *biraz su* 'a little water'.

In (52)-(53) the quantification proper is contained in *iki yıl* 'two years', *beş hafta* 'five weeks', *iki kilometre* 'two kilometres' and *otuz metre* 'thirty metres', but on the other hand, these expressions measure a time elapsed and a distance covered relative to a starting point. Also, from a morphological point of view the way in which time (duration) and space (distance) are measured in comparison to quantity is the same, for there is no structural difference between the quantifying phrases in (*büyük bir şişe*) *kırmızı şarap* "red wine, in the quantity of one big bottle" (= 'a big bottle of red wine') and (*kısa bir müddet*) *sonra* "a afterward period, in the size of a short while" (= 'a short while after'). Surely, the way of representing the 'semantics' here is somewhat artificial, but on the other hand, the gist of it will become much clearer when we include an expression for the 'starting point' (standard). We will return to these matters in 5.4.

Another, but quite different, angle from which we can look at *sonra* and *önce* with respect to quantification is by comparing them with postpositions. The fundamental difference between postpositional expressions is that a postposition as such cannot be quantified or modified – only the entire expression as a whole, whereas quantification is applied directly to *sonra* and *önce*. Consider the postpositional adverbials in the following:

- (54) a *Aliye büyük hasır şapka-sın-ı giy-di ve biraz ön-e doğru it-ti*. Aliye big straw hat-P3S-ACC put.on and little front-DAT to push-PAST1 'Aliye put her big straw hat on and pushed it slightly forward.'
 - b *Su-lar kayığ-ı biraz daha kara-ya doğru sürükle-mişti*. water-pl boat-ACC little more shore-DAT to drag-PAST3 'The water has dragged the boat a little closer to the shore.'
 - c *İnsan-ı* ta ilik-ler-in-e kadar dondur-an bir şey-dir, bu! human-ACC ta marrow-PL-P3-DAT until freeze-PRT1 a thing-EMPH this 'It i's something that chills you to the bone, this thing!'

Quantifiers such as *biraz* 'little' (54a), *biraz daha* 'little more' (54b) and also *ta* (54c) 'all the way' are never put directly before the postposition, but have the entire phrase in their scope.

For *itibaren* 'since, as off' and *beri* 'since, as off' similar expressions can be attested: *ta baş-tan itibaren* 'from the very beginning', *cadden-in ta son-un-dan itibaren* 'beginning at the very end of the street', *daha yılbaşın-dan beri* 'from even before new year', *daha 1962'den itibaren* 'from much earlier than 1962' or 'from still before 1962'.

Thus, the placement of a quantifier in postpositional phrases the argument of which is based on a *place*-noun (but other noun phrases qualify as well) can be schematized in the following fashion:

```
(55) a Biraz [ (yukarı)-ya doğru ] tırman-dı. little place.up-DAT until climb-PAST1 '(S)he climbed (to a place) up a little.'
```

```
b Ta [ (aṣaḡi)-ya kadar ] gel-di.
all place.down-DAT as far as come-PAST1
'(S)he came all the way down.'
```

The difference with *sonra* and *önce*, then, is that a quantifier must be placed in their immediately preceding position.

```
(56) a *iki yıl [(savaş)-tan sonra] → savaş-tan iki yıl sonra war-ABL two year after 'two years after the war'
```

b *biraz [(yemek)-ten önce] → *yemek-ten biraz önce* dinner-ABL little before 'shortly before dinner'

The stark contrast in the ordering of quantifiers is another indication that *sonra* and *önce* cannot be regarded as postpositions.

5.3 Sonra and önce can be used adverbially

Contrary to previous examples we have translated *sonra* and *önce* in (56) with 'after' and 'before'. This does not entail that they are all of a sudden viewed differently and that the original descriptions 'period after' and 'period before' have been abandoned. In my opinion the problem of translations like 'before' and 'after' or 'prior to' and 'post-', together with 'earlier than' or 'later than', is a matter of what the target language offers in terms of variety and possibilities. Needless to say that from a Turkish point of view 'sonra' is always 'sonra' and 'önce' is always 'önce': what we do with these words in for instance English is a matter of interpretation given certain lexical and stylistic possibilities of this language. Nevertheless, we shall go into these matters in somewhat more detail, particularly because in an aforementioned scholarly work (Kornfilt, 2000) an attempt was launched to arrive at an analyses departing from 'earlier / later than'.

As has been advanced and illustrated at various places (e.g. (40) and (41)), an expression based on *sonra* and *önce* can have two complements: a noun phrase in the ablative functioning as a starting point (or standard) and a nominative phrase indicating how much time has elapsed in relation to that standard. Consider (40) and (56a), represented here as (57 a-b):

- (57) a *Yemek-ten yarım saat önce* ... diner-ABL half hour before 'Half an hour before dinner ...'
 - b Savaş-tan iki yıl sonra ... war-ABL two year after 'Two years after the war ...'

Since a standard is included in (57), we infer from this expression that the moment(s) referred to lays 'half an hour' prior to *yemek* 'dinner'. Similarly, in (58) a moment is referred to that lays at a 'distance' of *iki yıl* 'two years' after the termination of some war. As we have seen in (52) of section 5.2, an expression without a quantifier is possible as

well, as in (58 a-b), and, not surprisingly, the same expressions can be used without the standard (59 a-b):

- (58) a Yemek-ten önce ...
 diner-ABL before
 '(A period) before dinner ...'
 - b Savaş-tan sonra ... war-ABL after '(A period) after the war ...'
- (59) a Yarım saat önce ... half hour before 'Half an hour before / ago / earlier ...'
 - b *İki yıl sonra* ... two year after 'Two years after / later ...'

Of course, the fact that a standard is not explicitly expressed does not imply that such a standard is not present at the background in the discourse. As is very similar to the case of *place*-nouns (*yukarı* 'place.up, above', *aşağı* 'place.down, below' etc.), also *sonra* and *önce* are nouns the denotatum of which is always relative⁶ to some other point in space and/or time. In case (59) were used in the context of *hic et nunc* ("present"), the standard would be taken as "NOW" and (59a) would be interpreted as 'half an hour before NOW' and (59b) as 'two years from NOW'. Likewise, in the context of (60a) the remark made in (60b) would be appropriate as long as we take *önce* as referring to a moment prior to *dün sabah* 'yesterday morning'.

(60) a NATO ve Yugoslav askerî yetkili-ler dün sabah bir araya gel-di-ler. military authority-PL yesterday morning together come-PAST1-3P 'Military authorities of N. and Yugoslavia have met yesterday morning'.

⁶ Other relative *place*-nouns, such as *arka* 'behind' and *ön* 'front', especially their role in compound formation, are discussed in Van Schaaik (2002: 245ff).

b *Önce de, ama bir sonuca ulaş-ma-dı-lar.*before too but a result reach-NEG-PAST1-3P
'As before (= before yesterday), but they did not produce any results.'

An interpretation in terms of 'ago' is of course quite frequent when an ablative complement is absent. The following examples show again clearly that differences in the sense of 'ago' versus 'period before' are not reflected in Turkish.

- (61) a Üç gün önce-yi anımsı-yor mu-sun? Hem de nasıl! three day ago-ACC remember-PRES1 Q-2s you bet 'Do you remember three days ago? You bet!'
 - b *Bir kuşak önce-nin aristokrat kökenli kadın-lar uyumsuz-dur-lar*. a generation ago-GEN aristocrat origin woman-PL not.amicable-EMPH-3P 'Aristocratic women of a generation ago were difficult to get along with.'
 - c *İki milyon yıl önce-nin önce-sin-de ne ol-du?* two million year ago-GEN before-P3S-LOC what happen-PAST1 'What happened in the period before two million years ago?'

With locative marked phrases we come closer to the 'period'-reading in English:

- (63) a *İki milyon yıl önce-de bul-un-an Australopithecus* ... two million year ago-Loc find-PASS-PRT1 Australopithecus 'Australopithecus, who was found in a period two million years ago ...'
 - b Daha sonra-da şehir-de gezin-ebil-ir-siniz. more period.after-Loc city-Loc stroll-POT-PRES2-2P 'At some later moment you can stroll in the city.'
 - c Daha önce-de söyle-diğ-im gibi ...
 much ago-Loc say-PRT2-P1s like
 'Like I said (at a moment) much earlier / some time ago ...'

Looking at these phenomena from another perspective, we could also say of course that there seem to be quite a lot of possibilities to express 'later' and 'earlier' and the like in Turkish. First, all based on *sonra* and *önce*, they occur with and without an ablative phrase, as in (58) and (59), or without a temporal qualifier, as in (60), and secondly, as a locative phrase.

It should be noted, however, that locative phases do not occur with an ablative complement. Two types of exception exist: the referential but the 'fossilised' expressions *bun-dan sonra-sın-da* 'after this' and *on-dan sonra-sın-da* 'after that' (see also (69)), and phrases based on *öğle-den sonra*. The latter can be exemplified by:

- (64) a *Uzun, bit-me-yen bir ögleden sonrası-nda* ... long end-NEG-PRT1 a afternoon-LOC 'On a long afternoon, which came to no end, ...'
 - b Aynı gün-ün öğleden sonrası-nda ... same day-GEN afternoon-LOC 'On the afternoon of the same day ...'

As follows from the glosses, *öğleden sonrası* can be interpreted in its entirety as 'afternoon', having the simpler variant *öğleden sonra*.

5.4 Sonra and önce can be used as complement of postpositions

Since *sonra* and *önce* are *time*-nouns, with exactly the same morphological properties as 'normal' nouns, it can be expected that also a dative case marker can be attached to either of these forms. This occurs especially when they are used as the complement of a postposition. But first, let us look at some constructions in which the dative has the meaning of 'to the benefit of or 'for' (65b), as opposed to directional 'to' (65a). Consider:

- (65) a Toplantı (bir gece sonra)-ya ertele-n-mişti.
 meeting a night later-DAT postpone-PASS-PAST3
 'The meeting was postponed to an evening after / later.'
 - b Neşe-niz-i savaş-tan sonra-ya sakla-yın! gaiety-P2P-ACC war-ABL after-DAT keep-IMP 'Keep your gaiety (rather) for after the war!'

For (65a) it can be assumed that the verb *ertele*- 'postpone' requires a complement that goes with the dative, but for (65b) such an assumption would be untenable for the simple reason that complements expressing some 'purpose' or 'reason' are never a verbal argument.

With postpositions this is different. Several postpositions require a complement to be expressed with the dative case marker. Apart from *doğru* 'to(wards)' and *kadar* 'until', we find among other things the following:

- (66) a Ölum-e ve (ölüm-den sonra)-ya dair ... death-DAT and death-ABL after-DAT concerning 'Pertaining to / Concerning death and the period after ...'
 - b Düşman (saat altı sonra)-ya doğru ... enemy hour six after-DAT towards 'Towards a moment after six o'clock, the enemy ...'
 - c Bütün bun-lar (1800'ler-den önce)-ye ait ... all this-PL 1800-PL-ABL before-DAT belongs to 'All this belongs to the period before 1800 ...'

In what follows we shall briefly explore the distribution of constructions based on *sonra* and *önce* as they occur as the complement of *kadar* 'until'. Three main types of expression can be distinguished.

The first type of construction concerns a postpositional complex with *önce* without an ablative complement, and conveys the idea of 'back / ago'.

(67) (Altı sene önce)-ye kadar ... six year before-DAT until 'Until six years ago ...'

For this construction there is no 'mirror image' with *sonra*, along the lines of *bir hafta sonra-ya kadar 'until a week later'. Such forms were not attested, and their function is apparently fulfilled by a referential construction: bir hafta-sın-a kadar 'until a week later / after it'.

In the second type of expression the ablative complement is always included and these expressions occur with and without a quantifier.

- (68) a (*Atatürk'ün ölüm-ün-den sonra*)-ya kadar ...

 Atatürk-GEN death-P3S-ABL after-DAT until

 'Until after the death of Atatürk ...'
 - b *Bu toplantı (gece yarı-sın-dan çok sonra)-ya kadar sür-müştü.* this meeting midnight-CM-ABL much after-DAT until last-PAST3 'This meeting went on well past midnight.'
 - c (*İzmir zafer-in-den beş sene sonra*)-ya kadar ... Izmir victory-CM-ABL five year after-DAT until 'Until five years after the victory in Izmir ...'

As is the case with *sonra* in (67), also for *önce* in (68) there is no 'mirror image', for *altı sene önce-ye kadar* in the sense of 'until six years after X / later' is ungrammatical without an ablative complement: its function is fulfilled by a referential construction: (*bun-dan*) *altı sene önce-sin-e kadar* 'until six years after it/this'.

The third type of construction is based on a referential expression and can only occur with a quantifier and an ablative complement, although the latter is usually left out when another point of reference is available. In the examples below such points are provided for by a demonstrative.

- (69)a (Bun-dan) on sene sonra-sın-a kadar ... this-ABL ten year after-P3S-DAT until 'Until ten years after this / later ...'
 - b (On-dan) iki yıl önce-sin-e kadar ... that-ABL two year before-P3s-DAT until 'Until two years before that / earlier / ago ...'

That referentiality is the factor which determines whether the possessive suffix -(s)I(n) occurs becomes clearer when we consider examples that provide more context. In (70a) the French Revolution is the point of reference, in (70b) this is the fact that 'the rate of interest has risen to

100%', but in (70c) such a reference point must be inferred from the context.

- (70)a Fransız Devrim-i'ne ve (daha sonra-sın)-a kadar ... French revolution-CM-DAT and much later-P3S-DAT until 'Until the French Revolution and much later ("long after it") ...'
 - b Faiz-ler yüzde 110'a yüksel-di. Bir hafta önce-sin-e kadar ... interest-LER percent 110-DAT rise-PAST1. one week before-P3S-DAT until 'The interest rate has gone up to 110%. Until a week before this ...'
 - c Daha doğrusu, bir-iki hafta önce-sin-e kadar öyle-ydi. more precisely one-two week before-P2s-DAT until thus-PAST 'More precisely, it was that way until a week before (that/it) ...'

To conclude this section, it should be pointed that the plural suffix adds a strong flavour of vagueness to *sonra* and *önce*. Also in this respect these *time*-nouns are comparable again to *place*-nouns. Not only the adverbial fixed expressions *sonra-lari* 'afterwards, later on' and *önce-leri* 'previously, formerly' are highly frequent but the freer constructions as well. Compare (71 a-b) with the place constructions of (71 c-d):

- (71) a (Gece yarısın-dan çok sonra-lar)-a kadar iç-ip eğlen-di-k. midnight-ABL much after-PL-DAT until drink-CONV have.fun-PAST1-1P 'We drank and had fun way beyond midnight.'
 - b *Bu çok daha önce-ler-den kalma!* this much more previous.period-PL-ABL remnant 'That is a left-over from a long time ago!'
 - c *İlk ses yukarı-lar-dan gel-di: Bul-du-m bul-du-m!* first sound above-PL-ABL come-PAST1 find-PAST1-1S 'The first sound came from somewhere above: I found it, I found it!'
 - e *Ondan sonra aşağı-lar-a, düzlüğ-e in-di-ler*. then below-PL-DAT plain-DAT descend-PAST1-3P 'And then they went to somewhere below, to the plain.'

5.5 Sonra and önce can be used attributively: -ki

In section 3 it was briefly indicated that spatial and temporal expressions in the locative can be used attributively by adding -ki. Typical examples are:

- (72) a *Parti-de-ki arakadaş-lar-ın-ın birçoğ-u* ... party-LOC-*ki* friend-PL-P3S-GEN a.lot-P3S 'A lot of his friends at the party ...'
 - b 1933-te-ki üniversite reform-u ... 1933-LOC-ki university reform-CM 'The university reformation in 1933 ...'
 - c *Şu an-da-ki ilişki-ler-imiz* ... this moment-LOC-*ki* relation-PL-P1P 'Our relations of this moment ...'
 - d *Ön-ümüz-de-ki hafta-lar-da* ... front-P1P-LOC-*ki* week-PL-LOC
 'In the weeks ahead of us ...'

Example (72 b) contains a temporal expression based on a cardinal number, but, in fact, any temporal expression that requires the locative is shaped this way, as is the case in (72 c-d). Temporal expressions based on a bare *time*-noun or a compound of such nouns must be expressed without -ki, for instance:

- (73) a *O akşam-ki parti-de çok eğlen-di-k.* that evening-*ki* party-Loc much have.fun-PAST1-1P 'We had a lot of fun at the party that evening.'
 - b *Dün akşam-ki konuşma-lar-da* ... yesterday evening-*ki* talk-PL-LOC 'At the talks yesterday evening ...'
 - c Geçen yıl-ki sınav-lar ... last year-ki exam-PL 'The exams last year ...'

Now, due to the fact that *sonra* and *önce* are *time*-nouns, it is not surprising that they can be used attributively as well. Quite similar to their usage as exemplified in the previous sections, in attributive position the same distribution with respect to the occurrence of qualifiers and ablative phrases appears to hold. In (74), (75) and (76) the constructions are all without an ablative complement:

- (74) a *Bir önce-ki konuşma-nız-da* ... a before-*ki* lecture-P2P-LOC 'In your previous lecture ...'
 - b Bir sonra-ki adım ne ol-acak? a later-ki step what be-FUT 'And what will the next step be?'
- (75) a Siz de mi az önce-ki tren-le gel-di-niz? you too Q little before-ki train-INSTR come-PAST1-2P 'Did you, too, come with that train a little while ago?'
 - b *Biraz sonra-ki bir toplantı-da* ... little later-*ki* a meeting-Loc 'In a meeting shortly afterwards ...'
- (76) a *Üç hafta önce-ki fiyat-lar* ... three week before-*ki* price-PL 'The prices of three weeks ago / before ...'
 - b *Bir gün sonra-ki görüşme-de* ... one day after-*ki* meeting-Loc 'In the meeting one day later ...'

For these examples –all without an ablative complement– a variety of translations applies: for *önce* we get 'previous' (74a), 'ago' (75a), 'before' (76a) and for *sonra* 'afterwards' (74b), 'later' (76b) and 'another' (75b). For the latter example also 'next' would be appropriate, just like in: *Peki, bir sonra-ki adım ne olacak?* 'Okay, what will be the next step?'

Nonetheless, used attributively or not, the basic meaning of *sonra* and *önce* is 'period after' and 'period before'. This can be further shown with expressions that do contain an ablative complement:

- (77) a *Biz-den önce-ki ev sahib-i* ... we-ABL before-*ki* house owner-CM 'The previous ("before us") home owner ...'
 - b Bauderlaire'den sonra-ki şair-ler ...

 Baudelaire-Loc later-ki poet-PL

 'The poets after / (who came later than) Beaudelaire ...'
- (78) a *Bun-dan yüz-lerce yıl önce-ki ilişki-leri* ... this-ABL hundreds year before-*ki* relation-P3P 'Their relations, dating back hundreds of years (before this), ...'
 - b 1923'ten otuz sene sonra-ki durum-dan anlı-yor mu-sun? 1923-ABL thirty year later-ki situation-ABL understand-PRES1 Q-2s 'Do you understand the situation of thirty years after 1923?'

In (77a) it is talked about 'a house owner' pertaining to a period that is located in time before a period that is characterised by *biz* 'we' and for (77b) we could say that both *Beaudelaire* and *şair-ler* 'poets' belong to different periods, the link between which is made by *sonra*. Likewise, what we have at hand in (78a) is 'their relations' linked to a period 'hundreds of years' prior to another point in time referred to by *bu* 'this'. Finally, the 'situation' in (78b) is positioned 'thirty years' after '1923' by means of *sonra*.

6 Postmortem

Recall that Erdal (1994) analyses all instances of *sonra* and *önce* as postpositions and Kornfilt (2000) as adverbs. To begin this summary with the latter approach, it is not very likely that an adverb will be applied attributively. In the majority of cases an adverb is derived from an adjective, and apart from the fact that adverbs are usually applied on

clause level (and as modifiers of degree and the like to adjectives), there wouldn't be a need to use an adverb as a modifier in a noun phrase, given the adjectives they derive from.

If *sonra* and *önce* were truly adverbs, why would they behave so differently: why are they used as nouns (5.1), how could they be quantified (5.2) or form the basis for an adverbial expression like any other noun (5.3), and what would explain that they occur as the complement of postpositions (5.4) and that they are applied in attributive position (5.5)?

As for the conclusions presented by Erdal, if *sonra* and *önce* were postpositions, what would account for the fact that, apart from *gibi*⁷ 'like', no other postpositions have nominal properties? Real postpositions cannot be quantified, nor do they occur in their bare form in adverbial expressions or as the complement of another postposition. The sole postpositions that can take *-ki* for attributive usage are *karşı* 'opposite' as in *karşı-ki ev-de* 'in the house across from here' and *kadar*. As for the latter, noun phrases based on *time*-nouns like *dönem* 'period', *süre* 'period' and the like can be modified by a phrase specifying the time elapsed between two points in time, as can be demonstrated by:

(79) Film, 1964'ten 1975'e kadar-ki dönem-i kapsı-yor. film 1964-ABL 1975-DAT until-ki period-ACC cover-PRES1 'The film covers the period from 1964 to 1975.'

Quite a lot of variation is possible: also event nouns may figure as the head of a noun phrase, and ablative complements may be absent.

- (80) a *İlk çalışma-lar-dan itibaren 1949'a kadar-ki gelişme-ler* ... first effort-PL-ABL since 1949-DAT until-*ki* development-PL 'Developments (going on) from the first efforts onwards until 1949 ...'
 - b *Şu an-a kadar-ki sonuç-lar* ... this moment-DAT until-*ki* result-PL 'The results (obtained) so far ...'

⁷ For an analysis of gibi 'like' as a nominal predicate, see Van Schaaik (1996).

⁸ In an attributive environment, postpositions such as *için* 'for', *ait* 'belonging to', *gibi* 'like' and *dair* 'concerning, about' require the auxiliary *ol*-, e.g. *Ali için olan kitap* 'the book (which is) for Ali'.

Also distance (in space) can be measured and included as a modifier within a noun phrase:

(81) Yeşilköy-den Sarayburnun-a kadar-ki kıyı şerid-i ... Yeşilköy-ABL Sarayburnu-DAT until-ki coast strip-CM 'The coast line (running) from Yeşilköy until Sarayburnu ...'

In this respect, the time or distance being measured is expressed in a way that comes close constructions based on the quantitative postposition kadar, which underlies quantifying modifiers such as sen-in kadar ($b\ddot{u}y\ddot{u}k$) 'as tall / big as you', Fransa kadar ($b\ddot{u}y\ddot{u}k$) 'as large as France', and $\ddot{U}c$ ay icinde elli dollar kadar para kenara koydum 'I saved as much as fifty dollars in three months.'

Anyway, this short detour in the realm of a postposition that has an unexpected property does not reveal anything disconcerting, as for instance, undermining the viewpoint defended here that *sonra* and *önce* are nouns. On the contrary, perhaps it gives a clue that in certain circumstances *kadar* could be better analysed as a *quantity*-noun than as a postposition, as in *anla-dığ-ım kadar-ı-yla* 'insomuch I have understood'.

Abbreviations used in glosses

| 1S | copula, 1st person sing. | CONV | converb |
|------|---------------------------|-------------|---------------------------|
| 2S | copula, 2nd person sing. | DAT | dative case |
| 3S | copula, 3nd person sing. | EMPH | emphatic suffix |
| 1P | copula, 1st person plural | EX | existential |
| 2P | copula, 2nd person plural | FUT | future tense |
| 3P | copula, 3rd person plural | GEN | genitive case |
| ABL | ablative case | IMP | imperative: -(y)In |
| ACC | accusative case | INF | infinitive |
| ADJ | adjective formans | LOC | locative case |
| ADV | adverbial formans | NEG | negation marker |
| CAUS | causative formans | NEGPO | T negative potential |
| CM | compound marker | OPT1S | optative 1st person sing. |
| COND | conditional | PASS | passive |
| | | | |

| PAST | projection suffix: -(y)TI | POT | potential |
|-------|---------------------------|-------|-----------------------------|
| PAST1 | past tense (1): -TI | PRES1 | present tense (1) |
| PAST3 | past tense (2): -mIştI | PRES2 | present tense (2) |
| PL | plural | PRIV | privative |
| P1P | poss. 1st person plur | PRT1 | participle 1: -(y)En |
| P2P | poss. 2nd person plural | PRT2 | participle 2: -TIK/-(y)ECEK |
| P3P | poss. 3rd person plural | PRT3 | participle 3: -mIş |
| P1S | poss. 1st person singular | Q | question marker |
| P2S | poss. 2nd person singular | | |
| P3S | poss. 3rd person singular | | |

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