Turkish *-mIş* does not contribute (English-type) present perfect[*]

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1 Introduction

Turkish (Turkic) has two verbal suffixes that have been noted to contribute both evidentiality and tense or aspect (Kornfilt 1997, Slobin & Aksu 1982, Underhill 1976, Lewis 1967, among many others). The basic contrast is given below; the morpheme *-DI* marks that the speaker has direct evidence for the proposition (1), whereas the morpheme *-mIş* marks that the speaker has indirect evidence (2):[1]

(1) **Direct evidence context:** The speaker saw Ayşe getting on a train to Istanbul.
Ayşe Istanbul-a   {git-**ti**-∅   / #git-**miş**-∅}.
Ayse Istanbul-DAT go-DI-3SG / go-MIS-3SG
'(I have direct evidence that) Ayşe went to Istanbul.'[2]

(2) **Indirect evidence context:** The speaker found a train ticket to Istanbul in Ayşe's name.
Ayşe Istanbul-a   {git-**miş**-∅   / #git-**ti**-∅}.
Ayse Istanbul-DAT go-MIS-3SG / go-DI-3SG
'(I have indirect evidence that) Ayşe went to Istanbul.'

In this paper, we focus specifically on the temporal contribution of the morpheme *-mIş*. We respond to prior proposals that assume that *-mIş* contributes present perfect semantics

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[1]Following Turkicist tradition, we capitalize letters to indicate underspecified segments that are subject to vowel harmony or voice/place assimilation.

[2]We use the following abbreviations in this paper: 1 'first person,' 2 'second person,' 3 'third person,' ABL 'ablative,' COMP 'complementizer,' COMPR 'comparative,' DAT 'dative,' DEF 'definite,' DIR 'direct evidential,' ELAT 'elative,' EVID 'evidential,' FUT 'future,' GEN 'genitive,' INDIR 'indirect evidential,' INDEF 'indefinite,' INF 'inferential evidential,' INFIN 'infinitive,' LOC 'locative,' NEG 'negation,' NPST 'nonpast,' PL 'plural,' PST 'past,' Q 'question,' REP 'reportative evidential,' SG 'singular.' We gloss *-DI* and *-mIş* simply as -DI and -MIS, respectively, since we do not give a full proposal for their semantic contribution in this paper.

(Şener 2011, Izvorski 1997, Aksu-Koç 1988, among many others).[3]   We show based on comparison of English and Turkish data that Turkish expressions with *-mIş* cannot have the same semantics as the English present perfect. This paper provides additional Turkish data beyond prior proposals for a non-present perfect semantics for *-mIş* (e.g. Arslan-Kechriotis 2006), and demonstrates the challenges associated with giving a cross-linguistically valid definition of present perfect. We ultimately would like to raise the question of whether the term "present perfect" is cross-linguistically meaningful.

2   How to diagnose present perfect

The present perfect is notoriously difficult to define. One of the most important questions we would like to raise in this paper is how exactly we should diagnose present perfect in a given language, and whether it should even be treated as a cross-linguistically valid category. We do not provide our own criteria for this purpose; instead, we evaluate Turkish *-mIş* against existing diagnostics for the (English) present perfect, and show that it fails to satisfy them. We choose to evaluate Turkish against English present perfect data due to the fact that the English present perfect is the most extensively studied, both descriptively and theoretically.

Klein (1992) argues for a primarily syntactic diagnosis of the present perfect. He proposes that the most noteworthy property of the (English) present perfect is its inability to co-occur with (most) temporal adverbs, as in (3). This "present perfect puzzle" remains one of the most commonly accepted diagnoses for the present perfect.

The (English) present perfect also makes a number of well described pragmatic contributions (McCawley 1981, Iatridou et al. 2001, among others). These center around its use to describe a "past event of current relevance" (Comrie 1976), and are laid out in (4)-(9) below. These pragmatic properties are used as diagnoses for the present perfect by authors such as Dahl (1985).

· **Present perfect puzzle:** Present perfect is ungrammatical with positional temporal adjuncts (Klein 1992)

(3)   Leroy has left London (*yesterday).

· **Salience requirement:** The described event must be salient at the utterance time (McCoard 1978)

(4)   ??Gutenberg has discovered the art of printing.

· **Perfect of result:** Result state of present perfect expressions must be true at the utterance time (Iatridou et al. 2001)

(5)   Ali has lost his keys (#but now he found them).

· **Universal perfect:** When the present perfect occurs with a stative verb, the state described by the verb must be true at the utterance time[4] (McCawley 1981)

(6)   Ayşe has lived in Istanbul since 2000 (#but she doesn't live there anymore).

· **Lifetime effects:** Individuals in present perfect utterances must be alive at the utterance time (Chomsky 1970)

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[3]The origin of this claim goes back to Old Turkic (8th to 13th centuries) (Johanson 2000). Johanson claims the suffix *-mIş* was used as a marker of both indirect evidentiality and "postterminality," which he defines as a perfect relative tense. He proposes that this usage presents an event "with respect to its relevance to a subsequent observation point" and translates it as present perfect in English.

[4]We use the term "universal perfect" from Iatridou et al. (2001); McCawley (1981) and Portner (2003), among others, refer to these as continuative perfects.

(7)   ??Einstein has visited Princeton.

· **Repeatability requirement:** Events described by a present perfect utterance must be repeatable (Katz 2003)

(8)   **Context:** The Monet exhibit is closed; the addressee can no longer go to it.
      #Have you been to the Monet exhibit?

· **Out of the blue questions:** Present perfect is felicitous in out of the blue questions, unlike the simple past

(9)   **Context:** Leroy pokes his head in his co-worker's office and asks:
      a.   ✓Have you eaten sushi?
      b.   #Did you eat sushi?

   Theories of the present perfect attempt to account for some or all of the data in (3)-(9), and differ in what they assume is the most important data to account for. "Extended now" (XN) theories are among the most common; they take the salience data in (4) as a core property of the meaning of the present perfect (Iatridou et al. 2001, Bhatt & Pancheva 2005, Dowty 1979, McCoard 1978, among others). These theories treat the present perfect as extending the speaker's "now" to include times in the past as well as the utterance time. For reasons of space, we will primarily evaluate Turkish -*mIş* against the basic predictions of an XN approach.

2.1   Cross-linguistic variation in the meaning of the present perfect

A number of authors have noted that the syntactic and pragmatic properties of the English present perfect given in (3)-(9) do not apply to present perfects across all languages (Plungian 2011, Dahl 2000, Dahl 1985, among others). For instance, Musan (2001:361) shows in (10) that Klein (1992)'s present perfect puzzle does not arise in German, contrary to (3). Dahl (1985:185) argues that the same is true of Bulgarian.

(10)   Hans hat gestern   den Brief geschrieben.
       Hans has yesterday the letter written
       'Hans wrote the letter yesterday.'

   Pancheva & von Stechow (2004:8) show in (11) that German universal perfects do not require that the state described by the verb be true at the utterance time, contrary to (6).

(11)   Ich habe hier immer gewohnt... bis vor kurzem.
       I   have here always lived   until   recently
       'I have always lived here... until recently.'

   Kratzer (1998:16) shows in (12) that only the present perfect is grammatical in German questions, not the simple past:

(12)   a.   Wer hat diese Kirche gebaut?
            who has this   church built
            'Who has built this church?'

     b.   *Wer baute diese Kirche?
         who built this   church
         Intended: 'Who built this church?'

    Furthermore, Dahl (1985:143) asserts that the repeatability requirement in (8) does not hold in Japanese.

    As suggested by the above data, theoretical accounts have primarily focused on other Germanic languages; these include Pancheva & von Stechow (2004), Musan (2001), and Klein & Vater (1998), all on German. We briefly evaluate *-mIş* against the theoretical account given by Pancheva & von Stechow (2004) in 4.2. For now, we note simply that the typological literature makes it clear that the semantic contribution of the present perfect is quite cross-linguistically heterogeneous. One purpose of this paper is therefore to add Turkish, a non-Indo-European language, to the typological literature. If we ultimately choose to expand our theory of the present perfect to include Turkish *-mIş*, then the data in this paper shows that the distribution and use of the present perfect is even more diverse than previously proposed.

3   Comparison of English present perfect and Turkish *-mIş* data

In the following section, we compare properties of Turkish expressions containing *-mIş* to the properties of the English present perfect data described in (3)-(6). We show that Turkish *-mIş* does not pattern the same as the English present perfect.

    As we showed in (2), a Turkish speaker must have indirect evidence for the prejacent in order to utter the following *-mIş* expressions.[5] In the following examples, we provide contexts in which the speaker has inferential evidence for the truth of the prejacent.

· The **present perfect puzzle** does not apply to Turkish expressions with *-mIş*; *dün* 'yesterday' is grammatical in (13), contrary to the English example in (3).

(13)   **Present perfect puzzle context:** The speaker walks into the Olympic changing room the morning after a race and sees Usain Bolt's jersey in the laundry basket. She didn't witness the race, but has evidence that Usain Bolt ran yesterday. She says:

       Usain Bolt dün   koş-muş-∅.
       Usain Bolt yesterday run-MIS-3SG
       '(I have indirect evidence that) Usain Bolt ran yesterday.'

· Turkish expressions with *-mIş* do not require that the event described by the verb be **salient at the utterance time**, unlike English present perfect expressions (4).

(14)   **Context:** You have been studying the history of art of printing. You see Gutenberg's name everywhere in the resources and you make the inference that Gutenberg discovered the art of printing. You say:

       Gutenberg basım   sanat-ın-ı   keşfet-miş-∅.
       Gutenberg printing art-3SG-ACC discover-MIS-3SG
       '(I have indirect evidence that) Gutenberg discovered the art of printing.'

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[5] Şener (2011) claims that certain evidential interpretations of *-mIş* are unavailable depending on whether or not *-mIş* is interpreted as a plain past tense or as a present perfect. We do not directly address Şener (2011)'s analysis in this paper; however, we find that both inferential and reportative readings of *-mIş* are available in all of the following examples, given the correct evidential context.

· The result state of **perfect of result** expressions do not need to be true at the utterance time in Turkish, unlike in English (5).

(15) **Perfect of result context:** You see your neighbor's son, Ali, crying and running around in their backyard, looking for something. Later on, you see him happily playing with his favorite toy. You say:
Ali oyuncağ-ın-ı kaybet-miş-∅, ama şimdi bul-muş-∅.
Ali toy-3SG-ACC lose-MIS-3SG but now find-MIS-3SG
'(I have indirect evidence that) Ali lost his toy, but now he found it.'

· The state described by the verb in a Turkish **universal perfect** must no longer hold at the utterance time, unlike in English (6). It is infelicitous to report (16) if Ali still lives in Istanbul at the utterance time, as shown by (b).

(16) **Universal perfect context:** You have not heard from your friend Ali in a long time. You go on his Facebook page and see that he moved to Istanbul in 2010. Then, you see a newer post saying that he accepted a job in Ankara. You say:
Ali 2010-dan beri Istanbul-da   yaşa-mış-∅.
Ali 2010-ABL since Istanbul-LOC live-MIS-3SG

   a. ✓'(I have indirect evidence that) Ali has lived in Istanbul since 2010 (but he doesn't live there anymore).'

   b. #'(I have indirect evidence that) Ali has lived in Istanbul since 2010 (and he still lives there today).'

· Contrary to the **lifetime effects** observed in English (7), the individuals in Turkish expressions with *-mIş* do not need to be alive, as in (17).

(17) **Lifetime effects context:** You visit Princeton and see Einstein's signature in the physics department guestbook. You say:
Einstein Princeton-ı   ziyaret et-miş-∅.
Einstein Princeton-ACC visit   do-MIS-3SG
'(I have indirect evidence that) Einstein visited Princeton.'

· Unlike the **repeatability effects** observed in English (8), the event described by a Turkish expression including *-mIş* does not need to be repeatable, as in (18).

(18) **Repeatability context:** You are discussing the Picasso exhibit at LACMA with your friend Ayşe. You are curious if your mutual friend Leyla went to see it. The Picasso exhibit is closed now; Leyla can no longer go to it. You ask:[6]
Leyla Picasso sergi-sin-e   git-miş-∅ mi?
Leyla Picasso exhibit-3SG-DAT go-MIS-3SG Q
'Did Leyla go to the Picasso exhibit?'

· *-mIş* is infelicitous in **out of the blue questions**, as in (19). However, if a context is provided, *-mIş* is available, as in (20).

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[6]In Turkish questions, the choice of evidential (*-DI* or *-mIş*) reflects the evidence that the speaker assumes the addressee has for the relevant proposition. This is termed interrogative flip (San Roque et al. 2015). (18) therefore requires that the speaker ask a question about a third party, rather than about the addressee, since the addressee presumably has direct evidence for their own actions (and therefore could not use *-mIş*). The same is true for (19).

(19) **Out of the blue question:** Your co-worker sticks their head in your office and asks:
    #Ali suşi ye-miş-∅   mi?
      Ali sushi eat-MIS-3SG Q
    'Did Ali eat sushi?'[7]

(20) **Contextually salient question:** Seren is a somewhat picky eater. I know that Seren went to
    a Japanese restaurant last night, and that you talked to her after she went there. I ask you:
    Seren suşi ye-miş-∅   mi?
    Seren sushi eat-MIS-3SG Q
    'Did Seren eat sushi?'

We summarize our comparison of Turkish *-mIş* and English present perfect in Table 1. We
abbreviate "utterance time" as "UT":

Property	Turkish *-mIş*	English present perfect
Present perfect puzzle applies	no	yes
Must be salient at UT	no	yes
Result state must be true at UT	no	yes
Universal perfect state must be true at UT	no	yes
Lifetime effects apply	no	yes
Event must be repeatable	no	yes
Felicitous in out of the blue questions	no	yes

Table 1: Comparison of syntactic/pragmatic properties of expressions containing Turkish *-mIş* and
English present perfect

We note that *-DI*, which is typically argued to contribute simple past tense semantics (Kornfilt
1997, Slobin & Aksu 1982), can replace *-mIş* in all of the examples in (13)-(20) if the speaker has
direct, rather than indirect, evidence for the prejacent. There are no temporal or aspectual changes
in meaning if *-DI* is substituted for *-mIş*. This suggests to us that *-DI* and *-mIş* do not differ in
their temporal contribution, although at present we refrain from explicitly proposing that the two
morphemes have the same semantic denotation.

We conclude from the data in section 2 and section 3 that *-mIş* does not contribute (English-
type) present perfect semantics.[8]

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[7](19) becomes felicitous in an out of the blue question with the inclusion of *hiç* 'ever':

(i) Ali hiç suşi ye-miş-∅   mi?
     Ali ever sushi eat-MIS-3SG Q
     'Did Ali ever eat sushi?'

We observe that English simple past tense utterances like (b) are also improved in out of the blue questions with the
inclusion of *ever*: *Did you ever eat sushi?* is better as an out of the blue question than *Did you eat sushi?*

[8]*-mIş* can occur in a number of other morphological environments in Turkish. We give examples of these
expressions in the Appendix, and show that none of them challenge our claim that *-mIş* does not contribute
(English-like) present perfect semantics.

4 Evaluating *-mIş* against existing proposals for the present perfect

We showed in section 3 that Turkish *-mIş* does not make the same pragmatic contributions as the English present perfect. This still leaves us with the problem of understanding the temporal contribution of *-mIş*. In the following subsections, we will evaluate *-mIş* against a basic (English-centric) XN proposal, and against Pancheva & von Stechow (2004)'s "weak past" proposal for German.

4.1 Comparison with a basic XN account

We first review a basic XN proposal for the present perfect. The denotation in (21) below is from Dowty (1979), as reported by Bhatt & Pancheva (2005). They propose that the perfect combines with an untensed proposition, *p*. The perfect introduces an interval that extends back from, and includes, the reference time *t*, and asserts that *p* is true in that interval. In this way, the speaker's reference time (their "now") is extended into the past.

(21) $[\![\text{PERFECT}]\!] = \lambda p_{<i,t>} \lambda t_{<i>}. \exists t'_{<i>} [\text{XN}(t',t) \ \& \ p(t')]$
       (where $\text{XN}(t',t)$ iff t is a final subinterval of t')   (Bhatt & Pancheva 2005:7)

Evaluating the denotation for the perfect in (21) against the meanings associated with *-mIş* in section 3 shows that such an XN denotation cannot account for the Turkish data. In (15), we showed that the proposition embedded under *-mIş* need not be true at the utterance time. The denotation in (21) requires that *p* be true in the interval including the speaker's reference time (in (15), the UT). This directly contradicts the observed data. A similar contradiction holds for the Turkish data in (16), which includes a time span adverbial introduced by *beri* 'since.' The proposition embedded under *-mIş* cannot be true in (16); again, this cannot be accounted for by the XN denotation in (21). Although an XN proposal may be appropriate for the English present perfect, it cannot account for the meaning of Turkish *-mIş*.

4.2 Comparison with Pancheva & von Stechow (2004)'s grammatical competition account for German

We briefly review the grammatical competition proposal by Pancheva & von Stechow (2004) as an alternative to an English-centric XN account. They assume a compositional account of the present perfect, and propose that its meaning is derived compositionally through the semantics of PRESENT and PERFECT. They assume constant denotations for past and perfect cross-linguistically; we give their denotation for PERFECT in (22). They propose that the time span introduced by the perfect may precede or partially overlap with the UT (like the XN theories), or it may entirely precede it (unlike the XN theories).

(22) $[\![\text{PERFECT}]\!] = \lambda p_{<i,t>} \lambda t_{<i>}. \exists t'_{<i>} [t' \leq t \ \& \ p(t')]$
       ($t' \leq t$ iff there is no $t'' \subset t'$, such that $t'' > t'$)   (Pancheva & von Stechow 2004:4)

To account for the differences between English and German present perfects (discussed briefly in 2.1), Pancheva & von Stechow locate the difference in the semantics of the English and German present tense. They assume that in English, the present tense denotes an interval

that is coextensive with the UT. The interpretation of English present perfect arises through grammatical competition of ⟦PRESENT_Eng + PERFECT⟧ with both ⟦PAST⟧ and ⟦PRESENT_Eng⟧. The (unstrengthened) combination of ⟦PRESENT_Eng + PERFECT⟧ picks out an interval that includes the UT as well as times immediately preceding it. Through grammatical competition, it is excluded from referring to solely the UT or solely to times preceding it; the English present perfect therefore picks out a small range of times overlapping both the UT and immediate past times (i.e., they effectively derive an XN meaning).

Pancheva and von Stechow propose that the German present tense differs from English in that it introduces an interval no part of which may precede the speech time; that is, it is effectively nonpast. The Turkish tense marker *-iyor* 'NPST' patterns like German in this respect, suggesting that Pancheva & von Stechow (2004)'s analysis for German could apply to Turkish as well. We demonstrate the nonpast contribution of *-iyor* through its compatibility with both *şimdi* 'now' and *önümüzdeki hafta* 'next week.'[9]

(23) **Present-oriented context:** Your friend asks where Ali is. You answer:
Ali şimdi okul-a   gid-iyor-∅.
Ali now   school-DAT go-NPST-3SG
'Ali is going to school now.'

(24) **Future-oriented context:** You check the forecast and see that it will be raining next week. You say:
önümüzdeki hafta yağmur yağ-iyor-∅.
next   week rain   fall-NPST-3SG
"It will rain next week."

To account for the German data in (10)-(11), Pancheva & von Stechow propose that there is no scalar relationship between the meanings of ⟦PRESENT_Germ + PERFECT⟧ and ⟦PAST⟧ and that therefore they are not in grammatical competition. Furthermore, they argue that ⟦PRESENT_Germ + PERFECT⟧ and ⟦FUTURE⟧ also do not compete, since the future tense is not regularly used in colloquial German and grammatical competition does not occur across different registers. The German present perfect is therefore able to refer to any time prior to the UT, accounting for the lack of the present perfect puzzle in (10).

Despite the fact that Turkish *-iyor* patterns similarly to the German nonpast tense, we do not see any motivation to decompose *-mIş* into ⟦PRESENT_Turk + PERFECT⟧. Turkish expressions with *-mIş* differ morphosyntactically from English and German present perfect expressions; whereas English and German present perfect expressions contain an overt present tense auxiliary, Turkish

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[9]We note that *-iyor* is incompatible with a future tense interpretation if the context indicates a fact or a repetitive event, regardless of the temporal adverb that it combines with. In these contexts, *-iyor* is infelicitous:

(i) **Context:** It is the first week of October and you know from experience that it always rains in your city in the second week of October. You say:

a. #önümüzdeki hafta yağmur yağ-iyor-∅.
   next   week rain   fall-NPST-3SG
   "It will rain next week."

b. önümüzdeki hafta yağmur yağ-ar-∅.
   next   week rain   fall-INDEF.FUT-3SG
   "It will rain next week."

-mIş expressions do not. Futhermore, even if we were to follow Pancheva & von Stechow (2004) and assume a decompositional ⟦PRESENT$_{\text{Turk}}$ + PERFECT⟧ semantics for *-mIş*, the Turkish data differs from the German present perfect data in significant ways. We showed in (16) that when *-mIş* co-occurs with a time span adverbial, the prejacent must not hold at the utterance time. This differs from the German data in (11), which permits the prejacent to be either true or false at the utterance time. Furthermore, only the present perfect is grammatical in questions in German, as in (12), whereas in Turkish, both *-mIş* and the simple past tense *-DI* are available. If grammatical competition between the tenses is identical in German and Turkish, these differences cannot be explained. While Pancheva & von Stechow (2004)'s analysis could account for a portion of the Turkish data, including the lack of the present perfect puzzle in the language, it cannot account for all of it.

5 Conclusion

In this paper, we addressed the question of whether Turkish *-mIş* should be termed a "present perfect;" *-mIş* has been glossed as such in many papers, without much scrutiny as to what temporal information it actually contributes. We showed through comparison with English present perfect data in sections 2 and 3 that it does not pattern descriptively like the English present perfect. We then showed in section 4 that its use cannot be explained by a basic (English-centric) XN proposal; nor can it be easily explained by a grammatical competition account like that proposed by Pancheva & von Stechow (2004) for German.

At present, the theoretical contribution of this paper is primarily a negative one: we show what *-mIş* cannot be. However, we believe this paper is nonetheless important due to the questions it raises regarding how to classify a linguistic expression as a present perfect. Should it be through the presence of a periphrastic expression, e.g. the combination of a present tense auxiliary and past tense main verb? Periphrastic present perfects are observed in 85% of the languages in Dahl (1985)'s survey; however, this would exclude Turkish *-mIş* on morphosyntactic grounds. Should it be through the pragmatic interpretations associated with the English present perfect in section 2, as assumed by Dahl (1985)? This would again exclude *-mIş*, now on semantic and pragmatic grounds. By raising these questions, we hope that our paper will spur other linguists into scrutinizing the meaning and use of the term "present perfect" as a cross-linguistically meaningful category.

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6   Appendix: Other Turkish expressions containing *-mIş*

-mIş can occur in a number of other Turkish expressions. These are described extensively in grammars of Turkish, including Kornfilt (1997) and Göksel & Kerslake (2005). In (25)-(29), we show the range of morphological environments that *-mIş* can occur in. We describe these according to the lexical item(s) that *-mIş* combines with. Several of these include a copula, which can be phonologically null (Kelepir 2001, Lewis 1967).

(25)   **Bare verb root:**   (repeated from (2))
   Ayşe Istanbul-a   git-miş-∅.
   Ayse Istanbul-DAT go-MIS.FIN-3SG
   '(I have indirect evidence that) Ayşe went to Istanbul.'

(26)   **Copula with nominal predicate:**
   Ali öğrenci-y-miş-∅.
   Ali student-COP-MIS.FIN-3SG

   a. '(I have indirect evidence that) Ali was a student.'

   b. '(I have indirect evidence that) Ali is a student.'

(27)   **Copula with adjectival predicate:**
   hasta-y-mış-∅.
   sick-COP-MIS.FIN-3SG

   a. '(I have indirect evidence that) he was sick.'

   b. '(I have indirect evidence that) he is sick.'

(28)   **Copula with verbal predicate ("tense stacking" data):**
   Seren sene-ye Ankara-ya   gid-ecek-∅-miş-∅.
   Seren year-to Ankara-DAT go-FUT-COP-MIS.FIN-3SG
   '(I have indirect evidence that) Seren will go to Ankara next year.'

(29)   **Bare adjective:**
   öl-(*y)-müş adam
   die-COP-MIS man

   a. 'dead man'

   b. *'a man who is apparently dead'

The expression in (25) represents the usage of *-mIş* which has been most frequently argued to be present perfect in the literature. We therefore restrict our discussion to examples like (25) in the body of this paper. Furthermore, none of the expressions in (26)-(29) contradict our claim that *-mIş* does not contribute (English) present perfect semantics. However, we leave the discussion of the semantic contribution of *-mIş* in these expressions for future studies, since it is outside the scope of this paper.

We noted in section 3 that the simple past tense morpheme *-DI* can replace *-mIş* in (13)-(20) as long as the speaker has direct, rather than indirect, evidence for the prejacent. Although this suggests that *-DI* and *-mIş* could make the same temporal contribution, we refrained from explicitly claiming that the two morphemes have the same semantic denotation (i.e., that *-mIş* also marks

simple past tense). The additional data in (26)-(27) suggest that a proposal along these lines would be incorrect. (26) and (27) are compatible with both past and present tense interpretations. This data could not be accounted for if *-mIş* simply contributed past tense. While the additional data in this Appendix therefore shows that *-mIş* cannot be analyzed as a simple past tense, it does not provide any counterevidence against our claim that *-mIş* does not mark (English) present perfect.