

## The interaction between past and conditional morphemes in Turkish

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**Abstract.** This paper focuses on the two conditional antecedent morphemes in Turkish,  $-(y)sA$  and  $-sA$ , and how the past morpheme interacts with them to generate different interpretations. Inspired by von Fintel and Iatridou (2023), I refer to  $-(y)sA$  as the O-marking, which is restricted to the epistemically possible worlds, and  $-sA$  as the X-marking, which refers to a wider domain than this context set. I argue that the past in O-marking denotes the actual past time. However, when the past morpheme appears with X-marking, it further widens the domain to include even less possible or impossible worlds. In line with Kaufmann (2022), I also argue for different levels of remoteness in X-marked conditionals and suggest that the past widens the domain further than the first level of X-marking by shifting back in time as she suggests.

**Keywords.** conditionals; past; X-marking; counterfactuals; modals; time

**1. Introduction.** There are two morphemes that appear in conditional antecedents in Turkish<sup>1</sup>: namely  $-(y)sA$ <sup>2</sup> (or *ise* in its free form) and  $-sA$  (Göksel & Kerslake 2005, Kornfilt 1997, a.o.). Sezer (2001) labels the conditional marker  $-(y)sA$  as the indicative conditional marker while he refers to its counterpart  $-sA$  as the subjunctive conditional marker. Although Göksel and Kerslake (2005) do not use such labels, they also state the meaning difference between these markers as  $-sA$  referring to the hypothetical possibilities and  $-(y)sA$  talking about open or habitual conditionals. On the other hand, Aygen (1996) differentiates them as real and unreal conditionals;  $-(y)sA$  being the real and  $-sA$  being the unreal marker. As these labels suggest, the markers certainly differ in terms of their interpretation. I treat  $-(y)sA$  as the O-marking for conditionals (O.COND) and  $-sA$  as the X-marking (X.COND) based on von Fintel and Iatridou's (2023) discussion<sup>3</sup>.

The past morpheme has to precede the O.COND, as shown by (1), or follow the X.COND, as exemplified in (2).

- (1) Esra ev-e            git-ti-yse,            anne-si            sevin-ir.  
 Esra home-DAT go-PST-O.COND    mother-3SG.POSS    be.happy-AOR  
 'If Esra went home, her mother will be happy.'

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<sup>1</sup> There is also an *if*-like complementizer *eğer* 'if' that appears at the beginning of the antecedent clauses but as it is mostly dropped and the meaning of conditional is provided through the verbal morphology, I do not focus on it here.

<sup>2</sup> It is argued that  $-y/-i-$  part in this morpheme is a copular verb that can combine with the conditional, past, and evidential morphemes in Turkish (Göksel & Kerslake, 2005). However, I disregard this syntactic complexity of the morpheme and regard it as a single unit for the purposes of this study.

<sup>3</sup> Note that von Fintel and Iatridou (2023) suggest that the antecedent X-marking in Turkish includes both the conditional affix  $-sA$  and the past morpheme. However, I claim that  $-sA$  by itself can give the X-marked interpretation.

- (2) Esra ev-e git-se-(ydi)<sup>4</sup>, anne-si sevin-ir-di.  
 Esra home-DAT go-X.COND-PST mother-3SG.POSS be.happy-AOR-PST  
 ‘If Esra had gone/went home, her mother would have been/would be happy.’

While (1) can be uttered in a context where the speaker is ignorant as to whether Esra went home or not, (2) is most likely to be uttered when the speaker knows that she did not go home. Finally, (3), the non-past version of X.COND, is licensed in cases where the speaker believes the antecedent event to be possible but unlikely.

- (3) Esra ev-e git-se, anne-si sevin-ir.  
 Esra home-DAT go-X.COND mother-3SG.POSS be.happy-AOR  
 ‘If Esra went home, her mother would be happy.’

My aim in this paper is to account for how these three different meanings emerge and what the past morpheme and the conditional morphemes (O.COND and X.COND) contribute to their felicity conditions. Therefore, in section 2, I first compare the two conditional structures to each other and show that the X.COND can be considered as antecedent X-marking by itself. Then, Section 3 provides a brief overview of how the past morpheme behaves in O-marked conditional sentences, by showing that it contributes its usual tense interpretation to the sentence. Section 4 gives a detailed explanation of the past morpheme in X-marked conditionals in comparison to the one in O-conditionals and non-past X conditionals. In Section 5, I make my proposal mainly based on Kaufmann’s (2022) split X-marking hypothesis. Finally, Section 6 summarizes the main points of this paper with some discussion for the future.

**2. O-marking vs. X-marking in Turkish conditionals.** In von Fintel and Iatridou (2023), it is suggested that O-marking could represent ‘*open*’ or ‘*ordinary*’ marking and X-marking could correspond to ‘*eXtra*’ marking. Even though in Turkish the O-marking seems to have a syntactic extra layer (as mentioned in footnote 2), I suggest that *-sA* generates an extra level semantically. This section aims to provide evidence for this claim.

One of the main differences between O.COND *-(y)sA* and X.COND *-sA* derives from their structural restrictions on the consequent clauses. While the O.COND licenses any type of tense, aspect, or modal marker in the consequent clause, as exemplified in (4), X.COND only allows for the aorist marker, or other future-oriented operators<sup>5</sup>, as shown by (5).

- (4) a. Sınav-ınız sabah-sa, erken kalk-malı-sınız.  
 exam-2PL.POSS morning-O.COND early get.up-OBL-2PL  
 ‘If your exam is in the morning, you should get up early.’  
 b. Sık-ıl-ıyor-sa-n, kitap oku.  
 bore-PASS-IMPF-O.COND-2SG book read.IMP  
 ‘If you are getting bored, read a book.’

<sup>4</sup> The past morpheme *-(y)DI*, also contains the *-y-* copular verb particle. Göksel and Kerslake (2005) argues that the past copula *-(y)DI* conveys the imperfective aspect, in contrast to *-DI*, which expresses perfective. Nevertheless, both of them denote past tense. Therefore, I do not consider *-DI* and *-(y)DI* as different morphemes and refer to both of them as the past morpheme, for the ease of discussion. Whether or not there is any contribution of this aspectual difference in the past morpheme to the semantics of the conditionals might be the study of future studies.

<sup>5</sup> Soykan (2021) proposes that the aorist marker has the characterizing and the future-oriented readings in Turkish. When it is used in the consequent clause of O-marked conditionals, it can have both of these interpretations. However, if it appears in the consequent of an X-marked conditional, it only has a future-oriented reading.

- c. Rabia ofis-e gel-ecek -se, çoktan ev-den çık-mış-tır<sup>6</sup>.  
 Rabia office-DAT come-FUT-O.COND already home-ABL leave-PF-EPIS  
 'If Rabia is going to come to the office, she must have already left home.'
- d. Şeyma araba-sı-nı sat-mış-sa, ev-e otobüs-le gid-er.  
 Şeyma car-3SG.POSS-ACC sell-PF-O.COND home-DAT bus-COM go-AOR  
 'If Şeyma sold her car, she will go home by bus.'
- e. Ela iş-i-ni bitir-ir-se, arkadaş-ı-yla buluş-acak.  
 Ela work-3SG.POSS-ACC finish-AOR-O.COND friend-3SG.POSS-COM meet-FUT  
 'If Ela finishes her work, she will meet her friend.'
- (5) a. \*Sınav-ımız sabah ol-sa<sup>7</sup>, erken kalk-malı-sınız.  
 exam-2PL.POSS morning AUX-X.COND early get.up-OBL-2PL  
 Lit: \*'If your exam were in the morning, you should get up early.'
- b. \*Sık-ıl-ıyor ol-sa-n, kitap oku.  
 bore-PASS-IMPF AUX-X.COND-2SG book read.IMP.2SG  
 Lit: \*'If you were getting bored, read a book.'
- c. \*Rabia ofis-e gel-ecek ol-sa, çoktan ev-den çık-mış-tır.  
 Rabia office-DAT come-FUT AUX-X.COND already home-ABL leave-PF-EPIS  
 Lit: \*'If Rabia were to come to the office, she must have already left home.'
- d. Şeyma araba-sı-nı sat-mış ol-sa, ev-e otobüs-le gid-er.  
 Şeyma car-3SG.POSS-ACC sell-PF AUX-X.COND home-DAT bus-COM go-AOR  
 Lit: 'If Şeyma sold her car, she would go home by bus.'
- e. Ela iş-i-ni bitir-se, arkadaş-ı-yla buluş-acak.  
 Ela work-3SG.POSS-ACC finish-X.COND friend-3SG.POSS-COM meet-FUT  
 Lit: 'If Ela finished her work, she would meet her friend.'

This limitation on the consequent clause in X-marked conditionals suggests that the *-sA* suffix restricts its modal operator<sup>8</sup> to the future. Therefore, we can argue that the X.COND adds some 'extra' requirement for the consequent modal.

Another crucial aspect of the X.COND that distinguishes it from the O.COND lies in the felicity conditions. While the X.COND can be uttered in scenarios where the speaker deems the antecedent event to be unlikely, the O.COND is used in cases where the speaker is ignorant about the likelihood of the antecedent and considers the antecedent as an open possibility. To better understand this difference, check out the following contexts and the felicitous sentences in those scenarios.

- *Context 1*: Damla has an exam tomorrow and I have no information or belief about whether she studies for her exams or not. Then, I would choose (6) over (7) to utter.
- *Context 2*: I know that Damla usually does not study for her exams. Therefore, I believe that she is most probably not studying for this one either. Then, (7) would be better.

<sup>6</sup> Göksel and Kerslake (2005) call this *-dlr* marker as the 'generalizing modal'. However, here I refer to it as the 'epistemic modal' as it is used in its deduction reading.

<sup>7</sup> Note that the X.COND only attaches to verbal predicates. Therefore, if it is to be used with non-verbal predicates, it requires the insertion of the auxiliary verb *ol-* 'be' to the antecedent as in (5a), unlike O.COND in (4a). Moreover, as exemplified in (5b)-(5d), X.COND can scope over the *imperfective (-Iyor)*, *future (-AcAk)* and *perfective (-mİş)* markers respectively with the help of auxiliary insertion. Nevertheless, X.COND can never scope over the aorist or past morphemes inside the antecedent clause. (5e) might be considered as an example for this restriction, as well, when it is compared with (4e).

<sup>8</sup> I assume Kratzer's (1986) well-known restrictor analysis for the conditional sentences and assume that every conditional sentence acts as a restrictor on a modal operator of the consequent clause.

- (6) Damla çalış-ır-sa, sınav-ı geç-er.  
 Damla study-AOR-O.COND exam-ACC pass-AOR  
 ‘If Damla is studying, she will pass the exam.’
- (7) Damla çalış-sa, sınav-ı geç-er.  
 Damla study-X.COND exam-ACC pass-AOR  
 ‘If Damla were studying, she would pass the exam.’

As shown by these contexts, the X.COND has an unlikeliness reading for the antecedent clause. Nonetheless, notice that in both scenarios, the exam has not happened yet. Therefore, whether she can pass the exam or not is an open possibility in the future, but (7) suggests that her study is not seen as a probable event by the speaker while (6) does not make any specific claims about it. Hence, we can acknowledge that O.COND has the neutral conditional reading whereas X.COND seems to bring an ‘extra’ interpretation for the antecedent.

Since we identified how the conditional morphemes get interpreted, the rest of this paper focuses on how the past morpheme affects the interpretation of the conditional sentences with O.COND and X.COND antecedents.

**3. Past in O-marked conditionals.** The past morpheme in O-marked conditionals does not differ from its English counterpart, it simply denotes a time prior to the utterance time for the sentence it appears in. (8) and (9) respectively show that the past suffix can appear both in the antecedent and in the consequent clause with O.COND. Moreover, the use of the past in the antecedent does not require the use of the past in the consequent clause, and vice versa, as further seen in these examples.

- (8) Esra ev-e git-ti-yse, kek yap-ar.  
 Esra home-DAT go-PST-O.COND cake make-AOR  
 ‘If Esra went home, she will make a cake.’
- (9) Esra ev-e gid-iyor-ysa, Esma bakkal-a git-ti.  
 Esra home-DAT go-IMPF-O.COND Esma market-DAT go-PST  
 ‘If Esra is going home, Esma went to the market.’

A relatively reliable way of testing the claim that the past suffix only has a past reading in O-marked environments would be to make use of the time adverbials. (10) and (11) demonstrate that the past morpheme exclusively licenses a past referring adverbial, such as *dün* ‘yesterday’.

- (10) Toplantı-ya dün /\*yarın katıl-dı-ysa, bugün gel-me-z.  
 meeting-DAT yesterday/tomorrow join-PST-O.COND today come-NEG-AOR  
 ‘If s/he joined the meeting yesterday/\*tomorrow, s/he won’t come today.’
- (11) Toplantı Bursa-da-ysa, dün /\*yarın Bursa-ya git-ti.  
 meeting Bursa-LOC-O.COND yesterday/tomorrow Bursa-DAT go-PST  
 ‘If s/he will join the meeting, s/he went to Bursa yesterday/\*tomorrow.’

Likewise, the use of future-oriented time adverbials is only possible with non-past markers, as can be realized from (12) and (13).

- (12) Toplantı-ya \*dün /yarın katıl-acak-sa, bugün gel-me-z.  
 meeting-DAT \*yesterday/tomorrow join-FUT-O.COND today come-NEG-AOR  
 ‘If s/he will join the meeting \*yesterday/tomorrow, s/he won’t come today.’
- (13) Toplantı Bursa-da-ysa, \*dün /yarın Bursa-ya gid-ecek.  
 meeting Bursa-LOC-O.COND yesterday/tomorrow Bursa-DAT go-FUT

‘If the meeting is in Bursa, s/he will go to Bursa \*yesterday/tomorrow.’

Therefore, we can suggest that with the O.COND marker, the time information of both the antecedent and the consequent clauses is transparently conveyed through the appropriate tense or aspect markers.

A further instance of the temporal precedence interpretation of the past morpheme can be found in examples like (14). Here the consequent modal aorist with the past morpheme only generates the past-habitual interpretation, not a counterfactual one, contrary to the X-marked version in (15).

- (14) Şeyma sıkıl-dı-ysa, yürüyüş-e çık-ar-dı.  
 Şeyma be.bored-PST-O.COND walk-DAT leave-AOR-PST  
 ‘If Şeyma felt bored, she used to go out for a walk.’
- (15) Şeyma sıkıl-sa-ydı, yürüyüş-e çık-ar-dı.  
 Şeyma be.bored-X.COND-PST walk-DAT leave-AOR-PST  
 ‘If Şeyma had felt/felt bored, she would have gone/would go out for a walk.’

Hence, we can infer that the past in O-conditionals is the actual past tense referring to a time before the time of the utterance of the sentence. On the other hand, the one in X-marked environments seems to bring some ‘extra’ layer for the sentence, which is discussed in the following section.

**4. Past in X-marked conditionals.** The past morpheme with X.COND in Turkish is similar to the second layer of past in English, which is mostly described as ‘two-past’ subjunctive conditionals in the literature (e.g., Ippolito 2002, 2003, 2013, Ogihara 2000, Arregui 2009). However, in Turkish, there is only one level of past operator visible in the sentence. I suggest that this single past morpheme still creates a second layer above the X.COND in the X-marked conditional sentences, which is overtly supported by their syntactic structure. As it can be remembered from (5b)-(5d), which are repeated here in (16)-(18) respectively, the X.COND morpheme can scope over the imperfective, future, and perfective markers.

- (16) Sık-ıl-ıyor ol-sa-n, kitap oku-yabil-ir-di-n.  
 bore-PASS-IMPF AUX-X.COND-2SG book read-ABIL-AOR-PST-2SG  
 ‘If you had been/were getting bored, you could have/could read a book.’
- (17) Rabia ofis-e gel-ecek ol-sa, çoktan ev-den çık-ar-dı.  
 Rabia office-DAT come-FUT AUX-X.COND already home-ABL leave-AOR-PST  
 ‘If Rabia were to come to the office, she would have already left home.’
- (18) Şeyma araba-sı-nı sat-mış ol-sa, ev-e otobüs-le gid-er-di.  
 Şeyma car-3SG.POSS-ACC sell-PF AUX-X.COND home-DAT bus-COM go-AOR-PST  
 ‘If Şeyma had sold her car, she would go home by bus.’

However, the past morpheme can never take scope below the X.COND, as can be seen in (19). (20) would be the grammatical version of that sentence, with the past marker scoping above it.

- (19) \*Yemek ye-di ol-sa-m, ilaç-ım-ı iç-er-di-m.  
 food eat-PST AUX-X.COND-1SG medicine-1SG.POSS-ACC drink-AOR-PST  
*Intended meaning:* ‘If I had eaten, I would have taken my pill.’
- (20) Yemek ye-se-ydi-m, ilaç-ım-ı iç-er-di-m.  
 food eat-X.COND-PST-1SG medicine-1SG.POSS-ACC drink-AOR-PST  
 ‘If I had eaten, I would have taken my pill.’

Therefore, we can confirm that the past morpheme adds another level on top of the X.COND, assuming that the X.COND is the first layer that creates X-marked conditionals in Turkish. To further support my claim, I compare the structural properties of X-conditionals with the past operator to their O-conditional counterparts in the next part and then focus on the meaning differences between the X conditionals with and without past.

4.1. PAST WITH X.COND VS. WITH O.COND. One of the main distinctions between the past morpheme following the X.COND and the one preceding the O.COND is that past with the X.COND antecedent requires the use of the past morpheme in the consequent clause, as is given in (21), contrary to its O.COND version (22), repeated from (8).

- (21) Esra ev-e            git- se-**ydi**,            kek    yap-ar-\*(**dı**).  
 Esra home-DAT go-X.COND-PST    cake    make-AOR-PST  
 ‘If Esra had gone home, she would have made a cake.’
- (22) Esra ev-e            git-**ti**-yse,            kek    yap-**ar**.  
 Esra home-DAT go-PST-O.COND    cake    make-AOR  
 ‘If Esra went home, she will make a cake.’

However, the past morpheme in the antecedent is optional. In other words, as long as we have the past suffix at the consequent of X-conditionals, the meaning of the sentence does not change with or without the past marker in the preadjacent, as shown by (23). Therefore, it could be argued that the past morpheme in the antecedent merely agrees with the consequent past operator, conforming with the claims of Iatridou (2000), Ippolito (2002), and von Stechow (2005) about the past morphology appearing in both clauses being an agreement marker.

- (23) Esra ev-e            git- se-(ydi),            kek    yap-\*(ar)-**dı**.  
 Esra home-DAT go-X.COND-(PST)    cake    make-AOR-PST  
 ‘If Esra had gone home, she would have made a cake.’

Furthermore, as we may remember from Section 2 and notice from (23) again, the X.COND only licenses a future-oriented marker in its consequent. The past X-conditionals show that this future operator is not only allowed but also required by the X.COND because if the consequent lacks the future modal, then the sentence becomes ungrammatical. This also confirms Ippolito’s (2002) argument for the modal operator with the past being necessary for a counterfactual reading.

Other than these morphological differences, the interpretation of the past in X-marked conditionals also differs from its counterpart in O-conditionals on the temporal ground. Even though the past in O-conditionals only licenses past time adverbials, which was shown by (10) and (11), the one with X-conditionals allows for both past and non-past adverbs as in (24) and (25).

- (24) Erdem toplantı-ya    *dün*            katıl-sa-ydı,            bugün gel-me-z-di.  
 Erdem meeting-DAT yesterday join-X.COND-PST    today come-NEG-AOR-PST  
 ‘If Erdem had joined the meeting yesterday, he wouldn’t have come today.’
- (25) Erdem toplantı-ya    *yarın*            katıl-sa-ydı,            Emre’yi gör-ür-dü.  
 Erdem meeting-DAT tomorrow join-X.COND-PST    Emre-ACC see-AOR-PST  
 ‘If Erdem had joined the meeting tomorrow, he would have seen Emre.’

Nevertheless, note that the time adverbials referring to some past time can only be licensed by either the past morpheme scoping over the X.COND or the perfective morpheme scoping under it<sup>9</sup>. For instance, (26) would be acceptable if it did not have the past adverbial or if it had the past operator, as given in (24). Also, (27) with the perfective inside the antecedent could be another option for licensing the past-time adverbs.

- (26) Erdem toplantı-ya (\**dün*) katıl-sa, bugün gel-me-z.  
 Erdem meeting-DAT yesterday join-X.COND today come-NEG-AOR  
 Lit: ‘If Erdem joined the meeting yesterday, he won’t come today.’
- (27) Erdem toplantı-ya *dün* katıl-\*(miş ol)-sa, bugün gel-me-z.  
 Erdem meeting-DAT yesterday join-PF AUX-X.COND today come-NEG-AOR  
 ‘If Erdem had joined the meeting yesterday, he wouldn’t come today.’

Based on all this formal evidence, it is apparent that the past with X.COND has its past reference but also brings an additional meaning on top of this, which allows it to license non-past referring items, as well. Furthermore, it poses some constraints that do not exist when it appears in O-conditional settings. Yet, figuring out how the past morpheme affects the meaning of X-conditionals necessitates a comparison between the past and non-past versions of these conditionals, which is provided in the next section.

4.2. X-COND WITH PAST VS. WITHOUT PAST. The main difference between X-conditionals with the past morpheme and the ones without it resides in their felicity conditions, similar to what Ip-polito (2013) argues for the ‘simple past’ and ‘past perfect’ subjunctive conditionals, as exemplified in (28) respectively.

- (28) John was training for the Boston Marathon last summer when he unexpectedly died.  
 a. #If John ran the Boston Marathon next spring, he would win.  
 b. If John had run the Boston Marathon next spring, he would have won.

(28a) shows that the simple past conditionals are unacceptable when the referent in the antecedent is not alive (does not exist) at the time of the utterance, only the past perfect version (28b) is licensed in this context. On the other hand, Kaufmann (2021), as cited in Kaufmann (2022), provides a different result for the same context, as shown by (29). They point out that in these ‘miracle’ sentences, the past perfect version (29a) is unacceptable, and the simple past version (29b) becomes felicitous even if the antecedent agent does not exist (live) at the utterance time.

- (29) John was training for the Boston Marathon last summer when he unexpectedly died.  
 a. If John ran the Boston Marathon next spring, that would be a miracle.  
 b. #If John had run the Boston Marathon next spring, that would have been a miracle.

This discrepancy does not arise in Turkish. Only the X-conditionals with the past operator are acceptable if the existence presupposition does not hold for the antecedent clause at the speech time, in either case. To understand this characteristic of the past X-conditionals better, we can consider the following contexts.

- *Context 3*: Imagine that there is going to be a book fair in Boston tomorrow and many famous detective-story writers will be there for a book signing event. I plan to go there

<sup>9</sup> The perfective marker (*-miş*) can also scope above the X.COND but then it gives the evidential interpretation, which still allows for both past and non-past adverbials. However, the interpretation of *-miş* in X-marked conditionals requires a separate diligent study. Hence, it is not discussed within the scope of this paper.

as I love detective stories. Besides, my famous writer is Agatha Christie, and I would like to get her signature on this event, but I **know** that Agatha Christie is **dead**. Only (31) would be acceptable in this scenario, not (30).

- *Context 4*: Imagine the same scenario in Context 3 but consider that I (the speaker) do **not know** the fact that Agatha Christie is **dead**, but I have the belief that it is **unlikely** that she will be there because I know that she is from the UK. Then, I would be more likely to utter (31), instead of (30).

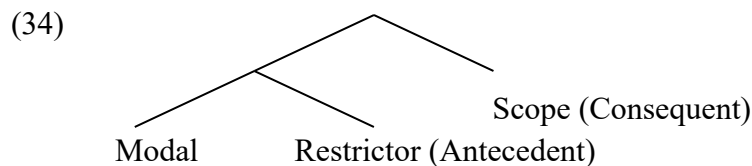
- (30) Kitap fuar-ı-na gel-se, imza-sı-nı al-ır-ım.  
 book fair-DAT come- X.COND signature-3SG.POSS-ACC take-AOR-1SG  
 ‘If she came to the book fair, I would take her signature.’
- (31) Kitap fuar-ı-na gel-se-ydi, imza-sı-nı al-ır-dı-m.  
 book fair-DAT come- X.COND-PAST signature-3SG.POSS-ACC take-AOR-PAST-1SG  
 ‘If she had come to the book fair, I would have taken her signature.’

The same acceptability judgments hold even with the ‘miracle’ cases. The past X-conditional (33) would be acceptable in *Context 3*, where the speaker **knows** that Agatha is **dead**. On the other hand, if the speaker does not know that she is dead as in *Context 4*, then the non-past alternative (32) would become felicitous.

- (32) Kitap fuar-ı-na gel-se, bu bir mucize ol-ur.  
 Book fair-DAT come- X.COND this a miracle be- AOR  
 ‘If she came to the book fair, this would be a miracle.’
- (33) Kitap fuar-ı-na gel-se-ydi, bu bir mucize ol-ur-du.  
 Book fair- DAT come- X.COND-PAST this a miracle be-AOR-PAST  
 ‘If she had come to the book fair, this would have been a miracle.’

As it is evident from these felicity judgments, X.COND without the past layer requires the existence presupposition to hold in the utterer’s knowledge system whereas X.COND with the past does not require any such presupposition on the utterer’s side. Remember that the X.COND makes it possible to reach unlikely but possible worlds. It seems that the past operator in X-conditionals enables referring to more remote possibilities or even impossible worlds.

**5. My proposal.** To start with, for the interpretation of conditional sentences, I accept Kratzer’s (1986, 1991) *restrictor* analysis of *if*-clauses. She states that *if*-clauses restrict the domain of different operators which are ‘modals’ in her analysis. She proposes that when the *if* clause is included in a sentence, the *if* particle is semantically vacuous and the antecedent clause functions as a restrictor for all the worlds that are accessible from the evaluation world in the modal base. (34) provides a simplified LF representation of conditional sentences according to her proposal.



Additionally, Kratzer (1991) argues that in case there be no overt modal operators as exemplified in (35) and (36), there exists a covert universal operator in conditionals.

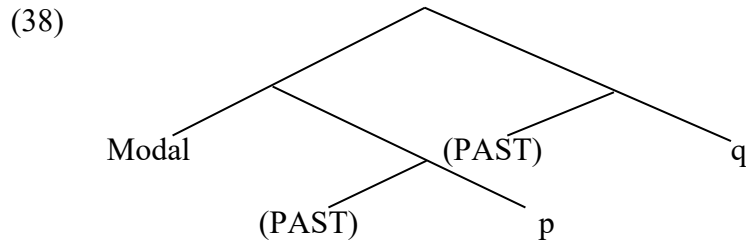
- (35) If I get up early, I do yoga.  
 (36) If he set off on Wednesday, he arrived yesterday.



In line with her analysis, I also argue that the O.COND marker is semantically vacuous, and the modal of the consequent clause gets restricted by the antecedent. Moreover, if an overt modal operator does not appear in the consequent clause, like in (37), we can still suggest that there is a covert universal modal.

- (37) Esra ev-e gid-ti-yse, Esma bakkal-a git-ti.  
 Esra home-DAT go-PST-O.COND Esma market-DAT go-PST  
 ‘If Esra went home, Esma went to the market.’

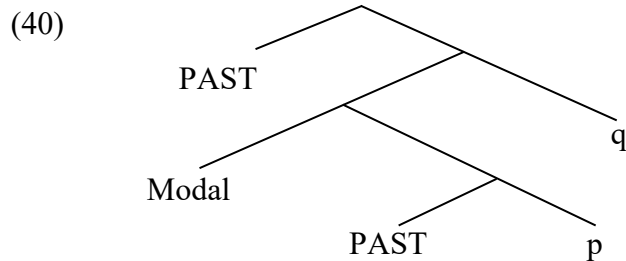
I further propose that the past marker in O-conditionals is interpreted within the domain of the modal operator either as the evaluation time of the antecedent or the consequent based on which clause it surfaces in, as demonstrated by (38).



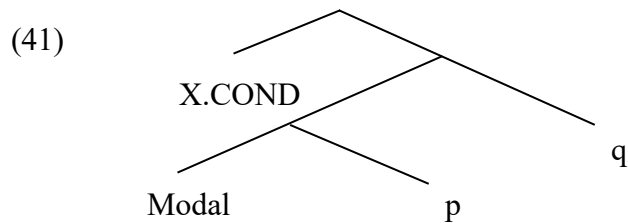
Thus, the past marker provides its usual tense interpretation, similar to its matrix clause version. Also, due to the scope of the past markers in (38), the use of the past in one clause does not require the past reference for the other sentence. However, this argument mostly holds for the antecedent past marker. When the past morpheme in the consequent clause appears after the aorist marker in O-conditionals as in (39), repeated from (14), the past seems to operate over the consequent modal, the aorist, instead of scoping under it.

- (39) Şeyma sıkıl-dı-ysa, yürüyüş-e çık-ar-dı.  
 Şeyma be.bored-PST-O.COND walk-DAT leave-AOR-PST  
 ‘If Şeyma felt bored, she used to go out for a walk.’

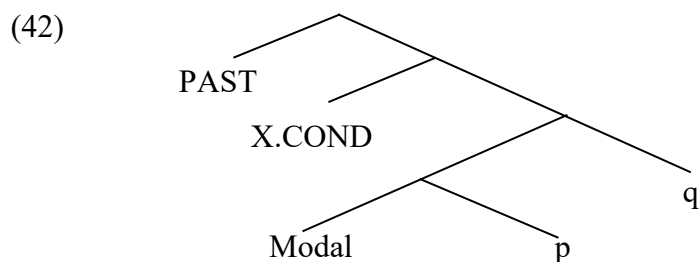
This is evident both in the syntax and the semantics of the sentence. Syntactically, the past morpheme scopes higher than the aorist marker, and semantically the past with the aorist here does not refer to past events but rather past habits. Therefore, I suggest that the structure of (39) at LF should be as in (40), not (38).



Concerning the logical form of X-marked conditionals, represented by (41), I suggest that the X.COND scopes over the whole conditional sentence, and widens the domain of the modal to unlikely but possible worlds, as proposed by von Stechow and Iatridou (2023).



Furthermore, inspired by Ippolito’s (2002) proposal for “two-past subjunctive conditionals” and based on the formal properties of the past X-conditionals discussed in Section 4, I offer (42) as the structure of these conditional statements, where the past operator scopes over the X.COND and adds more remote possible worlds into the domain.



So, I mainly follow Kaufmann’s (2022) split X-marking hypothesis, evidenced by the data from Japanese and Serbian, and argue that there are two levels of X-marking in Turkish as well, which makes it possible to reach different levels of remoteness. Thus, while the use of X.COND in conditional antecedents implies that the prejacent is unlikely to happen, the addition of the past operator on top suggests that it is (nearly) impossible for the event to hold at the utterance time.

With respect to how the past morpheme exactly influences the meaning of X-conditionals, there are two prominent analyses in the literature that are proposed about the interpretation of the past operator. These are Past-as-Modal (e.g., Iatridou 2000, Mackay 2019) and Past-as-Past (e.g., Ippolito 2002, 2003, 2013) approaches. In the Past-as-Modal framework, the past morpheme gets a separate meaning from its usual tense interpretation. In the initial examples of this view, it was suggested that the past morpheme *excludes* the actual world when it ranges over the worlds and that is how it brings about the counterfactual reading (Iatridou, 2000). Even though the exclusion idea is abandoned within the analysis of X-marking (von Stechow and Iatridou, 2023), there are other modal meanings offered for the past. For instance, Mackay (2019) suggests that some of the presuppositions from the factive common ground (epistemically possible worlds) are removed from the modal base with the modal interpretation of the past in subjunctive conditionals. In the view of X-marking, the modal interpretation of the past marker can be considered another domain-widening operation that adds more remotely possible worlds compared to the X.COND, as Figure 1 demonstrates. Since we reach further beyond the context set, it becomes possible to refer to almost impossible events.

According to the Past-as-Past hypothesis, on the other hand, the past marker keeps its temporal meaning intact and refers to a time interval prior to the utterance time when the proposition(s) of the conditional could be judged as true. Hence, assuming that the X.COND widens the domain of the epistemically possible worlds to less likely possible worlds (vertical expansion in Kaufmann’s (2022) terms), the past operator widens the domain back to the times where the propositions were possible according to the Past-as-Past view. Figure 2 represents how the meaning of the past interacts with X-conditionals in line with this view. It can be realized that the past morpheme does not exclude the utterance time and the future possibilities, it just goes

back to a time when the prejacent and its result were possible to be true and expand the possible worlds from this point onwards. Thus, we can reach more remote possibilities. This is what Kaufmann (2022) argues for the interpretation of the past marker in her analysis of different versions of remoteness.

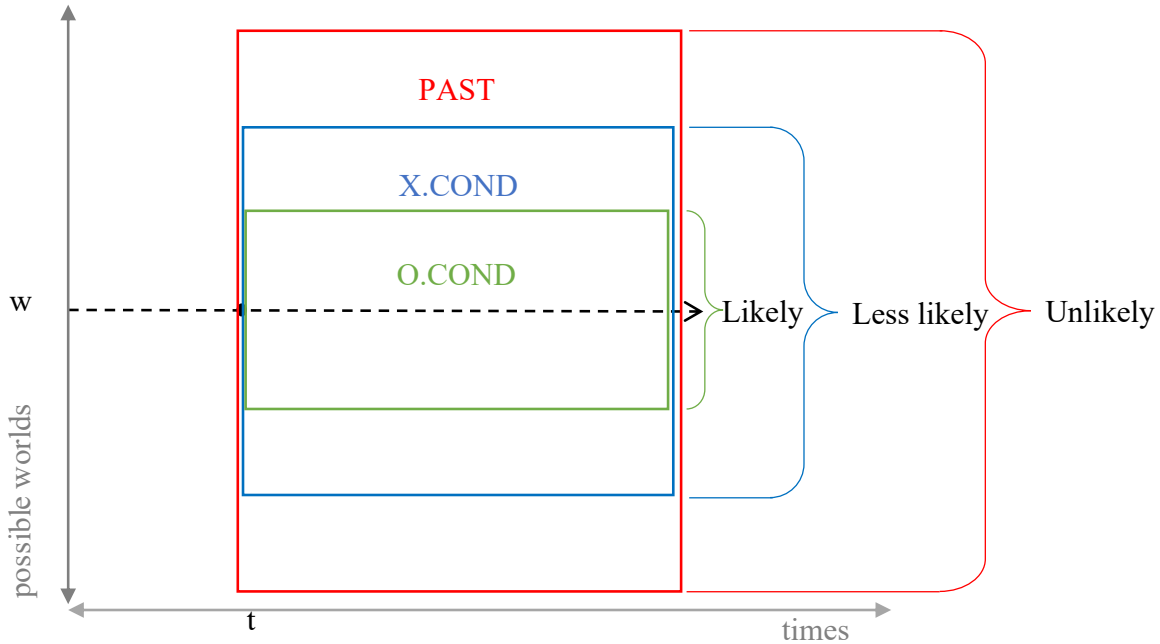


Figure 1. Past in X-conditionals according to the Past-as-Modal view

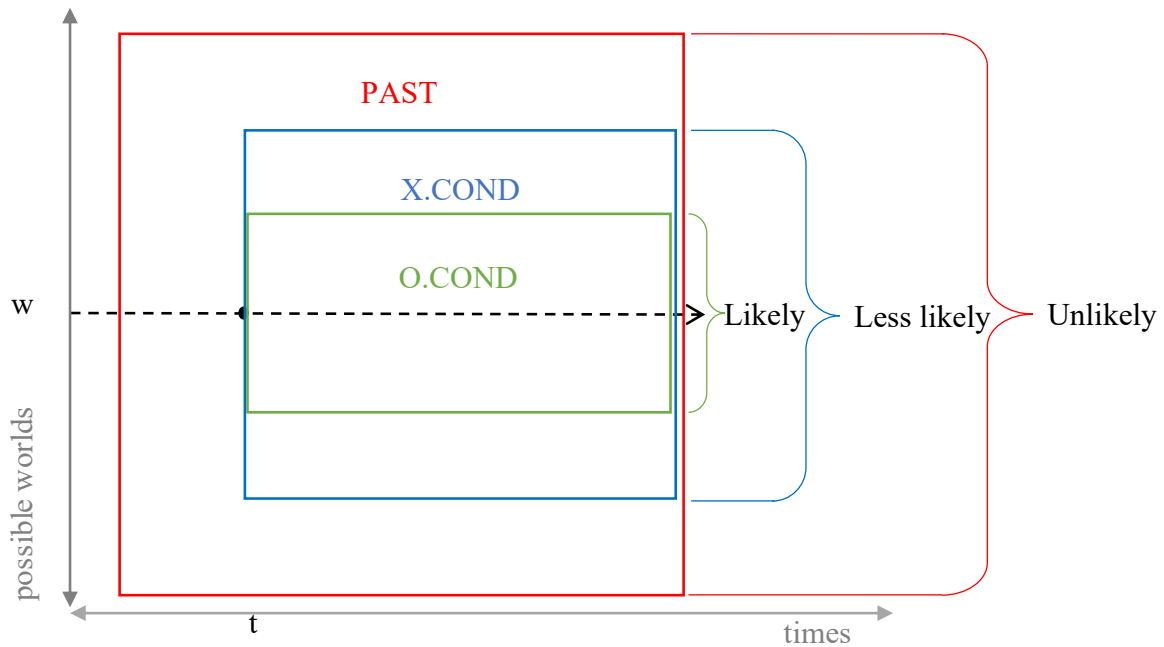


Figure 2. Past in X-conditionals according to the Past-as-Past view

In the case of Turkish, I agree with Kaufmann (2022) and follow the Past-as-Past approach for the interpretation of the past in X-conditionals. One piece of evidence for the temporal reading of the past in Turkish examples comes from the licensing of past adverbials in the antecedent clause. (43) compared with (44), repeated from (24) and (26) respectively,<sup>β</sup> suggests a temporal interpretation of the past in Turkish X-conditionals.

- (43) Erdem toplantı-ya *dün* katıl-sa-ydı, bugün gel-me-z-di.  
 Erdem meeting-DAT yesterday join-X.COND-PST today come-NEG-AOR-PST  
 ‘If Erdem had joined the meeting yesterday, he wouldn’t have come today.’
- (44) Erdem toplantı-ya (*\*dün*) katıl-sa, bugün gel-me-z.  
 Erdem meeting-DAT yesterday join-X.COND today come-NEG-AOR  
 Lit: ‘If Erdem joined the meeting yesterday, he won’t come today.’

Furthermore, as I mentioned at the beginning of Section 4, the past X-conditionals are similar to the ‘two-past’ subjunctive conditionals in English. For the two-past form, Mackay (2019) argues that even though the first layer of the past has a modal interpretation, the second layer is interpreted temporally, which complies with the arguments herein.

von Fintel and Iatridou (2023) suggest that the use of the past in other X-marked constructions, e.g., desires, does not seem to comply with the temporal interpretation of the past as it refers to the speaker’s desire at the utterance time. Yet, we can assume that the past morpheme in the complement of *keşke* ‘I wish’ in Turkish makes it possible to shift back in time to the worlds where the complement proposition was possible. The comparison between (45) and (46) provide further evidence for the temporal interpretation of the past in X-marked desire complements. Notice that the past marker is necessary to refer to our desires about the events that could have happened in the past. This shows that even though the desire itself belongs to the utterance time, the complement of *keşke* ‘I wish’ might have a past or non-past reference.

- (45) Keşke Ela (*\*dün/yarın*) parti-ye gel-se.  
 I wish Ela yesterday/tomorrow party-DAT come-X.COND  
 ‘I wish Ela came to the party (*\*yesterday/tomorrow*).’
- (46) Keşke Ela (*dün/yarın*) parti-ye gel-se-ydı.  
 I wish Ela yesterday/tomorrow party-DAT come-X.COND-PAST  
 ‘I wish Ela had come to the party (yesterday/tomorrow).’

Hence, we can assume that although the desire in (45) is not referring to my past desire, the complement of my desire is shifting in time to the worlds where it was possible for Ela to come to the party (yesterday or tomorrow).

**6. Final remarks.** In conclusion, this paper has examined the interaction between past and conditional morphemes in Turkish, specifically focusing on the O-marking and X-marking in conditional antecedents. The analysis has drawn upon previous research by von Fintel and Iatridou (2023) and Kaufmann (2022) to propose an understanding of how the past morpheme influences the interpretations of these conditionals. In von Fintel and Iatridou’s (2023) framework, the O-marking, referred to as the O.COND here, is characterized as the “ordinary” marking, denoting open or habitual conditionals. On the other hand, the X-marking, or X.COND, refers to a wider domain and hypothetical possibilities. The paper compares the structural and interpretive differences between O.COND and X.COND and demonstrates that the past morpheme behaves differently in these contexts. In O-marked conditionals, the past morpheme attributes its usual tense interpretation, while in X-marked conditionals, it adds an extra layer of meaning and licenses

non-past referring items along with the past ones. The syntactic structure and time adverbials further support these observations.

In my analysis of conditional structures, I follow the restrictor analysis (Kratzer 1986, 1991), where the antecedent clause functions as a restrictor for the modal operator in the consequent clause. In O-conditionals, the past marker is interpreted within the domain of the modal operator, either as the evaluation time of the antecedent or the consequent, unless it is being used to denote the past habitual reading. However, in X-conditionals, the past operator always scopes over the modal and X.COND operators. My analysis also reveals different levels of remoteness in X-marked conditionals, in line with Kaufmann's (2022) proposal. Furthermore, the data in Turkish supports her claim that the past morpheme in X-conditionals which is used on top of the first level of X-marking (X.COND) can widen the domain in the temporal aspect by shifting back in time to the worlds where the prejacent was possible to be true.

In summary, this paper contributes to our understanding of the interaction between past and conditional morphemes in Turkish. It provides a detailed analysis of O.COND and X.COND structures, explores the role of the past morpheme in each context, and proposes a restrictor analysis to account for the observed interpretations with a split X-marking and Past-as-Past hypothesis. Further research can build upon this analysis to test it and investigate other aspects of Turkish conditionals and their linguistic implications. One of the implications to think about further is where the counterfactuality interpretation comes from in this framework. Would we consider it as an implicature as in various previous studies (e.g., Aygen 2004, Iatridou 2000, Ippolito 2002, 2003, 2004, 2013; Verstraete & Van linden, 2008; von Fintel, 1998, 2005, 2011, 2012) or treat it as a presupposition as discussed in the recent work of von Fintel and Iatridou (2023) with respect to Hindi and Turkish? This question and possibly many more questions remain open. Therefore, I believe a scrupulous further analysis is necessary to check the empirical facts better.

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