

Antipresupposition: Turkish -sA Unified

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Intro to -sA (and -(y)sA) - The main goal

The so called conditional morpheme in Turkish comes in two varieties, according to previous literature that is highly agreed upon (Göksel & Kerslake 2005, Soykan 2021): -sA and -(y)sA for X-marked and O-marked conditionals respectively. (Capitals denote harmonizing vowels).

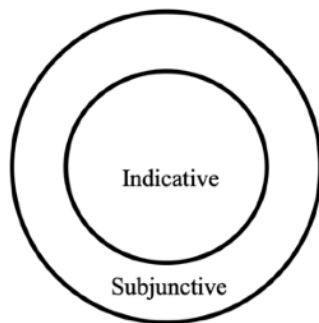
The main goal of this talk will be to find a way to unify the two conditional morphemes in Turkish and attribute the difference to the environment and morphemes that appear alongside these forms.

X-marked Conditionals

Most analyses of counterfactual/subjunctive conditionals are based on the fact that they come with a layer of morphologically more complex than their indicative counterparts.

- (1) If John comes, Mary will go.
- (2) If John **came**, Mary **would** go. > X-marking, a layer of past

This also correlates with most analyses adding a special layer of meaning (X-marking) to reach the Counterfactual (CF) meanings, mimicking their morphology. The added meaning is usually analyzed as a form of domain widening (Stalnaker, 1968, 1975).



This domain widening effect has been analyzed either as modal (Iatridou 2000, Iatridou & von Stechow, 2023) or temporal (Ippolito, 2003, 2013). On the temporal side, the added past marker directly correlates with an added past meaning in the derivation. Domain widening is obtained by going back in time and assuming a different situation where things have happened differently.

Indicative: [if p, q] **Subjunctive:** [PAST[if p, q]]

On modal side, the main claim is that the past marker has a modal contribution that widens the domain of the evaluation worlds to include the worlds that are not compatible with the indicative.

On both approaches we see an added meaning for X-marked conditionals. However, this doesn't hold for Turkish, where the subjunctive form has less morphology. I will gloss the indicative form as YSA and subjunctive form as SA, as it was done in the previous literature to eliminate any confusion that might arise.

Indicative:

Mary is waiting to decide whether to go to school today. John texted her earlier saying he might come. If he does, she wants to go with him. If not, she'll stay home. She's still unsure. The speaker says:

- (3) (Eğer) Can gel-**ir-se** Meryem okul-a gid-er
 (If) John come-aor-YSA Mary school-dat go-aor
 "If John comes, Mary will go to school."

- (4) # (Eğer) Can gel-**se** Meryem okul-a gid-er.
 (if) John come-SA Mary school-dat go-aor
 "If John came, Mary would go to school."

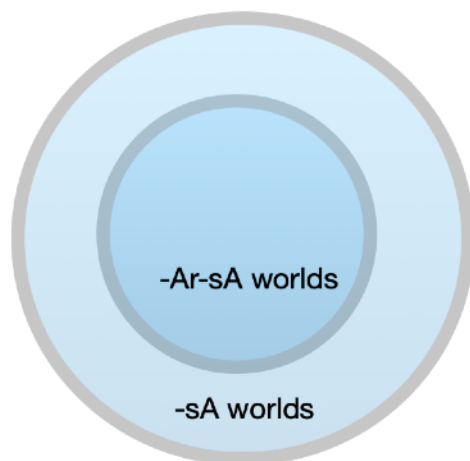
Future-less-vivid: (the speaker believes that p is less likely than $\neg p$)

John is usually too lazy to come to school these days, and today is no exception, he's probably at home sleeping. Mary dislikes going to school unless John is there, but since he's unlikely to come, she might stay home too. The speaker says:

- (3) # (Eğer) Can gel-**ir-se** Meryem okul-a gid-er
 (If) John come-aor-YSA Mary school-dat go-aor
 "If John comes, Mary will go to school."

- (4) (Eğer) Can gel-**se** Meryem okul-a gid-er.
 (if) John come-SA Mary school-dat go-aor
 "If John came, Mary would go to school."

- The term 'aorist' has been used to describe very different markers cross-linguistically. The aorist morpheme *-Ar* in Turkish has very similar usage to present tense/indicative markings in other languages (scheduled, generic). While a glossing such as 'PRS' would be equally accurate, I am choosing to appeal to previous literature and gloss this morpheme as 'aor'.



Turkish also doesn't have the ambiguity wrt. past oriented indicative conditionals and counterfactuals. Contra Iatridou (2000)'s claim that the X-marking in Turkish is done via the past marker *-di*, this is only the case with double past marked counterfactuals.

Past Indicative context:

We don't know if Mary went to school yesterday, but we know that Mary goes to school when John comes home. While speaking about Mary's attendance to school yesterday, the speaker says:

- (5) (dün) Can ev-e gel-**di-yse** Meryem okul-a
 (yday) John home-DAT come-PST-YSA Mary school-DAT
 git-**miş-tir**
 go-**EVID.PST-AOR**
 "If John came home yesterday, Mary must have gone to school"
- (6) # (dün) Can ev-e gel-**se-ydi** Meryem okul-a
 (yesterday) John home-DAT come-SA-PST Mary school-DAT
 gid-er-di
 go-aor-pst
 "If John had come home yesterday, Mary would have gone to the school."

Note: inferential/evidential past seems to be obligatory in past indicatives/epistemic conditionals since the speaker cannot directly know about Mary's actions.

Counterfactual Context:

John flew to Paris yesterday, and Mary broke both her legs so she cannot go to school by herself, the speaker says:

- (5) # (dün) Can ev-e gel-**di-yse** Meryem okul-a
 (yday) John home-DAT come-PST-YSA Mary school-DAT
 git-**miş-tir**
 go-**EVID.PST-AOR**
 "If John came home yesterday, Mary must have gone to school"
- (6) (dün) Can ev-e gel-**se-ydi** Meryem okul-a
 (yesterday) John home-DAT come-SA-PST Mary school-DAT
 gid-er-di
 go-aor-pst
 "If John had come home yesterday, Mary would have gone to the school."

And the subjunctive form doesn't accept past adverbials, as expected.

- (7) (*dün) Can gel-**se** Meryem okul-a gid-er.
 (*yesterday) John come-SA Mary school-dat go-aor
 "If John came, Mary would go to school."

Lastly, -sA form antecedents are also used in desiderative settings, marking the antecedent clause as the complement of a desiderative verb.

- (8) Can gel-se çok sevin-ir-im
 John come-SA very happy.be-aor-1sg
 'I'd be very happy if John came.'

Or by themselves with a covert consequent, optionally marked with the desiderative particle ‘keşke’ (borrowed from Persian)

- (9) Keşke Can gel-se.
if.only John come-SA
‘If only John came.’

Desideratives has been noted to have morphological connection to counterfactuals in many languages (Iatridou, 2000). Turkish is an example of such a language.

Previous Analyses of -sA (and -(y)sA) Göksel & Kerslake 2005:

They analyze -sA and -(y)sA as two separate morphemes, corresponding to subjunctive and indicative respectively.

Turkish has two layers of morphemes that can contribute temporal/aspectual meanings, where the elements can be used to build the meaning like lego blocks.

Verb root	Low affixes	Copula	High affixes
Koş (run)	-AcAk (fut)	y (only appears between vowels)	-mİş (evid)
	-mİş (evid.pst)		-dİ (pst)
	-dİ (pst)		-sA (ind. cond)
	-sA (subj. cond)		
	-Ar (aorist)		
	-Iyor (prog)		

The first layer is called the aspectual layer, where the combination of verb and the aspectual morpheme results in a non-verbal element, which requires the insertion of copula to be verbalized again.

Only a few combinations are blocked:

*sa+sa

*miş+miş (depends on the dialect, banned in standard)

Crucially, the past-oriented indicative conditional is the only form where the past marker -dİ appears in the lower layer.

The copular suffixes (the higher layer) can be combined with nouns as well:

- (10) Bu bir elma-y-mış / elma-y-dİ.
this an apple-cop-EVID apple-cop-PST
“This was (allegedly) an apple.”

- (11) Bu bir elma-y-sa onu ye.
 this an apple-cop-YSA this.acc eat.imp
 ‘If this is an apple, eat it.’

Lastly, two form of -sA behave differently wrt. nouns: (compare with 11, which is indicative)

- (12) Bu bir elma ol-sa, onu ye-r-di-m
 this an apple be(come)-SA this.acc eat-aor-pst-1sg
 ‘If this was an apple, I would eat it.’

> the inserted auxiliary is rarely used to mean “to be”, it usually signals a change of state.

Göksel & Kerslake (2005) propose that copula and the **aorist** don’t add any meaning, only there to support -(y)sA structurally, similar to how the auxiliary is inserted to support the CF form in nouns.

Copular suffixes can also optionally be written separately from the verbal complex:

- (13) Can gel-ecek i-se Meryem gel-me-**yecek**.
 John come-fut cop.YSA Mary come-neg-fut
 ‘If John is going to come, Mary isn’t going to come.’

These copular cases are one evidence for Göksel & Kerslake (2005)’s analysis. Their analysis is based on this copular element, which is phonologically weakened to ‘y’ when the copular suffix is combined with the verb according to them.

However, the appearance of the so called copula even with a low suffix like the future marker in (13) casts doubts on whether this ‘y’ morpheme is actually an element or just a phonological insertion to break up hiatus.

> This is also a doubly ambiguous approach since aorist has meaning in all other cases:

- (14) Yürü-r.
 walk-aor
 ‘He (habitually) walks.’

- (15) Yürü-r-Ø-dü
 walk-aor-cop-pst
 ‘He (allegedly) used to walk.’

Note: Only the examples above are marked with the null copula morpheme, since this analysis cannot explain cases like (13)

Soykan 2021 and 2023:

Soykan (2021) proposes a presuppositional approach to differentiate the indicative $-(y)sA$ and subjunctive $-sA$. She claims that $-sA$ and $-(y)sA$ are different morphemes with different presuppositions

Presuppositions of Present Subjunctive Conditionals: $p-sA$, q

- a. p is more likely to be false than true for s
- b. p is epistemically possible for s
- c. q is epistemically possible for s

Presuppositions of Present Indicative Conditionals: $p-ysA$, q

- a. p is epistemically possible for s
- b. q is epistemically possible for s

As for the aorist, she analyzes that its distribution in antecedents is restricted by the consequent, to the cases where the conditional is future oriented and indicative.

> She claims a meaning for the aorist, which fares better than Göksel&Kerslake (2005)

> While there is nothing inherently wrong with this analysis, it's still an ambiguity approach.

Solution to the Dichotomy: Antipresupposition

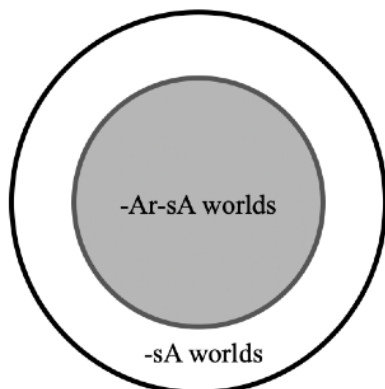
Recent literature on indicative conditionals analyze them as being presuppositionally heavier than subjunctives (Leahy 2011, Romero 2024). Here, I will adopt Leahy (2011)'s analysis, where the presupposition is **epistemic possibility for the speaker**.

Indicative: $\Diamond_{\text{epis}_s} A$ (A is variable over propositions)

Subjunctive: $\emptyset$

Assuming the speaker authority, competence and reliability, the following implicature obtains in non-indicative conditionals:

- | | | | |
|------|------|---|------------------------------|
| (16) | i. | $\sim B_s[\Diamond_{\text{epis}_s} A] \vee \sim B_s[\text{Auth}[\Diamond_{\text{epis}_s} A]]$ | |
| | ii. | $\sim B_s[\Diamond_{\text{epis}_s} A]$ | (from (i) and Authority) |
| | iii. | $B_s[\sim \Diamond_{\text{epis}_s} A]$ | (from (ii) and Competence) |
| | iv. | $\sim \Diamond_{\text{epis}_s} A$ | (from (iii) and Reliability) |



- For this account, all we need to do is assume that the aorist in Turkish carries the epistemic possibility presupposition.

Open questions

- Pragmatic competition is said to arise only when the structures are of equal or lesser complexity. (Katzir, 2007) But in case of Turkish conditionals, the indicative form seems to have more morphology.

> Assuming a phonologically null subjunctive morpheme below -sA in subjunctive cases bring the structures to equal structural complexity, assuming that the 'y' sound is not copula:

(17) Can gel-ir-se, gid-er-iz.
John come-aor-YSA go-aor-1pl
'We'll go if John came.' (Indicative past)

(18) Can gel-Ø-se, gid-er-iz
John come-sbj-SA go-aor-1pl
'We'll go if John comes.'

The same subjunctive morpheme could be assumed in imperative cases

(19) Bura-ya gel-Ø
here-dat come-subj
'Come here.'

- What's the literal contribution of the aorist morpheme?

> Here, I only entertained the presuppositional contribution of the aorist, I make no claims regarding its literal meaning contribution.

> It's possible to hypothesize that the aorist morpheme in Turkish behaves just like the present tense morpheme in English, which both have the scheduled and generic readings as well. Given that Leahy (2011)'s account works in English present vs. subjunctive, it should also work in Turkish.

In matrix cases of the aorist, namely generic/settled (16) and scheduled (17), it is indeed the case that the speaker assumes the proposition is possible.

(20) Güneş doğu-dan doğ-ar
Sun east-from rise-aor
"The sun rises from the east." > Settled usage

(21) Can bir saat-e gel-ir (herhalde).
John one hour-dat come-aor (possibly) > Scheduled Usage
"John will (possibly) arrive in one hour."

To prevent any kind of pragmatic competition wrt. other non-past morphemes, the other 2 non-past morphemes (-Iyor, the progressive morpheme and -AcAk the future morpheme) could also have the same presupposition.

- Counterfactual Cases

If the future-less-vivid (FLV) has no presuppositions and by antipresupposition it receives the epistemically impossible meaning, then what about CF?

Leahy (2011) doesn't distinguish between CF and subjunctive cases, clumping them both together under non-indicative. However, adopting such an approach without distinguishing between the types of subjunctive can be problematic.

Adopting Ippolito (2003, 2013)'s presuppositional approach to account for the CF cases could work. This will require a further investigation.

Ippolito (2008) assumes that CF is used in cases where the presuppositions of the antecedent proposition is not met:

In subjunctive cases, even if the eventuality described in the antecedent is counterfactual, presuppositions in the antecedent (if any) cannot be.

If the antecedent has no presuppositions, subjunctive is always felicitous.

When one of the presuppositions in the antecedent is not met, CF is required.

Indicative: $\Diamond_{\text{epis}} A$
Subjunctive: $\emptyset$
CF: presuppositions of the antecedent not met

Presuppositions in CF cases:

Context: Tomorrow is John's birthday, but I confused the dates and called him today and that made him really upset.

(22) # Can-ı yarıñ ara-**sa-m** daha iyi ol-ur-du
 John-acc tomorrow call-sa-1sg more good be-aor-pst
 "If I called John tomorrow, it would have been better."

(23) Can-ı yarıñ ara-**sa-ydım** daha iyi ol-ur-du
 John-acc tomorrow call-sa-pst.1sg more good be-aor-pst
 "If I had called John tomorrow, it would have been better."

Here, even though the event in the antecedent is about the future, pure subjunctive cannot be used because the calling event has already occurred. So it's not epistemically possible anymore.

Conclusion

- Turkish is a language where the X-marking works inversely.
- *-sA* by itself includes the worlds that are also not in speakers doxastic alternatives. Adding *-Ar* limits the worlds to the ones that are epistemically possible according to the speaker.
- Uttering the *-sA* form creates pragmatic competition, resulting in the inference that the speaker does not consider the proposition epistemically possible.
- An antipresuppositional analysis for indicative conditionals in Turkish can account for the two conditional morphemes in Turkish without postulating an ambiguity approach.
- Additionally, the antipresuppositional approach does not over generate wrt. other high attaching morphemes (*-DI*, *-mİş*) which seems to have only one meaning.

	SBJ vs IND Explanation	Status of Cond Marker	Status of the Aorist
Göksel & Kerslake	Structural difference	Ambiguity wrt. <i>sA</i>	Ambiguity wrt. Aorist
Soykan	Presuppositional Difference	Ambiguity wrt. <i>sA</i>	Ambiguity wrt. Aorist
Antipresupposition	Presuppositional Difference on Aorist	<i>sA</i> Unified	Aorist Unified

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