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UNIVERSITY OF CALIFORNIA
SANTA CRUZ

**PROCESSING COVERT DEPENDENCIES: A STUDY ON
TURKISH WH-IN-SITU**

A thesis submitted in partial satisfaction of the
requirements for the degree of

MASTER OF ARTS

in

LINGUISTICS

by

Duygu Demiray

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The Thesis of Duygu Demiray
is approved:

Professor Matt Wagers, Chair

Assistant Professor Zhiyu Mia Gong

Professor Roumyana Pancheva

Peter F. Biehl
Vice Provost and Dean of Graduate Studies

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2024

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Abstract

Processing Covert Dependencies: A Study on Turkish Wh-in-situ

by

Duygu Demiray

This work focuses on the processing of wh-in-situ dependencies in Turkish to understand the mechanisms of the search process for the scope position of a wh-in-situ element. Despite the lack of overt movement, it is argued that there is a covert relationship between the SPEC CP position of the scope-bearing clause and the wh-element. Previous work investigating the processing of wh-in-situ elements finds evidence for an abstract dependency between the scope position and the wh-element. This study focuses on the search process for upcoming structural information, specifically, whether the clause most local to a wh-element is expected to bear scope. Since Turkish only marks the scope of the wh-element via intonation, a reading study on wh-in-situ can allow us to directly probe the relationship between the two ends of the dependency. A self-paced reading study shows that embedding clauses that do not allow local scope incur a slowdown in reading times when they contain a wh-element. A follow-up fragment completion study shows an overwhelming preference for local scope when participants are provided with fragments containing a wh-element. The results are interpreted as a locality preference during the production and processing of wh-in-situ dependencies.

To Kaplan

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1 Introduction

A key aspect of sentence processing involves building relationships between linguistic elements to perform various operations, such as associating a discourse referent to an event, a displaced element to its argument position, a pronoun to its referent, or associating a *wh*-element with its argument or scope position. In overt *wh*-movement languages like English and Dutch, the *wh*-element is moved to the clause-initial position to mark the scope on the surface structure:

- (1) a. *Who* did John see his brother hugging __ ?
b. John saw *who* his brother was hugging __.
- (2) a. *Who* did John see his brother hugging __ ?
b. John saw *who* his brother was hugging __.

The processing of these *wh*-movement dependencies involve establishing a relationship between the displaced *wh*-element and the gap left behind in its argument position. Numerous studies have found that upon encountering a *wh*-element, the parser initiates a search process for its argument position. As part of this search process, the potential gap site is predicted in accordance with syntactic and semantic constraints. The parser does not wait for definitive evidence to posit a gap position [Frazier and d'Arcais, 1989]; in other words, the search process is active, the first available position is strongly preferred as the gap-site [Stowe, 1986] (3).

- (3) $[_{XP} \textit{Who} \textit{did} \textit{John} \textit{see} \textit{ } \textit{ }]? [_{ZP} \textit{his} \textit{brother} \textit{hugging} \textit{ } \textit{ }]$
-

The data indicating a locality effect in the processing of filler-gap dependencies comes from different behavioral and neurolinguistic measures. As pointed out before, the leftmost grammatically available position is expected to be the gap site. A slowdown in reading times is observed at the potential gap site when this prediction is disconfirmed. This is called the filled gap effect, and [Frazier and d’Arcais, 1989] posit the Active Filler Strategy based on these effects, where the parser posits gaps without waiting for definitive evidence of its existence.

- (4) That’s the garage/pistol with which the heartless killer **shot** the man yesterday afternoon.

Expectation for upcoming elements and the locality tendency is seen in argument-verb dependencies, too. In an eye-tracking study, [Traxler and Pickering, 1996] find a slowdown upon encountering the verb in (4) when the filler is an implausible argument. Testing similar implausibility effects with embedded wh-constructions, [Garnsey et al., 1989] found a spike in N400 potentials. These electric potentials are reliably measured 400 ms after participants encounter a semantically implausible word in context.

The current work is concerned with the processing of wh-in-situ dependencies in Turkish to investigate the processing mechanism behind these dependencies and expand our understanding of the mechanisms behind linguistic dependency resolution. The processing of wh-in-situ forms an interesting comparison with wh-movement dependencies.

Wh-movement dependencies are characterized by a displaced wh-element at a clausal initial position. In these dependencies, the argument of this element needs to be identified, whereas the scope position is marked on the surface. Wh-in-situ dependencies, on the other hand, have the inverse process where the scope of the wh-question is not marked via movement, and the wh-element is in its original argument position (5).

- (5) a. [_{CP} Can *kim-e* sarıl-dı? OP_q]
 Can who-DAT hug-PST Q
 "Who did Can hug?"
- b. Can [_{CP} kardeşi-nin *kim-e* sarıl-dığ-ı-nı OP_q] gör-dü.
 Can brother-GEN who-DAT hug-NOM3SG-ACC Q see-PST
 "Can saw who his brother was hugging."

Nevertheless, a covert movement [Huang, 1982], or binding [Aoun and Li, 1993] operation is argued to take place between the in-situ wh-element and a Q-operator located on SPEC CP for scope interpretation. From a processing perspective, this is interpreted as a scope dependency between an in-situ element and a structural position, specifically SPEC CP.

On an abstract level, both dependencies involve identifying the elements that enter into a dependency, followed by the expectation for a particular dependency resolution site, and maintaining or retrieving the relevant features of that element at appropriate points to check if the dependency can be resolved as expected. In wh-movement dependencies, the predicate for the displaced wh-phrase must be identified for interpretive purposes. In wh-in-situ dependencies, the scope position of the wh-element should

be identified for interpretive purposes. However, the process of identifying a scope position is different compared to identifying an argument position.

Canonical argument positions for linguistic elements are highly predictable, and matching a displaced element to its argument requires maintaining or retrieving particular features of this element. On the other hand, *wh*-in-situ dependencies do not require the lexical features of the *wh*-element to be maintained or retrieved because the scope dependency is more abstract. This opens up questions about the existence or lack of locality effects in *wh*-in-situ dependencies and the memory mechanisms that govern the resolution of these dependencies.

Several theories were put forward to motivate the locality preference in processing dependencies. They can refer to the linear or structural distance between the filler and the gap, elements that might cause interference during recall, or both.

The Minimal Chain Principle (MCP) states that the postulation of necessary members in a dependency chain should not be delayed [De Vincenzi, 1991]. This strategy calculates locality as syntactic distance by referring to syntactic movement chains. An economy principle is also part of the MCP since this strategy only posits members when necessary. Dependency Locality Theory (DLT) assumes a left-corner parser but models distance as linear [Gibson et al., 2000]. The more distance and interfering elements between the filler and the gap, the more difficult it will be to associate the gap with the filler.

Both of these early theories share the intuition that delaying the resolution of dependencies increases processing difficulty. MCP is a more syntactically guided

principle in that each movement chain on a syntactic tree is assumed to have an effect on how the dependency is processed. DLT, on the other hand, models locality effects as resulting from decay and interference.

Working memory models model the effects of decay and interference in much greater detail. They are used extensively to account for many phenomena in language processing, including the resolution of long-distance dependencies. The direct-access model of [McElree, 2006] relies on an encoding mechanism where items are indexed by features and retrieved directly (i.e., without reference to their position) through the activation of these features. Content-addressable retrieval contrasts with serial retrieval mechanisms where elements are encoded relative to their position to other elements. Serial retrieval mechanisms cannot account for the rapid retrieval processes attested in language processing. In contrast, interference effects between elements that share featural content are widely attested in agreement attraction, dependency resolution, and other linguistic processes [Wagers, 2008, Wagers et al., 2009, Ulusoy, 2023]. These findings constitute evidence for a content-addressable retrieval process operating during sentence processing.

On the other hand, expectation-based theories model processing difficulty as a function of the surprisal of upcoming linguistic elements. In these theories, upcoming elements are predicted based on the input elements, and disconfirmed predictions or uncertainty regarding upcoming input results in processing difficulty. Ambiguity, or uncertainty, regarding upcoming input is quantified in surprisal theory [Levy, 2008, Hale, 2006]. A parallel and incremental parser assigns a probability distribution over

possible structures updated with each incoming word. The processing difficulty associated with a word is quantified with the negative log frequency of that word, which is a measure of how surprising the word is given the previous words in the sentence and extra-sentential context [Hale, 2006]. It should also be noted that the exact structural representation is left underspecified in this theory. This is because whatever is predicted about the structure is cached as a metric of how well the currently processed work confirms or disconfirms that prediction. In this way, surprisal is argued to be a causal bottleneck between observed behavioral results and the exact linguistic representation.

One important consequence of this architecture is that the effects of distance are not directly understood in terms of distance but rather expectation. Under this view, processing difficulty fluctuates as a function of lexical, structural, or configurational frequency. Surprisal theory does not refer to distance, decay, and other memory effects. Instead, locality effects in dependency resolution would be understood as an expectation for the leftmost possible position to be the gap site because this is encountered more frequently in sentences with filler-gap dependencies. This view would predict that we should see a locality tendency in sentence production and comprehension. The more interesting question, of course, is why shorter distances in dependencies are more frequent.

The results of the current work show that the processing of *wh*-in-situ elements involves generating expectations about abstract structural properties, namely the position of a Q-operator or movement site for the in-situ element for the resolution of a scope dependency. Experiment I is a self-paced reading study showing that clauses local to

the wh-element that are unable to host a scope dependency incur processing difficulty in the form of slower reading times. Experiment II is a production study showing that when participants are provided with a sentence fragment with a wh-element, they prefer local scope completions over non-local scope completions.

The upcoming section will overview previous experimental work concerned with wh-in-situ processing. This will be followed by a discussion of two experiments conducted in Turkish.

2 Background

This section will overview previous work in filler-gap dependency processing, long-distance dependencies in Turkish, and wh-in-situ dependencies from typologically similar languages, namely Japanese and Mandarin.

2.1 Filler-gap dependencies, surprisal, and working memory

Investigations on the processing of wh-movement dependencies have led to the development of the Active Filler Strategy [Frazier and d'Arcais, 1989], which posits that upon encountering a wh-element in the clause-initial position, an active search process is initiated. The leftmost grammatically possible position is predicted as the gap site. The AFS predicts that the search process is initiated *before* the gap site is encountered and that the parser does not wait for definitive evidence before positing a gap site. This is confirmed by the *filled-gap effect*, a processing difficulty incurred by an element occupying the position of a predicted gap site.

(6) My brother wanted to know *who*_{*i*} Ruth will bring us home to _{*i*} for Christmas.

[Stowe, 1986] finds that in (6), a slowdown is obtained in the underlined portion due to a filled-gap effect. This slowdown indicates that the gap position for the wh-filler is predicted ahead of time. Besides numerous studies replicating the filled-gap effect, plausibility effects in argument-verb dependencies also show evidence for eager dependency completion [Garnsey et al., 1989, Stowe, 1986, Traxler and Pickering, 1996].

(7) Lauren left the babysitter to watch a movie with the kids.

In (7), the underlined NP is caused to have a slowdown, presumably because what is expected is for the DP to be "the kids." The parser predicts potential candidates before encountering an object, and this prediction can cause a slowdown when reanalysis is required.

Eager dependency completion can be conceptualized as part of a more general mechanism that favors the prediction of upcoming elements for resource allocation purposes. Surprisal theory would also predict processing difficulty for (6) and (7) in the same regions; however, the reason for this difficulty is different under the locality and memory-based accounts and this theory. Specifically, locality-based accounts predict processing difficulty with increasing distance between the filler and the gap. Under this view, eager dependency resolution is an optimization to reduce the memory burden that arises from maintaining an unresolved dependency in memory or recalling a non-local

linguistic element for dependency resolution. Under a resource-allocation theory like surprisal, the frequency with which certain linguistic elements appear in certain structural positions plays a role in processing ease. For example, if nominative arguments are usually clause-initial in a language, a clause-initial DP marked with another case would be more difficult to process than a nominative-marked DP. In the case of dependency resolution, preference for a leftmost gap position would fall out of shorter dependency lengths being more frequent in a language. Cross-linguistic evidence for dependency minimization is found in large-scale corpus studies. [Futrell et al., 2015] find evidence for shorter dependency length in a cross-linguistic survey of thirty-seven languages. This finding shows an alignment between the production and comprehension of long-distance dependencies where shorter dependency lengths are favored.

The important question is what causes the preference for shorter dependency length. Production studies suggest that constructing a linguistic dependency requires the retention of certain properties of the filler. In a cross-linguistic study using relative clauses with an animate subject and an object vs. an animate subject and inanimate object, [Gennari et al., 2012] find that passivized relative clauses are preferred when both arguments are animate, suggesting an effect of interference between two animate arguments.

- (8) a. The bag/man [that the woman is punching __]
b. The bag/man [that __ is being punched (by the woman)]

It can be seen that the passivized RC (8-b) also has a shorter filler-gap distance compared to the active RC (8-a). Based on this observation, [Fadlon et al., 2019] expand on this work by conducting an experiment using restrictive and appositive relative clauses in English and Hebrew to investigate whether shorter distances are preferred with increased memory burden. In other words, they are interested in whether maintaining features of the filler during production results in a modulation process that shortens dependency length. Appositive relative clauses are different from unrestrictive RCs in terms of information structure. Namely, they address not-at-issue content, are semantically more independent from their head nouns compared to unrestricted RCs, and are found to invoke less interference compared to unrestricted RCs in processing filler-gap dependencies that span RCs [Dillon et al., 2017]. Based on these findings, [Fadlon et al., 2019] predict that appositive relative clauses will invoke more passivization, which structurally entails shorter dependency lengths, specifically because they are less connected. be modulated by shortening the distance between the filler and the gap. Their results support this conclusion, where they see a preference for passivization in the appositive relative clause condition and an equal distribution of passive and active constructions in the unrestricted RC condition.

These findings suggest a parallel in the comprehension and production of filler-gap dependencies with a preference for shorter dependency length. This parallel is predicted by surprisal theory, and the motivation behind it is working memory restrictions. Specifically, maintaining the representation of the filler in memory and the existence of lexical items similar to the filler increases memory load, which is modulated by eager

dependency completion in comprehension and shorter dependency lengths in production.

2.2 Dependency processing in Turkish

This section will focus on previous work on the processing of long-distance dependencies in Turkish. I will first provide some relevant information about Turkish. I will then outline findings on the processing of relative clauses and genitive-possessive constructions that appear in the nominal and verbal domains.

Turkish is an agglutinative, canonically SOV language. In a simple transitive sentence like (9), the matrix subject is nominative, and the matrix object is marked with accusative case. Nominative case is null in Turkish, unlike other cases with overt morphological markers.

(9) Ahmet Deniz-i gör-dü.

Ahmet Deniz-ACC see-PST

"Ahmet saw Deniz."

Subject relative clauses are formed with the *-An* suffix on the verb (10-a), and object relative clauses are formed by the genitive marking of the relativized object and the *-dik* suffix and possessive agreement with the genitive marked DP on the verb (10-b).

(10) a. Ahmet-i gör-en Deniz
Ahmet-ACC see-REL Deniz
"Deniz who saw Ahmet."

- b. Deniz-in gör-düğ-ü Ahmet
 Deniz-GEN see-REL-3SG Ahmet
 "Ahmet who was seen by Deniz."

The *-dik* suffix in object RCs is used to form genitive-possessive constructions in Turkish (11-a). Moreover, the gen-poss marking is syncretic in nominalized embedded clauses (11-b).

- (11) a. Ahmet-in araba-sı
 Ahmet-GEN car-POSS
 "Ahmet's car"
- b. Deniz Ahmet-in araba-yı çarp-tığ-ı-nı gör-dü.
 Deniz Ahmet-GEN car-ACC hit-NOM-POSS-ACC see-PST
 "Deniz saw Ahmet crash the car."

It can be seen that the embedded object is marked with accusative, similar to the matrix object. The embedded subject, however, is always marked with genitive. The agreement marker, labeled as poss in the examples below, is also realized in the same way.

- (12) a. Deniz Ahmet-in araba-yı çarp-ış-ı-nı gör-dü.
 Deniz Ahmet-GEN car-ACC hit-NOM-POSS-ACC see-PST
- b. Deniz Ahmet-in araba-yı çarp-ma-sı-nı gör-dü.
 Deniz Ahmet-GEN car-ACC hit-NOM-POSS-ACC see-PST
 "Deniz saw Ahmet crash the car."

The first work relevant to Turkish dependency processing is a study of Turkish RC constructions. [Kahraman, 2010] conduct two fragment completion and two self-paced reading experiments on Turkish to test the incrementality on Turkish *gap-filler construc-*

tions. Due to the head-final nature of Turkish, the gap precedes the filler in a relative clause dependency. The questions this research tries to answer are when people posit the existence of a dependency, start searching for a filler, and retroactively locate the gap site. The first two experiments presented fragments of different lengths in a 2x2 design that crosses RC type (subject vs. object) and modifier type (adverb vs. locative).

- (13) a. SUBJECT RC X LOC: Fabrika-da ustabaşı-nı (izle-yen)...
 factory-LOC foreman-ACC watch-REL
 b. OBJECT RC X ADV.: Ustabaşı-nın dikkatle (izle-diğ-i)...
 foreman-GEN carefully watch-REL-ACC
 c. OBJECT RC X LOC: Fabrika-da ustabaşı-nın (izle-diğ-i)...
 factory-LOC foreman-ACC watch-REL-ACC
 d. SUBJECT RC X ADV.: Ustabaşı-nı dikkatle (izle-yen)...
 foreman-ACC carefully watch-REL

The results from the completion studies show that participants predict an upcoming RC when they encounter the relativized verb but not before. The self-paced reading studies show a subject x object asymmetry, replicating cross-linguistic findings. The relativized verb is read faster in the subject RC condition ($p < .05$).

- (14) a. __ Yetenekli işçi-yi (dikkatle) izle-yen ustabaşı
 skillful worker-ACC (carefully) watch-REL foreman-ACC
 fabrika-da hep gülümser-di.
 factory-LOC always smile-PST
 "The foreman who (carefully) watched the skillful worker would always
 smile in the factory."
 b. Yetenekli işçi-nin (dikkatle) __ izle-diğ-i ustabaşı fabrika-da
 skillful worker-GEN (carefully) watch-REL foreman always
 hep gülümser-di.
 factory-LOC smile-PST
 "The foreman who the skillful worker watched (carefully) would always

smile in the factory."

This difference in reading times cannot be attributed to a surprisal effect that arises out of the expectation of a genitive-possessive construction instead of an object RC because the conditions with and without the adverbials in (14) do not show a difference in RTs. In other words, there is no interaction between the adverbial and plain conditions and only a main effect of RC-type.

Crucially, these results cannot be explained under theories like DLT, which predict processing difficulty with increasing linear distance, or theories like surprisal, which predict processing difficulty with unexpected structures, because the continuation studies show that Turkish speakers predict RCs upon encountering the RC verb with almost %100 accuracy. Further research is necessary to explain the source of the SRC vs. ORC asymmetry in Turkish, as it cannot be a distance effect like in English.

On the other hand, [Akpınar, 2015] investigates the processing of possessive constructions and embedded clauses in Turkish, which share the genitive-possessive construction in Turkish (11-b). I will focus on their findings that concern the processing of embedded clauses, leaving nominal genitive-possessive constructions aside; however, it should be noted that the two exhibit different behaviors. I will focus on one experiment in this study investigating the effect of distance between the genitive-marked noun and the nominalized verb in nominalized embedded clauses.

This is a self-paced reading experiment with four conditions, where the distance between the genitive-marked embedded subject is incrementally decreased by scrambling

the intervening elements at a position preceding the subject. The critical region is the embedded verb.

- (15) a. Öğrenci-nin tüm dönem ders çalış-arak sınav-ı
student-GEN all semester lesson work-CVB
geç-me-si-yile okul-da-ki öğretmen-ler mutlu oldu.
exam-ACC pass-NOM.3SG-COM school-LOC-POSTP teacher-PL happy
be-PST.3SG
- b. Tüm dönem öğrenci-nin ders çalış-arak sınav-ı
all semester student-GEN lesson work-CVB exam-ACC
geç-me-si-yile okul-da-ki öğretmen-ler mutlu oldu.
pass-NOM.3SG-COM school-LOC-POSTP teacher-PL happy be-PST.3SG
- c. Tüm dönem ders çalış-arak öğrenci-nin sınav-ı
all semester lesson work-CVB student-GEN exam-ACC
geç-me-si-yile okul-da-ki öğretmen-ler mutlu oldu.
pass-NOM.3SG-COM school-LOC-POSTP teacher-PL happy be-PST.3SG
- d. Tüm dönem ders çalış-arak sınav-ı öğrenci-nin geç-me-si-yile
all semester lesson work-CVB exam-ACC student-GEN
okul-da-ki öğretmen-ler mutlu oldu.
pass-NOM.3SG-COM school-LOC-POSTP teacher-PL happy be-PST.3SG
"The teachers at school were very pleased with the fact that the student
passed the exam by studying all semester."

The reading times incrementally increase from (15-a) to (15-d). This is interpreted as a clear anti-locality effect, where the increased distance between the genitive-marked subject and the nominalized verb causes an increase in reading times on the nominalized verb.

These findings show that (i) Turkish exhibits anti-locality effects in the verbal domain, specifically between the embedded subject and the embedded verb, similar to other head-final languages, and (ii) in RC constructions, a locality effect is not observed,

though further research is needed. Anti-locality effects in argument-verb dependencies work in favor of testing wh-in-situ dependencies because we do not expect a processing difficulty as long as the upcoming verb can be predicted with a certain amount of certainty. These results raise questions regarding what cues dependency resolution is sensitive to in Turkish. In the current work, we assume expectation to play a strong role in modulating processing difficulty, including the processing of wh-in-situ dependencies. It will be seen that wh-in-situ dependencies show a locality effect in Turkish when other factors are controlled for.

2.3 Wh-in-situ dependencies

Wh-in-situ languages differ from wh-movement languages in that the wh-element remains in its argument position instead of moving to mark the scope position.

Syntactic theories of wh-in-situ argue for a relationship between the SPEC CP position of the scope-bearing clause and the in-situ element. Two particular analyses prevail in the literature: the LF-movement analysis and the operator binding analysis [Aoun and Li, 1993, Huang, 1982]. However, the distinctions between a covert movement vs. operator binding approach are not crucial to processing wh-in-situ dependencies. The important point is that there is a dependency of some kind between the scope-bearing SPEC CP and the in-situ wh.

These dependencies are an interesting comparison point to overt wh-dependencies because there is no argument displacement. In filler-gap dependencies, the additional processing load is attributed to encoding the relevant features of the filler and recall-

ing them at potential gap sites to check whether it is a suitable argument for a verb. Wh-in-situ dependencies are not expected to incur processing load under this processing mechanism. However, if a processing load is associated with maintaining unresolved syntactic dependencies in memory, we would expect similar effects in wh-in-situ dependencies to those of the active-filler strategy.

Previous work investigating the processing mechanisms underlying wh-in-situ dependencies finds evidence for a covert dependency between the in-situ element and its scope position. Furthermore, dependency resolution strategies show a tendency for eager dependency completion, suggesting that maintaining the unresolved dependency increases processing load in wh-in-situ dependencies. Below, I will outline two [Miyamoto and Takahashi, 2002] conducted three self-paced reading experiments on Japanese wh-in-situ sentences, all showing an eager dependency completion pattern.

- (16) a. [C_m Senmu-ga [C_{emb} . **atarasii-pasokon-o** **tukatteiru-to**
 director-NOM new-computer-ACC using-is-that
 kakarichoo-ga itta-no?
 supervisor-NOM said-QP
 "Did the director say that the supervisor is using the new computer?"
- b. [C_m Senmu-ga [C_{emb} . **donna-pasokon-o** **tukatteiru-to**
 director-NOM which-computer-ACC using-is-that
 kakarichoo-ga itta-no?
 supervisor-NOM said-QP
 "Which computer did the director say that the supervisor is using?"
- c. [C_m Senmu-ga [C_{emb} . **atarasii-pasokon-o** **tukatteiru-ka**
 director-NOM new-computer-ACC using-is-QP
 kakarichoo-ga itta-no?
 supervisor-NOM said-QP
 "Did the director say that the supervisor is using the new computer?"

- d. [C_m Senmu-ga [C_{emb}. donna-pasokon-o tukatteiru-ka
 director-NOM which-computer-ACC using-is-QP
 kakarichoo-ga itta-no?
 supervisor-NOM said-QP
 "Did the director say which computer the supervisor is using?"

Japanese marks wh-scope with the q-particle *-ka*, and this design crosses particle type on the embedded verb with sentence type in (16). There is an interaction between sentence and particle type, where a declarative particle on the embedded verb incurs slower reading times than the question particle in the wh-condition ($p < .005$).

In other words, comprehenders seem to expect the scope particle on the *left-most available verb*. This is very similar to observed effects in filler-gap dependencies. [Miyamoto and Takahashi, 2002] note that this is the case even when comprehenders are aware of the existence of more than one clause in a sentence. They interpret these findings as an instance of the active filler strategy in a wh-in-situ context. They call the effects a Typing Mismatch Effect (TME), referring to comprehenders' expectation for an embedded interrogative clause.

This work provides initial evidence for local dependency resolution preference in wh-in-situ dependencies. In other words, the parser tends to resolve a scope dependency at the first available position. This translates to expecting the first grammatically available verb to bear an interrogative particle in Japanese. However, not all languages have an overt morphological exponent marking the scope position of a wh-element. Turkish is one such language, marking wh-scope only via intonation. One of the main questions of this thesis is whether the expectation for an abstract structural position is subject to

the same locality constraints as surface cues.

The retrieval of the gap site presents similar challenges. Additional support for memory effects in the processing of wh-in-situ speed-accuracy trade-off (SAT) study in Mandarin [Xiang et al., 2014]. Mandarin is an SVO language that marks wh-scope via intonation; unlike Japanese, no morphological exponent marks the scope position. This configuration is particularly interesting since (i) the gap needs to be retroactively located, and (ii) the gap is a structural position not marked on the surface structure. [Xiang et al., 2014] are interested in the memory mechanisms underlying the recall of the gap position. They assume that the gap site is a SPEC CP position and conduct an SAT study with a 2x2x2 design controlling for sentence type (declarative vs. wh), dependency length (long vs. short), and plausibility (plausible vs. implausible). Participants judge the plausibility of a sentence at varying intervals in time, and accuracy is plotted as a function of time. Intervals are set such that the earliest response reflects chance accuracy, the results obtained in the middle capture the increase in accuracy as time elapses, and finally, accuracy is seen to reach an asymptotic level.

- (17) a. DECLARATIVE; SHORT: shi zhengfu yancheng-le/kuojian-le naxie
city council punish/expand those
guanyuan
officials
"The city council punished/#expanded those officials."
- b. DECLARATIVE; LONG: shizhang mingling shizhengfu
mayor order city-council
yancheng-le/kuojian-le naxie guanyuan
punish/expand those officials
"The mayor ordered the city council to punish/#expand those officials."

- c. WH-Q; SHORT: shi zhengfu yancheng-le/kuojian-le naxie guanyuan
city council punish/expand which officials
"The city council punished/#expanded which officials?"
- d. WH-Q; LONG: shizhang mingling shizhengfu yancheng-le/kuojian-le
mayor order city-council punish/expand
naxie guanyuan
which officials
"The mayor ordered the city council to punish/#expand which officials?"

Three parameters define an SAT curve: asymptote, rate, and intercept. The asymptote provides information about the highest accuracy reached, the rate concerns how fast the asymptote is reached, and the intercept allows us to make inferences about at which point accuracy starts differing from chance levels. The accuracy score for each cross in the Latin square is calculated in the analysis to see whether they require separate values for the SAT asymptote, rate, and intercept. The function that best fits the data has three different asymptotes for wh-dependencies, a separate rate parameter for the sentence type condition, and a single intercept across conditions. This means that (i) there is a significant difference in processing speed and accuracy in the sentence type condition, and (ii) within the wh-condition, dependency length affects accuracy but not speed of recall.

These results indicate a difference in the processing of wh-sentences and declarative sentences. More importantly, they suggest that a content-addressable memory mechanism is utilized to recall the potential scope positions. It is well-established that different memory mechanisms are required to access item and order information. Order information concerns how elements are positioned with respect to one another, i.e.,

retrieving the 2nd item of a list involves referring to the 1st and 3rd elements of the respective list. This kind of information is retrieved via a slower serial search process. Item information does not rely on relational information and is retrieved with a content-addressable process. Content-addressable memory access relies on encoding the features of an individual item without necessarily referring to where it is located among other items [McElree, 2006].

This suggests that structural information is encoded in the same manner that semantic features of a lexical item are encoded. In other words, relational positions might be encoded in a fine-grained way that allows direct access.

These studies provide evidence for dependency formation between the wh-element and the scope position in wh-in-situ dependencies. Furthermore, there is evidence that the processing of wh-in-situ dependencies is governed by strategies similar to wh-movement dependencies, implying that structural features are encoded in memory in the same way as semantic features. Namely, [Miyamoto and Takahashi, 2002] provides evidence for eager dependency completion in wh-in-situ dependencies, whereas [Xiang et al., 2014] results indicate that the memory mechanisms that underlie the processing of wh-in-situ and wh-movement dependencies are the same.

The results from the current experiments show that the prediction of an upcoming structural feature is led by an active search process, providing further evidence that structural features are subject to the same underlying processing mechanisms as lexical features.

3 Current work

The main goal of this thesis is to expand our understanding of wh-in-situ processing by looking at these dependencies in a novel language. I also aim to address a gap in the Turkish sentence processing literature and enrich the literature on dependency processing in Turkish. The current work consists of two experiments on wh-in-situ dependencies. Experiment I is a self-paced reading study, whereas Experiment II is a fragment-completion production study.

The properties of Turkish allow us to address whether a structural feature can be predicted in the same manner as lexical features. In the following sections, I will address the syntactic mechanisms underlying wh-in-situ in Turkish and provide information on nominalized embedded clauses. As mentioned, Turkish does not have an overt morphological exponent marking scope. However, embedded clauses have different properties and can disallow local scope. I will particularly focus on embedded clauses formed with *-mA* and *-dIk* nominalizers, as these will be relevant for the experiments.

3.1 Wh-in-situ in Turkish

Syntactic analyses of Turkish wh-in-situ similarly argue for an indexing approach, where the wh-in-situ element binds a Q-operator [Arslan, 1999, Gedik, 2018]. [Arslan, 1999] provides evidence from argument-adjunct asymmetries, island violations, and quantifier scope in wh-in-situ constructions to demonstrate that a non-movement approach adequately explains the empirical data. Under the non-movement analysis, a

Q-operator in a binding relation with the *wh*-element starts out from the specifier of the C-head local to the *wh*-element and can move to a higher C-head via cyclic movement to take non-local scope. This operator then types the clause interrogative.

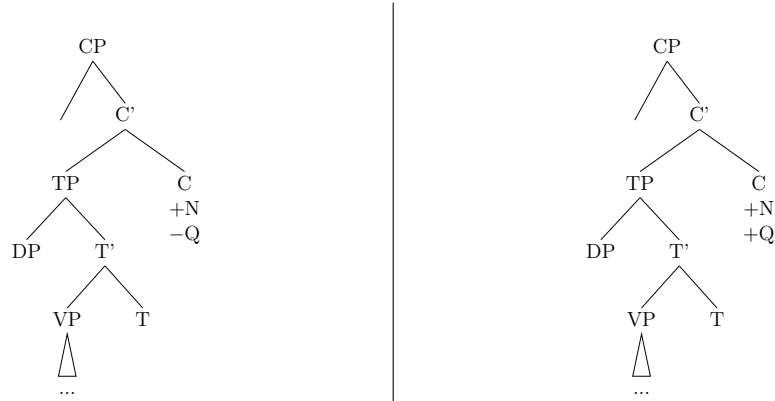
3.2 Nominalized clauses in Turkish

The nominalizer *-dik* can form embedded clauses and host scope. The nominalizer *-MA* is also used to form embedded clauses; however, they cannot host scope.

- (18) a. Hakan [Timur-un nere-ye git-tiğ-i-ni] gör-dü.
 Hakan Timur-GEN where-DAT go-DIK-ACC-2SG see-PST
 "Hakan saw where Timur went."
- b. Hakan [Timur-un nere-ye git-tiğ-i-ni] gör-dü?
 Hakan Timur-GEN where-DAT go-DIK-ACC-2SG see-PST
 "Where did Hakan see Timur go?"
- c. Hakan [Timur-un nere-ye git-me-si-ne] şaşır-dı?
 Hakan Timur-GEN where-DAT go-MA-ACC-2SG surprise-PST
 "Where was Hakan surprised that Timur went?"
- d. *Hakan [Timur-un nere-ye git-me-si-ne] şaşır-dı.
 Hakan Timur-GEN where-DAT go-MA-ACC-2SG surprise-PST

When DIK allows for local scope, the embedded clause can be typed interrogative (18-a). However, these clauses do not force local scope, and if the properties of the matrix verb allow for wide scope, the higher clause can also host scope (18-b). This is argued to arise from a difference in featural specification between embedded clauses formed by these two embedded clauses. [Predolac, 2017] argues that the C-layer of *-MA* clauses cannot host a *wh*-feature. [Kornfilt, 2003] argues this is because *-MA* clauses lack a C-layer altogether. Either way, there is general consensus that these clauses do not host scope.

Here, I will adopt the analysis of [Predolac, 2017] where a binding relation is established between a Q-operator and the wh-element, and the two clauses are assumed to have the same structure except for their scope-taking properties.



[Predolac, 2017] argues that, with respect to the functional layers, *-dlk* and

-mA clauses are identical to one another. There is a difference in the features of the C-layer, positing that *-mA* clauses do not have a Q feature, whereas *-dlk* clauses do. Additionally, the structure of nominalized clauses parallels the verbal clausal structure. In this particular analysis, the only difference is the existence of a strong nominal feature on the C head.

3.3 Research question

We are specifically interested in whether an analog of the filled-gap effect can be observed when an upcoming structural position predicted to carry a Q-feature cannot host a scope dependency. Biclausal structures with *-mA* and *-dlk* nominalizers will be used in the experiments. Suppose the processing of wh-in-situ dependencies involves an active search process for a structural Q-feature. In that case, *-mA* clauses that do not allow local scope should incur more processing difficulty than *-DIK* clauses.

This configuration allows us to directly probe the processing mechanisms governing the dependency between the two ends of the dependency, namely the in-situ wh-element and its structural scope position.

3.4 Experiment I

3.4.1 Participants

Participants were 36 native speakers of Turkish recruited online. All participants consented to participate in the experiment and were compensated \$12/hour for their participation.

3.4.2 Materials and Design

36 sets of target items were presented in a 2x2 design with sentence type (wh. vs. declarative) x local scope (grammatical vs. ungrammatical) as two factors. An additional 54 fillers containing non-wh and monocausal constructions, among constructions with wh-elements and other types of nominalizers, were also presented in the experiment.

Items were distributed across four lists via Latin Square Design. The order of items and fillers were randomized for each participant. An example itemset is presented in (19).

- (19) a. [C_m Ece [C_{emb} . Özge-nin sunum-a ekle-mek için *hangi*
Ece Özge-GEN presentation-DAT add-CVB to which
makale-yi bir gecede oku-**ma**-sı-na şaşır-dı?
article-ACC a night read-**MA**-DATIVE-3SG surprised-PST

'Which article was Ece surprised that Özge read in a night to add to the presentation?' WH. X UNGRAMMATICAL LOCAL SCOPE

- b. [C_m Ece [C_{emb} . Özge-nin sunum-a ekle-mek için makale-yi bir
Ece Özge-GEN presentation-DAT add-CVB to article-ACC a
gecede oku-**ma**-sı-na şaşır-dı?
night read-**MA**-DATIVE-3SG surprised-PST
'Ece was surprised that Özge read that article in a night to add to the
presentation.' DECL. X UNGRAMMATICAL LOCAL SCOPE

- c. [C_m Ece [C_{emb} . Özge-nin sunum-a ekle-mek için *hangi*
Ece Özge-GEN presentation-DAT add-CVB to which
makale-yi bir gecede oku-**duğ**-u-na şaşır-dı?
article-ACC a night read-**DIK**-DATIVE-3SG surprised-PST
'Which article was Ece surprised that Özge read in a night to add to the
presentation?' WH. X GRAMMATICAL LOCAL SCOPE

- d. [C_m Ece [C_{emb} . Özge-nin sunum-a ekle-mek için makale-yi bir
Ece Özge-GEN presentation-DAT add-CVB to article-ACC a
gecede oku-**duğ**-u-na şaşır-dı?
night read-**DIK**-DATIVE-3SG surprised-PST
'Ece was surprised that Özge read that article in a night to add to the
presentation.' DECL. X GRAMMATICAL LOCAL SCOPE

Only emotive factive predicates were used as matrix verbs in the target items. This is because predicates can select for both -MA and -DIK marked embedded clauses without a difference in meaning [Göksel and Kerslake, 2004]. Most predicates are either incompatible with both nominalizer types or the use of different nominalizers results in differences in meaning. Namely, -*DIK* clauses have a factual meaning (20-b).

- (20) a. Timur Hakan-ın nere-ye git-me-si-ni söyle-di?
Timur Hakan-GEN where-DAT go-MA-3SG-ACC tell-PST

"Where did Timur tell Hakan to go?"

- b. Timur Hakan-in nere-ye git-tiğ-i-ni söyle-di?
Timur Hakan-GEN where-DAT go-DIK-3SG-ACC tell-PST
"Where did Timur say Hakan went?"

It should be noted that these matrix verbs force matrix wh-scope. **Thus, all target items are unambiguous and resolve to matrix scope upon reading the sentence-final main verb.** Fillers used a mix of different verb types to prevent participants from forming a bias. Following each experimental item, participants had to complete an argument-verb matching task, where a verb was presented on the screen with an argument and a foil. Participants were instructed to select the noun associated with the verb. This task is meant to ensure that participants form dependencies between elements and maintain basic comprehension throughout the experiment [Miyamoto and Takahashi, 2002, Aoshima et al., 2004].

3.4.3 Procedure

The experiment was conducted online via PCIbex Farm (Drummond, 2013). We used the self-paced reading method with the moving-window paradigm. Participants were instructed to press the space bar to move from one word to another. The timeout for the automatic presentation of the next word was 2000 ms.

Each item was followed by an argument-verb matching task, where either a matrix verb, embedded verb, or the verb inside a converbial phrase was presented to the participant with two non-case marked DP's. Both DP's were part of the sentence.

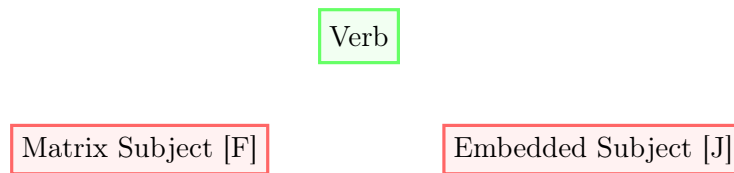


Figure 31: Argument-verb matching task

The presentation order of DP's was randomized; the one on the left could be selected by pressing the F key, and the one on the right by the J key (Figure 31).

3.4.4 Predictions

We expect an extra processing cost associated with forming a wh-dependency based on previous studies. We predict this extra processing cost to be reflected as a significant slowdown in reading times under the wh-condition at the critical and spillover regions. We hypothesize the search process for wh-in-situ dependencies is active and grammatically guided.

The continuation study results indicate that biclausal -MA constructions are not very frequent, or, at least, they are not preferred by participants. This indicates a possible slowdown at the ungrammatical local scope condition regardless of the existence of a wh-dependency. Following this, we expect an interaction between the sentence type and local scope conditions, where the greatest penalty will be seen in the wh-ungrammatical local scope condition.

3.4.5 Results

A Bayesian mixed effects model was run on the accuracy and reading time data with subjects and items as random effects using the R package *brms* [Bürkner, 2021]. RTs above 3000 ms and below 500 ms were discarded.

No significant differences were found between conditions in the accuracy results

1. The wh-condition has slightly lower accuracy than the declarative condition, and the local scope condition does not affect accuracy (Table 1).

Table 1: Accuracy results

condition	percentage corr. (SE)	percentage incorr. (SE)
wh x ungram. LS	77.58 (8.8)	22.42 (4.73)
wh x gram. LS	77.14 (8.78)	22.86 (4.78)
decl. x ungram. LS	80.76 (8.98)	19.23 (4.38)
decl. x gram. LS	80.68 (8.98)	19.31 (4.39)

However, the reading time results show a significant interaction between the different sentence types under the ungrammatical local scope condition (2). The effect was observed in the spillover region. It can be seen in Figure 32 that the wh condition in the ungrammatical local scope condition induced a much stronger slowdown compared to the slowdown that was induced in the declarative condition.

We interpret the reading time results as evidence for an active search process for upcoming structural features. There is definitive evidence for an expectation of the most local clause to bear wh-scope. This work characterizes this expectation as an active search process for a structural Q-feature encoding information about wh-scope. Since expectation for upcoming structures are argued to be mediated by structural frequency,

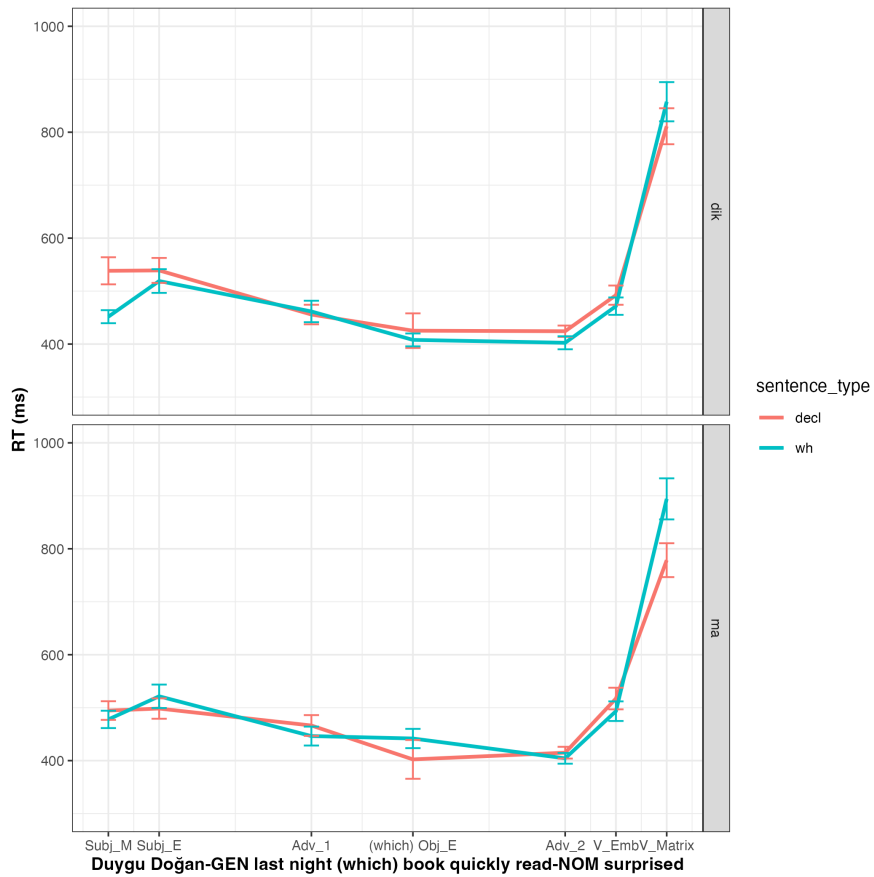


Figure 32: Experiment I: RT plot

we conducted a second experiment testing production preferences for wh-sentences and the nominalizers used in this experiment.

3.5 Experiment II

Experiment II will test whether production preferences for -DIK and -MA nominalizers parallel the results from Experiment I and whether there is an overarching preference for local scope compared to non-local scope. It will be seen that fragments

and completions with -DIK clauses show local scope completions, whereas -MA clauses, which force matrix scope, show considerable variability concerning how they are completed.

3.5.1 Participants

Participants were 24 native speakers of Turkish recruited online. All participants consented to participate in the experiment and were compensated \$12/hour for their participation.

3.5.2 Procedure

The experiment was conducted online via PCIbex Farm [Drummond, 2013]. This was a fragment completion study where each fragment was presented on the screen individually, and a textbox was provided for participants to type in their continuations. Participants clicked on a button after filling in the textbox to move to the next item. Completions without a punctuation mark at the end and shorter than 5 characters incurred an error, which prevented the participant from moving to the next item.

3.5.3 Materials and Design

10 itemsets with 6 conditions were constructed (21). 30 filler fragments were constructed, which consisted of declarative and wh-fragments of various lengths. The short, short adverbial, declarative, and wh conditions were added to the experiment to see at which point participants disambiguated the number of clauses a sentence con-

tained.

- (21)
- a. SHORT: Ece Özge-nin...
Ece Özge-GEN
 - b. SHORT + ADVERB: Ece Özge-nin sunum-a ekle-mek için...
Ece Özge-GEN presentation-DAT add-NOM to
 - c. DECLARATIVE: Ece Özge-nin sunum-a ekle-mek için
Ece Özge-GEN presentation-DAT add-NOM to
makaley-i...
article-ACC
 - d. WH: Ece Özge-nin sunum-a ekle-mek için hangi makaley-i...
Ece Özge-GEN presentation-DAT add-NOM to which article-ACC
 - e. MA: Ece Özge-nin sunum-a ekle-mek için hangi makaley-i
Ece Özge-GEN presentation-DAT add-NOM to which article-ACC
oku-ma-sı-na...
read-MA-3SG-DAT
 - f. DIK: Ece Özge-nin sunum-a ekle-mek için hangi makaley-i
Ece Özge-GEN presentation-DAT add-NOM to which article-ACC
oku-duğ-u-na...
read-DIK-3SG-DAT

3.5.4 Results

The data was annotated for the number of clauses (monoclausal, biclausal, tricolausal), sentence type (wh, declarative), nominalizer type (-mA, -dIk, -AcAK), and scope (local, non-local, matrix). Unacceptable completions were removed for analysis.

A Bayesian mixed effects model with subjects and items as random effects was run using the R package *brms* [Bürkner, 2021]. (21-e) and (21-f) are used as levels of the sentence type factor, and their effect on scope as a binary parameter (LOCAL = 1, NON-LOCAL & MATRIX = 0) is analyzed, a significant effect of -MA sentence type is found (3). Figure 33 shows that the -DIK fragments are always completed with local scope. A small subset of -MA clauses are completed with matrix scope; however, most

are completed in matrix or non-local scope.

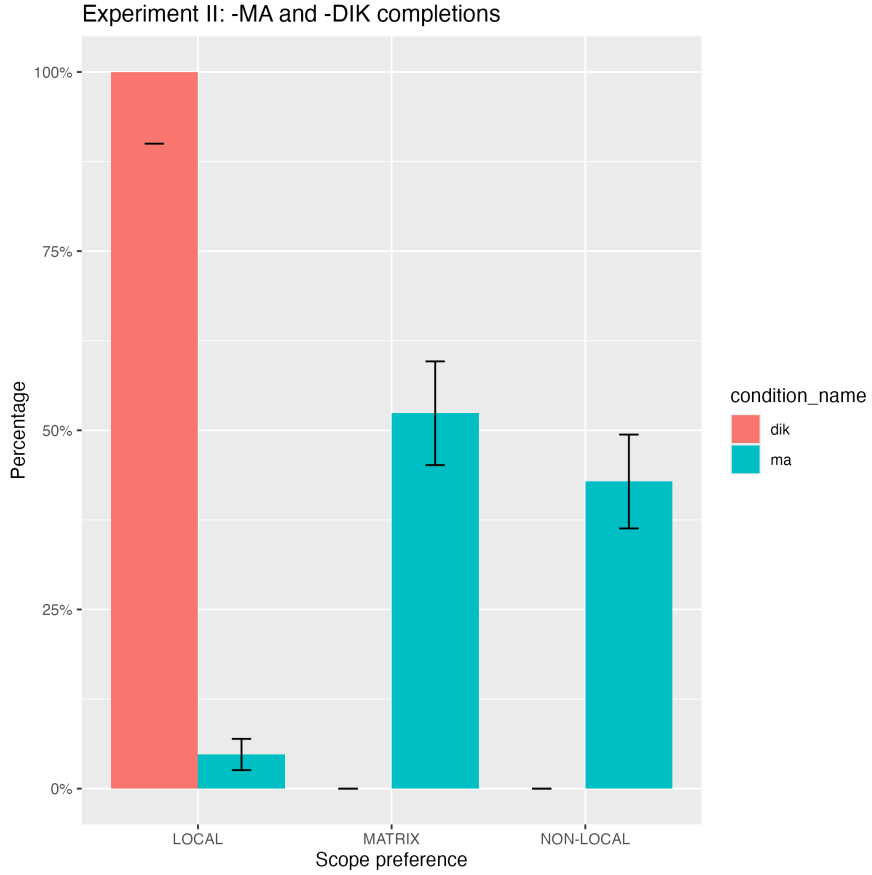


Figure 33: Experiment II: Continuations by nominalizer type

The difference between the matrix and non-local scope conditions is the number of clauses. The matrix scope label indicates that scope is at the highest clause, whereas the non-local label indicates that there are more than two clauses, with the wh-element taking scope non-locally but not at the highest clause (22).

(22) Sevil Ayşen-in ortalığı birbirine kat-arak hangi söylenti-yi yay-ma-sı-na izin ver-

diğ-i-ni bil-m-iyor.

Sevil Aysen-GEN make a mess-CVB which rumor-ACC spread-NOM-3SG-ACC allow-NOM-3SG-ACC know-NEG-IPFV

"Sevil doesn't know which rumor Aysen allowed them to spread and make a mess."

-MA conditions show a pattern where an extra clause is added to host scope, followed by a matrix verb. This is surprising, given that a matrix scope completion renders a simpler structure. I interpret this as a general dispreference towards *-mA* embedded clauses because these structures are selected by a particular, narrow subset of verbs and thus are a lot more marked compared to *-dIk* or *-AcAK*.

Table 2: Count data of *-MA* constructions

structure	scope	nominalizer type	count	percentage
BICLAUSAL	LOCAL	MA	1	8.33
BICLAUSAL	MATRIX	MA	11	91.66
TRICLAUSAL	NON-LOCAL	ACAk	2	22.22
TRICLAUSAL	NON-LOCAL	DIK	7	77.77

These results corroborate the results of Experiment I in that there is a preference for local scope in production, as in the processing of *wh*-in-situ dependencies. The results of Experiment II suggest that the source of this preference might be interpretive, where there might be a preference for declarative sentences instead of questions. It might also be the case that the preference for declarative sentences arises out of the experiment design. Participants are asked to complete fragments without any context scenario, which is pragmatically suboptimal for producing questions.

4 General Discussion

The results from this study confirm the predictions made under surprisal theory, namely that the parser predicts upcoming input based on the processed input and the most likely construction it would follow. Prediction is utilized in processing for resource allocation purposes and drives the moment-by-moment and incremental processing of input material. There are different hypotheses concerning what drives the incremental processing of input. Incremental processing can be driven by interpretive requirements or domain-general cognitive mechanisms operating on the *structure* of a sentence. The interpretive view argues that the functional goal of processing is to update the interpretation of a sentence with each incoming input. Under a strong version of this hypothesis, the structure of a sentence does not play a role in processing; instead, an interpretation is updated incrementally. Under this hypothesis, eager dependency completion is driven by the tendency to make an *interpretive* decision at an earlier point, like resolving a wh-scope dependency at an embedded verb in a head-final language so that the scope interpretation is not delayed until the matrix verb.

On the other hand, it is also possible to encode the position of linguistic elements linearly or structurally and to incrementally update an underspecified structural representation. Under this view, locality effects can be understood as arising from distance between linguistic elements. Under this view, wh-in-situ dependencies can be conceptualized as between the SPEC CP position and the in-situ element.

The results from the continuation study open up questions about the source

of the locality preference under these different hypotheses. 2 shows a strong preference for non-matrix scope. In the face of this data, the locality preference in producing and processing wh-in-situ dependencies can be interpreted as an interpretive bias for declarative sentences instead of questions. On the other hand, previous research suggests that locality preference arises from an active and grammatically guided search process. A replication of the continuation study, in which participants are presented with a dialogue, can be conducted. If the results of this experiment show more matrix question completions under the -ma condition instead of tri-clausal constructions, this would suggest that the tri-clausal constructions are simply a byproduct of the experimental design and not an interpretive bias.

It should also be noted that [Xiang et al., 2023] finds an asymmetry between the parsing and interpretation of wh-in-situ, where there is a locality bias in parsing but a non-locality bias in interpretation. The evidence for the locality bias comes from [Xiang et al., 2015], a series of experiments showing retrieval interference for the scope position in Mandarin wh-in-situ constructions, providing further evidence for a content-addressable retrieval mechanism underlying the encoding of structural features. [Xiang et al., 2023] use the truth-value judgment task, providing a context scenario to participants and asking them to judge whether the sentence is correct given the context. When presented with scopally ambiguous wh-sentences, participants prefer the matrix scope interpretation to complete the task despite a locality bias during parsing. These results suggest a post-parse interpretive reanalysis of wh-constructions where matrix scope interpretations are preferred. This does not align with the maximum-interpretation hy-

pothesis because the interpretation reached during the initial parse can be reanalyzed later, making it likely that later integration of incrementally processed input is used to reach a full interpretation.

If eager dependency completion patterns are a byproduct of locality, there are a few different ways to conceptualize it. The cue-based retrieval model measures locality in terms of feature-sharing and abstracts away from distance. In this model, linguistic elements are indexed by their relevant features and are accessed directly via these features with a content-addressable retrieval mechanism [McElree, 2006, Van Dyke and Lewis, 2003].

This model predicts processing difficulty in *wh*-in-situ dependencies when multiple *wh*-elements or multiple clauses exist, and increasing the distance between the two ends of a dependency without interfering elements is not predicted to result in processing difficulty. In fact, head-final languages show an opposite pattern in argument-verb dependencies where increased distance between a subject and a verb speeds up reading times on the verb, indicating processing ease with increased distance [Vasishth and Lewis, 2006]. These anti-locality effects provide evidence that a simple understanding of distance is not always sufficient to explain dependency resolution. This is partially because linguistic elements are not always encoded with respect to their position in a sentence.

Specifically, argument-verb dependencies rely on encoding lexical features. It is not immediately clear what features of a *wh*-in-situ element or a clause are encoded in order to resolve a scope dependency. This is because it is already in its argument position, and it should not be necessary to maintain person, number, or animacy information in memory during the search, as opposed to movement dependencies. If the semantic

features of the wh-element are not maintained in memory, it could either be the case that structural features are encoded in memory, or that maintaining an open dependency causes a memory burden which motivates eager dependency completion patterns. We predict a syntactic dependency which does not rely on encoding semantic features result in distance effects, whereas encoding of fine-grained lexical features results in interference and anti-locality effects.

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1 Materials

1.1 Experiment I

The verb and DPs used in the argument-verb matching task are provided at the end of each itemset. Itemsets (23), (24), and (25), (54) were removed from the analysis because they were erroneous.

- (23) a. Ece Özge'nin sunum-a ekle-mek için hangi makaley-i bir
Ece Özge-GEN presentation-DAT add for which article one
gecede oku-ma-sı-na şaşır-dı?
night read-NOM-3SG-DAT surprise-PST
VERB: şaşırdı, DPS: Ece, Özge
- b. Ece Özge'nin sunum-a ekle-mek için hangi makaley-i bir
Ece Özge-GEN presentation-DAT add for which article one
gecede oku-ma-sı-na şaşır-dı.
night read-NOM-3SG-DAT surprise-PST
VERB: okudu, DPS: Özge, Ece
- c. Ece Özge'nin sunum-a ekle-mek için hangi makaley-i bir
Ece Özge-GEN presentation-DAT add for which article one
gecede oku-duğ-u-na şaşır-dı?
night read-NOM-3SG-DAT surprise-PST
VERB: okudu, DPS: Özge, Ece
- d. Ece Özge'nin sunum-a ekle-mek için hangi makaley-i bir
Ece Özge-GEN presentation-DAT add for which article one
gecede oku-ma-sı-na şaşır-dı?
night read-NOM-3SG-DAT surprise-PST
VERB: şaşırdı, DPS: Ece, Özge

WH-CONDITION: "Which article was Ece surprised that Özge read in one night to add to the presentation?"

- (24) a. Sezgin boksör-ün aylarca antrenman yap-arak hangi turnuva-yı
 Sezgin boxer-GEN for.months training do-CVB which tournament-ACC
 büyük zorluklarla kazan-ma-sı-nı hatırla-dı?
 great difficulty win-NOM-3SG-DAT remember-PST
 VERB: hatırladı, DPS: Sezgin, Boksör
- b. Sezgin boksör-ün aylarca antrenman yap-arak hangi turnuva-yı
 Sezgin boxer-GEN for.months training do-CVB which tournament-ACC
 büyük zorluklarla kazan-ma-sı-nı hatırla-dı.
 great difficulty win-NOM-3SG-DAT remember-PST
 VERB: kazandı, DPS: Boksör, Sezgin
- c. Sezgin boksör-ün aylarca antrenman yap-arak hangi turnuva-yı
 Sezgin boxer-GEN for.months training do-CVB which tournament-ACC
 büyük zorluklarla kazan-dığ-ı-nı hatırla-dı?
 great difficulty win-NOM-3SG-DAT remember-PST
 VERB: kazandı, DPS: Boksör, Sezgin
- d. Sezgin boksör-ün aylarca antrenman yap-arak hangi turnuva-yı
 Sezgin boxer-GEN for.months training do-CVB which tournament-ACC
 büyük zorluklarla kazan-dığ-ı-nı hatırla-dı.
 great difficulty win-NOM-3SG-DAT remember-PST
 VERB: hatırladı, DPS: Sezgin, Boksör

WH-CONDITION: "Which boxer did Sezgin remember winning the tournament with great difficulty by training for months?"

- (25) a. Banu Özgür-ün yer açmak için hangi ceket-i düşün-me-den
 Banu Özgür-GEN space open to which jacket-ACC think-not-CVB
 çöpe at-ma-sı-na üzül-dü?
 throw-NOM-3SG-DAT sad-PST
 VERB: üzüldü, DPS: Banu, Özgür
- b. Banu Özgür-ün yer açmak için hangi ceket-i düşün-me-den
 Banu Özgür-GEN space open to which jacket-ACC think-not-CVB
 çöpe at-ma-sı-na üzül-dü?
 throw-NOM-3SG-DAT sad-PST
 VERB: attı, DPS: Özgür, Banu
- c. Banu Özgür-ün yer açmak için hangi ceket-i düşün-me-den
 Banu Özgür-GEN space open to which jacket-ACC think-not-CVB

çöpe at-tığ-ı-na üzül-dü?
throw-NOM-3SG-DAT sad-PST
VERB: attı, DPS: Özgür, Banu

- d. Banu Özgür-ün yer açmak için hangi ceket-i düşün-me-den
Banu Özgür-GEN space open to which jacket-ACC think-not-CVB
çöpe at-tığ-ı-na üzül-dü?
throw-NOM-3SG-DAT sad-PST
VERB: üzüldü, DPS: Banu, Özgür

WH-CONDITION: "Which jacket did Banu get sad that Özgür threw away
without thinking to open space?"

- (26) a. Emre mimar-ın günlerce uykusuz kalarak hangi müze-yi
Emre architect-GEN for.days sleepless remain which museum-ACC
fuardan önce bitir-me-si-ne heyecanlan-dı?
fair before finish-NOM-3SG-DAT got.excited-PST
VERB: heyecanlandı, DPS: Emre, Mimar
- b. Emre mimar-ın günlerce uykusuz kalarak müze-yi fuardan
Emre architect-GEN for.days sleepless remain museum-ACC fair
önce bitir-me-si-ne heyecanlan-dı.
before finish-NOM-3SG-DAT got.excited-PST
VERB: bitirdi, DPS: Mimar, Emre
- c. Emre mimar-ın günlerce uykusuz kalarak hangi müze-yi
Emre architect-GEN for.days sleepless remain which museum-ACC
fuardan önce bitir-diğ-i-ne heyecanlan-dı?
fair before finish-NOM-3SG-DAT got.excited-PST
VERB: bitirdi, DPS: Mimar, Emre
- d. Emre mimar-ın günlerce uykusuz kalarak müze-yi fuardan
Emre architect-GEN for.days sleepless remain museum-ACC fair
önce bitir-diğ-i-ne heyecanlan-dı.
before finish-NOM-3SG-DAT got.excited-PST
VERB: heyecanlandı, DPS: Emre, Mimar WH-CONDITION: "Which mu-
seum did Emre get excited that the architect finished before the fair?"
DECL.-CONDITION: "Emre got excited that the architect finished the mu-

seum before the fair."

- (27) a. Emir müşteri-nin sigara içmek için hangi masa-ya kimseye
Emir customer-GEN cigarette smoke to which table-DAT anyone
sormadan otur-ma-sı-na kız-dı?
ask-CVB sit-NOM-3SG-DAT angry-PST
VERB: kızdı, DPS: Emir, Müşteri
- b. Emir müşteri-nin sigara içmek için masa-ya kimseye sormadan
Emir customer-GEN cigarette smoke to table-DAT anyone ask-CVB
otur-ma-sı-na kız-dı.
sit-NOM-3SG-DAT angry-PST
VERB: oturdu, DPS: Müşteri, Emir
- c. Emir müşteri-nin sigara içmek için hangi masa-ya kimseye
Emir customer-GEN cigarette smoke to which table-DAT anyone
sormadan otur-duğ-u-na kız-dı?
ask-CVB sit-NOM-3SG-DAT angry-PST
VERB: oturdu, DPS: Müşteri, Emir
- d. Emir müşteri-nin sigara içmek için masa-ya kimseye sormadan
Emir customer-GEN cigarette smoke to table-DAT anyone ask-CVB
otur-duğ-u-na kız-dı.
sit-NOM-3SG-DAT angry-PST
VERB: kızdı, DPS: Emir, Müşteri

WH-CONDITION: "Which table did Emir got angry that the customer sat
down without asking anyone to smoke?"

DECL.-CONDITION: "Emir got angry that the customer sat down at the
table to smoke without asking anyone."

- (28) a. Emre mimar-ın günlerce uykusuz kalarak hangi müze-yi
Emre architect-GEN for.days sleepless remain which museum-ACC
fuardan önce bitir-me-si-ne heyecanlan-dı?
fair before finish-NOM-3SG-DAT got.excited-PST
VERB: heyecanlandı, DPS: Emre, Mimar
- b. Emre mimar-ın günlerce uykusuz kalarak müze-yi fuardan
Emre architect-GEN for.days sleepless remain museum-ACC fair

önce bitir-me-si-ne heyecanlan-dı.
before finish-NOM-3SG-DAT got.excited-PST
VERB: bitirdi, DPS: Mimar, Emre

- c. Emre mimar-ın günlerce uykusuz kalarak hangi müze-yi
Emre architect-GEN for.days sleepless remain which museum-ACC
fuardan önce bitir-diğ-i-ne heyecanlan-dı?
fair before finish-NOM-3SG-DAT got.excited-PST
VERB: bitirdi, DPS: Mimar, Emre
- d. Emre mimar-ın günlerce uykusuz kalarak müze-yi fuardan
Emre architect-GEN for.days sleepless remain museum-ACC fair
önce bitir-diğ-i-ne heyecanlan-dı.
before finish-NOM-3SG-DAT got.excited-PST
VERB: heyecanlandı, DPS: Emre, Mimar WH-CONDITION: "Which mu-
seum did Emre get excited that the architect finished before the fair?"
DECL.-CONDITION: "Emre got excited that the architect finished the mu-
seum before the fair."

- (29) a. Arda Behlül-ün bütün sene çalış-arak hangi üniversite-ye birincilikle
Arda Behlül-GEN whole year work-CVB which college-DAT first.place
gir-me-si-ne çok sevin-di?
enter-NOM-3SG-DAT happy-PST
VERB: sevindi, DPS: Arda, Behlül
- b. Arda Behlül-ün bütün sene çalış-arak üniversite-ye birincilikle
Arda Behlül-GEN whole year work-CVB college-DAT first.place
gir-me-si-ne çok sevin-di.
enter-NOM-3SG-DAT happy-PST
VERB: girdi, DPS: Behlül, Arda
- c. Arda Behlül-ün bütün sene çalış-arak hangi üniversite-ye birincilikle
Arda Behlül-GEN whole year work-CVB which college-DAT first.place
gir-diğ-i-ne çok sevin-di?
enter-NOM-3SG-DAT happy-PST
VERB: girdi, DPS: Behlül, Arda
- d. Arda Behlül-ün bütün sene çalış-arak hangi üniversite-ye birincilikle
Arda Behlül-GEN whole year work-CVB which college-DAT first.place

gir-diğ-i-ne çok sevin-di?
enter-NOM-3SG-DAT happy-PST
VERB: sevindi, DPS: Arda, Behlül

WH-CONDITION: "Which college was Arda happy that Behlül was admitted into in first place by working hard all year?"

DECL.-CONDITION: "Arda was happy that Behlül was admitted into the college in first place by working hard all year."

- (30) a. Gizem adam-ın onurunu korumak için hangi koruma-yla yumruk
Gizem man-GEN honor defend to which security-COM with
yumruğa dövüş-me-sin-den kork-tu?
fists fight-NOM-3SG-DAT scared-PST
VERB: korktu, DPS: Gizem, Adam
- b. Gizem adam-ın onurunu korumak için koruma-yla yumruk yumruğa
Gizem man-GEN honor defend to security-COM with fists
dövüş-me-sin-den kork-tu.
fight-NOM-3SG-DAT scared-PST
VERB: dövüştü, DPS: Adam, Gizem
- c. Gizem adam-ın onurunu korumak için hangi koruma-yla yumruk
Gizem man-GEN honor defend to which security-COM with
yumruğa dövüş-tüğ-ün-den kork-tu?
fists fight-NOM-3SG-DAT scared-PST
VERB: dövüştü, DPS: Adam, Gizem
- d. Gizem adam-ın onurunu korumak için koruma-yla yumruk yumruğa
Gizem man-GEN honor defend to security-COM with fists
dövüş-tüğ-ün-den kork-tu?
fight-NOM-3SG-DAT scared-PST
VERB: korktu, DPS: Gizem, Adam

WH-CONDITION: "Which security guard was Gizem scared that the man fistfight with to defend his honor?"

DECL. CONDITION: "Gizem was scared that the man would fistfight the

security guard to defend his honor."

- (31) a. Deniz Ayşe-nin şefine tarif sor-arak hangi pılav-ı ünlü gurmelere
Deniz Ayşe-GEN chef recipe ask-CVB which rice-ACC famous gourmet
yap-ma-sı-na minnettar-dı?
make-NOM-3SG-DAT thankful-PST
VERB: minnettardı, DPS: Zeynep, Yönetici
- b. Deniz Ayşe-nin şefine tarif sor-arak hangi pılav-ı ünlü gurmelere
Deniz Ayşe-GEN chef recipe ask-CVB which rice-ACC famous gourmet
yap-ma-sı-na minnettar-dı?
make-NOM-3SG-DAT thankful-PST
VERB: minnettardı, DPS: Zeynep, Yönetici
- c. Deniz Ayşe-nin şefine tarif sor-arak hangi pılav-ı ünlü gurmelere
Deniz Ayşe-GEN chef recipe ask-CVB which rice-ACC famous gourmet
yap-tığ-ı-na minnettar-dı?
make-NOM-3SG-DAT thankful-PST
VERB: yaptı, DPS: Ayşe, Deniz
- d. Deniz Ayşe-nin şefine tarif sor-arak pılav-ı ünlü gurmelere
Deniz Ayşe-GEN chef recipe ask-CVB rice-ACC famous gourmet
yap-tığ-ı-na minnettar-dı?
make-NOM-3SG-DAT thankful-PST
VERB: minnettardı, DPS: Deniz, Ayşe

WH-CONDITION: "Which rice was Ayşe thankful that Deniz made to the famous gourmets after asking the recipe to her chef?"

DECL. CONDITION: "Ayşe was thankful that Deniz made the rice to the famous gourmets after asking the recipe to her chef."

- (32) a. Zeynep yönetici-nin dava açılmaması için hangi mühendis-i onun
Zeynep manager-GEN chef recipe ask-CVB which rice-ACC famous
verdiği bilgiyle at-ma-sı-na pişman ol-du?
gourmet make-NOM-3SG-DAT thankful-PST
VERB: pişman oldu, DPS: Zeynep, Yönetici
- b. Zeynep yönetici-nin dava açılmaması için mühendis-i onun
Zeynep manager-GEN chef recipe ask-CVB rice-ACC famous

verdiği bilgiyle at-ma-sı-na pişman ol-du.
gourmet make-NOM-3SG-DAT thankful-PST
VERB: attı, DPS: Yönetici, Zeynep

c. Zeynep yönetici-nin dava açılmaması için hangi mühendis-i onun
Zeynep manager-GEN chef recipe ask-CVB which rice-ACC famous
verdiği bilgiyle at-tığ-ı-na pişman ol-du?
gourmet make-NOM-3SG-DAT thankful-PST
VERB: attı, DPS: Yönetici, Zeynep

d. Zeynep yönetici-nin dava açılmaması için mühendis-i onun
Zeynep manager-GEN chef recipe ask-CVB which rice-ACC
verdiği bilgiyle at-tığ-ı-na pişman ol-du.
famous gourmet make-NOM-3SG-DAT thankful-PST
VERB: pişman oldu, DPS: Zeynep, Yönetici

WH-CONDITION: "Which engineer was Zeynep regretting that got laid off
by the executive because of the information she provided?"

DECL. CONDITION: "Zeynep regretted that the engineer got laid off by the
executive because of the information she provided."

- (33) a. Sevil Ayşen-in ortalığı birbirine kat-arak hangi söylenti-yi
Sevil Ayşen-GEN make a mess-CVB which hearsay-ACC
tanıdık herkese yay-ma-sı-na alın-dı?
acquaintance every spread-NOM-3SG-DAT got.offend-PST
VERB: alındı, DPS: Sevil, Ayşen
- b. Sevil Ayşen-in ortalığı birbirine kat-arak söylenti-yi tanıdık
Sevil Ayşen-GEN make a mess-CVB hearsay-ACC acquaintance
herkese yay-ma*sı*na alın-dı.
every spread-NOM-3SG-DAT got.offend-PST
VERB: yaydı, DPS: Ayşen, Sevil
- c. Sevil Ayşen-in ortalığı birbirine kat-arak hangi söylenti-yi
Sevil Ayşen-GEN make a mess-CVB which hearsay-ACC
tanıdık herkese yay-dığ-ı-na alın-dı?
acquaintance every spread-NOM-3SG-DAT got.offend-PST
VERB: yaydı, DPS: Ayşen, Sevil

- d. Sevil Ayşen-in ortalığı birbirine kat-arak söylenti-yi tanıdık
 Sevil Ayşen-GEN make a mess-CVB hearsay-ACC acquaintance
 herkese yay-dığı-ı-na alın-dı.
 every spread-NOM-3SG-DAT got.offend-PST
 VERB: alındı, DPS: Sevil, Ayşen

WH-CONDITION: "Which hearsay was Sevil offended that Ayşen made a mess by spreading to everyone?"

DECL. CONDITION: "Sevil got offended that Ayşen made a mess by spreading the hearsay to everyone."

- (34) a. Bengisu küratör-ün sansasyon yaratmak için hangi tablo-lar-ı
 Bengisu curator-GEN sensation create to which painting-PL-ACC
 yüksek fiyata al-ma-sı-na mutlu ol-du?
 high price buy-NOM-3SG-DAT happy-PST
 VERB: mutlu oldu, DPS: Bengisu, Küratör
- b. Bengisu küratör-ün sansasyon yaratmak için tablo-lar-ı yüksek
 Bengisu curator-GEN sensation create to painting-PL-ACC high
 fiyata al-ma-sı-na mutlu ol-du.
 price buy-NOM-3SG-DAT happy-PST
 VERB: aldı, DPS: Küratör, Bengisu
- c. Bengisu küratör-ün sansasyon yaratmak için hangi tablo-lar-ı
 Bengisu curator-GEN sensation create to which painting-PL-ACC
 yüksek fiyata al-dığı-ı-na mutlu ol-du?
 high price buy-NOM-3SG-DAT happy-PST
 VERB: aldı, DPS: Küratör, Bengisu
- d. Bengisu küratör-ün sansasyon yaratmak için tablo-lar-ı yüksek
 Bengisu curator-GEN sensation create to painting-PL-ACC high
 fiyata al-dığı-ı-na mutlu ol-du.
 price buy-NOM-3SG-DAT happy-PST
 VERB: mutlu oldu, DPS: Bengisu, Küratör

WH-CONDITION: "Which paintings was Bengisu happy that the curator bought for a high price to create a sensation?"

DECL. CONDITION: "Bengisu was happy that the curator bought the paintings for a high price to create a sensation."

- (35) a. Onur Faruk-un telefon ekranına bakarak hangi mesaj-ı omzunun
Onur Faruk-GEN phone screen stare-CVB which text-ACC shoulder
üzerinden gör-me-si-ne utan-dı?
over see-NOM-3SG-DAT got.embarrassed-PST
VERB: utandı, DPS: Onur, Faruk
- b. Onur Faruk-un telefon ekranına bakarak mesaj-ı omzunun üzerinden
Onur Faruk-GEN phone screen stare-CVB text-ACC shoulder over
gör-me-si-ne utan-dı.
see-NOM-3SG-DAT got.embarrassed-PST
VERB: gördü, DPS: Faruk, Onur
- c. Onur Faruk-un telefon ekranına bakarak hangi mesaj-ı omzunun
Onur Faruk-GEN phone screen stare-CVB which text-ACC shoulder
üzerinden gör-düğ-ü-ne utan-dı?
over see-NOM-3SG-DAT got.embarrassed-PST
VERB: gördü, DPS: Faruk, Onur
- d. Onur Faruk-un telefon ekranına bakarak mesaj-ı omzunun üzerinden
Onur Faruk-GEN phone screen stare-CVB text-ACC shoulder over
gör-düğ-ü-ne utan-dı.
see-NOM-3SG-DAT got.embarrassed-PST
VERB: utandı, DPS: Onur, Faruk

WH-CONDITION: "Which text was Onur embarrassed that Fatih saw by looking over his shoulder?"

DECL. CONDITION: "Onur was embarrassed that Fatih saw the text by looking over his shoulder."

- (36) a. Meltem aktör-ün yeni sezona katıl-ma-yarak hangi dizi-den haber
Meltem actor-GEN new season join-NEG-CVB which show-ABL news
ver-medem çık-ma-sı-na şok ol-du?
give-NEG exit-NOM-3SG-DAT surprised-PST
VERB: şok oldu, DPS: Meltem, Aktör

- b. Meltem aktör-ün yeni sezona katıl-ma-yarak dizi-den haber ver-medem
 Meltem actor-GEN new season join-NEG-CVB show-ABL news give-NEG
 çık-ma-sı-na şok ol-du.
 exit-NOM-3SG-DAT surprised-PST
 VERB: çıktı, DPS: Aktör, Meltem
- c. Meltem aktör-ün yeni sezona katıl-ma-yarak hangi dizi-den haber
 Meltem actor-GEN new season join-NEG-CVB which show-ABL news
 ver-medem çık-tığ-ı-na şok ol-du?
 give-NEG exit-NOM-3SG-DAT surprised-PST
 VERB: çıktı, DPS: Aktör, Meltem
- d. Meltem aktör-ün yeni sezona katıl-ma-yarak dizi-den haber ver-medem
 Meltem actor-GEN new season join-NEG-CVB show-ABL news give-NEG
 çık-tığ-ı-na şok ol-du.
 exit-NOM-3SG-DAT surprised-PST
 VERB: şok oldu, DPS: Meltem, Aktör

WH-CONDITION: "Which actor was Meltem surprised that was not a part
 of the new season and quit the show without telling anyone?"

DECL. CONDITION: "Meltem was surprised that the actor was not a part
 of the new season and quit the show without telling anyone."

- (37) a. Muhammed Sinan-ın dergiye yetiştirmek için hangi röportaj-ı
 Muhammed Sinan-GEN magazine rushing to which interview-ACC
 son anda yaz-ma-sı-na içerle-di?
 last minute write-NOM-3SG-DAT got.upset-PST
 VERB: içerledi, DPS: Muhammed, Sinan
- b. Muhammed Sinan-ın dergiye yetiştirmek için röportaj-ı son
 Muhammed Sinan-GEN magazine rushing to interview-ACC last
 anda yaz-ma-sı-na içerle-di.
 minute write-NOM-3SG-DAT got.upset-PST
 VERB: yazdı, DPS: Sinan, Muhammed
- c. Muhammed Sinan-ın dergiye yetiştirmek için hangi röportaj-ı
 Muhammed Sinan-GEN magazine rushing to which interview-ACC
 son anda yaz-dığ-ı-na içerle-di?
 last minute write-NOM-3SG-DAT got.upset-PST

VERB: yazdı, DPS: Sinan, Muhammed

- d. Muhammed Sinan-ın dergiye yetiştirmek için röportaj-ı son
Muhammed Sinan-GEN magazine rushing to interview-ACC last
anda yaz-dı-ğ-ı-na içerle-di.
minute write-NOM-3SG-DAT got.upset-PST
VERB: içerledi, DPS: Muhammed, Sinan

WH-CONDITION: "Which article was Muhammed upset that Sinan wrote at
the last minute to rush it to the magazine?"

DECL. CONDITION: "Muhammed was upset that Sinan wrote the article at
the last minute to rush it to the magazine."

- (38) a. Berrin editör-ün burnu büyük davran-arak hangi roman-ı hiç
Berrin editor-GEN very arrogant behave-CVB which novel-ACC without
okumadan reddet-me-si-ne sinirlen-di?
reading reject-NOM-3SG-DAT angry-PST
VERB: sinirlendi, DPS: Berrin, Editör
- b. Berrin editör-ün burnu büyük davran-arak roman-ı hiç
Berrin editor-GEN very arrogant behave-CVB novel-ACC without
okumadan reddet-me-si-ne sinirlen-di.
reading reject-NOM-3SG-DAT angry-PST
VERB: acıdı, DPS: Berrak, Can
- c. Berrin editör-ün burnu büyük davran-arak hangi roman-ı hiç
Berrin editor-GEN very arrogant behave-CVB which novel-ACC without
okumadan reddet-ti-ğ-i-ne sinirlen-di?
reading **write**-NOM-3SG-DAT angry-PST
VERB: reddetti, DPS: Editör, Berrin
- d. Berrin editör-ün burnu büyük davran-arak roman-ı hiç
Berrin editor-GEN very arrogant behave-CVB novel-ACC without
okumadan reddet-ti-ğ-i-ne sinirlen-di.
reading reject-NOM-3SG-DAT angry-PST
VERB: sinirlendi, DPS: Berrin, Editör

WH-CONDITION: "Which novel was Berrin angry that the editor very arro-

gantly rejected without reading ?"

DECL. CONDITION: "Berrin was angry that the editor very arrogantly re-
jected the novel without reading."

- (39) a. Berrak Can-ın işlerini bitirmek için hangi maç-ı içi yanarak
Berrak Can-GEN work finish to which game-ACC get sad-CVB
kaçır-ma-sı-na acı-dı?
miss-NOM-3SG-DAT pity-PST
VERB: acıdı, DPS: Berrak, Can
- b. Berrak Can-ın işlerini bitirmek için maç-ı içi yanarak
Berrak Can-GEN work finish to game-ACC get sad-CVB
kaçır-ma-sı-na acı-dı.
miss-NOM-3SG-DAT pity-PST
VERB: kaçırdı, DPS: Can, Berrak
- c. Berrak Can-ın işlerini bitirmek için hangi maç-ı içi yanarak
Berrak Can-GEN work finish to which game-ACC get sad-CVB
kaçır-dıĝ-ı-na acı-dı?
miss-NOM-3SG-DAT pity-PST
VERB: kaçırdı, DPS: Can, Berrak
- d. Berrak Can-ın işlerini bitirmek için maç-ı içi yan-arak
Berrak Can-GEN work finish to game-ACC get sad-CVB
kaçır-dıĝ-ı-na acı-dı.
miss-NOM-3SG-DAT pity-PST
VERB: acıdı, DPS: Berrak, Can

WH-CONDITION: "Which game did Berrak pity that Can got very sad to
miss the game to finish his work?"

DECL. CONDITION: "Berrak pitied that Can got very sad to miss the game
to finish his work."

- (40) a. Gamze müzisyen-in eski menajerine danışarak hangi kayd-ı grup
Gamze musician-GEN old manager consult which record-ACC band
üyelerine sor-madan yayımla-ma-sı-na sinir ol-du?
members ask-NEG release-NOM-3SG-DAT get.annoyed-PST

VERB: sinir oldu, DPS: Gamze, Müzisyen

- b. Gamze müzisyen-in eski menajerine danışarak kayd-ı grup
Gamze musician-GEN old manager consult record-ACC band
üyelerine sor-madan yayınla-ma-sı-na sinir ol-du.
members ask-NEG release-NOM-3SG-DAT get.annoyed-PST
VERB: yayınladı, DPS: Müzisyen, Gamze
- c. Gamze müzisyen-in eski menajerine danışarak hangi kayd-ı grup
Gamze musician-GEN old manager consult which record-ACC band
üyelerine sor-madan yayınla-dığ-ı-na sinir ol-du?
members ask-NEG release-NOM-3SG-DAT get.annoyed-PST
VERB: yayınladı, DPS: Müzisyen, Gamze
- d. Gamze müzisyen-in eski menajerine danışarak kayd-ı grup
Gamze musician-GEN old manager consult record-ACC band
üyelerine sor-madan yayınla-dığ-ı-na sinir ol-du.
members ask-NEG release-NOM-3SG-DAT get.annoyed-PST
VERB: sinir oldu, DPS: Gamze, Müzisyen

WH-CONDITION: "Which record did Gamze get annoyed that the musician released without talking to his band members and consulting his old manager ?"

DECL. CONDITION: "Gamze got annoyed that the musician released the record consulting his old manager and without telling his group members."

- (41) a. Derin Selen-in annesini kızdır-mamak için hangi ev-i aşırı
Derin Selen-GEN mom upset-NEG to which house-ACC very
pahalya kirala-ma-sı-na inana-ma-dı?
expensive rent-NOM-3SG-DAT believe-NEG-PST
VERB: inanamadı, DPS: Derin, Selen
- b. Derin Selen-in annesini kızdır-mamak için ev-i aşırı pahalya
Derin Selen-GEN mom upset-NEG to house-ACC very expensive
kirala-ma-sı-na inana-ma-dı.
rent-NOM-3SG-DAT believe-NEG-PST
VERB: kiraladı, DPS: Selen, Derin

- c. Derin Selen-in annesini kızdır-mamak için hangi ev-i aşırı
 Derin Selen-GEN mom upset-NEG to which house-ACC very
 pahalıya kirala-dıđ-ı-na inana-ma-dı?
 expensive rent-NOM-3SG-DAT believe-NEG-PST
 VERB: kiraladı, DPS: Selen, Derin
- d. Derin Selen-in annesini kızdır-mamak için ev-i aşırı pahalıya
 Derin Selen-GEN mom upset-NEG to house-ACC very expensive
 kirala-dıđ-ı-na inana-ma-dı.
 rent-NOM-3SG-DAT believe-NEG-PST
 VERB: inanamadı, DPS: Derin, Selen

WH-CONDITION: "Which very expensive house Derin could not believe Se-
 len rented to not upset her mom?"

DECL. CONDITION: "Derin could not believe Selen rented the very expen-
 sive house to not upset her mom."

- (42) a. Asel Ece-nin sadece arkadaşını ara-yarak hangi konser-e bilet
 Asel Ece-GEN just friend call-CVB which show-DAT ticket
 al-madan gir-me-si-ne şaşır-dı?
 buy-NEG enter-NOM-3SG-DAT surprise-PST
 VERB: girdi, DPS: Ece, Asel
- b. Asel Ece-nin sadece arkadaşını ara-yarak konsere bilet al-madan
 Asel Ece-GEN just friend call-CVB show-DAT ticket buy-NEG
 gir-me-si-ne şaşır-dı.
 enter-NOM-3SG-DAT surprise-PST
 VERB: şaşır-dı ,DPS: Asel, Ece
- c. Asel Ece-nin sadece arkadaşını ara-yarak hangi konser-e bilet
 Asel Ece-GEN just friend call-CVB which show-DAT ticket
 al-madan gir-diđ-i-ne şaşır-dı?
 buy-NEG enter-NOM-3SG-DAT surprise-PST
 VERB: şaşır-dı ,DPS: Asel, Ece
- d. Asel Ece-nin sadece arkadaşını ara-yarak konsere bilet al-madan
 Asel Ece-GEN just friend call-CVB show-DAT ticket buy-NEG
 gir-diđ-i-ne şaşır-dı.
 enter-NOM-3SG-DAT surprise-PST

VERB: girdi,DPS: Ece, Asel

WH-CONDITION: "Which show was Asel surprised that Ece could enter without a ticket just by calling their friend?"

DECL. CONDITION: "Asel was surprised that Ece could enter the show without a ticket just by calling their friend."

- (43) a. Boksör Sezgin-in maçı kazanabilmek için hangi bahisçi-ler-le el
Boxer Sezgin-GEN game win to which bookie-PL-COM
altından anlař-ma-sı-nı hatırla-dı?
secretly make.deal-NOM-3SG-ACC remember-PST
VERB: anlařtı,DPS: Sezgin, Boksör
- b. Boksör Sezgin-in maçı kazanabilmek için bahisçi-ler-le el altından
Boxer Sezgin-GEN game win to bookie-PL-COM secretly
anlař-ma-sı-nı hatırla-dı.
make.deal-NOM-3SG-ACC remember-PST
VERB: hatırladı ,DPS: Boksör, Sezgin
- c. Boksör Sezgin-in maçı kazanabilmek için hangi bahisçi-ler-le el
Boxer Sezgin-GEN game win to which bookie-PL-COM
altından anlař-ma-sı-nı hatırla-dı?
secretly make.deal-NOM-3SG-ACC remember-PST
VERB: hatırladı ,DPS: Boksör, Sezgin
- d. Boksör Sezgin-in maçı kazanabilmek için bahisçi-ler-le el altından
Boxer Sezgin-GEN game win to bookie-PL-COM secretly
anlař-ma-sı-nı hatırla-dı.
make.deal-NOM-3SG-ACC remember-PST
VERB: anlařtı,DPS: Sezgin, Boksör

WH-CONDITION: "Which show was Asel surprised that Ece could enter without a ticket just by calling their friend?"

DECL. CONDITION: "Asel was surprised that Ece could enter the show without a ticket just by calling their friend."

- (44) a. Banu Özgür-ün herşeyden umudu kes-erek hangi tedavi-yi
 Banu Özgür-GEN everything hope lose-CVB which treatment-ACC
 hiç düşünmeden reddet-me-si-ne üzül-dü?
 without thinking reject-NOM-3SG-DAT sad-PST
 VERB: reddetti,DPS: Özgür, Banu
- b. Banu Özgür-ün herşeyden umudu kes-erek tedavi-yi hiç
 Banu Özgür-GEN everything hope lose-CVB treatment-ACC without
 düşünmeden reddet-me-si-ne üzül-dü.
 thinking reject-NOM-3SG-DAT sad-PST
 VERB: üzüldü ,DPS: Banu, Özgür
- c. Banu Özgür-ün herşeyden umudu kes-erek hangi tedavi-yi
 Banu Özgür-GEN everything hope lose-CVB which treatment-ACC
 hiç düşünmeden reddet-tiğ-i-ne üzül-dü?
 without thinking reject-NOM-3SG-DAT sad-PST
 VERB: üzüldü ,DPS: Banu, Özgür
- d. Banu Özgür-ün herşeyden umudu kes-erek tedavi-yi hiç
 Banu Özgür-GEN everything hope lose-CVB treatment-ACC without
 düşünmeden reddet-tiğ-i-ne üzül-dü.
 thinking reject-NOM-3SG-DAT sad-PST
 VERB: reddetti,DPS: Özgür, Banu
- WH-CONDITION: "Which treatment was Banu sad that Özgür rejected
 without even thinking because he lost all hope?"
- DECL. CONDITION: "Banu was sad that Özgür rejected the treatment
 without even thinking because he lost all hope."
- (45) a. Mimar Emre-nin evini yapmak için hangi stil-i uzunca düşünüp
 Architect Emre-GEN house build to which style-ACC long think
 seç-me-si-ne heyecanlan-dı?
 pick-NOM-3SG-DAT excited-PST
 VERB: seçti,DPS: Emre, Mimar

- b. Mimar Emre-nin evini yapmak için stil-i uzunca düşünüp
 Architect Emre-GEN house build to style-ACC long think
 seç-me-si-ne heyecanlan-dı.
 pick-NOM-3SG-DAT excited-PST
 VERB: heyecanlandı ,DPS: Mimar, Emre
- c. Mimar Emre-nin evini yapmak için hangi stil-i uzunca düşünüp
 Architect Emre-GEN house build to which style-ACC long think
 seç-me-si-ne heyecanlan-dı?
 pick-NOM-3SG-DAT excited-PST
 VERB: heyecanlandı, DPS: Mimar, Emre
- d. Mimar Emre-nin evini yapmak için stil-i uzunca düşünüp
 Architect Emre-GEN house build to style-ACC long think
 seç-tiğ-i-ne heyecanlan-dı.
 pick-NOM-3SG-DAT excited-PST
 VERB: seçti,DPS: Emre, Mimar

WH-CONDITION: "Which style was the architect excited that Emre picked
 to build his house after a lot of thinking?"

DECL. CONDITION: "The architect was excited that Emre picked that style
 to build his house after a lot of thinking."

- (46) a. Müşteri Emir-in bahşış almak için şarab-ı yan masaya
 Customer Emir-GEN tip receive to wine-ACC next table
 ver-me-si-ne kız-dı?
 give-NOM3SG-DAT got.mad-PST
 VERB: verdi,DPS: Emir, Müşteri
- b. Müşteri Emir-in bahşış almak için şarab-ı yan masaya
 Customer Emir-GEN tip receive to wine-ACC next table
 ver-me-si-ne kız-dı.
 give-NOM3SG-DAT got.mad-PST
 VERB: kızdı ,DPS: Müşteri, Emir

c. Müşteri Emir-in bahşış almak için hangi şarab-ı yan masaya
 Customer Emir-GEN tip receive to which wine-ACC next table
 ver-diğ-i-ne kız-dı?
 give-NOM3SG-DAT got.mad-PST
 VERB: kızdı ,DPS: Müşteri, Emir

d. Müşteri Emir-in bahşış almak için şarab-ı yan masaya
 Customer Emir-GEN tip receive to which wine-ACC next
 ver-diğ-i-ne kız-dı.
 table give-NOM3SG-DAT got.mad-PST
 VERB: verdi,DPS: Emir, Müşteri

WH-CONDITION: "Which wine was the customer mad that Emir gave to
 the next table to receive a tip?"

DECL. CONDITION: "The customer was mad that Emir gave the wine to
 the next table to receive a tip."

(47) a. Behlül Adnan-ın işe ara vererek hangi konser-e son anda
 Behlül Adnan-GEN work break take which show-DAT last minute
 gel-me-si-ne sevindi?
 come-NOM-3SG-DAT happy-PST
 VERB: geldi,DPS: Adnan, Behlül

b. Behlül Adnan-ın işe ara vererek konser-e son anda
 Behlül Adnan-GEN work break take show-DAT last minute
 gel-me-si-ne sevin-di.
 come-NOM-3SG-DAT happy-PST
 VERB: sevindi,DPS: Behlül, Adnan

c. Behlül Adnan'ın işe ara vererek hangi konser-e son anda
 Behlül Adnan-GEN work break take which show-DAT last minute
 gel-diğ-i-ne sevin-di?
 come-NOM-3SG-DAT happy-PST
 VERB: sevindi ,DPS: Behlül, Adnan

- d. Behlül Adnan'ın işe ara vererek konser-e son anda
 Behlül Adnan-GEN work break take show-DAT last minute
 gel-diğ-i-ne sevin-di.
 come-NOM-3SG-DAT happy-PST
 VERB: geldi,DPS: Adnan, Behlül

WH-CONDITION: "Which show was Behlül glad that Adnan took a break
 from work and came to at the last minute?"

DECL. CONDITION: "Behlül was glad that Adnan took a break from work
 and came to the show at the last minute."

- (48) a. Ayşe Deniz-in eve geç kalarak hangi pasta-yı ünlü pastaneden
 Ayşe Deniz-GEN home late be which cake-ACC famous bakery
 al-ma-sı-na kork-tu?
 buy-NOM-3SG-DAT got.scared-PST
 VERB: aldı,DPS: Deniz, Ayşe

- b. Ayşe Deniz-in eve geç kalarak pasta-yı ünlü pastaneden
 Ayşe Deniz-GEN home late be cake-ACC famous bakery
 al-ma-sı-na kork-tu.
 buy-NOM-3SG-DAT got.scared-PST
 VERB: korktu ,DPS: Ayşe, Deniz

- c. Ayşe Deniz-in eve geç kalarak hangi pasta-yı ünlü pastaneden
 Ayşe Deniz-GEN home late be which cake-ACC famous bakery
 al-dığ-ı-na kork-tu?
 buy-NOM-3SG-DAT got.scared-PST
 VERB: korktu ,DPS: Ayşe, Deniz

- d. Ayşe Deniz-in eve geç kalarak pasta-yı ünlü pastaneden
 Ayşe Deniz-GEN home late be which cake-ACC famous
 al-dığ-ı-na kork-tu.
 bakery buy-NOM-3SG-DAT got.scared-PST
 VERB: aldı,DPS: Deniz, Ayşe

WH-CONDITION: "Which cake was Ayşe scared of Deniz buying from the
 famous bakery, causing her to come home late?"

DECL. CONDITION: "Ayşe was scared that Deniz would buy the cake from the famous bakery, causing her to come home late."

- (49) a. Adam Gizem-in terfi almak için hangi sır-rı şirket
man Gizem-GEN promotion get to which secret-ACC company
yöneticilerine söyle-me-sin-den minnettar-dı?
executives tell-NOM-3SG-ABL thankful-PST
VERB: söyledi,DPS: Gizem, Adam
- b. Adam Gizem-in terfi almak için sır-rı şirket
man Gizem-GEN promotion get to secret-ACC company
yöneticilerine söyle-me-sin-den minnettar-dı.
executives tell-NOM-3SG-ABL thankful-PST
VERB: minnettardı ,DPS: Adam, Gizem
- c. Adam Gizem-in terfi almak için hangi sır-rı şirket
man Gizem-GEN promotion get to which secret-ACC company
yöneticilerine söyle-diğ-in-den minnettar-dı?
executives tell-NOM-3SG-ABL thankful-PST
VERB: minnettardı ,DPS: Adam, Gizem
- d. Adam Gizem-in terfi almak için sır-rı şirket
man Gizem-GEN promotion get to secret-ACC company
yöneticilerine söyle-diğ-in-den minnettar-dı.
executives tell-NOM-3SG-ABL thankful-PST
VERB: söyledi,DPS: Gizem, Adam

WH-CONDITION: "Which secret was the man thankful that Gizem shared with the company executives in order to get a promotion?"

DECL. CONDITION: "The man was thankful that Gizem shared the secret with the company executives in order to get a promotion."

- (50) a. Yönetici Zeynep-in herkese karşı gel-erek hangi yatırım-ı
Executive Zeynep-GEN everyone against come-CVB which investment-ACC
onun isteğiyle destekle-me-si-ne pişman ol-du?
their request support-NOM-3SG-DAT regret-PST
VERB: destekledi,DPS: Zeynep, Yönetici

- b. Yönetici Zeynep-in herkese karşı gel-erek yatırım-ı onun
Executive Zeynep-GEN everyone against come-CVB investment-ACC their
isteğiyle destekle-me-si-ne pişman ol-du.
request support-NOM-3SG-DAT regret-PST
VERB: pişman oldu ,DPS: Yönetici, Zeynep
- c. Yönetici Zeynep-in herkese karşı gel-erek hangi yatırımı
Executive Zeynep-GEN everyone against come-CVB which investment-ACC
onun isteğiyle destekle-diğ-i-ne pişman ol-du?
their request support-NOM-3SG-DAT regret-PST
VERB: pişman oldu ,DPS: Yönetici, Zeynep
- d. Yönetici Zeynep-in herkese karşı gelerek yatırım-ı onun
Executive Zeynep-GEN everyone against come-CVB investment-ACC their
isteğiyle destekle-diğ-i-ne pişman ol-du.
request support-NOM-3SG-DAT regret-PST
VERB: destekledi,DPS: Zeynep, Yönetici

WH-CONDITION: "Which investment did the executive regret that Zeynep
backed up against everyone because of his request?"

DECL. CONDITION: "The executive regretted that Zeynep backed up the
investment against everyone because of his request."

- (51) a. Ayşen Sevil-in arkadaşına götürmek için hangi kurabiye-ler-i kimseye
Ayşen Sevil-GEN friend bring to which cookies-PL-ACC anyone
sormadan al-ma-sı-na alın-dı?
ask take-NOM-3SG-DAT offended-PST
VERB: aldı,DPS: Sevil, Ayşen
- b. Ayşen Sevil-in arkadaşına götürmek için kurabiye-ler-i kimseye
Ayşen Sevil-GEN friend bring to cookies-PL-ACC anyone
sormadan al-ma-sı-na alın-dı.
ask take-NOM-3SG-DAT offended-PST
VERB: alındı ,DPS: Ayşen, Sevil

c. Ayşen Sevil-in arkadaşına götürmek için hangi kurabiye-ler-i kimseye
 Ayşen Sevil-GEN friend bring to which cookies-PL-ACC anyone
 sormadan al-dı-ğ-ı-na alın-dı?
 ask take-NOM-3SG-DAT offended-PST
 VERB: alındı ,DPS: Ayşen, Sevil

d. Ayşen Sevil-in arkadaşına götürmek için kurabiyeleri kimseye
 Ayşen Sevil-GEN friend bring to which cookies-PL-ACC
 sormadan al-dı-ğ-ı-na alın-dı.
 anyone ask take-NOM-3SG-DAT offended-PST
 VERB: aldı,DPS: Sevil, Ayşen

WH-CONDITION: "Which cookies was Sevil offended that Ayşen took with-
 out asking to give to her friend?"

DECL. CONDITION: "Sevil was offended that Ayşen took the cookies with-
 out asking to give to her friend."

(52) a. Aktör Meltem-in ünlü yönetmenle anlaş-arak hangi oyun-a
 actor Meltem-GEN famous director deal-CVB which play-DAT
 kadronun haberi olmadan katıl-ma-sı-na mutlu ol-du?
 cast hear without join-NOM-3SG-DAT happy-PST
 VERB: katıldı,DPS: Meltem, Aktör

b. Aktör Meltem-in ünlü yönetmenle anlaş-arak oyuna kadronun
 actor Meltem-GEN famous director deal-CVB play-DAT cast
 haberi olmadan katıl-ma-sı-na mutlu ol-du.
 hear without join-NOM-3SG-DAT happy-PST
 VERB: mutlu oldu ,DPS: Aktör, Meltem

c. Aktör Meltem-in ünlü yönetmenle anlaş-arak hangi oyuna
 actor Meltem-GEN famous director deal-CVB which play-DAT
 kadronun haberi olmadan katıl-dı-ğ-ı-na mutlu ol-du?
 cast hear without join-NOM-3SG-DAT happy-PST

VERB: mutlu oldu ,DPS: Aktör, Meltem

- d. Aktör Meltem-in ünlü yönetmenle anlaşarak oyuna kadronun
actor Meltem-GEN famous director deal-CVB play-DAT cast
haberi olmadan katıldığı-na mutlu ol-du.
hear without join-NOM-3SG-DAT happy-PST
VERB: katıldı,DPS: Meltem, Aktör

WH-CONDITION: "Which play was the actor happy that Meltem joined
without the cast hearing about it?"

DECL. CONDITION: "The actor was happy that Meltem joined the play
without the cast hearing about it."

- (53) a. Faruk Onur-un arkadaşlarını etkilemek için hangi kulüb-e rüşvet
Faruk Onur-GEN friends impress to which club-DAT bribe
vererek gir-me-si-ne utan-dı?
give enter-NOM-3SG-DAT embarrassed-PST
VERB: girdi,DPS: Onur, Faruk
- b. Faruk Onur-un arkadaşlarını etkilemek için kulüb-e rüşvet vererek
Faruk Onur-GEN friends impress to club-DAT bribe give
gir-me-si-ne utandı.
enter-NOM-3SG-DAT embarrassed-PST
VERB: utandı ,DPS: Faruk , Onur
- c. Faruk Onur-un arkadaşlarını etkilemek için hangi kulüb-e rüşvet
Faruk Onur-GEN friends impress to which club-DAT bribe
vererek gir-diğ-i-ne utan-dı?
give enter-NOM-3SG-DAT embarrassed-PST
VERB: utandı ,DPS: Faruk , Onur
- d. Faruk Onur-un arkadaşlarını etkilemek için kulüb-e rüşvet vererek
Faruk Onur-GEN friends impress to club-DAT bribe give
gir-diğ-i-ne utan-dı.
enter-NOM-3SG-DAT embarrassed-PST
VERB: girdi,DPS: Onur, Faruk

WH-CONDITION: "Which club was Onur embarrassed that Fatih entered by bribing to impress his friends?"

DECL. CONDITION: "Onur was embarrassed that Fatih entered the club by bribing to impress his friends."

- (54) a. K rat r Bengisu-nun eleřtirmenleri dinleyerek hangi fotoęraf-lar-ı
curator Bengisu-GEN critics listen which photo-PL-ACC
sergi aılmadan d zenle-me-si-ne Őok ol-du?
exhibition start edit-NOM-3SG-DAT shocked-PST
VERB: d zenledi,DPS: Bengisu, K rat r
- b. K rat r Bengisu-nun eleřtirmenleri dinleyerek fotoęraf-lar-ı sergi
curator Bengisu-GEN critics listen photo-PL-ACC exhibition
aılmadan d zenle-me-si-ne Őok ol-du.
start edit-NOM-3SG-DAT shocked-PST
VERB: Őok oldu ,DPS: K rat r, Bengisu
- c. K rat r Bengisu-nun eleřtirmenleri dinleyerek hangi fotoęraf-lar-ı
curator Bengisu-GEN critics listen which photo-PL-ACC
sergi aılmadan d zenle-me-si-ne Őok oldu?
exhibition start edit-NOM-3SG-DAT shocked-PST
VERB: Őok oldu ,DPS: K rat r, Bengisu
- d. K rat r Bengisu-nun eleřtirmenleri dinleyerek fotoęraf-lar-ı sergi
curator Bengisu-GEN critics listen photo-PL-ACC exhibition
aılmadan d zenle-me-si-ne Őok oldu.
start edit-NOM-3SG-DAT shocked-PST
VERB: d zenledi,DPS: Bengisu, K rat r

WH-CONDITION: "Which club was Onur embarrassed that Fatih entered by bribing to impress his friends?"

DECL. CONDITION: "Onur was embarrassed that Fatih entered the club by bribing to impress his friends."

- (55) a. Sinan Muhammet-in babasından anahtarı çal-arak hangi araba-yı
 Sinan Muhammet-GEN dad keys steal-CVB which car-ACC
 gece sarhoşken kullan-ma-sı-na içerle-di?
 night drunk drive-NOM-3SG-DAT upset-PST
 VERB: kullandı,DPS: Muhammet, Sinan
- b. Sinan Muhammet-in babasından anahtarı çal-arak arabayı gece
 Sinan Muhammet-GEN dad keys steal-CVB car-ACC night
 sarhoşken kullan-ma-sı-na içerle-di.
 drunk drive-NOM-3SG-DAT upset-PST
 VERB: içerledi ,DPS: Sinan, Muhammet
- c. Sinan Muhammet-in babasından anahtarı çal-arak hangi araba-yı
 Sinan Muhammet-GEN dad keys steal-CVB which car-ACC
 gece sarhoşken kullan-dığ-ı-na içerle-di?
 night drunk drive-NOM-3SG-DAT upset-PST
 VERB: içerledi ,DPS: Sinan, Muhammet
- d. Sinan Muhammet-in babasından anahtarı çal-arak araba-yı gece
 Sinan Muhammet-GEN dad keys steal-CVB car-ACC night
 sarhoşken kullan-dığ-ı-na içerle-di.
 drunk drive-NOM-3SG-DAT upset-PST
 VERB: kullandı,DPS: Muhammet, Sinan

WH-CONDITION: "Which car was Sinan upset that Muhammet stole the
 keys from his dad and drove drunk at night?"

DECL. CONDITION: "Sinan was upset that Muhammet stole the keys from
 his dad and drove the car drunk at night."

- (56) a. Editör Berrin-in kitabı-nı basmak için hangi yayınevi-yle haber
 editor Berrin-GEN book-3SG publish to which publisher-COM letting
 ver-medem konuş-ma-sı-na sinirlen-di?
 know-NEG talk-NOM-3SG-DAT angry-PST

VERB: konuştu,DPS: Berrin, Editör

- b. Editör Berrin-in kitabı-nı basmak için yayınevi-yle haber
editor Berrin-GEN book-3SG publish to publisher-COM letting
ver-medem konuş-ma-sı-na sinirlen-di.
know-NEG talk-NOM-3SG-DAT angry-PST
VERB: sinirlendi ,DPS: Editör, Berrin
- c. Editör Berrin-in kitabı-nı basmak için hangi yayınev-iyle haber
editor Berrin-GEN book-3SG publish to which publisher-COM letting
ver-medem konuş-tuğ-u-na sinirlen-di?
know-NEG talk-NOM-3SG-DAT angry-PST
VERB: sinirlendi ,DPS: Editör, Berrin
- d. Editör Berrin-in kitabı-nı basmak için yayınevi-yle haber
editor Berrin-GEN book-3SG publish to publisher-COM letting
ver-medem konuş-tuğ-u-na sinirlen-di.
know-NEG talk-NOM-3SG-DAT angry-PST
VERB: sinirlendi ,DPS: Berrin, Editör

WH-CONDITION: "Which publisher was the editor angry that Berrin spoke
to without letting him know to publish her book?"

DECL. CONDITION: "The editor was angry that Berrin spoke to the pub-
lisher without letting him know to publish her book."

- (57) a. Can Berrak-in kazandığı paradan kısarak hangi plak-lar-ı her
Can Berrak-GEN earn money save which record-PL-ACC every
ay al-ma-sı-na acı-dı?
month buy-NOM-3SG-DAT pity-PST
VERB: acıdı ,DPS: Can, Berrak
- b. Can Berrak-in kazandığı paradan kısarak plakları her ay
Can Berrak-GEN earn money save record-PL-ACC every month
al-ma-sı-na acı-dı.
buy-NOM-3SG-DAT pity-PST
VERB: acıdı ,DPS: Can, Berrak
- c. Can Berrak-in kazandığı paradan kısarak hangi plak-lar-ı her
Can Berrak-GEN earn money save which record-PL-ACC every

ay al-dıđ-ı-na acıdı?
month buy-NOM-3SG-DAT pity-PST
VERB: acıdı ,DPS: Can, Berrak

- d. Can Berrak-ın kazandıđı paradan kısarak plak-lar-ı her ay
Can Berrak-GEN earn money save record-PL-ACC every month
al-dıđ-ı-na acı-dı.
buy-NOM-3SG-DAT pity-PST
VERB: aldı,DPS: Berrak, Can

WH-CONDITION: "Which records did Can pity that Berrak bought every
month by saving up?"

DECL. CONDITION: "Can pitied that Berrak bought the records every
month by saving up."

- (58) a. Müzisyen Gamze-nin listelere girmek için hangi prodüktör-le plak
musician Gamze-GEN charts enter to which producer-COM record
şirketinin desteđiyle çalış-ma-sı-na sinir ol-du?
company support work-NOM-3SG-DAT annoyed-PST
VERB: çalıştı,DPS: Gamze, Müzisyen
- b. Müzisyen Gamze-nin listelere girmek için prodüktör-le plak
musician Gamze-GEN charts enter to producer-COM record
şirketinin desteđiyle çalış-ma-sı-na sinir ol-du.
company support work-NOM-3SG-DAT annoyed-PST
VERB: sinir oldu ,DPS: Müzisyen, Gamze
- c. Müzisyen Gamze-nin listelere girmek için hangi prodüktör-le plak
musician Gamze-GEN charts enter to which producer-COM record
şirketinin desteđiyle çalış-tıđ-ı-na sinir ol-du?
company support work-NOM-3SG-DAT annoyed-PST
VERB: sinir oldu ,DPS: Müzisyen, Gamze
- d. Müzisyen Gamze-nin listelere girmek için prodüktör-le plak
musician Gamze-GEN charts enter to producer-COM record
şirketinin desteđiyle çalış-tıđ-ı-na sinir ol-du.
company support work-NOM-3SG-DAT annoyed-PST
VERB: çalıştı,DPS: Gamze, Müzisyen

WH-CONDITION: "Which producer was the musician annoyed that Gamze worked with to enter the charts by the help of the record company?"

DECL. CONDITION: "The musician was annoyed that Gamze worked with the producer to enter the charts with the help of the record company."

- (59) a. Selen Derin-in işyerindeki herkesten saklayarak hangi şirket-le
Selen Derin-GEN work everyone hide which company-COM
sekiz aydır görüş-me-si-ne inana-ma-dı?
eight months see-NOM-3SG-DAT believe-NEG-PST
VERB: görüştü,DPS: Derin, Selen
- b. Selen Derin-in işyerindeki herkesten saklayarak şirketle sekiz
Selen Derin-GEN work everyone hide company-COM eight
aydır görüş-me-si-ne inana-ma-dı.
months see-NOM-3SG-DAT believe-NEG-PST
VERB: inanamadı ,DPS: Selen, Derin
- c. Selen Derin-in işyerindeki herkesten saklayarak hangi şirket-le
Selen Derin-GEN work everyone hide which company-COM
sekiz aydır görüş-tüğ-ü-ne inana-ma-dı?
eight months see-NOM-3SG-DAT believe-NEG-PST
VERB: inanamadı ,DPS: Selen, Derin
- d. Selen Derin-in işyerindeki herkesten saklayarak şirketle sekiz
Selen Derin-GEN work everyone hide which company-COM
aydır görüş-tüğ-ü-ne inana-ma-dı.
eight months see-NOM-3SG-DAT believe-NEG-PST
VERB: görüştü,DPS: Derin, Selen

WH-CONDITION: "Which company could Derin not believe that Selen was seeing for eight months in secret from everyone at work?"

DECL. CONDITION: "Derin could not believe that Selen had been seeing the company for eight months in secret from everyone at work."

- (60) Ebru dersten sonra eve yürürken sarhoş şoför-ün araba-yı nere-ye çarp-tığ-ı-nı

gör-dü?

Ebru class after home walk drunk driver-GEN car-ACC where-DAT crash-NOM-
3SG-ACC see-PST

VERB: yürüdü,DPS: Ebru, şoför

"Where did Ebru see the drunk driver crash the car when she was walking home
after the class?"

- (61) Gazeteciler Sarp-a rüşvet vererek politikacı-nın nasıl bir skandal-a dahil ol-duğ-
u-nu öğren-di?

reporters Sarp-DAT bribe give politician-GEN what a scandal-DAT part of-NOM-
3SG-ACC learn-PST

VERB: dahil oldu,DPS: Politikacı, Sarp

"What kind of scandal did the reporters learn that the politician got involved
with by bribing Sarp?"

- (62) Hamza toplantı odasının önünden geçerken Farah-ın yeni ortaklıkla ilgili ne-yi
söyle-diğ-i-ni anlat-tı?

Hamza meeting room front walk Farah-GEN new partnership about what-ACC
say-NOM-3SG-ACC tell-PST

VERB: söyledi,DPS: Farah, Hamza

"What did Hamza say that Farah told about the new partnership when he was
walking by the room?"

- (63) Ceren dersi geçmek için Baran-ın ders notları-nı kim-den gizlice al-dığ-ı-nı bil-

iyor?

Ceren class pass to Baran-GEN seminar notes-ACC who-ABL secretly take-NOM-3SG-ACC know-IPFV

VERB: bildi,DPs: Ceren, Baran

"Ceren knows who Baran secretly took the notes from to pass the seminar."

(64) Aras konser öncesi ünlü müzisyenler-in hayranları-yla buluşmak için nere-ye uğra-yacağ-ı-nı tahmin ed-iyor?

Aras show before famous musicians-GEN fans-COM meet to where stop-NOM-3SG-ACC guess-IPFV

VERB: buluştu,DPs: Hayranlar, Aras

"Where does Aras guess that the famous musicians will stop by to meet with their fans before the show?"

(65) Genç hemşire Merve-nin iyileşmek için ihtiyacı ol-an bakım-ı nasıl ver-eceğ-i-ni söyle-di?

young nurse Merve-GEN heal to need be-CVB care-ACC how give-NOM-3SG-ACC say-PST

VERB: söyledi,DPs: Hemşire, Merve

"How did the young nurse say that she would give the care Merve needs to heal?"

(66) Nilüfer ailen-in tamamı-nı topla-yarak Rana-nın yazınki düğünü için kim-i çağır-acağ-ı-nı duyur-du?

Nilüfer family-GEN whole-3SG gather-CVB Rana-GEN summer wedding to who-
ACC invite-NOM-3SG-ACC announce-PST

VERB: duyurdu,DPS: Nilüfer, Rana

"Who did Nilüfer announce that she would invite to Rana's summer wedding
when she brought together the whole family?"

- (67) Barış İsmet-in tüm yıl para biriktirip ne zaman kayak yap-ma-ya gid-eceğ-i-ni
duy-du?

Barış İsmet-GEN whole year money save when ski do-NOM-DAT go-NOM-3SG-
ACC hear-PST

VERB: kayak yaptı,DPS: İsmet, Barış

"When did Barış hear that İsmet would go skiing after saving up all year?"

- (68) İrem grub-un uzun süredir üzerinde çalış-tığ-ı yeni albüm-ü ne zaman çıkar-ma-
sı-m bek-liyor?

İrem band-GEN long time on work-REL-ACC new record-ACC when release-NOM-
3SG-ACC wait-IPFV

VERB: çıkardı,DPS: Grup, İrem

"When does İrem expect the band to release their album which they worked on
for a long time?"

- (69) Ünlü takımın menajeri kimin yeni sezon başlamadan önce tamamen iyileşmesini
sağladı?

famous team-GEN manager-POSS who-GEN new season start before completely

heal-NOM-3SG-ACC ensure-PST

VERB: sağladı,DPS: Menajer, Takım

"Who did the famous team's manager ensure would heal before the new season starts?"

- (70) Berk bütün ailesini şaşırtarak Kaan-ın nere-ye yüksek lisans için git-me-si-ne yardımcı ol-du?

Berk whole family surprise-CVB Kaan-GEN where-DAT masters program to go-NOM-3SG-ACC help-PST

VERB: şaşırdı,DPS: aile, Berk

"Where did Berk help Kaan go for Masters, surprising his entire family?"

- (71) Murat gönlünü almak için Orhan'ın doğumgününde nasıl bir parti yapmaya karar verdi?

Murat make amends to Orhan-GEN birthday-POSS what a party throw-NOM-3SG-ACC decide-PST

VERB: karar verdi,DPS: Murat, Orhan

"What kind of party did Murat decide to throw at Orhan's birthday to make amends with him?"

- (72) Defne adam-ın oyunu kazanmak için hangi taşları sinsiçe değiştirdiğini herkes-e göster-di.

Defne man-GEN game win to which cards-ACC slyly change-NOM-3SG-ACC everyone-DAT show-PST

VERB: deęiřtirdi,DPS: Adam, Defne

"Defne showed to everyone which cards the man changed slyly to win the game."

- (73) Spor yorumcuları Arda'nın tartıřmalara yol amamak iin hangi oyundan ekildięini haber verdi.

sport commentators-ACC Arda-GEN argument cause to which game withrdaw-
NOM-3SG-ACC announce-PST

VERB: ekildi,DPS: Arda, Yorumcular

"Sports commentators announced which game Arda withdrew from in order to not cause arguments."

- (74) Kemal Hasan-ın haftaya yapıl-acak resepsiyon iin hangi takım elbise-yi setięi-ni merak ed-iyor.

Kemal Hasan-GEN next.week happen-CVB reception to which suit-ACC pick-
NOM-3SG-ACC wonder-IPFV

VERB: merak ediyor,DPS: Kemal, Hasan

"Kemal is wondering which suit Hasan picked for the reception that is happening next week."

- (75) Gney babasına avukatlar-ın hangi isteęi-ni řirkete zarar ver-medeyine getirebil-eceę-in-den bahset-ti.

Gney dad lawyers-GEN which wish-POSS company hurt-NEG make happen-
ABIL-FUT-3SG-ABL discuss-PST

VERB: istedi,DPS: Avukatlar, Gney

"Güney told his father which wish of the lawyers he could fulfill without hurting the company."

- (76) Patronu Kuzey-e hangi önemli aile üyesi-ni beklet-medem içeri al-acağ-ı-na dair talimat ver-di.

boss Kuzey-DAT which important family member-ACC wait-NEG let in-NOM-3SG-DAT about order give-PST

VERB: içeri alındı,DPS: Aile üyesi, Kuzey

"His boss gave orders to Kuzey about which important family member he should let in without making them wait."

- (77) Ferdi Cem-in hangi grup-la birlikte gelecek yaz Avrupa turnesi-ne çık-acağ-ı-nı sakl-ıyor.

Ferdi Cem-GEN which band-COM with next summer Europe tour-DAT go-NOM-3SG-ACC hide-IPFV

VERB: sakladı,DPS: Ferdi, group

"Ferdi is hiding with which group Cem will go on a Europe tour with next summer."

- (78) İpek Uygur-ın terfi aldıktan sonra hangi şeh-re iş gezisi-ne gid-eceğ-i-ne inana-ma-dı.

İpek Uygur-GEN promotion receive after which city-DAT work trip-DAT go-NOM-3SG-DAT believe-NEG-PST

VERB: gitti,DPS: Uygur, İpek

"İpek could not believe which city Uygur would go to for a work trip after receiving his promotion."

- (79) Ali yaşlı kaptan-ı hangi liman-a güvenli bir şekilde çık-abil-ecek-leri-ne ikna etti.

Ali old captain-GEN which pier-DAT safely a way-CVB dock-ABIL-NOM-2PL-DAT convince-PST

VERB: ikna etti,DPS: Ali, Kaptan

"Ali convinced the old captain on which pier they could safely dock to."

- (80) Pilot Candan-a hangi yolcu-nun bacağı kırık olduğu için koltuğu-nun değiş-eceği-ni hatırlat-tı.

pilot Candan-DAT which passenger-GEN leg broken is cause seat-GEN change-NOM-3SG-ACC remind-PST

VERB: hatırlattı,DPS: Pilot, Candan

"The pilot reminded Candan which passenger's seat would be changed because of their broken leg."

- (81) Mehmet aile yemeği sırasında Oğuz-un annesi-ne hangi pahalı saat-i al-acağı-nı ağızından kaçır-dı.

Mehmet family dinner during Oğuz-GEN mom-POSS which expensive watch-ACC buy-NOM-3SG-ACC mouth escape-PST

VERB: alacak,DPS: Mehmet, Oğuz

"It slipped out of Mehmet's mouth during the family dinner which expensive

watch he would buy for Oğuz's mom."

- (82) İlayda Çağan-ın kurallara karşı gel-erek hangi yarışmacı-nın yemekler-i-ne zehir kattığının farkındaydı.

İlayda Çağan-GEN rules against come-CVB which competitor-GEN food-POSS-DAT poison add-NOM-3SG-POSS aware-PST

VERB: farkındaydı,DPS: İlayda, yarışmacı

"İlayda was aware how Çağan was breaking the rules by adding poison to which competitor's food."

- (83) Jale için otel-e yıllardır gel-en kumarbaz-ın hangi tur-da oyun-u kazan-acağı belli-ydi.

Jale to hotel-DAT for.years come-NOM gambler-GEN which round-ABL game-ACC win-FUT-ACC obvious-PST

VERB: kazandı,DPS: Kumarbaz, Jale

"It was obvious to Jale during which round the gambler coming to the hotel for years would win the game."

- (84) Öğretmen Batu-nun kendisine kötü davran-an hangi öğrenci-yi ailesi-ne şikayet ed-eceğ-in-den haberdar.

Teacher Batu-GEN self bad behave which student-ACC family-DAT complain about-NOM-3SG-ABL aware

VERB: kötü davrandı,DPS: Öğrenci, Batu

"The teacher is aware of which student who is behaving badly to Batu he will

complain about to his family."

- (85) Ömür Tahsin-in dönem başladıktan sonra hangi günlerde yarı zamanlı çalış-
acağ-ı-nı kontrol et-ti.

Ömür Tahsin-GEN semester start after which days part time work-NOM-3SG-ACC
check out-PST

VERB: çalıştı,DPS: Tahsin, Ömür

"Ömür checked out which days Tahsin will work part time after the start of the
semester."

- (86) Kerim Nurbanu-nun kabul al-dığ-ı asistanlık işi için hangi konu-yu çalış-acağ-ı-
nı hatırla-ya-mı-yor.

Kerim Nurbanu-GEN got accepted-REL-ACC assistantship job to which subject-
ACC work.on-NOM-3SG-ACC remember-ABIL-NEG-IPFV

VERB: hatırlayamadı,DPS: Kerim, Nurbanu

"Kerim cannot remember which subject Nurbanu will work on in the assis-
tantship she got accepted to."

- (87) Ecem kulüpten arkadaşlarını nere-ye rektörlük tarafından yasaklan-an filmin
afişlerini as-ma-ya ikna et-ti?

Ecem club friends where-DAT chancery by banned movie posters hang-NOM-DAT
convince-PST

VERB: yasakladı,DPS: Rektörlük, Kulüp

"Where did Ecem convince her friends from the club to hand the posters of the

movie which was banned by the chancery?"

- (88) Vatandaşlar anketlerde önde gözüken Ekrem'in nereye başkanlık seçimlerinden önce gitmesini onaylamadı?

citizens polls front show-CVB Ekrem-GEN where-DAT presidential elections before go-NOM-3SG-ACC approve-NEG-PST

VERB: gitti,DPS: Vatandaşlar, Başkan

"Where did the citizens not approve of Ekrem going right before the presidential elections when he is ahead in the polls?"

- (89) Göksel her buluştuklarında Tülay-ın başka kimse-yi dinle-meyerek durmadan kim-den bahet-me-sin-den bıktı?

Göksel every meeting Tülay-GEN other people-ACC listen-NEG constantly who-ABL talk.about-NOM-3SG-ABL got.sick-PST

VERB: bahsetti,DPS: Tülay, Göksel

"Who did Göksel get sick of Tülay talking about without listening to anyone else in every hangout?"

- (90) Taner köklü departman-ın kim-i son yılında haksız yere fazladan çalış-tır-dığ-ın-ı açığa çıkardı.

Taner established department-GEN who-ACC last year unfairly extra work-CAUS-NOM-2PL-ACC uncover-PST

VERB: çalıştırdı,DPS: Departman, Taner

"Taner uncovered who the established department made to work unfairly in

their last year."

- (91) Sumru tembel bulaşıkçı-nın mesai sırasında ne zaman aşçılarla sigara iç-tiğ-i-ni takip ed-iyor.

Sumru lazy busboy-GEN shift during when cook-PL-COM cigarette smoke-NOM-3SG-ACC keep track-IPFV

VERB: sigara içti, DPS: aşçılar, Sumru

"Sumru is keeping track of when the lazy busboy is smoking cigarettes with the cooks during his shift."

- (92) Yaren ortak arkadaşları-na yanlışlıkla Umut-un emekli olduktan sonra nere-ye gitmek iste-diğ-i-ni çaktır-dı.

Yaren mutual friends-DAT accidentally Umut-GEN retire after where-DAT go want-NOM-3SG-ACC give.away-PST

VERB: emekli oldu,DPS: Umut, Yaren

"Yaren gave away where Umut would like to go after retiring to their mutual friends."

- (93) Başak suç ortakları-nı sorgula-yarak Tuana-nın eve ne zaman gir-diğ-i-ni anladı.

Başak crime partners-ACC question-CVB Tuana-GEN house-DAT when enter-NOM-3SG-ACC understand-PST

VERB: sorguladı,DPS: Başak, Suç ortakları

"Başak understood when Tuana entered the house by questioning her accom-

plices."

- (94) Yaşlı şoför Kazım-a büyük bir sabırla eski kamyon-u nasıl kullan-acağ-ı-m öğretti.

old chauffeur Kazım-DAT lot of patience old truck-ACC how drive-NOM-3SG-ACC
teach-PST

VERB: kullandı,DPS: Kazım, Şoför

"The old chauffeur taught Kazım how to drive the old truck with a lot of pa-
tience."

- (95) Fatma hayranı ol-duğ-u ünlü piyanist-in konservatuar-dan kimin-le bir yıl boyunca

çalış-acağ-ı-mı araştır-ıyor.

Fatma fan of-REL-ACC famous pianist-GEN conservatory-ABL who-COM a year
long work-NOM-3SG-ACC investigate-IPFV

VERB: çalışacak,DPS: Piyanist, Fatma

"Fatma is investigating who from the conservatory the famous pianist she is a
fan of will work with for a year."

- (96) Handan Nisan-ın en iyi eğitimi almak için yurtdışı-na nere-ye gid-eceğ-i-ni konuş-

tu.

Handan Nisan-GEN most good education have to overseas-DAT where-DAT go-
NOM-3SG-ACC talk-PST

VERB: gidecek,DPS: Nisan, Handan

Handan talked about where Nisan should go overseas to receive the best educa-
tion."

- (97) Damla Aslı-nın yıllarca yatılı okulda kaldıktan sonra eski okulu-na ne zaman dön-eceğ-i-ni anons et-ti.

Damla Aslı-GEN years.for boarding school stay after old school-DAT when return-NOM-3SG-ACC announced-PST

VERB: anons etti,DPS: Aslı, Damla

"Damla announced when Aslı will return to her old school after being in boarding school for years."

- (98) Lale zengin müşteriler-in büyük malvarlıkları-nı korumak için teknoloji şirketleri-ne yatırım yap-ma-sı-nı öner-di.

Lale rich clients-GEN big assets-POSS protect to tech companies-DAT invest in-NOM-3SG-ACC suggest-PST

VERB: yatırım yaptı,DPS: Müşteriler, Şirketler

"Lale suggested rich clients to invest in tech companies to retain their big assets."

- (99) Öykü Zerrin-in açılış törenin-de tiyatro-nun sahibi-yle yaz-dığ-ı oyun hakkında konuş-ma-sı-nı planlı-yor.

Öykü Zerrin-GEN opening ceremony-DAT theatre-GEN owner-COM write-REL-POSS play about talk-NOM-3SG-ACC plan-IPFV

VERB: yazdı,DPS: Tiyatronun sahibi, Öykü

"Öykü is planning for Zerrin to talk about the play she wrote with the owner of the theatre at the opening ceremony."

- (100) Simge Güneş-in kendisi-ni hiç görmeden İstanbul-dan kalıcı olarak taşın-ma-sı-na alındı.
- Simge Güneş-GEN self-GEN never see İstanbul-ABL permanently move-NOM-3SG-ACC offended-PST
- VERB: taşındı,DPS: Güneş, Simge
- "Simge was offended that Güneş moved from İstanbul permanently without seeing her."
- (101) Beyza Meryem-in annesi-ne kış tatilinde çalışmak için kampüste kal-acağ-ı-nı söyleme-me-si-ne kırıl-dı.
- Beyza Meryem-GEN winter break work to campus stay-NOM-3SG-ACC tell-NOM-NEG-3SG-ACC hurt-PST
- VERB: kırıldı,DPS: Beyza, Meryem
- Beyza was hurt that Meryem did not tell her mom that she would spend the winter break on campus to work."
- (102) Danışmanı Vedat-ın doktora tezini bu okul yılı bitmeden önce yaz-ma-sı-nı tavsiye et-ti.
- advisor Vedat-GEN dissertation this school year over before write-NOM-3SG-ACC advised-PST
- VERB: yazdı,DPS: Vedat, Danışman
- "His advisor advised Vedat to finish writing his dissertation before the end of this school year."

- (103) Sabahat kadın-ın Nuri Bilge Ceylan-ın yeni film-in-de başrol ol-arak oynayacağı-nı doğrula-dı.
- Sabahat woman-GEN Nuri Bilge Ceylan-GEN new movie-POSS-DAT lead as-CVB play-NOM-3SG-ACC confirm-PST
- VERB: oynayacak,DPS: Kadın, Sabahat
- "Sabahat confirmed that the woman would play as lead actress in Nuri Bilge Ceylan's new movie."
- (104) Fazıl-ın Osman-ı olayların ol-duğ-u gece büyük risk al-arak polisten saklayacağı-belli-ydi.
- Fazıl-GEN Osman-ACC happen-REL-ACC night big risk take-CVB hide obvious-PST
- VERB: risk aldı,DPS: Fazıl, Polis
- "It was obvious that Fazıl would take a huge risk by hiding Osman on the night things took place."
- (105) Görkem Sezen-in bu yıl kurban bayramı-nı memleketin-de geniş ailesi-yle geçireceği-i-ni san-ıyor.
- Görkem Sezen-GEN this year sacrifice holiday-ACC hometown-DAT big family-COM spend-NOM-3SG-ACC suppose-IPFV
- VERB: sanıyor,DPS: Görkem, Sezen
- "Görkem thinks Sezen will spend this year's eid with her family at her hometown."

(106) Mahmut artan enflasyondan dolayı fabrika işçileri-nin bu yıl grev yap-acağ-ı-nı düşün-üyor.

Mahmut rising inflation cause factory workers-GEN this year strike do-NOM-3SG-ACC think-IPFV

VERB: düşünüyor,DPS: Mahmut, İşçiler

"Mahmut thinks that factory workers will strike this year due to the rising inflation."

(107) Yaşlı adam Bülent-in hediye veril-en alet-i dışarı çık-tığı an kaybed-eceğ-inden emin-di.

old man Bülent-GEN gift give-NOM device-ACC outside go-REL moment lose-NOM-3SG-ACC sure-PST

VERB: kaybetti,DPS: Bülent, Adam

"The old man was sure that Bülent would lose the device that was gifted to him as soon as he stepped outside."

(108) Neriman ev arkadaşları-yla anlaştıktan sonra Gülsüm evdeki üçüncü oda-ya yerleş-ecek say-ıyor.

Neriman housemate-COM make.deal after Gülsüm house.at third room-DAT move-FUT suppose-IPFV

VERB: yerleşecek,DPS: Gülsüm, Neriman

"Neriman supposes after making a deal with her housemates that Gülsüm will move to the third room in the house."

- (109) Barbaros Sedef-in Şişli-deki yeni eve araba-yla gelirken ara sokaklarda kaybol-
acağ-ı-nı öngör-dü.
Barbaros Sedef-GEN Şişli-DAT.at house-DAT car-COM come alley get.lost-NOM-
3SG-ACC predict-PST
VERB: geldi,DPS: Sedef, Barbaros
"Barbaros predicted that Sedef would get lost in the alleys while driving to the
new house in Şişli."
- (110) Ünlü mafya babası rakip aileden Bahadır-ın en küçük kızıyla evlen-eceğ-i-ni
onayla-dı.
famous godfather-POSS rival family Bahadır-GEN most little daughter marry-
NOM-3SG-ACC confirm-PST
VERB: evlenecek,DPS: Kız, Mafya babası
"The famous godfather confirmed that Bahadır from the rival family would be
marrying his youngest daughter."
- (111) Salih asistanı olduğu yaşlı tarih hocası-nın gelecek hafta konuları öğret-eceğ-i-
ne söz ver-di.
Salih assistant is-REL old history teacher-GEN next week subjects-ACC teach-
NOM-3SG-ACC promise-PST
VERB: öğretecek,DPS: Tarih hocası, Salih
"Salih promised that the old history teacher he is an assistant of would teach
the subjects next week."

- (112) Ülkü herkese Burak-ın intikam almak için genç sanatçı-nın ayağı-nı kaydır-dı-
ı-nı yay-dı.

Ülkü everyone Burak-GEN revenge take to young artist-GEN foot-ACC slip-
CAUS-NOM-3SG-ACC spread-PST

VERB: yaydı,DPS: Ülkü, sanatçı

"Ülkü spread to everyone that Burak is sabotaging the young artist to take
revenge."

- (113) Pelin Eda-nın bakıma ihtiyacı ol-duğ-u zaman amcasının yanında İstanbul-da
kal-ma-sı-nı iste-miş-ti.

Pelin Eda-GEN care need be-REL-3SG time uncle-GEN beside-DAT stay-NOM-
3SG-ACC want-EVI-PST

VERB: istedi,DPS: Pelin, Eda

"Pelin wanted Eda to stay beside her uncle in İstanbul when she needed care."

2 Glosses

ABL: ablative

ACC: accusative

COM: commutative

CVB: converbial

DAT: dative

GEN: genitive

IPFV: imperfective

LOC: locative

NOM: nominalizer

SG: singular

PL: plural

POSTP: postposition

PST: past

3 Tables

Table 1: Accuracy analysis regression coefficients (Exp. I)

	Estimate	Est. Error	l-95% CI	u-95% CI	Rhat	Bulk ESS	Tail ESS
Intercept	1.49	0.22	1.07	1.93	1.00	13202	13759
wh	-0.28	0.22	-0.72	0.16	1.00	19275	15376
ungram. local scope	-0.14	0.22	-0.58	0.29	1.00	19526	14849
wh x ungram.	0.33	0.31	-0.28	0.95	1.00	17464	15045

Table 2: Reading time analysis regression coefficients (Exp. I)

	Estimate	Est. Error	l-95% CI	u-95% CI	Rhat	Bulk ESS	Tail ESS
Intercept	6.74	0.11	6.52	6.97	1.00	884	1715
wh	0.02	0.06	-0.09	0.14	1.00	4842	5584
Ingram. local scope	-0.06	0.05	-0.15	0.04	1.00	6009	5883
wh x ungram.	0.09	0.07	-0.04	0.21	1.00	6168	6104

Table 3: Fragment type analysis regression coefficients (Exp. II)

	Estimate	Est. Error	l-95% CI	u-95% CI	Rhat	Bulk ESS	Tail ESS
Intercept	1.00	0.04	0.92	1.08	1.00	2478	2454
cont. type: MA	-0.95	0.05	-1.04	-0.86	1.00	3251	2935