

Motivating polar and focal alternatives in polar questions in broad focus

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Abstract Turkish expresses two distinct plain polar question meanings based on two attachment options of the polar question clitic. The two forms are both neutral interrogatives felicitous in broad focus, and distinct from other question forms. One placement option comes with a cluster of properties including concealed negation and illocutionary force, and the other with positive evidential bias and default main stress. I show that this duality of primary polar question meanings is due to the presence of either polar $\{\phi, \neg\phi\}$ or projective focal $\{\phi, \psi, \pi, \dots\}$ alternatives in the denotation of each of the options. The two meanings arise due to different syntactic outputs, which map to different clitic placement post-syntactically. A singleton-set analysis of polar question meaning such as those by Biezma and Rawlins (2012) and Krifka (2015) can account for the focal reading when amended by focus projection (Selkirk 1995). Not predicted by these accounts, broad focus polar alternatives also need to be part of the grammar. The duality makes predictions connecting the kind of the underlying alternatives to negation, bias, and further nuances evident in usage restrictions.

Keywords Polar questions, Turkish, alternatives, bias, clitic placement

1 Introduction

This paper is about an unexpected duality in plain, unmarked, broad focus polar (yes/no) question forms and their meaning in Turkish. The distribution of the two forms is determined collectively by morphosyntax, prosody, and information structure. The corresponding meaning contrast is ripe with nuances evident in specialized contexts.

The puzzle concerns the distribution of the polar question clitic *-mI*. Even though the clitic is known for transparently attaching to the focused element in cases of narrow focus, it has two potential attachment sites in broad focus. The two options that effectively yield two partially overlapping renditions of a plain broad focus polar question such as *Did you make dinner?* are given in (1).

- (1) a. Acıktım. Yemek yaptın **mI**?
got.hungry.1sg dinner made MI
'I'm hungry. Did you make dinner?' Verb attachment
- b. Harika kokuyor. Yemek **mI** yaptın?
wonderful smells dinner MI made
'It smells wonderful. Did you make dinner?' Object attachment

To properly describe the contrast between the two options, I will document the paradigm of differences that span from prosody to pragmatics as well as the shared features including why both qualify as broad focus and neutral. I will then analyze the two meanings and the mapping that relates those meanings to the position of the clitic.

The arising duality of primary polar question meanings has implications in the ontology of polar question meanings and its consequences in bias, negation, and variation. The meaning of a polar question is standardly analyzed as a disjunction of the proposition being questioned and its negation (Hamblin 1973, Karttunen 1977). A polar question can be answered ‘yes’, and in most cases also *no*. A question denoting a disjunction of ϕ and $\neg\phi$ can be said to have *polar alternatives*.

- (2) A: Did you make dinner?
 B: Yes./No.
- (3) \llbracket Did you make dinner? $\rrbracket = \{\text{You made dinner, It is not the case that you made dinner}\}$

Recent literature explores the option of deriving polar question meaning from a singleton set rather than the two-membered set of the polar dyad (Biezma and Rawlins 2012, Krifka 2015, Roelofsen and Farkas 2015, Biezma and Rawlins 2017, Kamali and Krifka 2020). Behavior of polar and alternative questions with narrow focus are the prime argument for this view. For instance, Krifka (2015) illustrates that a polar question with narrow focus such as (4A) is not compatible with a conclusive *no* answer (4B).¹ Additionally, a statement matching the focus alternatives of the questioned proposition is licensed, best in combination with *no* (4B).

- (4) A: Did [YOU]_F make this lasagna?
 B: \checkmark Yes./#No. / \checkmark No, BOB did.

Krifka interprets this potential answer pattern as an indication that the $\neg\phi$ disjunct is missing from the meaning: *You did not make this lasagna* is not in the set of potential answers, which is presumably why a *no* answer cannot “pick” the $\neg\phi$ option. ϕ will then generate alternative propositions of the sort *X made this lasagna* in the usual way (as in Alternative Semantics, Rooth 1992). I will call such alternatives generated by focus rather than negation *focal alternatives*. +? indicates further operations involved in question meaning, where analyses differ.

- (5) a. \llbracket Did YOU make this lasagna? $\rrbracket = \{\text{YOU made this lasagna}\}+?$
 b. Focal alternatives via Alternative Semantics:
 $\{\text{You made this lasagna, Mary made this lasagna, Bob made this lasagna} \dots\}$

Studies in these lines focus their claims regarding a singleton-set semantics on

¹An element with non-default main prominence is capitalized when relevant.

polar questions with narrow focus. But the possibility of the singleton set computation creates an overlooked potential meaning: polar questions with focal alternatives in broad focus via focus projection (Selkirk 1995), hence *projective focal alternatives*. This is conceived in (6) and (7).

- (6) A: It smells delicious. [Did you make dinner]_F (or what)?
 B: Yes./#No./No, a restaurant just opened downstairs.
- (7) a. [[Did you make dinner?]] = {You made dinner}+?
 b. Projective focal alternatives via Alternative Semantics and Focus Projection:
 {You made dinner, a restaurant opened downstairs, I'm so hungry
 I smell things ... }

The two plain polar question forms in Turkish, I will argue, exemplify exactly this distinction between polar and projective focal alternatives. The proposal thus motivates a duality of primary polar question meanings predicted neither by the disjunction approach, nor by the singleton set approach in their current formulation.

As we will see, the contrast further creates feature clusters including features such as negation, bias, usage restrictions that include illocutionary acts and guesses, and main stress. Hence the type of underlying alternatives correlate with these notions differentially.

In the next section, I introduce background on Turkish, including polar questions, their relationship to focus, and the question inventory. In Section 3, we will see how the simple out-of-the-blue inquiry *Did you make dinner* appears with two different placement options of the polar question clitic, aligning with differential characteristics, yet proving to be neutral and broad focus in each case. In Section 4, I will argue that verb attachment corresponds to polar alternatives, while object attachment corresponds to projective focal alternatives, and suggest an LF and PF mapping for each to account for the observed clitic placement and other effects. In Section 5 I discuss the paradigm of arising predictions including bias in English rising declaratives. Section 6 concludes.

2 Turkish

2.1 Polar questions and the clitic *-mI*

Turkish is an SOV language with in-situ focus and widespread yet optional constituent reordering for information structure purposes (Göksel and Özsoy 2000, Kılıçaslan 2004, Özge and Bozşahin 2010). Tense, aspect, modality and negation are marked as suffixes on the verb. Default main stress is on the sentence object in line with crosslinguistic generalizations.

- (8) Ali dün yemek yap-tı.
 Ali yesterday dinner make-past
 'Ali made dinner yesterday.'

Polar questions require the insertion of the enclitic *-mI* onto this declarative, exemplified in (9) with verb attachment.² Neither an obvious change in constituent order nor any other obligatory morphosyntactic alteration are involved in the polar question construction. There is one clitic per polar question.

- (9) A: Ali dün yemek yap-tı **mi**?
 Ali yesterday dinner make-past MI
 ‘Did Ali make dinner yesterday?’
 B: Evet./ Hayır.
 yes no
 ‘Yes./ No.’

Polar questions typically do not end in a boundary rise, setting them apart from constituent questions which do. Reliable intonational markers of interrogatives are shown to be the extra high nuclear pitch accent and prenuclear compression overlaid on the matching declarative (Göksel et al. 2009, Kamali 2014).

2.2 The inventory of question forms

Turkish has a fairly familiar inventory of question forms beside polar questions with a familiar division of labor across them. Constituent questions exhibit *wh-in-situ* and concomitant effects of intervention. They do not carry *-mI*, showing that the clitic is not an all-purpose interrogative marker.³

- (10) Kim dün yemek yaptı (***mi**)?
 who yesterday dinner made MI
 ‘Who made dinner yesterday?’

Tag questions have a similar meaning and use to their English counterpart, in particular the nuclear tag question, along with the inherent bias (see Ladd 1981). The tag consists of the nominal negative predicate *değil* and the clitic *-mI*. The anchor does not have the clitic, so it is a declarative. Turkish tag questions appear to always have a pitch accent on both the anchor and the tag, meaning postnuclear tag questions are not in evidence. I will be comparing polar questions to tag questions in terms of bias and speech act in Section 3.2.

- (11) Ali yemek yaptı, değil **mi**?
 Ali dinner made not MI
 ‘Ali made dinner, didn’t he?’

²Capital I in the morpheme designates the harmonic element. The allomorphs are *-mi*, *-mi*, *mu*, *mü*. The morpheme is written separately by orthographic convention.

³Note the presence of a poorly understood case which could be mistaken for a counterexample but is rather a polar question of a constituent question.

- (i) Kim **mi** yemek yaptı?
 who mi dinner made
 ‘Did you (really) ask who made dinner?’

Alternative questions are also comparable to their English counterpart, showing familiar semantic properties such as the infelicity with a yes/no answer and the mutual exclusivity implicature. Their prosody is also familiar in that the alternative question is comprised of two intonational phrases wrapping each disjunct, with the two corresponding nuclear accents and rising boundary in between. Beside that, Turkish alternative questions display two further notable features. First, the clitic *-mI* appears on both disjuncts, on the contrasted constituent. Second, a dedicated disjunction form *yoksa* replaces the usual constituent disjunction forms *veya, ya da*. I will be using this optional form in all of my relevant examples to enforce an alternative question reading. Below I exemplify with a polar alternative question. The polarity alternative is the negated finite verb, as verbal negation is suffixal and cannot stand on its own.

- (12) A: Ali yemek yap-tı **mI**, yoksa yap-ma-dı **mI**?
 Ali dinner make-past MI or make-neg-past MI
 ‘Did Ali make dinner, or not?’
 B: #Evet./ ✓Yap-tı.
 yes make-past
 ‘#Yes.’ ✓He did.’

Polarity alternative questions like (12) have sometimes fallen into the gray zone between the various definitions of polar and alternative questions. I will consider these and any such question with two explicit alternatives alternative questions for two reasons: first, they openly display the alternative question morphosyntax: two apparent polar questions one of which is heavily elided to only reveal non-shared parts. Secondly, they cannot be answered “yes”, but rather have to be answered by a fragment. This is a predicate fragment in the case of the polar alternative question (12B) (Roelofsen and Farkas 2015). Surely there is a structural relationship between polar and alternative questions, especially evident in the double occurrence of the polar question clitic in Turkish, but this paper is not concerned with this problem.⁴ We will be seeing constituent alternative questions in due course, as alternative questions are a great way to reveal focus alternatives, and *-mI* and its distribution is intimately related to focus.

One aspect where the Turkish inventory diverges from many other languages is the rarity of declarative questions; declaratives functioning as polar questions. Available uses appear to be a subset of confirmation requests which are marked by rather obscure prosodic means instead of the typical interrogative tune.⁵ In this sense, these instances are similar to English falling declarative questions (Gunlogson 2001). Most contexts compatible with English rising declaratives have *-mI* Turkish. Evidentially biased contexts are the prime example, to which we come back in Section 5.2.

⁴Basing their argument primarily on these facts in Turkish, Kamali and Krifka (2020) propose that an alternative question instantiates a speech act disjunction of two polar questions.

⁵Certain adverbials may create questioning speech acts without *-mI* within the interrogative contour. See Göksel et al. (2009) on two such forms *sakın* and *ya*.

- (13) *Colleague steps into my windowless office in a dripping wet coat.*
 Hava yağmurlu *(**mi**)?
 weather rainy MI
 ‘It’s raining?/Is it raining?’

2.3 Polar questions and Focus

The Turkish polar question clitic *-mI* is known for its focus-sensitivity. It is not fixed in one position but attaches to the syntactic constituent in narrow focus (Ladd 1996, Kornfilt 1997). Hence attached to the subject, it indicates focus on the subject constituent (14a), on the adverbial focus on the adverbial (14b), and on the object focus on the object (14c). Note that (14c), where the clitic attaches to the object, would be ambiguous had it not been F-marked to indicate a focused object, which we turn to in Section 3.

- (14) a. [Ali]_F **mi** dün yemek yaptı?
 Ali MI yesterday dinner made
 ‘Was it Ali that made dinner yesterday?’
 b. Ali [dün]_F **mü** yemek yaptı?
 ‘Was it yesterday that Ali made dinner?’
 c. Ali dün [yemek]_F **mi** yaptı?
 ‘Was it dinner that Ali made yesterday?’

Alternative questions verify the focused nature and the identity of the focused constituent in these examples. The subject focus polar question in (14a) can be part of an alternative question where the other disjunct is a subject alternative as in (15a). Other options with an adverbial or the polarity alternative in the second disjunct are unacceptable, as seen in (15b) and (c) respectively.

- (15) a. [Ali]_F **mi** dün yemek yaptı, yoksa [Merve]_F **mi**?
 Ali MI yesterday dinner made or Merve MI
 ‘Did [Ali]_F make dinner yesterday, or [Merve]_F?
 ‘Was it Ali who made dinner yesterday, or Merve?’
 b. #Ali **mi** dün yemek yaptı, yoksa bugün **mü**?
 ‘#Did [Ali]_F make dinner yesterday, or [today]_F?
 ‘#Was it Ali who made dinner yesterday, or today?’
 c. #Ali **mi** dün yemek yaptı, yoksa yapmadı **mi**?
 ‘?Did [Ali]_F make dinner yesterday or [not]_F?
 ‘#Was it Ali who made dinner yesterday, or didn’t he?’

Turkish polar questions with narrow focus are not clefts, but English clefts and Turkish *-mI* both lead to similar exhaustivity inferences typical of focus. This stricter translation also avoids an ambiguity argued to be present in English polar questions with a contrastively accented phrase. Examples such as *Did ALI make dinner* are ambiguous between a focus and contrastive topic reading (Kamali and Krifka 2020), the latter of which is best left out of the discussion. Turkish marks this distinction. *-mI* placement on a constituent is strictly focal.

Also in line with their focused nature, *-mI*-marked elements carry main stress.⁶ Since this is predictable, I will not be using additional marking to indicate stress in Turkish polar question examples. Note that cases with broad focus, which the rest of this paper addresses, are not exempt from this prosodic rule. As a result, there is an unexpected main stress duality as a function of the clitic placement duality we will be seeing shortly.

In summary, Turkish polar questions are marked with the focus-sensitive polar question clitic *-mI*. Apart from the virtual absence of declarative questions, other question forms in the Turkish inventory exhibit similar properties to their counterparts across languages.

3 The duality

3.1 Verb attachment

The same focus sensitive clitic *-mI* is used when no constituent is in narrow focus. There are two ways the clitic may attach in such cases, with concomitant interpretive effects. First, I describe verb attachment questions and their differential characteristics.

3.1.1 Introducing verb attachment

In widely accepted descriptive literature, unmarked Turkish polar questions in broad focus are characterized with clitic attachment on the verbal morphological complex, hence Verb Attachment, illustrated again in (16) (Ladd 1996, Kornfilt 1997). These resources consider no other option as broad focus or unmarked.

- (16) Acıktım. [Ali yemek yaptı]_F **mI**?
 got.hungry.1sg Ali dinner made MI
 ‘I’m hungry. Did Ali make dinner?-VA’⁷ Verb Attachment PQ

Verb attachment fits the description of unmarked for several reasons. In terms of its use and contextual restrictions, verb attachment looks unmarked and infinitely versatile. (16) is appropriate in numerous, seemingly unbiased contexts such as if the speaker is hungry and probing to see if there is any food to eat, which may be a conversation starter or not.

Morphologically, in this position, the clitic is behaving in line with its narrow focus placement in that it encliticizes to the focused constituent, which is the entire proposition. It follows the otherwise exceptionless pattern in Turkish morphology for sentential functional items to surface as verbal suffixes, whether

⁶ *-mI* is one of the handful unaccentable morphemes in Turkish (Kabak and Vogel 2001, Kamali 2011b). It may appear to place prominence on the focused phrase, but this “prestressing” is a word-level phenomenon and does not explain focusing.

⁷ From this point onwards, I include an imaginary clitic attachment attribute to the English translations of the examples to highlight the fact that two distinct meanings are in question. This will be particularly useful in Throughout this section and Section 4.

due to purely morphological reasons or to high-scope syntactic positions which linearize as these verbal suffixes.

While appearing unmarked in many respects, one aspect of verb attachment is unexpected. Because clitic placement implicates main prominence, in verb attachment questions the verb carries main prominence. This renders these questions unusual in contrast to declaratives in Turkish and declaratives and interrogatives in widely studied languages. In fact, this property was one of the properties that lead Kamali (2015b) to analyze verb attachment as resulting from verum/polarity focus.

The clitic is found on the verbal complex in other focus conditions as well. I reserve the term verb attachment for cases without obvious narrow focus. Below, tense focus and verb focus are exemplified with disambiguating alternative questions. The ambiguity arises because the verbal complex acts as a single morphoprosodic domain for clitic placement in Turkish (with qualifications that do not concern us here, see Kamali 2011b).

- (17) a. Ali yemek yap-tı **mı**, yap-acak **mı**?
 Ali dinner make-past MI make-fut MI
 ‘Did Ali make dinner or will he?’ Tense Focus PQ
- b. Ali yemeğ-i yaptı **mı**, getirtti **mı**?
 Ali dinner-acc made MI ordered MI
 ‘Did Ali make the dinner or order it?’ Verb Focus PQ

Additionally, for reasons that will become clearer soon, I base this description on examples where the clitic is on the verb in the presence of a discourse-new object. Hence only transitive predicates are used when illustrating the contrast.

3.1.2 Verb attachment-specific uses

As versatile as verb attachment may appear, its use is restricted or required in certain contexts. In this section and its sister Section 3.2.2, I present contexts that require the attachment option under discussion, which are simultaneously those contexts that reject the other. One set of contexts that require verb attachment are those occurring in a setting of exam or interrogation.⁸

- (18) *Exam question*
 Türkiye İkinci Dünya Savaşı’na <#**mı**> gir-di <**mı**>?
 Turkey Second World War-dat MI enter-past MI
 ‘Did Turkey fight in WW2?-VA/#OA’
- (19) *Traffic checkpoint*
 Alkol <#**mü**> al-dı-nız <**mı**>?
 alcohol MI take-past-2pl MI
 ‘Have you had anything to drink?-VA/#OA’

⁸Triangular brackets indicate potential, mutually exclusive sites.

Another set of specialized uses requiring verb attachment is illocutionary questions that function as polite requests, offers and invitations.

(20) *Your roommate says they are coming home and you need bread.*

Ekmek <#**mi**> al-ır <**mi**>-sin?
 bread MI get-aor MI-2sg
 ‘Could you buy bread?-VA/#OA’⁹

(21) *Hosting a guest*

Pasta <#**mi**> iste-r <**mi**>-sin?
 cake MI want-aor MI-2sg
 ‘Would you like some cake?-VA/#OA’

(22) *Ballroom*

Benimle dans <#**mi**> ed-er <**mi**>-sin?
 with.me dance MI do-aor MI-2sg
 ‘Will you dance with me?-VA/#OA’

The indicated unacceptable object attachment options are not grammatically ill-formed. They would be appropriate in various other contexts, for instance as a guess or as an immediate response, which we will see in Section 3.2.

3.1.3 Concealed negation

Beyond usage restrictions, verb attachment carries negative properties. This can be observed in clausal embedding and negative polarity licensing. The typical embedding mechanism in Turkish is nominalization (23a). When a verb attachment polar question undergoes embedding, *-mI* is replaced by a periphrastic construction of verb-not-verb, manifesting a negative morpheme (23b).

- (23) a. Merve [Ali’nin yemek yap-tığını] söylüyor.
 Merve Ali-gen dinner make-nomin says
 ‘Merve says that Ali made dinner.’
 b. Merve [Ali’nin yemek yap-ıp yap-**ma**-dığını] soruyor.
 Merve Ali-gen dinner make-conv make-neg-nomin asks
 ‘Merve asks whether Ali made dinner.-VA’

In contrast, polar questions with any other clitic attachment surface in an embedding with the normal embedding nominalization where *-mI* is found in the same position where it would be in a root polar question.

- (24) a. Merve [Ali’nin **mi** yemek yap-tığını] soruyor.
 Merve Ali-gen MI dinner make-nomin asks
 ‘Merve asks if it is Ali who made dinner.’

⁹The clitic has to occur inside certain TAM markers (cf. Section 4.2.3).

- b. Merve [Ali'nin yemek **mi** yap-tığını] soruyor.
 Merve Ali-gen dinner MI make-nomin asks
 'Merve asks if it is dinner that Ali made.'
 '?Merve asks if Ali made dinner.'

The second manifestation of negation in verb attachment is negative polarity licensing. Negative elements are normally licensed by negation (25).

- (25) Ali **hiç** yemek yap-*(**ma**)-dı.
 Ali n-ever dinner make-neg-past
 'Ali never made dinner.'

Polar questions also allow negative polarity licensing, but only under verb attachment. Hence, while negation is possible in a polar question, it is not needed to license the polarity item under verb attachment (26a). With any other clitic placement constellation, negation is required (26b). Like embedding morphology, this suggests that verb attachment questions involves a concealed negation.

- (26) a. Ali **hiç** yemek yap-(**ma**)-dı **mi**?
 Ali n-ever dinner make-neg-past MI
 'Did(n't) Ali ever make dinner?-VA'
 b. Ali <**mi**> **hiç** <**mi**> yemek <**mi**> yap-*(**ma**)-dı?
 Ali MI n-ever MI dinner MI make-neg-past

The unacceptable options cited in this section include object attachment in broad focus. It is important to highlight this contrast between the two attachment options preemptively, as the presence and absence of negative characteristics will be a continuing theme in Section 4.

In summary, verb attachment has a straightforward morphosyntactic placement and fairly unrestricted use. It furthermore selectively supports features that include illocutionary force and negation, as do plain polar interrogatives in English. On the other hand, it displays main stress on the verb and, as we will see shortly, it is excluded from other, fairly standard, uses of plain polar interrogatives.

3.2 Object attachment

The second polar question form corresponding to broad focus in Turkish is questions in which the clitic is attached to various sentential objects. In this section I review basic and differential properties of these questions. Various pieces of evidence as to why object attachment qualifies as broad focus are presented here as well as in Section 3.3.1.

3.2.1 Introducing object attachment

Göksel and Kerslake observe that next to verb attachment, attachment before the predicate is another option to question the whole proposition (2005). I use

the term Object Attachment because the clitic forms a prosodic domain with the object, evident in its vowel harmony and stress properties.

- (27) Harika kokuyor. [Ali yemek **mi** yaptı]_F?
wonderful smells Ali dinner MI made *Object*
‘It smells wonderful. Did Ali make dinner?-OA’ *Attachment PQ*

With respect to which form is unmarked, Göksel and Kerslake maintain that object attachment is a marked option, as it requires certain assumptions “cued by non-linguistic cues”, while verb attachment may “appear out of the blue” (2005, Section 19.1.4).

As indicated by the focus brackets, *yemek* ‘dinner’ does not have narrow focus in (27) even though this polar question is identical with the one with object focus (14c). Kamali (2011a, 2015b) illustrates the broad focus nature of this clitic placement option with examples where the object attachment question immediately follows *what happened* in scenarios of complete ignorance (28). In this context, neither can the objects be in narrow focus, nor the predicates be given. Moreover, verb attachment is infelicitous in these cases, and yield unwarranted inferences of prior mention, which Kamali interprets as *verum*.

- (28) *Hearing a sudden noise in the next room, I ask: ‘What happened? ...’*
- a. Biri cam-ı **mi** kırdı?
someone window-acc MI broke
‘Did someone break the window?’
- b. Bebek yatak-tan **mi** yuvarlandı?
baby bed-abl MI rolled
‘Did the baby roll down the bed?’
- c. Raflar **mi** devrildi?
shelves MI collapsed
‘Did the shelves collapse?’
- d. #Biri cam-ı kırdı **mi**?
- e. #Bebek yatak-tan yuvarlandı **mi**?
- f. #Raflar devril-di **mi**? (Slightly changed from Kamali 2015b)

Moreover, it is possible to cancel the narrow focus meaning with a VP idiom. A polar question inquiring about the entire predicate with an idiom such as ‘catch mosquitoes, lit. have one’s business not go well’ has the clitic on its literal object ‘mosquito’ while projecting the idiomatic meaning (Kamali 2011a).

- (29) A: Ali’nin bankaya bir sürü borcu varmış.
‘I heard Ali owes a lot of money to the bank.’
- B: Hâlâ sinek **mi** avlıyor?
still mosquito MI catches
- (i) #LITERAL NARROW FOCUS ‘Is it mosquitoes that he catches?’
(ii) #LITERAL BROAD FOCUS ‘Is he catching mosquitoes?’
(iii) ✓ IDIOMATIC BROAD FOCUS ‘Is his business not going well?’
(iv)*IDIOMATIC NARROW FOCUS (Kamali 2011a)

Object attachment is not limited to a kind of object nominal, as the last two examples show.¹⁰ In addition to pseudo-incorporated caseless objects in most examples, idiomatic objects (29), discourse-new referential objects with overt accusative case marking (28a), objects with other cases (28b), and even unaccusative subjects (28c) may host the clitic in the object attachment configuration. The host object may also be clausal (30).

- (30) A: Nobody knows what Ali was up to before the party.
 B: [Merve [Ali'nin yemek yap-tığımı] **mi** sanıyor]_F?
 Merve Ali-gen dinner make-nomin MI thinks
 ‘Does Merve think that Ali was making dinner?’

Unlike the verb attachment option, object attachment is in line with declarative-like default main stress, attaching to a discourse-new sentence object. For this reason, the contrast between verb and object attachment is only observable in questions with a transitive predicate with a typically stressed object. Otherwise the clitic surfaces on the verb by default, displaying both sets of divergent characteristics. This ability of the verb to host the polar question clitic ambiguously is due to the second-default nature of the verb in receiving main stress, cf. Section 4.2.1.

3.2.2 Object attachment-specific uses

As object attachment rises as an option possible in a textbook all-new, broad focus context such as (28), verb attachment, which resources deem unmarked and out-of-the-blue, turns out to be infelicitous. This intuition extends to several similar contexts such as guessing. When venturing a guess involving an entire proposition, privately or in response to a challenge, object attachment has to be used. Verb attachment is excluded (31).

- (31) *You wonder, or say out loud “what happened here?”*
 Ali yemek <**mi**> yaptı <#**mi**>?
 Ali dinner MI made MI
 ‘Did Ali make dinner?-OA/#VA’
- (32) A: Guess what happened yesterday/why the kitchen is a mess?
 B: Ali yemek <**mi**> yaptı <#**mi**> ?
 ‘Did Ali make dinner?-OA/#VA’

Another situation where object attachment is required is immediate responses to an all-new assertion in conversation. This question may be a request for confirmation, an expression of surprise, or simply way of filling one’s conversational turn. Verb attachment, as before, is infelicitous.

¹⁰Pseudo-incorporated objects like *yemek* ‘dinner’ are maximally informative because they are the least likely to be separated from the verb by syntactic operations and avoid the syntactic and pragmatic confounds of accusative-marked objects which are argued to be moved (see among others Enç 1991, Keleşir 2001, Kornfilt and von Heusinger 2009, Kamali 2015a).

- (33) A: Sonra işte Ali yemek yaptı.
 then um Ali dinner made
 ‘And then um Ali made dinner.’
 B: Ali yemek <mi> yaptı <#mi>?
 ‘Did Ali make dinner?-OA/#VA’
 (Is that what you said/ No way!/ Oh, and then?)

Notice that none of these contexts is unusual or infrequent. They would be translated with the plain polar question in broad focus *Did Ali make dinner* into English, as much as verb attachment questions would be. Object attachment questions may also be translated with rising declaratives if certain bias requirements are met.

3.2.3 Evidential bias

A systematic differential feature of object attachment questions is positive evidential bias, which appears to be behind Göksel and Kerslake’s observation regarding a connection between object attachment and non-linguistic cues.

Evidential bias refers to arising inferences of extant contextual evidence with regard to the propositional content of the question (Büring and Gunlogson 2000, Gunlogson 2001, Sudo 2013). The English rising declarative is a well-known example. These questions are only licensed in contexts with mutually detectable contextual evidence towards the content of the question (34b). They are not acceptable in the absence of evidence (0), or in the presence of counterevidence (-) (34a). The English polar interrogative is neutral: it is licensed regardless of the evidential context (34a,b).

- (34) a. [No evidential bias (0)] *Speakers are on the phone. No related utterance has been made.*
 [Negative evidential bias (-)] *Speaker notices the kitchen looking exactly as he left it the previous day.*
 Did Ali make dinner yesterday?
 #Ali made dinner yesterday?
 b. [Positive evidential bias (+)] *Speaker walks into a messy kitchen in the morning with tell-tale signs of Ali’s cooking.*
 Did Ali make dinner yesterday?
 Ali make dinner yesterday?

Object attachment questions parallel English rising declaratives in these environments. They may be uttered in the presence of evidence, and not in the absence of evidence or in the presence of counterevidence (35). Hence, they have positive evidential bias.

- (35) a. [Ev. bias 0], [Ev. bias -]
 #Ali dün yemek mi yaptı?
 ‘#Ali made dinner yesterday?’

- b. [Ev bias +]
 Ali dün yemek **mi** yaptı?
 ‘Ali made dinner yesterday?’

Verb attachment questions are the mirror image of object attachment questions. They may not be used in the presence of contextual evidence, but may be used in unbiased or negatively biased contexts (36). In this, verb attachment questions are different from English interrogatives which are evidentially neutral, and thus can appear in all evidential contexts (34).

- (36) a. [Ev. bias 0], [Ev. bias -]
 Ali dün yemek yaptı **mi**?
 ‘Did Ali make dinner yesterday?-VA’
 b. [Ev. bias +]
 #Ali dün yemek yaptı **mi**?
 ‘#Did Ali make dinner yesterday?-VA’

I will revisit this surprising parallelism between English declarative questions and Turkish object attachment questions in Section 5.2.

Summarizing, object attachment takes over another subset of contexts that fit the description of unmarked, such as all-new questions following ‘what happened’, guesses and immediate responses. It further carries positive evidential bias. Its placement is morphosyntactically unexpected, but it exhibits unexceptional main stress on the object.

3.3 Convergent features

Verb attachment and object attachment divide up the field of possible uses of a plain polar interrogative in English in a surprising way, but their more basic properties are unknown or unclear, including disagreements about whether both qualify as broad focus. In this section I clarify such basic questions as their clause type, speech act complexity, bias, and information structure. As the title suggests, two options converge on these features.

3.3.1 Broad focus, all-new, out-of-the-blue

As we have seen in Section 2, the predominant understanding of clitic placement in Turkish polar questions is based on focus, due to the focus-sensitive distribution of the clitic. However, researchers do not converge on which form constitutes broad focus, all-new, or out-of-the-blue.

Let us consider a scenario where two roommates meet at the breakfast for the first time that day. It is also the first time they meet after B’s month-long trip during which time they rarely communicated. Ali is their third roommate. Suppose, after a minimal exchange, B forays into a question: *Tell me, did Ali make dinner last night?*

(37) *A, B and Ali are roommates. They meet at the breakfast table for the first time after B's month-long trip.*

A: Good morning! I didn't know you were back.

B: Good morning! You were both asleep when I arrived. Tell me,
 Ali dün yemek <mi> yaptı <mi>?
 Ali yesterday dinner MI made MI
 'Did Ali make dinner yesterday? -VA/OA'

Both verb attachment and object attachment are felicitous in this context. In neither case there appears to be any repairs or accommodations indicating a mismatch in the two interlocutors' perceived common ground.

Both questions are uttered out of the blue. There is no related discussion that leads to one interlocutor's interest in Ali's making dinner. Secondly, both questions are all-new. There cannot be any common ground to license given elements at the outset of a conversation other than the shared referent of the proper noun *Ali*. The interlocutors also cannot rely on a recent prior interaction due to a gap in their communication.

Finally, in both attachment options, the focused constituent is the entire proposition, that is, the utterance is in broad focus. The context rules out options of narrow focus on the morphological host of the clitic, such as the verb, polarity, or object. To illustrate this point, consider the infelicitous examples in English with narrow focus on these constituents.

(38) [*Breakfast scenario*]

A: Good morning! I didn't know you were home.

B: Good morning. You were both asleep when I arrived. Tell me,
 #DID Ali make dinner yesterday? Polarity focus
 #Did Ali MAKE dinner yesterday? Verb focus
 #Was is dinner that Ali made yesterday? Object focus/cleft
 # Did Ali make DINNER yesterday? Object focus

Thus, corroborating Kamali (2015b), it is confirmed that object attachment is licensed in broad focus. Contra Kamali, verb attachment with concomitant verb stress is also licensed in broad focus and not necessarily verum or polarity focus. I will argue in Section 4 that the attachment site is still accounted for by focus, in particular the nature of the underlying focus alternatives, but without the highlighting effect of conventional descriptions of verum or polarity focus. Both attachment options are furthermore in line with all-new and out-of-the-blue.

3.3.2 Speech act complexity and clause type

Next, we ask whether the clitic placement options in Turkish both constitute simple question speech acts and interrogatives. After Sadock (1971) and Asher and Reese (2007), I test the questioning speech act with the "tell me" test. An assertion cannot felicitously follow an utterance of *söylesene* 'tell me' (39a). In contrast, both clitic placement options may occur in this environment (39b).

Both options are therefore instances of a question speech act.

- (39) a. #Söylesene, Ali dün yemek yaptı.
 Tell-me Ali yesterday dinner made
 ‘#Tell me, Ali make dinner yesterday.’
 b. Söylesene, Ali dün yemek <mi> yaptı <mi>?
 tell-me Ali yesterday dinner MI made MI
 ‘Tell me, did Ali make dinner yesterday?-VA/OA’

We test whether they are a simple or complex speech act (in the sense of Asher and Reese 2007) with the “after all” test. A sentence-initial “after all” may be followed by an assertion (40a) or a complex speech act that is partially an assertion, an example of which is a tag question in both English and Turkish (40b). In contrast, a simple question speech cannot include ‘after all’. Turkish polar questions under both clitic placement configurations reject this expression (40c).¹¹ Thus, both verb attachment and object attachment questions qualify as expressions of a simple question speech act in the same way plain polar interrogatives in English do.

- (40) a. Ne de olsa, Ali dün yemek yaptı.
 after all Ali yesterday dinner made
 ‘After all, Ali make dinner yesterday.’
 b. Ne de olsa, Ali dün yemek yaptı, değil mi?
 after all Ali yesterday dinner made not MI
 ‘After all, Ali make dinner yesterday, didn’t he?’
 c. #Ne de olsa, Ali dün yemek <mi> yaptı <mi>?
 after all Ali yesterday dinner MI made MI
 ‘#After all, did Ali make dinner yesterday?-VA/OA’

Not all questions are interrogatives, exemplified by declarative questions across languages. These questions reveal their non-interrogative nature under certain environments. Several such tests show that Turkish polar questions with *-mI* under both placement options are true interrogatives. I will include two.

Contexts of unresolved question typically require a true interrogative, thus the English rising declarative cannot be used in such contexts (Gunlogson 2001). In Turkish, these contexts require the clitic in either placement (41).

- (41) #Bir soru hala cevapsız. Ali yemek <mi> yaptı <mi>?
 one question still answerless Ali dinner MI made MI
 ‘One question remains. Did Ali make dinner?-VA/OA’
 ‘#One question remains. Ali made dinner?’

Conversely, interrogatives are incompatible with adverbs of speaker certainty or evidentiality (Huddleston 1994). The English declarative question is the acceptable option in these examples whereas the interrogative is not (Gunlogson

¹¹Loaded discursive elements such as *after all* understandably do not have exact counterparts in other languages. The expressions I use in this section are functionally comparable.

2001). In Turkish, polar questions with neither attachment option can include these adverbials (42), hence, again, they must be interrogatives.

- (42) #Müdür bu-na kuşkusuz/besbelli izin <mi> verdi <mi>?
 manager this-dat certainly/evidently permission MI gave MI
 ‘#Has the manager certainly/evidently gave permission for this?-VA/OA’
 ‘The manager has certainly/evidently gave permission for this?’

In conclusion, Turkish polar questions with both clitic placement configurations are true interrogatives as well as examples of a simple question act.

3.3.3 Classical bias and epistemic bias

A biased question in the classical sense is one where the speaker is predisposed to accept one particular answer as the right one (Huddleston and Pullum 2002:1989). I will refer to this notion as classical bias to avoid terminological overlaps throughout. Tag questions are the prototypical example, where the intuition relating to this predisposition is particularly clear.

- (43) Ali made dinner, didn’t he?
Inference: The speaker thinks “Ali made dinner” is the right answer.

Due to the presence of this bias, tag questions may not combine with an adverbial expressing epistemic uncertainty such as “by any chance” (44a). In contrast, positive polar questions are neutral. They can appear with this expression because they are neutral (44b).

- (44) a. #Ali made dinner by any chance, didn’t he?
 b. Did Ali make dinner by any chance?

This asymmetry is also present in Turkish. Tag questions cannot include the adverbial *acaba* ‘by any chance/I wonder’ (45a), but polar questions with both clitic placement options can (45b). The compatibility of this expression in both clitic placement configurations indicates an absence of bias in both options.

- (45) a. #Acaba Ali dün yemek yaptı, **değil mi**?
 by any chance Ali yesterday dinner made not MI
 ‘#Ali make dinner yesterday by any chance, didn’t he?’
 b. Acaba Ali dün yemek <mi> yaptı <mi>?
 by any chance Ali yesterday dinner MI made MI
 ‘Did Ali make dinner yesterday by any chance?-VA/OA’

This absence of bias has a correspondent intuition. In either clitic placement option, “Ali made dinner” is really just one of the possible answers. There is no intuition of a predisposition to accept any one answer as the right one.

Next we move to *epistemic bias*. This particular bias arises as an inference of prior belief on the part of the speaker towards the propositional content of the question. An example is English negative polar questions. These questions implicate a prior belief (46b) and are infelicitous in contexts with no prior belief

(46a), whereas positive polar questions are felicitous regardless of epistemic predisposition (46a, b) (Ladd 1981, Büring and Gunlogson 2000, Asher and Reese 2007).¹²

- (46) *Speaker wonders if there are leftovers to eat on Monday.*
- a. [No epistemic bias (0)] *Speaker has no reason to believe that Ali cooked yesterday.*
Did Ali make dinner yesterday?
#Didn't Ali make dinner yesterday?
 - b. [Positive epistemic bias (+)] *Speaker knows Ali cooks a huge ceremonial dinner every Sunday.*
Did Ali make dinner yesterday?
Didn't Ali make dinner yesterday?

Tested in such contexts, the two positive polar question options in Turkish are both felicitous with and without epistemic bias, indicating that both forms are epistemically neutral.¹³

- (47) [Ep. bias 0], [Ep. bias +]
Ali dün yemek <mi> yaptı <mi> ?
Ali yesterday dinner MI made MI
'Did Ali make dinner yesterday?-VA/OA'

Hence, verb attachment and object attachment questions in Turkish are both neutral and unbiased in the classical sense of bias as well as epistemic bias.

Concluding this subsection, verb attachment and object attachment questions are both neutral interrogatives felicitous in all new, broad focus contexts. Intuitively speaking, no other difference appears to be apply in terms of sociolinguistic or stylistic preference, text versus speech, or degree of surprise. Consequently the differences in use, negative features and evidential bias cannot be explained by any of these factors.

3.4 Interim summary

This empirical exploration of the strange division of labor between the two broad focus polar question forms in Turkish yields the picture in Figure 1, presented as a Venn scheme of two intersecting sets to illustrate convergent and divergent features.

The two polar question forms in Turkish are both neutral, broad focus interrogatives that are simple speech acts. Outside of this core, they divide up the range of application of a plain English interrogative in a complementary fashion. On one side, VA\OA includes illocutionary and exam questions. On the other side, OA\VA includes felicitous uses following *what happened*, guesses, and

¹²I leave negative polar questions and negative epistemic bias out of the discussion for the sake of simplicity.

¹³The object attachment option in (i) is not tailored to fit the epistemically defined contexts, but are rather “not incompatible”.

<p>Verb Attachment</p> <ul style="list-style-type: none"> • Exam/Interrogation • Illocutionary question • Concealed negation • Evidential bias -/0 	<ul style="list-style-type: none"> • Simple speech act • Interrogative • Neutral • Broad focus/All-new 	<p>Object Attachment</p> <ul style="list-style-type: none"> • What happened/Guess • Immediate response • Evidential bias +
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Figure 1: Summary of verb attachment and object attachment characteristics

immediate reactions. Possible evidential contexts are similarly divided across the two forms, one being positively biased while the other supports the absence of bias and negative bias. Interestingly, negative properties including polarity licensing are taken over by one form exclusively, even though both forms are neutral interrogatives otherwise.

Because both options have a range of restrictions in their domain of application, neither is likely to be a derivative of the other. Instead, there appear to be two, not one, core polar question meanings that each option encodes, and under which each divergent set clusters.

4 The proposal: Polar versus projective focal alternatives

4.1 Motivation

The observed complementary distribution between the two neutral interrogatives is a result of the nature of the alternative sets they each encode. Verb attachment and object attachment unambiguously correspond to polar questions with polar alternatives and those with varied propositional alternatives.

4.1.1 Verb attachment \rightsquigarrow polar alternatives

Verb attachment questions ask if the offered proposition is true, or not. The utterer of the Turkish verb attachment question in (48) is considering Ali’s having made dinner and Ali’s not having made dinner as the two candidate states of affairs, comprising the set of polar alternatives.

- (48) Ali yemek yaptı **mi**?
 Ali dinner made MI
 ‘Did Ali make dinner-VA?’
Candidate states of affairs = {Ali made dinner, Ali didn’t make dinner}

There is a clear asymmetry between verb attachment and object attachment in terms of diagnostic tests indicating the presence of polar alternatives (see among

others Krifka 2015). First, a *no* answer felicitously answers and fully resolves a verb attachment question. The negated predicate fragment is also felicitous alone or in combination with *no*.

- (49) A: Ali yemek yaptı **mı**?
 ‘Did Ali make dinner-VA?’
 B: Hayır./ Yapmadı./ Hayır, yapmadı.
 no he.didn’t no he.didn’t
 ‘No./ He didn’t./ No, he didn’t.’

In contrast, a conclusive *no* answer to an object attachment question leaves an impression of subpar conversational compliance. Typically, an immediate continuation is employed to incorporate this answer in the discourse, such as inquiring about the motive of the question. A negated predicate fragment is entirely unacceptable.

- (50) A: Ali yemek **mi** yaptı?
 ‘Did Ali make dinner-OA?’
 B: ??Hayır./ #Yapmadı./ ✓Hayır, niye?
 no he.didn’t no why
 ‘No./ #He didn’t./ No, why?’

Secondly, verb attachment can take part in a polar alternative question with *or not* as the second alternative (51).

- (51) Ali yemek yap-tı **mı**, yoksa yap-ma-dı **mı**?
 Ali dinner make-past MI or make-neg-past MI
 ‘Did Ali make dinner or not?-VA’

Object attachment questions, on the other hand, cannot be part of polar alternative questions (52). This is not possible to illustrate with a polar interrogative in English, but a declarative question yields a similar failure to appear in a polar alternative question, which we have seen shows parallels with object attachment.

- (52) #[Ali yemek **mi** yap-tı], yoksa [yap-ma-dı **mı**]?
 Ali dinner MI make-past or make-neg-past MI
 ‘#Did Ali make dinner or not?-OA’
 ‘#Ali made dinner or not?’

According to this, verb attachment questions have a negative component in their denotation, making them compatible with an analysis with the polar dyad $\{\phi, -\phi\}$. Object attachment, despite its status as a neutral, broad focus polar interrogative, does not have this meaning.

4.1.2 Object attachment \rightsquigarrow projective focal alternatives

Intuitively, an object attachment question asks if the offered proposition is true, or what. A speaker posing an object attachment question with the same propositional content as the verb attachment question is not wondering whether Ali

cooked or not, they are wondering if among all imaginable states of affairs it is Ali's having cooked that happened. The alternatives considered are a set of varied propositional alternatives $\{\phi, \psi, \sigma \dots\}$ (53).

- (53) Ali yemek **mi** yap-tı?
 Ali dinner MI made
 'Did Ali make dinner-OA?'
Candidate states of affairs= {Ali made dinner, there was a break-in,
 noone cleaned up for weeks, the cat knocked over the shelves ... }

The first evidence in this direction comes from the content of information offers that may follow a *no* answer to an object attachment question. Depending on how alert the interlocutor is to the possible motivation of the question, they may offer the relevant actual state of affairs as continuation. This proposition is an element of the set of varied propositional alternatives (54).

- (54) A: Ali yemek **mi** yaptı?
 'Did Ali make dinner-OA?'
 B: Hayır, kedi rafları devirdi.
 no cat shelves knocked.over
 'No, the cat knocked over the shelves.'

The verb attachment counterpart of the exchange in (53) is impossible (55A-B). The only continuation to a *no* answer in response to a verb attachment question is the negated proposition or its predicate fragment as in (50). Any additional statement is necessarily divorced from the Question Under Discussion and must be separated from the previous exchange with the necessary marking such as a full prosodic and topical reset (55B').

- (55) A: Ali yemek yaptı **mi**?
 'Did Ali make dinner-VA?'
 B: #Hayır, kedi rafları devirdi.
 '#No, the cat knocked over the shelves.'
 B': Hayır. Fark ettin mi? Kedi rafları devirdi.
 'No. Have you noticed? The cat knocked over the shelves.'

Secondly, object attachment questions take part in alternative questions with a varied propositional alternative. The alternatives may be entirely distinct including tense as in (56).

- (56) [Ali yemek **mi** yaptı], yoksa [Hasan pizza **mi** söyleyecek]?
 Ali dinner MI made or Hasan pizza MI order.will
 'Did Ali make dinner or will Hasan order pizza?-OA'

Verb attachment questions, in contrast, are unacceptable in this configuration (57). In fact, verb attachment is restricted to polar alternative questions seen in (51). The actual English polar interrogative *Did Ali make dinner* without the OA/VA affix would be employed in (55) as well as (51), never leading to the

mismatch exemplified in (56) and (52).

- (57) #[Ali yemek yaptı **mi**], yoksa [Hasan pizza söyleyecek **mi**]?
 Ali dinner made MI or Hasan pizza order.will MI
 ‘#Did Ali make dinner, or will Hasan order pizza?-VA’

The facts thus point to two unambiguous polar question meanings instantiated by the two clitic placement options with no overlap. This explains why verb attachment is also not the all-purpose polar interrogative exemplified by English.

4.1.3 Differential features revisited

Differential features of the two polar question forms start making sense from this perspective. Verb attachment has negative properties such as the embedded nominalization form and polarity licensing because it denotes polar alternatives. Object attachment lacks these properties despite its neutral, broad focus nature, because it does not denote a set with a negative component. The relationship between polar alternatives and negation in Turkish is presumably an indirect one, though (cf. Section 4.3.1).

Differential uses that require verb attachment can be related to the polar alternative set in the following way: The potential illocutionary outcomes of a polite request, offer, or invitation are a dyadic set of states of affairs. Either the interlocutor takes up the mentioned act, or not (58).

- (58) *Your roommate says they are coming home and you need bread.*
 Ekmek <#**mi**> al-ır <**mi**>-sin?
 bread MI get-aor MI-2sg
 ‘Could you buy bread?-VA’
Candidate states of affairs= {She buys bread, she does not buy bread }

In exam and interrogation contexts, the questioner is only interested in finding out whether or not the student knows the correct answer, or the driver consumed alcohol. The interactional situation limits the set of candidate states of affairs to the take-up of the offered proposition, or not. Object attachment does not support any of these uses, as it casts an infinite set of possible states of affairs and no systematic negative alternative. The meaning of the infelicitous object attachment counterparts of these questions would be comparable to ‘is it the case that (you said) ϕ or something?’.

Differential uses of object attachment are exactly those environments that require this unrestricted set of possibilities, where a negative alternative is either not needed, or inappropriate. Continuations to *what happened* and guesses require focal alternatives and not polar alternatives, because they pick one candidate out of an infinite set of possible states of affairs. If I want to know what happened in the kitchen, the true state of affairs is a member of a set that includes Ali’s making dinner, the cat’s making a mess, a break-in, and so on, and not Ali’s not making dinner. A guessing dialogue such as in (59) displays

this transparently. A wrong guess will be followed up by another attempt by picking another candidate from this set, provided by object attachment. A verb attachment question at any turn of A's in this dialogue is infelicitous because it reflects a failure to consider an appropriately varied set of alternatives.

- (59) B: Guess why I spent the morning cleaning the kitchen.
 A: Ali dinner <mi> made <#mi>?
 B: No./No?¹⁴
 A: The cat the shelves <mi> knocked over <#mi>?
 B: No./No?
 A: Then tell me why.

Evidential bias relies on the same intuition. If a colleague walks into my office in a dripping wet coat, this could be evidence for a few states of affairs – most prominently rain, perhaps malfunctioning sprinklers. The absence of rain is not a relevant alternative, and clearly not the single additional alternative to the presence of rain. In an immediate response, the candidate states of affairs are presumably composed of, or at least include, possible utterances of the other interlocutor. In a neutral confirmation request, for example, the set could be based on a possible mishearing as in {B said Ali made dinner, B said Dali mailed inner . . . }. To be sure, in each of the cases the actual plausible set may have one element only, but if populated, it would subsume varied propositional alternatives and not polar alternatives.

4.2 Meaning

According to the data, verb attachment questions are compatible with an analysis in the standard model of polar question semantics with the polar disjunction $\{\phi, \neg\phi\}$ (Hamblin 1973, Karttunen 1977). However, object attachment questions diverge from the standard model. I model both meanings with a singleton-set analysis I borrow from Krifka (2015), amending it with focus projection à la Selkirk (1995) to derive broad focus in object attachment.

4.2.1 Broad focus alternatives by Focus Projection

The first component of the analysis of the two broad focus polar question meanings is the notion of focus projection (Selkirk 1995).

- (60) *Focus Projection* (adapted from Selkirk 1995)
- a. Presence of a pitch accent on the head of a phrase licenses the F-marking of the phrase.
 - b. Presence of a pitch accent on an internal argument of a head licenses the F-marking of the head.

¹⁴The try-out nature of a guessing challenge may tolerate conclusive-sounding *no* answers, possibly because it is apparent to the speakers that the question is still unresolved.

Verbs are unaccented next to an accented argument (61). Sentential objects therefore receive the nuclear pitch accent of the utterance in the absence of narrow focus, which is also known as default main stress. This is fairly common across languages, and observed in Turkish (Üntak-Tarhan 2006, Kamali 2011b).

- (61) *Sentence Accent Assignment Rule* (adapted from Gussenhoven 1984)
 Each argument receives accent. The verb is unaccented next to an accented argument, otherwise accented.

In combination, these rules ensure that an accented element signals the focusing of various syntactic constituents in which it is contained. As the sentence object receives main stress by default and is contained in the VP and the TP, focus projection creates minimally three readings: The object itself may be locally focused. This accent may license the F-marking of the head verb by (60b) which in turn licenses the F-marking of the VP by (60a), resulting in VP focus. The same mechanism may apply to result in the F-marking of the sentence, leading to broad focus, and can similarly project up to CP. This can be illustrated with the identical answers to constituent questions targeting the three constituents in both Turkish and English (62).

- (62) a. Q: What did Ali make?
 A: Ali [_{NP} yemek]_F yaptı.
 A: Ali made [_{NP} dinner]_F.
 b. Q: What did Ali do?
 A: Ali [_{VP} yemek yaptı]_F.
 A: Ali [_{VP} made dinner]_F.
 c. Q: What happened (in the kitchen)?
 A: [_{TP} Ali yemek yaptı]_F.
 A: [_{TP} Ali made dinner]_F.

The same focus projection mechanism is observable in polar questions, in Turkish as well as in English. Crucially, in Turkish, object attachment is needed as input for focus projection, because the verb is unaccented by (61). I illustrate with alternative questions in (63). Notice the presence of intermediate projection at VP level (63b), which solidifies the argument.

- (63) a. Ali [_{yemek}]_F **mi** yaptı, yoksa [_{tatlı}]_F **mi**?
 Ali dinner MI made or dessert MI
 ‘Did Ali make [_{dinner}]_F or [_{dessert}]_F?’ =(14c)
 b. Ali [_{VP} yemek **mi** yaptı]_F yoksa [_{VP} ders **mi** çalıştı]_F?
 Ali dinner MI made or lesson MI studied
 ‘Did Ali [_{VP} make dinner]_F or [_{VP} study his lesson]_F?’
 c. [_{CP}Ali yemek **mi** yaptı]_F yoksa [_{CP}Hasan pizza **mi**
 Ali dinner MI made or Hasan pizza MI
 söyleyecek]_F?
 order.will
 ‘[_{CP}Did Ali make dinner]_F or [_{CP}will Hasan order pizza]_F?’ =(56)

With this, we can also explain the noted ambiguity of polar questions with intransitive verbs in Turkish, cf. Section 3.2.1. Unlike the appearance of the clitic on the verb in the presence of an object, i.e. what I have been referring to as verb attachment, these cases can appear in alternative questions with a varied propositional alternative, including one with a transitive predicate (64).

- (64) a. Ali [_{VP} uyudu **mu**]_F, yoksa [_{VP} ders **mi** çalıştı]_F?
 Ali slept MI or lesson MI studied
 ‘Did Ali [_{VP} sleep]_F or [_{VP} study his lesson]_F?’
 b. [_{CP} Ali uyudu **mu**]_F, yoksa [_{CP} Hasan davul **mu** çalışacak]_F?
 Ali slept MI or Hasan drums MI practice.will
 ‘[_{CP} Did Ali sleep]_F or [_{CP} will Hasan practice the drums]_F?’

Viewed this way, broad focus alternatives are proposition-sized focus alternatives where no element is shared across the alternatives. Leaving aside whether and how such a set is curated to the context at hand, these alternatives can be any other proposition, leading to the felicity of a virtually unrestricted set of propositions to a question such as *what happened*. Similarly, polar questions that are derived by focus projection pick a member of a potentially unrestricted set of possible propositional alternatives and ask the interlocutor if they subscribe to its truth.¹⁵ If this question is answered yes, other possibilities are closed to further inquiry, similar to the widely recognized exhaustivity implicatures of focus in assertions. This is behind the intuition of varied propositional alternatives in object attachment, which I will henceforth call *projective focal alternatives*. Broad focus alternatives in polar questions derived this way should be computable in any semantic formalism that can compute narrow focus alternatives.

Turkish object attachment questions are thus broad focus and neutral exactly like English polar interrogatives with this meaning, that is, polar interrogatives uttered after *what happened*, as a broad focus guess, or under positive evidential bias. What is different with English is the absence of any visible marking to distinguish this meaning from the polar alternative reading.

In this sense, it is the nature of the question with polar alternatives that is unexpected. With its non-default main stress on the verbal complex and demonstrated failure to license broad focus alternatives (57), this question should in fact have local focus and possibly also bias, but we have seen in Section 3.3 that it does not. In the following, I attribute these properties to a polarity projection that it itself unfocused but through which focus continues to project. It is worth underlining that English interrogatives do also have this meaning ambiguously, thus deriving this neutral meaning is not a problem with Turkish only. The problem is why one language has a differential main stress pattern that matches this meaning while one does not.

¹⁵Notice that the negative of the questioned proposition is not in principle ruled out from the candidate states of affairs under this account. If Ali makes a mess when he cooks as much as when he abstains from cooking, that would indeed be possible. It appears that this alternative counts as a logically independent proposition, reminiscent of inner negation.

4.2.2 Semantics

For the semantic characterization of the two options, I borrow Krifka’s 2015 model which can compute focused polar questions without relying on the polar dyad.¹⁶ Krifka calls such questions “monopolar” – their question radical is a singleton set. The infelicity of a *no* answer and the impossibility of a polar alternative are presented as evidence for this.

- (65) A: Did Ed meet [BETH]_F?
 B: #No. ✓No, he met Ann. (Krifka 2015)
- (66) #Did [SUE]_F win the race or not?

The operator *whether* creates a singleton set of propositions (67a). Focal alternatives are created from that singleton set in the usual way via Alternative Semantics (Rooth 1992) (67b).

- (67) a. $\llbracket [CP \text{ whether } [TP \text{ Ed met BETH}_F]] \rrbracket = \lambda i [\text{Ed met Beth in } i] = \{\phi_b\}$
 b. $\llbracket [CP \text{ whether } [TP \text{ Ed met BETH}_F]] \rrbracket^f = \{\lambda i [\text{Ed met } x \text{ in } i] \mid x \in \text{person}\}$
 $= \{\phi_a, \phi_b, \phi_c \dots\}$

Object attachment questions present the same distribution, the only difference being the size of the focused constituent. Instead of narrow focus like in (65) and (66), object attachment questions have focus on the entire proposition via focus projection. Thus we can formulate a similar singleton question radical whose focus alternative set may be populated infinitely, without including a default negative proposition. Assuming that *-mI* represents the same operator as *whether* in its role as a speech act shifter, we obtain the following result.

- (68) a. $\llbracket [CP \text{ -mI } [TP \text{ Ali made dinner}_F]] \rrbracket = \lambda i [\text{Ali made dinner in } i] = \{\phi_0\}$
 b. $\llbracket [CP \text{ -mI } [TP \text{ Ali made dinner}_F]] \rrbracket^f = \{\lambda i [x \text{ holds in } i]\} = \{\phi_0, \phi_1, \phi_2 \dots\}$

Krifka’s account is designed to create focal alternatives out of a singleton question radical. To represent “bipolar questions”, questions with an underlying polar dyad, the model resorts to an extra operation. In Krifka 2015 the operation exhaustification \cap^* does this by returning a set containing two propositions, one with the negation of the question radical.

- (69) a. $\llbracket [CP \text{ -mI } [TP \text{ Ali made dinner}_F]] \rrbracket = \lambda i [\text{Ali made dinner in } i] = \{\phi_0\}$
 b. $\cap^* \{\phi_0\} = \{\phi_0, \neg \phi_0\}$

Exhaustification is a pragmatically motivated operation which applies when focal alternatives cannot be computed. I will take an alternative route to analyze Turkish verb attachment questions. We have seen that these questions have a morphosyntactic component of negation, therefore input LF of verb attachment questions presumably already have some marking of polarity, requiring a verum-like semantic computation (cf. Section 4.3.1). The simplest assumption would

¹⁶See Biezma and Rawlins (2012) for a similar analysis.

then be to attribute the arising polar alternatives to the underlying syntax. For illustration, I assume a Polarity Phrase through which focus continues to project and skip over non-trivial details regarding the proper formulation of this along with the role of *verum*.

$$(70) \quad \llbracket [_{CP} \text{-mI} [_{PolP} \emptyset [_{TP} \text{Ali made dinner}]]_F] \rrbracket = \lambda i[\text{Ali made dinner in } i] \vee \lambda i[\text{Ali did not make dinner in } i] = \{ \phi_0, \neg\phi_0 \}$$

This is the core of the needed semantic formalism. A singleton set and alternative semantics account for the broad focus alternatives in object attachment. Deriving polar alternatives in verb attachment is less straightforward.

4.3 Mapping

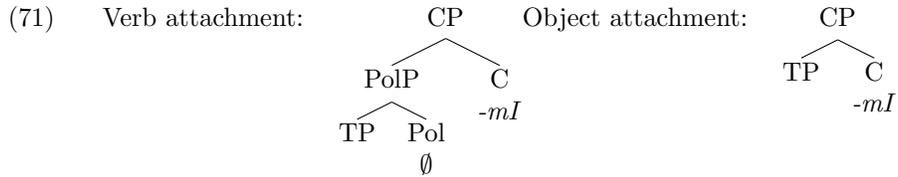
So, the contrast between verb attachment and object attachment polar questions is based on a difference in underlying alternatives: polar versus projective focal alternatives. What is the source of the different sets of alternatives and how does it relate to the observed clitic placement? I provide in this section a bare-bones analysis resting on minimal assumptions to illustrate how the proposed division may be derived at the interfaces.

4.3.1 LF mapping

The superficial elements of the observed linearized structure of verb attachment and object attachment questions are the same: Subject, object, verb, finiteness and the polar question clitic *-mI*. The only difference is the ordering of the clitic. Suppose in both cases we have a left peripheral interrogative head, say, *C*. This head either licences, or is, the clitic *-mI*.

We need the two syntactic outputs to undergo different semantic computations, namely to generate polar and focal alternatives. This may be possible with identical syntactic outputs if the choice of semantic computation can be externally constrained, say, with a pragmatic principle such as Maximize Presupposition (Heim 1982), which would then lead to an operation such as Exhaustification for one of the options and not the other. Another path is to assume that one or both syntactic structures are fully specified for the subsequent computation. Since the generation of focal alternatives in broad focus is assumed to be available by default without syntactic structures, I take it that the syntactic structure that is input for polar alternative computation, that is verb attachment, is the marked structure. I operationalize this is by postulating a Polarity head (see also Kamali and Krifka 2020).¹⁷ Both structures thus have TP and CP. Only verb attachment has a PolP. I assume rightward heads.

¹⁷This head cannot be negation, as negation is a distinct head observable in negative polar questions, cf. (26) Section 3.1.3.



There is independent evidence for a PolP or a comparable element in the syntax of verb attachment questions. Recall negative morphology under embedding and negative polarity licensing. Regardless of one’s analysis of the embedding morphology, polarity licensing must be syntactic. This is because Turkish is a negative concord language. Unlike a language like English where arguably semantic mechanisms can license negative polarity items, negative concord requires strict syntactic licensing (Zeijlstra 2004). This requirement is evident in the failure of other downward-monotonous contexts to license polarity items in Turkish, such as constituent questions (72a) and antecedents of conditionals (72b) (also see Kelepir 2001).

- (72) a. *Kim **hiç** yemek yaptı?
 Who n-ever dinner made?
 Intended: ‘Who’s ever made dinner?’
 b. *Ali **hiç** yemek yap-ar-sa ben de baklava yap-acağ-ım.
 Ali n-ever dinner make-aor-cond I add baklava make-fut-1sg
 Intended: ‘If Ali ever makes dinner, I will make baklava.’

So, verb attachment questions have an additional, polarity-related head in their syntax. This head leads to concealed negation effects, in particular the strictly syntactic negative concord, and requires interpretation by the semantic rule (70). I assume that like other nodes Pol may be F-marked to be focused or not. When it is, it yields examples like *Ali DID make dinner* in an assertion or *DID Ali make dinner* in a question. When it is not, it will simply invoke the computation of polarity alternatives in (70) in all-new contexts (37), presumably because focus can keep on projecting.¹⁸ Object attachment does not have a Pol head. Its propositional content is evaluated for broad focus alternatives like any other proposition by the rule in (68).

4.3.2 PF mapping and clitic placement

The syntactic sketch given so far does not derive the crucial clitic placement difference between the two forms. This is because, I argue, clitic placement is post-syntactic. The clitic is encliticized to the prosodic phrase ϕ carrying the main stress of the intonation phrase ι at the PF interface due to the clitic-to-

¹⁸This predicts a type of assertion that has a polarity head in syntax but does not have polarity focus like *Ali DID make dinner*. Neither Turkish nor English present evidence for this form. Perhaps Polarity never merges where it won’t make an interpretive contribution. Perhaps other languages do encode a similar meaning (see Gutzmann et al. 2020).

main-stress rule in (73).¹⁹

(73) *Clitic-to-main stress rule*

$$[\dots [\dots]_{\phi} \overset{x}{\mathbf{mI}} \dots]_t$$

Let us review the facts. The clitic is well-known to attach to an element with narrow focus, which is main stressed. It attaches to the verb in cases of focus on an element in the verbal complex, again following main stress. Object attachment is attachment to the element with default main stress, which in turn leads to focus projection. These elements are all recipients of main stress for independent reasons, capable of triggering clitic attachment by a rule like (73).

Furthermore, there is not much evidence for a syntactic analysis. There is no visible phrasal movement in any clitic placement constellation and no evidence for vacuous or covert movement offered by the existing syntactically-oriented analyses (Kamali 2011a, Özyıldız 2015). In fact, a pseudo-incorporated object is not expected to move around the clitic so easily (see Bhatt and Dayal 2020 for how exactly this argument accounts for the distribution of the Hindi-Urdu particle *kya:*). As an instance of head movement, it would be rather strange – downward and probe-unselective. Moreover, crosslinguistically, for a prosodically sensitive clitic to linearize post-syntactically is not surprising. The South Slavic polar question clitic *-li* demonstrably merges with the TP, but linearizes on the main stressed item in its specifier, details depending on the language (Bošković 2001, Samuels 2014). Similarly, whether a clitic is a proclitic or an enclitic may cause further linearization restrictions that shift the ultimate observed position of this clitic across closely related languages where the syntax can be shown to be identical (Harizanov 2014).

There is further evidence for the clitic’s prosodic sensitivity beyond the level of intonation phrase. In verb attachment, where we would expect the clitic to appear in the outermost morphological slot due to its syntactic position, the clitic is not strictly word-final. The exact attachment site is regulated by word-level prosody which causes *-mI* to appear inside of the outermost prestressing morphemes, which calls for a post-syntactic linearization mechanism. We have seen this with the aorist in examples in Section 3.1.2. Let me illustrate.

The so-called k-paradigm of agreement morphemes appears after the past and conditional morphemes and generally consists of short and weak forms, like the monosegmental *-m* morpheme in (74b), on the lefthand side. The z-paradigm appears after all other TAM morphemes and consists of comparatively larger forms, such as the *-yIm* morpheme in (74b), on the righthand side. Z-paradigm has a distinctive prosodic feature: prestressing. Consequently, three of the forms in (74) have default final words stress while the form that has a z-paradigm agreement morpheme (b, right) has exceptional non-final stress.

¹⁹An alternative way of keeping the crucial syntactic elements identical across the two options would be assuming base-generation of the clitic as a focus particle in its observed position, licensed by the same left-peripheral interrogative head in both forms. But the post-syntactic analysis does more justice to the prosodic sensitivity discussed here.

- (74)
- | | | | |
|----|-------------------|---------------------------|--|
| | <i>k-paradigm</i> | <i>z-paradigm</i> | |
| a. | al-dí ‘she took’ | al-malí ‘she must take’ | |
| b. | al-dí-m ‘I took’ | al-malí-yım ‘I must take’ | |

Under verb attachment, the paradigm difference leads to two orderings of the question clitic with respect to the agreement morpheme. With a morpheme from the k-paradigm, *-mI* is outermost. With one from the z-paradigm, *-mI* is inside the agreement morpheme. As there are no known structural reasons for the prestressing of the z-paradigm morphemes (Kornfilt 1996, Kelepir 2001), it appears that word stress determines the attachment site of the question clitic.

- (75)
- | | | | |
|----|-------------------------|------------------------------|--|
| | <i>k-paradigm</i> | <i>z-paradigm</i> | |
| a. | al-dı-m mı ‘did I take’ | al-malí mı-yım ‘must I take’ | |

A more direct indication comes from colloquial contractions of TAM and agreement morphemes.²⁰ The future morpheme requires a z-paradigm agreement morpheme. It causes exceptional non-final stress (76a) and appears outside of the question clitic (76b). In its colloquial contraction, the morpheme has reduced complexity and carries a k-paradigm agreement morpheme as well as final stress (76c). When the colloquial form carries the question clitic, the clitic is outermost (76d).

- (76)
- | | |
|----|---|
| a. | al-acák-sın ‘you will take’ |
| b. | al-acák mı-sın ‘will you take’ |
| c. | al-ıcán ‘you will take’ <i>colloq.</i> |
| d. | al-ıcán mı ‘will you take’ <i>colloq.</i> |

Thus, even the same TAM suffix may lead to both outermost and pre-agreement placement of the clitic based on the stress properties of the different agreement paradigms triggered by the contracted form in contrast to the full form. What this shows is that even though verb attachment appears to reflect an all-scoping syntactic position, its surface ordering is still constrained by processes of PF mapping that coincide with prosodic prominence, motivating a post-syntactic analysis of clitic placement.

The proposed PF mapping works in the following fashion: Both polar question forms have *-mI* in the same syntactic constellation by the end of narrow syntactic derivation (71), making them similarly plain, neutral interrogatives. At PF, by the clitic-to-main stress rule, the clitic encliticizes to the object in a polar question without the Polarity Phrase, because this constituent receives default main stress (cf. (61), Section 4.2.1), hence leading to object attachment. To yield verb attachment, the verbal complex must be marked for main stress, which then attracts the clitic at PF (respecting word-level prominence). Within the components of the proposed derivation, main stress on the verbal complex must be due to the polarity head. The exact mechanism is unclear, but it is

²⁰Morphemes with segments susceptible to other phonological processes display widespread contractions. The future morpheme is one of those, presumably because of the [k] segment which frequently undergoes k-∅ alternation under affixation.

in line with crosslinguistic generalizations regarding the prosodic realization of polarity.

Concluding this section, we have seen that object and verb attachment questions lead to projective focal alternatives and polar alternatives respectively, explaining their differential features. Assuming focus projection and a singleton question radical, object attachment straightforwardly generates varied propositional alternatives and leads to the range of neutral, all-new uses, such as guesses, served by this meaning. Verb attachment includes a syntactic polarity component which explains its negative-like features and leads to a computation of polar alternatives supporting a distinct subset of uses such as illocutionary questions. Clitic placement in both cases is established through a post-syntactic linearization mechanism that appends the clitic on the element with main stress in the surface form. Thus, the default-stressed object carries the clitic in object attachment while at the same time triggering focus projection needed at the LF interface for propositional alternatives. The exact details of the mapping of polarity at both interfaces, including why it involves a shift in main stress, require more space than I have here.

5 Implications

5.1 The duality of primary polar question meanings

The findings on the contrast between verb and object attachment questions in Turkish support and expand singleton-set analyses of polar question meaning such as Biezma and Rawlins (2012), Krifka (2015). Adding to the findings on narrow focus in polar and alternative questions, the Turkish contrast motivates a *duality of primary polar question meanings*. Both polar questions are neutral, broad focus interrogatives that each correspond to alternative questions with distinct properties. Narrow constituent focus, or an asymmetric potential to yield alternatives questions are not at issue.

The duality makes correct or promising predictions systematically connecting negation and polar alternatives, focal alternatives in narrow and projective focus, evidential bias and focal alternatives, as well as related interface components. I summarize some of these predictions below.

The first prediction is a correlation between polar alternatives and negative characteristics based on the connection between negation and verb attachment in Turkish. This is borne out in polar questions with high negation (77a) and negative polarity licensing (77b) in English. To enforce unambiguous readings in English, I will follow Krifka (2015) and Biezma and Rawlins (2017) that English interrogatives with *or not* and *or what* yield readings with polar and focal alternatives respectively.

- (77) a. Isn't Alfonso going to the party or not/#or what?
(Biezma and Rawlins 2017)
- b. Have you ever been to Paris or not/#or what?

Secondly, because this analysis derives broad focus alternatives based on focus alternatives in general, we expect that polar questions with narrow focus as well as constituent alternative questions exhibit convergent properties with projective focal alternatives reported here. This is borne out, as such questions famously cannot host *or not* (78a) or a negative polarity item (78b). Also, they are licensed in positive evidential bias contexts (79).

- (78) a. #Will TRUMP win the elections or not?
 b. #Will TRUMP win the elections with any chance of winning the popular vote (or BIDEN)?
- (79) *Reading the latest polls which show that Trump is leading in the majority of swing states*
 Will TRUMP win the elections or what?

Thirdly, because projective focal alternatives rely on default main stress, I predict that polar questions with this meaning exhibit default main stress universally. This is borne out in numerous languages. In contrast, the account does not make a clear prediction about main stress in polar questions with polar alternatives. In Turkish, an uncommon differential main stress pattern marks such questions, which I attributed to a confounding syntactic projection. It is too early to tell if this pattern is structurally conditioned or truly variable, but it is useful to note that there are other languages sharing this differential main stress pattern with Turkish. In spoken Russian, where intonation is the only cue to the question speech act, questions with expected projective focal alternatives such as guesses follow default main stress (80a) while stress shift to the verb marks a contrast very similar to that in Turkish verb attachment, exemplified by a polite request (80b) (main stress underlined).

- (80) a. *A friend says they surprised their partner with a lovely gesture. They say “guess what I did”. Reply with a question.*
 Ty prigotovil užin?
 you make.pst.msc dinner.acc
 ‘Did you make dinner?’
- b. *You just left work and wonder if there is food at home. Call your roommate and ask if they made dinner.*
 Ty prigotovil užin? (Elena Titov, p.c.)

As the feature clusters we have observed with the Turkish contrast stem from formal underpinnings, all else being equal, I predict the same feature clusters in unambiguous structures. For example, illocutionary questions should cluster with negative features, while guesses cluster with default main stress. (80) exemplifies how this perspective allows a more precise descriptive perspective on meaning nuances in lesser-studied languages and ultimately generating insights on polar question meaning and its expression across languages. The next subsection is a mini case study exemplifying this approach on English rising declaratives.

5.2 Bias in declarative questions

Another prediction of the duality is a correlation between positive evidential bias and focal alternatives based on the evidential bias present in Turkish object attachment questions. As before, the focal-enforcing *or what* is possible on an English polar interrogative in this context, but not the polar-enforcing *or not* (81). As we have seen, the plain English polar interrogative is neutral, exhibiting a systematic conflation of the two primary polar question meanings.

- (81) *Colleague steps into my windowless office in a dripping wet coat.*
Is it raining or what/#or not?

English declarative questions, on the other hand, are unambiguous in a telling way. We have noted numerous similarities between Turkish object attachment questions and English rising declaratives. Most prominently, they are restricted to contexts of positive evidential bias (82) (Büring & Gunlogson 2000, Gunlogson 2001, Sudo 2013) (cf. Section 3.2.3).

- (82) *Colleague steps into my windowless office in a dripping wet coat.*
a. Yağmur **mu** yağıyor ?
rain MI falls
b. It's raining?

The two forms in fact share the exact feature cluster modulo clause type. This cluster includes felicity as guesses (83), immediate responses (84), infelicity as exam questions and requests (85), and the inability to host negative elements such as polarity items and the polarity alternative (86). Furthermore Hungarian, a language unrelated to both Turkish and English, is reported to exhibit the properties of evidential bias, infelicity as exam question and polite request, and the lack of negative polarity licensing (Gyuris 2016).

- (83) A: Guess why the kitchen is a mess.
B: Bob made dinner?
- (84) A: An then um Bob made dinner.
B: Bob made dinner? Was it good?
- (85) a. #[As exam question]
The empty set a member of itself? (Gunlogson 2001)
b. #You can pass me the salt? (Huddleston 1994)
- (86) a. #Anybody's home? (Huddleston 1994)
b. #She ordered coffee or not? (Gunlogson 2001)

This shared clustering displayed by the two forms supports two inferences: First, these declarative questions unambiguously encode projective focal alternatives. Hence, it can be hypothesized that positive evidential bias relies on focal alternatives across clause types (declarative in English and Hungarian, interrogative in Turkish). Secondly, because the clustering applies across clause types, it can be inferred that by subtraction, any remaining difference between the meaning

of the two forms is potentially due to clause type.

We have indeed seen divergences between the two forms stemming from clause type in Section 3.3.2. In addition, consider contexts of complete ignorance where the Turkish interrogative is felicitous while the English declarative is not (87). This difference cannot be due to evidential bias or underlying focal alternatives, because these features do not differentiate between the two forms.

- (87) *Hearing a sudden noise in the next room, I ask: ‘What happened? ...’*
- a. Biri cam-ı **mı** kır-dı?
someone window-acc MI broke
‘Did someone break the window?’
 - b. #Someone broke the window?

What makes this question in English odd, I would argue, is pure classical bias. As the declarative question exhibits this property and not the otherwise comparable interrogative, the source of the bias must be clause type. A mismatch in clause type (question speech act with a declarative) is known to induce bias, known as speech act complexity (Asher and Reese 2007). Hence, English rising declaratives are doubly biased. Positive evidential bias because they unambiguously encode focal alternatives, and classical bias because of speech act complexity.

As this brief exploration of the English rising declarative shows, unambiguous constructions across unrelated languages may lead to the same cluster of effects predicted by the duality of primary polar question meanings. This clustering may in turn help isolate and identify even notoriously elusive, interleaved effects such as the meaning and source of different kinds of bias.

6 Conclusion

In this paper I have provided a detailed description of the two broad focus polar question forms in Turkish, analyzed their meaning, and accounted for their syntactic derivation including the observed asymmetry in clitic placement. Both options correspond to neutral polar interrogatives that are simple question acts, yet display complementary restrictions in their domain of application. The differences lie in the set of alternatives underlying each option. Verb attachment triggers polar alternatives. Object attachment triggers projective focal alternatives, which is expected to arise independently. I have sketched a mapping analysis to account for the clitic placement, and discussed various systematic predictions the analysis makes, including a possible compositional core for the elusive evidential bias effect isolated from bias in general.

One consequence of the duality of primary polar question meanings exhibited by Turkish is that polar and projective focal alternative sets are distinct. Propositional alternatives derived by focus projection and polar alternatives do not mix. A less exotic argument for this was the unambiguous rising declaratives in English, which I have shown owe part of their idiosyncrasy not to their

clause type, but rather to the fact that they denote focal alternatives. Consequently, English polar interrogatives cannot have a third, composite meaning. They must be ambiguous. How this hidden ambiguity is encoded in languages like English is a question for future research.

A second consequence of the duality is that it implies an ontology of neutral polar question meanings that includes both dyadic and varied meanings. Current accounts of polar question semantics do not expect one or the other meaning to be present, thus they either assume a derivation from an underlying polar dyad (Roelofsen and Farkas 2015, Ciardelli et al. 2018), or an underlying singleton set generating focus alternatives (Biezma and Rawlins 2012, Krifka 2015). Following arguments by Biezma and Rawlins (2012), Krifka (2015), Biezma and Rawlins (2017), a fundamentally singleton-set analysis is probably the most appropriate analysis of focal alternatives in polar questions. But deriving the unfocused dyadic meaning without over- or under-generating possible meanings is not straightforward.

In this paper, I did not attempt a semantic analysis in full and rather borrowed a singleton-set analysis for illustration. I tried to navigate around the issue of polar alternatives under this formalism by specifying the corresponding syntax for the computation of polar alternatives, which was also empirically motivated. This would be problematic to postulate for the same meaning in English, which, to my knowledge, is not analyzed with a different syntax. Also, the derivation in the two languages must at some point lead to a difference between main stress under polar alternatives, which leads to rarely raised questions at the interfaces. The issues surrounding polar alternatives require an in-depth analysis of the meaning and derivation, clarifying the role of verum, polarity, and their mapping features across languages.

Its ability to make novel predictions across languages is one of the strongest features of the current proposal. Recent research shows that lesser studied languages are ripe with nuances unexpected from the point of view of current semantic theories. The duality predicts more nuances, specific feature clusters, and connections across modules of grammar. As such, it offers a promising framework to address variation in polar question meaning and form.

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