

On the True Nature of *ÇOKTAN* in Turkish*

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ABSTRACT: Turkish has the temporal adverb *çoktan* ‘long time ago’ that has been treated as a positive polarity item (PPI) in recent studies. It has been argued that it cannot co-occur with clause-mate negation, whereas native speakers seem to have split it into two in terms of its grammaticality with long-distance negation. Interestingly, there seems to be almost no formal study that has ever analyzed the properties of Turkish PPIs. In this paper, the objective was to carry out a corpus analysis of *çoktan* and find out whether it is truly an item of positive polarity. Based on new corpus data, it is shown that *çoktan* is indeed an element of positive polarity that predominantly occurs in positive sentences. It is also argued that its overall behavior can be captured by way of the semantic notion of (non)-veridicality since its syntactic distribution includes veridical and certain non-veridical contexts but excludes antiveridical ones.

Keywords: polarity sensitivity, positive polarity, (non)-veridicality, Turkish

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Türkçede ÇOKTAN Sözcüğünün Gerçek Doğası Üzerine

ÖZ: Türkçede zaman belirteci olarak kullanılan *çoktan* sözcüğü son yıllarda yapılan çalışmalarda Olumlu Uçluk Ögesi olarak değerlendirilmiştir. Bu sözcüğün aynı tümcede olumsuzlamayla bir arada olamayacağı ortaya koyulurken, uzak mesafeli olumsuzlama bakımından ise anadili konuşucularının dilbilgisi açısından ikiye ayrıldığı belirtilmiştir. Türkçede Olumlu Uçluk Ögelerinin özelliklerini sistemli olarak inceleyen hemen hemen hiçbir çalışma bulunmamaktadır. Bu çalışmadaki temel amaç, bu sözcüğün gerçekten bir Olumlu Uçluk Ögesi olup olmadığını ortaya koymak için bir bütüncü analizi gerçekleştirmektir. Bu çalışma için toplanan bütüncü verilerine dayanarak, *çoktan* sözcüğün gerçekten de ağırlıklı olarak olumlu yapılarla bulunan bir Olumlu Uçluk Ögesi olduğu sonucuna varılmıştır. Aynı zamanda, bu sözcüğün sözdizimsel dağılımının, doğrulamalı ve doğrulama-harici ortamları içerdiği fakat doğrulama-karşıtı bağlamları dahil etmemesi nedeniyle anlambilimsel bir nosyon olan doğru(ma)ma kavramı aracılığıyla açıklanabileceği savunulmaktadır.

Anahtar sözcükler: olumlu uçluk, uçluk duyarlılığı, doğru(ma)ma, Türkçe

1 Introduction

Turkish has the temporal adverb *çoktan* which can be translated into English as ‘long time ago’ or ‘already’. In a recent study, Gračanin-Yüksek (2023, s. 24) treats this element in a footnote as a positive polarity item (PPI henceforth), pointing out that it cannot co-occur with clause-mate negation, as in (1a), whereas native speakers seem to have split it into two in terms of its grammaticality with long-distance negation, as in (1b).

- (1) a. *Ali çoktan ödev-in-i yap-ma-dı.
 Ali already homework-POSS.3SG-ACC do-NEG-PAST.3SG
 Intended reading: ‘Ali hasn’t already done his homework.’
- b. Ali Ayşe-nin çoktan ödev-in-i yap-tı-ğ-ın-ı
 Ali Ayşe-GEN already homework-POSS.3SG-ACC do-DIK-3SG-ACC
 san-mı-yor.
 think-NEG-PROG.3SG
 ‘Ali does not think that Ayşe has already done her homework.’

Gračanin-Yüksek (2023) also points out that the occurrence of *çoktan* also leads to ungrammaticality in other semantically negative contexts such as *ne... ne...* (neither... nor...) in the presence of clause-mate negation, as in (2a), while its occurrence in the same context dramatically improves when there is no negation in the structure, as in (2b).

- (2) a. *Ne Ali ne Ayşe çoktan ödev-ler-in-i
 neither Ali nor Ayşe already homework-POSS.3PL-ACC
 yap-ma-dı-lar.
 do-NEG-PAST-3PL
 Int: ‘Neither Ali nor Ayşe have already done their homework.’
- b. ?Ne Ali ne Ayşe çoktan ödev-lerin-i
 neither Ali nor Ayşe already homework-POSS.3PL-ACC
 yap-tı-lar.
 do-PAST-3PL
 ‘Neither Ali nor Ayşe have already done their homework.’

The question one would ask is whether it is possible to capture this behavior of *çoktan* in the language. Interestingly, whereas the syntactic and semantic characteristics of negative sensitive elements such as negative polarity items (NPIs), negative concord items (NCIs) and negative coordinators like *ne... ne...* (neither...nor) have been widely investigated (Kelepir 2001; Şener 2007; Yanılmaz 2009; Yanılmaz & Drury 2017; Görgülü 2018, 2020; Jeretić 2022, and Gračanin-Yüksek 2023), there seems to be almost no study that has systematically analyzed the formal properties of PPIs in Turkish. One possible exception to that would be Kelepir (2001, 2003) where she analyzes certain characteristics of the indefinite element *bazı* ‘some’ and its interaction with sentential negation in terms of scope, concluding that it does behave like a PPI. This paper, on the other hand, is a first formal attempt to fill that gap by way of a corpus analysis. The aim here is to see whether it is really an item of positive polarity or whether its occurrence is subject to the same (or even further) constraints. This is also an important task given that there is so much variability within and among languages with respect to polarity sensitivity. Based on the corpus work regarding the syntactic and semantic properties of the adverb, I show that *çoktan* is indeed an element of positive polarity that predominantly occurs in positive (i.e., affirmative) sentences. However, the corpus analysis has also revealed some problematic cases where *çoktan* co-occurs with negation in conditional sentences and questions. In that sense, a simple claim that when *çoktan* is in the scope of sentential negation, the sentence becomes ungrammatical does not actually work here. The question that arises then is how do we account for the data at hand? I will argue that the behavior of *çoktan* can be captured by way of the semantic notion of (non-)veridicality (Giannakidou

1998, 1999, 2000, 2011), since its distribution is restricted to veridical and certain non-veridical contexts totally excluding the antiveridical ones. In that sense, the polarity sensitivity account proposed here is in line with the analyses of (non-)veridicality. The structure of the paper is as follows: In Section 2, I introduce the corpus analysis on *çoktan* and confirm that the adverb primarily appears in positive sentences. Here I also show certain contexts found in the corpus work that might be problematic for the analyses of polarity sensitivity. In Section 3, I introduce the non-veridicality framework through which I will uniformly account for the data. Section 4 briefly concludes the paper and gives pointers for future work.

2 Corpus-based study on *Çoktan*

Before I introduce the corpus-based study, I will briefly talk about the polarity sensitivity phenomenon. Polarity sensitivity is not a new concept, and it has been investigated from different perspectives for almost four decades. It has been analyzed in terms of negative polarity and positive polarity across languages. Whereas negative polarity has been widely investigated by Ladusaw (1980, 1992), Progovac (1994), Giannakidou (2000, 2003, 2011), Bošković (2008), Zeijlstra (2004, 2008, 2013, 2022), Chierchia (2013) from syntactic, semantic, and pragmatic points of view, the interest in positive polarity is relatively recent (van der Wouden 1997, Szabolcsi 2004, Nicolae 2012, Spector 2014, Zeilstra 2017, Hoeksema 2018). Polarity sensitivity is a phenomenon in which certain lexical items are rather sensitive to the polarity of the structure in which they appear (Giannakidou 2011, Penka 2020). Specifically, certain words require some kind of negative elements such as negative quantifiers or sentential negation in the structure whereas others need a positive (i.e., affirmative) environment to occur.

In the remaining of the section, I introduce and analyze the distributional properties of *çoktan* through the data drawn from the TS Corpus v2 (Sezer & Sezer, 2013). The main reason for this kind of data collection process was to find and analyze as many naturally occurring data as possible rather than merely relying on a constructed set of examples. In the data collection procedure, sentences with *çoktan* were sought and 500 of these sentences were collected and entered into a spreadsheet. In the next step, the sentences that were repetitions, and those whose form and meaning were different than the adverb *çoktan* (e.g., *çoktan seçmeli* ‘multiple choice’, *çoktan beri / çoktandır* ‘for a long time’) were removed from the main data. After the removal process, there remained a total of 410 sentences to analyze. A thorough analysis showed that 408 of the occurrences (99.5%) of the adverb were in positive sentences, confirming the earlier arguments that it is in fact an item of positive polarity. The only

constructions in which *çoktan* appears with sentential negation were negative questions and conditional sentences. The former case is illustrated in (3) below.

- (3) Hangi karar arkadaş! Türkiye çoktan evet de-me-di mi?
 which decision friend Turkey long ago yes say-NEG-PAST Q
 ‘What decision my friend! Didn’t Turkey say ‘yes’ a long time ago?’

In (3), the adverb does co-occur with a negative marker in the structure. However, this construction is not actually a genuine yes/no question but in fact a rhetorical one whose meaning is the polar opposite ‘Turkey did say yes (to something) a long time ago’. This happens to be a case of what Giannakidou (1999) and Ernst (2008) would call ‘indirect licensing’. Basically, indirect licensing holds that in spite of the presence of sentential negation, there is some kind of positive implicature that the proposition in question is actually true. Therefore, the existence of such cases does not seem to undermine the argument that the adverb is a PPI here.

The question that arises at this point is, in what contexts do we find the adverb *çoktan* in Turkish? The majority of the occurrences of the corpus data indicates that it predominantly appears in episodic contexts (i.e., simple past), modifying the verb that generally marks a completed event. This is exemplified below.

- (4) Düşün-dü-m ve çeşitli sonuç-lar-a çoktan
 think-PAST-1SG and various conclusion-PL-DAT long ago
 var-dı-m.
 reach-PAST-1SG
 ‘I did some thinking and reached various conclusions long ago.’
- (5) Onlar-ı iş ve sanat dünya-sı-na takdim ed-en
 they-ACC business and art world-3SG-DAT introduce do-SUBJP
 broşür-ler çoktan bas-ıl-mış.
 brochure-PL long ago print-PASS-PERF
 ‘The brochures that introduced them to the business and art world were printed long ago.’
- (6) Beraber-ce kafe-den çık-tı-lar, hava çoktan
 together-ADV café-ABL leave-PAST-PL weather long ago
 karar-mış-tı.
 get dark-PERF-PAST
 ‘They left the coffee shop together; it had got dark outside long ago.’

The examples above illustrate that *çoktan* generally occurs in contexts that indicate a finished or completed event. The main verb is either marked with the past tense marker *-dI*, as in (4), or the perfective aspect marker *-mIş*, as in (5), or the combination of the two, as in (6). In that sense, one of the preliminary results

of the corpus work is that *çoktan* is a temporal adverb that modifies a predicate indicating a completed event or occurrence. More specifically, it is a PPI that mainly occurs in positive episodic contexts.

It should be noted that certain characteristics of *çoktan* seem to be similar to other temporal adverbs in Turkish that Taylan (2001, s. 112) argues to express an orientation point. Taylan notes that adverbs that have the semantic feature [+orientation point] indicate an end point which is somewhat distinct from telicity. Basically, the difference between the two is that “telic situations are those that are bounded and [therefore] have a natural endpoint”. On the other hand, adverbs that express an orientation point such as *henüz* ‘yet’, *daha* ‘still, more’ and *bile* ‘even’ “do not bind such a situation but rather establish a reference point with respect to the situation that holds” (Taylan 2001, s. 112).¹ This is in fact what the findings of the corpus work have revealed for the various uses of *çoktan*. Consider the examples in (7) and (8).

- (7) Resmi kurum-la anlaşma-lar-ımız-ı çoktan iptal
public institution-COM agreement-PL-1PL-ACC long ago cancel
et-me-miz gerek-ir-di.
need-AOR-PAST
‘We should have cancelled our agreements with the public institution a long time ago.’
- (8) Çünkü çoktan top model-ler-in tercih-i ol-muş
because long ago top model-PL-GEN choice-3SG be-PERF
ol-acağ-ız.
be-FUT-1PL
‘Because we will have long been the choice of top models.’

The sentences above do not necessarily include episodic contexts that came to a completion point in the past. Rather, *çoktan* appears in structures that express some sort of modality in (7) and (8). Whereas the former sentence expresses that something should have been done long ago but did not get done, the latter indicates that something will long be true in the future. In that sense, not only does *çoktan* modify a predicate referring to an action that was true in the past (i.e., an episodic event), but it also sets a reference point either in the (unreal) past or in the future in which the situation would hold.

On the other hand, another context in which *çoktan* is found is the antecedent position of conditional sentences. This is exemplified in (9) and (10).

- (9) İnsanlık pusula-mız-ı hepten kaybet-me-miz-e

¹ See Taylan (2001) for further discussion of the relationship between temporal/aspectual adverbs and the verb form in Turkish.

humanity compass-1PL.POSS-ACC completely lose-NMN-1PL-DAT
 ramak kal-mış, eğer çoktan kaybet-me-di-yse-k.
 imminent remain-PER if long ago lose-NEG-PAST-COND-1PL
 ‘We are so close to completely losing our humanity compass, if we have
 not lost it already.’

- (10) Zira evlilik plan-lar-ı çoktan yapılmış-sa, siz-e
 For marriage plan-PL-3PL long ago make-PERF-COND you.PL-DAT
 sus-mak düş-er.
 keep quiet-INF suit-AOR
 ‘For, if the marriage plans have been already made, it is your duty to keep
 quiet.’

These are again not strictly completed telic events, at least not structurally.
 However, the adverb *çoktan* appears in the protasis of the conditional sentences
 without leading to ungrammaticality.

In addition to these environments, *çoktan* can also be found in those sentences
 with non-verbal (i.e., nominal) predicates. This is exemplified in (11)-(13)
 below.

- (11) Müşteri seçici ve karşılığ-ı-nı ödeme-ye çoktan hazır.
 customer picky and value-3.SG-ACC pay-DAT already ready
 ‘Customers are picky and are long ready to pay the full value.’
 (12) Bak-ın, Amerika çoktan devre-de.
 look-1PL America already involvement-LOC
 ‘Look, the U.S. is long involved.’
 (13) Ferrari patron-lar-ı-nın kafa-sı-nda çoktan Räikonen var.
 Ferrari boss-PL-3PL-GEN head-3SG-LOC long ago Räikonen exist
 ‘Ferrari bosses have had Räikonen in mind for a long time.’

In the sentences (11)-(13), each predicate is non-verbal and *çoktan* can appear
 with and modify them without leading to ungrammaticality. Note that none of
 the predicates are marked with any tense or aspect markers.

To recap, when we consider the findings of the corpus-based study, one of
 the main conclusions is that *çoktan* is a PPI that predominantly appears in
 positive contexts, excluding negative ones. Also, *çoktan* seems to indicate the
 speaker’s own belief that the event or situation, whether it is real or hypothetical,
 has come or will/would have come to a natural completion point. It should be
 noted at this point that the notion of downward entailment that is widely used to
 account for polarity sensitivity (Ladusaw 1980, 1992; van der Wouden 1997)
 fails to fully explain the facts about the Turkish PPI. This is because questions,
 conditionals, certain modal environments have been argued to not constitute
 downward entailing contexts (Zwarts 1995; Giannakidou 1998, 2000; Israel

2004). Therefore, the behavior of *çoktan* should be sought somewhere else. In the next section, I will introduce the semantic theory of (non-)veridicality that appears to be a good candidate to account for its true nature.

3 Polarity and (non-)veridicality

The question that arises at this point is whether we can formally capture the syntactic and semantic behavior of *çoktan*. In other words, is it possible to uniformly account for the distribution of the PPI in positive and certain other contexts such as modal verbs, negative questions, and conditionals? One promising way would be to approach this issue by way of (non-)veridicality. More specifically, it is possible to consider the positive polarity phenomenon to be a subtype of (non-)veridical dependency. This semantic approach was first proposed by Giannakidou (1998, 1999) and then was adapted and further developed in subsequent work (Giannakidou 2000, 2003, 2011; Xie 2007; Ernst 2008, 2009; Chatzopoulou 2012). In this approach, the distribution and interpretation of a polarity item, whether it is negative or positive, is accounted for with respect to its sensitivity to and dependency on some semantic property of the context in which it appears.² A polarity item is formally defined as in (14):

(14)

- (i) A polarity item α is an expression whose distribution is limited by sensitivity to some semantic property β of the context of appearance.
- (ii) β is (non-)veridicality.

Note that both veridicality and nonveridicality are defined with respect to the truth of a proposition. Giannakidou (1999, 2000) provides the following as a definition:

(15) *Nonveridicality for propositional operators*

- (i) A propositional operator F is veridical iff Fp entails p : $Fp \rightarrow p$; otherwise F is nonveridical.
- (ii) A nonveridical operator F is antiveridical iff Fp entails not p : $Fp \rightarrow \neg p$

Basically, a propositional operator F is veridical iff whenever Fp is true, p is also true. If that does not hold, then F is nonveridical. A nonveridical F , on the other hand, is antiveridical iff whenever Fp is true, p is not true. In that sense, antiveridical operators are a proper subset of nonveridical operators. Modal

² Giannakidou (1999, 2000) notes that the list of polarity items does not only include negative and positive polarity items, but also free choice items and mood alternation in relative clauses.

verbs, intensional operators, questions and downward entailing contexts are all nonveridical. On the other hand, antiveridical operators are sentential negation (i.e., classical negation) and the preposition *without* that can both license polarity items. To put it simply, nonveridical contexts are those in which the truth of the proposition is not entailed or guaranteed. Let us explain this phenomenon with the examples in (16).

- (16) a. Ahmet came.
 b. Ahmet did not come.
 c. If Ahmet comes, I'll leave.

In (16a), the positive sentence is veridical since it entails the truth of the proposition (i.e., it is the case that Ahmet came). On the other hand, the one in (16b) is antiveridical. The sentence can be semantically represented as [not [Ahmet came]], with *not* representing the negative operator and [Ahmet came] representing the proposition itself. Therefore, the truth of [not [Ahmet came]] (i.e., Ahmet did not come) does not entail or guarantee the truth of the proposition *Ahmet came*. Finally, the conditional sentence in (16c) is nonveridical as the coming of the person is not entailed or guaranteed either. Based on this framework, Ernst (2008, s. 75) proposes the following definition for PPIs and their licensing conditions:

(17) *Licensing conditions for positive polarity items*

- (i) A positive polarity item A is blocked in the local scope of a nonveridical operator.
 (ii) In certain cases, A may be licensed indirectly despite being in the local scope of a nonveridical operator in a sentence S, iff S gives rise to a positive implicature φ .

The licensing condition in (17i) allows Ernst (2008, 2009) to account for the distribution and interpretation of the adverb *fortunately* in English and its counterpart *xingkuai* 'fortunately' in Mandarin Chinese along with other adverbs such as *xianran* 'obviously' and *haihao* 'luckily'. They cannot appear in any nonveridical context whether that context is negation, an interrogative or a conditional sentence. They are considered to be strong speaker-oriented adverbs and express the speaker's total commitment to the truth of the proposition. In that sense, these adverbs appear only in veridical contexts.

The question to ask at this point is whether this semantic approach captures the facts about the PPI *çoktan* in Turkish. Recall that the corpus analysis indicated that an overwhelming majority of the contexts for the adverb is positive. However, it can also appear in some non-veridical contexts such as modals, conditional sentences (both positive and negative) and negative

questions. One way to account for the distribution and the polarity behavior of *çoktan* is to extend the classification proposed by Ernst (2008, 2009) to account for the speaker-oriented adverbs and also include the temporal adverb *çoktan* in Turkish. Based on its syntactic distribution, I argue that it functions as a PPI similar to adverbs in English and Mandarin Chinese. If this analysis is on the right track, it would mean that indirect licensing, namely having a positive implicature, as formulated in (17ii), will also be possible. This analysis will explain why the adverb is not allowed in strictly antiveridical contexts (i.e., sentential negation) but can nevertheless appear in certain nonveridical environments such as certain modal contexts, negative questions as well as conditionals. Consider the examples below, some of which are repetitions from previous examples.

- (18) Alman mühendis-ler güçlü ekonomi-ye geç-iş-in
 German engineer-PL strong economy-DAT transition-NMN-GEN
 sır-ı-nı çoktan çöz-dü-ler.
 secret-3SG.POSS-ACC long ago solve-PAST-PL
 ‘German engineers have solved the secret of the transition to a strong economy long ago.’
- (19) Resmi kurum-la anlaşma-lar-ımız-ı çoktan iptal
 public institution-COM agreement-PL-1PL-ACC long ago cancel
 et-me-miz gerek-ir-di.
 do-NMN-1PL need-AOR-PAST
 ‘We should have cancelled our agreements with the public institution a long time ago.’
- (20) Zira evlilik plan-lar-ı çoktan yapılmış-sa, siz-e
 for marriage plan-PL-3PL long ago make-PERF-COND you.PL-DAT
 sus-mak düş-er.
 keep quiet suit-AOR
 ‘For, if the marriage plans have been already made, it is your duty to keep quiet.’

The sentence in (18) is veridical, expressing certainty or commitment to the truth. In that sense, it is similar to Giannakidou’s (2011) notion of veridicality (and of factuality (Giannakidou 2014)), a sentence under F is true if it refers to a fact. The sentence in (19) does not necessarily express veridicality even though the main verb is marked for past tense, but it rather indicates some kind of modality in which the event indicated by the verb should have been done a long time ago. The sentence in (20), on the other hand, is not necessarily a veridical context either since the adverb appears in the antecedent of the conditional. However, its use is still allowed since it leads to a positive implicature in this particular context, (i.e., the marriage plans have already been made). Note that it also holds

for the negative questions, modal verbs and the conditional sentences discussed in the previous section. In that respect, the syntactic distribution of *çoktan* can be accounted for by arguing that it appears in veridical and certain non-veridical contexts, excluding antiveridical ones. Note that the fact that *çoktan* appears in conditionals and questions is not unexpected considering the fact that they were already identified as “rescuers” for PPIs in prior work. For instance, Hoeksema (2018) notes that it has been known since at least Baker (1970) that negated questions as well as negated conditionals and doubly negated sentences behave like “rescuing contexts”. More specifically, a negative question not only rescues an item of positive polarity from the negative effects of negation, but also negation will make the PPI impermeable to the negative effects of the questions themselves. Similarly, Szabolcsi (2004) argues that a PPI that is not allowed in the scope of negation becomes totally acceptable whenever negation itself is found in a question or in a conditional sentence, or when it is in the scope of an NPI licensing operator (see also Spector 2014 and Hoeksema 2018). The findings of the corpus study have certain implications for the conclusions drawn by Hoeksema (2018). One of the main conclusions in his work is that rescuing requires a negative operator within the scope of a nonveridical operator. This seems to be the case in Turkish as the PPI occurs with negation in the context of a question operator or a conditional. Therefore, the findings of the current study are in line with his arguments that any classification of PPIs which does not include variation in rescuing contexts and acceptability in interrogative contexts should be thought of as incomplete. To sum up, the adverb *çoktan* in Turkish appears in veridical and certain nonveridical (i.e., conditionals, questions, modals) contexts, however, its use is banned in antiveridical contexts.

So far, we have only dealt with the temporal adverb *çoktan* in Turkish. However, note that there are certain derivatives of this element such as *çoktandır* ‘for a long time’ and *çoktan beri* ‘long since’ with a similar meaning. The question that arises is whether they also behave in a way similar to the PPI *çoktan* in the language. More specifically, are they also acting like a PPI or does their syntactic distribution involve negative contexts as well? This is not at all trivial question since it would then mean that Turkish has multiple elements of positive polarity with similar meanings if the analysis produces similar results. In order to answer this question a small-scale corpus research through TS Corpus was carried out and it was found that the behavior of *çoktandır* and *çoktan beri* is rather different. Consider the pairs of sentences below.

- (21) a. Avrupa Birliği-nin kapı-sı-nı çoktandır
 Europa Union-GEN door-POSS.3SG-ACC for a long time
 çal-ıyor-uz.
 knock-PROG-1PL
 ‘We have been knocking on the European Union door for a long time.’

- b. Kazakistan futbol-u oktandır byle bir rezalet
Kazakhstan football-3SG for a long time such one scandal
gr-me-miř-ti.
see-NEG-PERF-PAST
'Kazakhstan football had never seen such a scandal for so long.'
- (22) a. Uurtma zaten oktan beri bil-in-iyor-du.
kite already long time since know-IMP-PROG-PAST
'The kite had been already known for so long.'
- b. Zaten oktan beri inan-mı-yor-um.
already long time since believe-NEG-PROG-1SG
'I have already not believed (that) for a long time.'

The grammaticality of sentences in (21b) and (22b), unlike those with *oktan*, indicates that *oktandır* and *oktan beri* can co-occur with sentential negation without leading to ungrammaticality. This indicates that unlike *oktan*, they can freely appear in negative constructions, and they are not elements of positive polarity. This is in fact not unexpected given that *oktan* already has this function in the language.

Another question that needs to be addressed here is, what is the true nature of the PPI *bazı* 'some' in Turkish? More specifically, why is it functioning as a positive polarity item? Kelepir's (2003) analysis showed that *bazı* escapes the semantic scope of sentential negation and is interpreted above it. However, it was not clear why this element is functioning as a PPI. One reasonable answer to that question would be that *bazı* conveys a 'high' level of referentiality. This notion was suggested for the behavior of the English indefinite *some* by Giannakidou. (2011, s. 1701) where she argues that accented *some* is different from non-deictic indefinites and that it cannot be interpreted deictically. The notion 'high referentiality' is related to specificity and specific indefinites that also scope above negation as well as other intentional operators. The use of *some* could be considered to be some kind of specificity marking on the noun phrase, quite similar to using expressions such as *certain* and *particular*. This is illustrated in (23) and (24), taken from Giannakidou (2011).

- (23) Sue didn't talk to a certain/particular Norwegian – his name is Otto.
(24) Sue didn't talk to some Norwegian – his name is Otto.

It is clear from the examples above that *a certain N*, *a particular N* and *some N/someone* all escape the scope of negation, and they are interpreted as referential and specific. In other words, the wide scope reading is forced for specific indefinites in these instances. Note that we observe something similar with the indefinite *bazı N* 'some N' in Turkish as well. Consider the sentences in (25) and (26).

- (25) Bazı öğrenci-ler sınav-a gel-me-di. Ad-lar-ı.
 some student-PL exam-DAT come-NEG-PAST name-PL-1PL
 Ali, Mehmet ve Zeynep.
 Ali, Mehmet and Zeynep
 ‘Some students did not come to the exam. Their names are Ali, Mehmet and Zeynep.’
- (26) Ahmet bazı araba-lar-*(1) kullan-ma-dı. Bu-nlar yeşil, kırmızı ve siyah ol-an-lar.
 Ahmet some car-PL-ACC drive-NEG-PAST this-PL green red and
 black be-SUBJP-PL
 ‘Ahmet did not drive some of the cars. These are green, red, and black ones.’

The referentiality and specificity property of *bazı* is shown in (25) where it is co-referential with three proper names in the subsequent sentence. Also, *bazı* requires the presence of accusative marker on the head noun in the object position in (26), which has been widely known to mark the specificity of the referent (Enç 1991, Öztürk 2005, Nakipoğlu 2009, Kamali 2015). It shows high referentiality since it is co-referential with the noun phrases in the subsequent utterance. Therefore, it is reasonable to argue that the indefinite *bazı* is an element of high referentiality and that is why it is functioning as a positive polarity item scoping outside negation.

4 Conclusion

In this paper, I investigated the syntactic and semantic characteristics of the adverb *çoktan* in Turkish. Based on corpus-based study, I showed that it is a positive polarity item that predominantly appears in positive contexts, as was also argued in previous work. However, the corpus data also indicated that it can also appear in certain contexts such as negative questions, antecedent of conditionals and modals. This was accounted for by referring to the semantic notion of (non-)veridicality. Based on its occurrence, it was argued that *çoktan* is a PPI and appears in positive and a number of nonveridical contexts so long as they are not antiveridical. Further work will surely contribute to a better understanding of the cross-linguistic polarity phenomena, both positive and negative.

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