

Bahtiyar Makaroğlu*

The negative existential cycle in Turkish Sign Language (TİD)

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Abstract: The evolution of negation is typically characterized as a cyclical process, whereby new constructions emerge to encode existing functions. The current corpus-based study undertakes an investigation into the evolution of the negative existential negator *YOK* ‘non.exist’ in Turkish Sign Language (TİD). It seeks to investigate the applicability of the negative existential cycle as proposed by Croft (1991) and examines its potential as an explanatory framework in understanding the sources and pathways of standard negation. Here it is evidenced that this cycle occurs within a specific language and TİD presents aspects of stage B ~ C: the existential negator *YOK* gradually substitutes for the verbal negator *DEĞİL* in specific contexts of the grammatical system. The present analysis offers a novel perspective on the comprehensive structure of the TİD negation system. This perspective posits that the existential negator *YOK* does not merely signify the negation of existence; rather, it also functions as a standard negator. The determination is substantiated by the negative existential cycle, establishes a framework for understanding the relationship between existential negation and standard negation.

Keywords: negative existential cycle; Croft cycle; sign language; typology; Turkish Sign Language

1 Introduction

This study examines the relevance of the types and stages of Croft’s (1991) negative existential cycle (NEC) to Turkish Sign Language (TİD), a sign language that displays cross-modal variations in linguistic use and structure, namely language modality, in comparison to spoken languages. As suggested by the term “NEC”, numerous scholars, including Croft (1991), have put forth the proposition that the NEC is the consequence of language-internal mechanisms of negation renewal and that the input verbs in the cycle are existential verbs. Croft’s assertion is that the operation of the cycle is evident in three attested language types. Type A involves the negation of the existential predicate, which is carried out by the verbal negator. Type B features a special negative existential predicate that is unique and different from the verbal negator. In type C, there is a special negative existential predicate that is identical to the verbal negator (Croft 1991: 6).

TİD employs the verb *VAR*, meaning ‘to have’, as an existential predicate.¹ In terms of its configuration, *VAR* ‘exist’ is produced with a 5-handshape , with the thumb pointing towards the chest of the signer and repeated movement. Its negative counterpart *YOK* ‘not.exist’, produced with an open-B-handshape , is entirely distinct from the positive and is not derived from the positive form (see Figure 1).²

1 Generally speaking, glosses in this study are provided in English; however, negative markers use the glossing of previous authors to make clear the specific sign language under discussion.

2 The examples were initially developed by a hearing researcher who specializes in TİD and subsequently checked by three deaf native signers who are employed as TİD lecturers at the university. The following conventions and abbreviations are used in the transcription/glossing of TİD examples: manual signs are glossed in small capitals (*SIGN*); if a sign is repeated a number of times, it is indicated with a plus symbol (*SIGN*₊); if a single sign corresponds to several spoken words, these are separated with a period (*SIGN*.*SIGN*); person agreement is indicated using subscript numbers (*SIGN*₂); non-superscript numbers following a gloss indicate points in the signing space associated with first, second, or third person reference; nonmanual marking is indicated with a line above the manual signs, and an abbreviation indicating the type of marking: br (brow raising), hs (head shaking), rl (rounded lips); “bend” indicates that the fingers are flexed at the knuckles; “close” indicates a handshape modification where the fingers are adducted (held

*Corresponding author: Bahtiyar Makaroğlu, Department of Linguistics, Ankara University, Ankara, Türkiye,
E-mail: makaroglu@ankara.edu.tr. <https://orcid.org/0000-0002-7641-6665>



Figure 1: The existential marker *VAR* and its negative counterpart *YOK* in TİD.



Figure 2: The manual negator *DEĞİL* ‘not’ in TİD (Dikyuva et al. 2017: 220).

- (1) IX₁ SISTER VAR
‘I have a sister.’

As shown in (2), the standard negator *DEĞİL* ‘not’ cannot be used to negate an existential construction. In terms of its configuration, *DEĞİL* consists of a single upward movement of both hands (or only the dominant hand from the wrist), mostly accompanied by a backward head tilt that occurs simultaneously (see Figure 2).

- (2) *IX₁ SISTER VAR DEĞİL
‘I don’t have a sister.’

In such instances, *YOK* is the sole negative existential marker, as demonstrated in (3), where the existential predicate *VAR* is obligatorily omitted.

- (3) IX₁ SISTER YOK
‘I don’t have a sister.’

The ability of *YOK* to express negative existence is evidence of its status as a unique form of the negative existential. In her crosslinguistic study, Veselinova (2013) defines prototypical negative existentials as constructions that express the absence or nonexistence of an entity in a given domain – typically in a specific location or within a particular time frame. These constructions are formally distinct from standard sentential negation and are not used to negate propositions; rather, they are employed to assert the non-presence of a referent. Prototypical negative existentials frequently manifest in verbless clauses or involve specific lexical items dedicated to

together), similar to the closed-5-handshape; *IX* indicates a pointing action with the index finger; *PT* indicates pointing; *PRO* indicates a pronoun; a comma (,) can be used to clarify the syntactic structure in multi-clause examples; a colon (:) separates a morphological category from the semantic function (e.g., *PT1:PRO1* represents a first person pointing sign functioning as a pronoun); a hyphen (-) connects English words that correspond to a single TİD sign; square brackets [] enclose words added to the English translation for fluency that do not have a direct manual equivalent in the signed utterance; parentheses () are used for explanatory context.

existential negation. Adopting the definition put forth by Veselinova (2013: 118–139) allows us to conclude that the negative existential marker *YOK* in TİD behaves in a manner analogous to a prototypical negative existential.

An examination of the characteristics of Croft's cycle has been predominantly conducted in spoken languages. Consequently, the inquiries undertaken here in relation to the NEC will facilitate a more profound comprehension of the sources and pathways of verbal negation in the domain of signed modality. A hypothesis can be advanced that TİD may be considered as a language situated at Stage B of the NEC. This is due to the fact that it has distinct negative markers for verbal negation and for the negation of existential clauses. However, as evidenced by the corpus data, TİD exhibits uses of the negative existential marker *YOK* which have developed into the encoding of standard/verbal negation, as illustrated in (4) and (5).

- (4) ₃SENT.LETTER₁ *YOK* PT1:PRO1
 'They didn't send me a letter.'
 [01.010.P4 S00:07 E00:09]³
- (5) PT1:PRO1 ONE ₃INFORM₁ *YOK*
 'They didn't give me any news.'
 [16.005.P18 S01:32 E01:34]

The current paper sets forth the argument that the negative existential function of the predicate *YOK* and its functions as a standard negator are worthy of further examination. The aim of testing the NEC model is to delineate the progression of a negative existential into a standard negator, along with the mechanisms that govern the transition between stages. More precisely, the current paper addresses the following two research questions:

- (1) How did the negative existential negator *YOK* develop to encode standard negation?
- (2) Within the framework of Croft's type B ~ C, in which specific contexts does the negative existential construction function as a means of negating verbal predications?

2 Croft's negative existential cycle

The NEC was first proposed by Croft (1991) and subsequently expanded by Veselinova (2013, 2014, 2015, 2016). The NEC provides a means of modeling the evolution of standard negators from existential negators. Furthermore, this kind of development is cyclical in nature. Once an existential negator has undergone a transformation into a standard negator, the potential arises for a new expression dedicated to existential negation to emerge. This may then develop into a standard negator in its own right (for a detailed overview, see Veselinova and Hamari 2022).

Croft puts forth the proposition that the languages belonging to the abovementioned three stable types (types A, B, and C) evince minimal or no variation within their own linguistic systems. However, other language types demonstrate synchronic variation between their verbal negation and their negative existential predications. He categorizes these as A ~ B, B ~ C, and C ~ A, proposing that collectively they offer an empirically testable methodology for ascertaining the existence of direct historical connections between synchronic language states within a typological classification of languages (1991: 3). In summary, Croft (1991: 6) presents the following description of the NEC:

- Stage A: the negation of the existential predicate is carried out by the verbal negator
- Stage A > B: the contraction or fusion of the existential negator is used alongside the verbal negator
- Stage B: the negative existential is distinguished from the verbal negator
- Stage B > C: the negative existential is employed for verbal negation
- Stage C: the negative existential is identical to the verbal negator
- Stage C > A: The negative existential fulfills all negation functions

³ A code scheme was assigned to each token in the TİD corpus, indicating its location, video file, participant number, and start/end time: [(city code).(video file).(P:participant number) (S:start)-(E:end)]. Thus the code in this example denotes an exemplar from Adana (code 01), video file 10, fourth participant, starting at 00:07 and ending at 00:09.

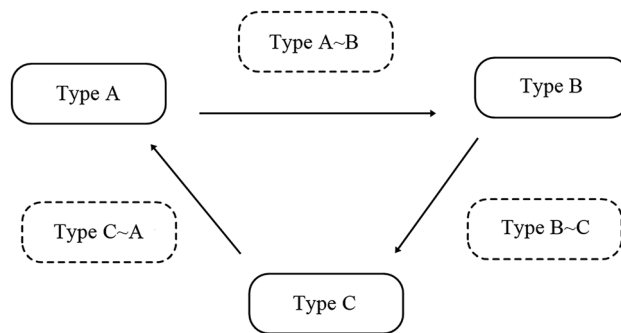


Figure 3: Croft's negative existential cycle (modified from Croft 1991: 6).

A schematic illustration of the NEC is provided in Figure 3. The boxes with a full outline represent stable types, while those with a dashed outline represent transitional types. In the original visual representation of the Croft's NEC, only the stable types were illustrated. In a family-based sample, type B is the most prevalent, being followed by the transitional types B ~ C and A ~ B (Veselinova 2016: 150).

It could be inferred from the graphic representation of the cycle that the stages outlined are necessarily sequential. However, Croft (1991: 22) states that there is no necessity for this to be the case; in fact, it is to be expected that there will be overlaps of different stages. He also puts forth a set of discrete characterizations for the transition from one linguistic type to another, contingent on the transitional phase under consideration. Accordingly, each kind of linguistic transition appears to be shaped by a distinct phenomenon within the domains of pragmatics, syntax, and morphology. This is schematically summarized as follows:

- From type A to type B: fusion
- From type B to type C: emphasis
- From type C to type A: syntactic analogy

The notion of phonological fusion, as outlined by Croft (1991), seems to present fewer challenges than the precise role of emphasis and analogy in other phases of transition posited in the ideal model of the cycle. However, it merely prompts the question of the potential chronological sequence between the morphological process.

3 Negation strategies in TİD

TİD employs a sophisticated negation system comprising a multitude of manual and nonmanual negative markers. A substantial body of research has been conducted on the descriptive and theoretical aspects of standard negation in TİD (e.g., Dikyuva et al. 2017, 2024; Gökgöz 2009, 2011; Kubuş 2008; Makaroğlu 2021, 2023; Pfau 2016; Zeshan 2003, 2006). The language also exhibits a notable degree of diversity in the expression of standard negation, evident in both its phonological and morphological forms and the number of markers employed in negative constructions. In terms of word order, it has been suggested that TİD is a SOV language and that the basic manual negator *DEĞİL* 'not' occupies a clause-final position (see Kubuş 2008; Pfau 2016; Zeshan 2003, 2006). Additionally, the manual gesture *PALM.UP* is frequently observed in negative contexts, often functioning as a marker of epistemic negation or absence.

Although numerous studies on standard negation have been conducted from diverse theoretical perspectives within the TİD literature, there is a paucity of research on existential negation. The existing studies on this topic are scarce and lack analytical depth, focusing instead on descriptive accounts. TİD has both a positive existential particle *VAR* 'exist' and a negative existential particle *YOK* 'not.exist' (Makaroğlu 2024).

With respect to the syntactic function of negative existentials as markers of negation, a considerable body of evidence from a wide range of languages exists which demonstrates that negative existentials function syntactically in the same slot as their affirmative counterparts, as illustrated by examples (6) and (7) in TİD (for detailed overview on existentiality in sign languages, see Zeshan and Perniss 2008). This finding offers compelling support

for the view that negative existentials can be considered to be lexically and syntactically equal to affirmative suppletive paradigmatic relation to their counterparts, rather than negators, negative particles, or negative polarity items.

- (6) RICE SALT YOK
‘There is no salt in the rice.’
(Dikyuva et al. 2017: 222)
- (7) IX₁ SMALL KINDERGARTEN YOK
‘While I was a small child, there wasn’t a kindergarten.’
(Gökgöz 2009: 49)

Zeshan (2006) posits that the YOK particle is typically located at the end of a clause, except when a pronominal index pointing or PALM.UP marker is present, as in (8). In such cases, nonmanual marking may encompass both signs or else the scope will be limited to the negative particle alone.

- (8) TÜRKİYE ALL.TÜRKİYE TELEVISION SIGN PROGRAM PUT.IN YOK PALM.UP
‘There are no sign language programs on television anywhere in Türkiye.’
Lit: ‘It is not that they’ve included sign language in TV programs all over Türkiye.’
(Zeshan 2006: 151)

The etymology of YOK in TİD remains unclear, as the origin of this negative existential marker has not been discussed in earlier literature. Additionally, it is evident that, despite the extensive research conducted on standard negation in TİD, studies examining negative existentiality remain limited.

4 Methodology

4.1 Data

The present study is based on data from a TİD corpus collected in 2015 (for details, see Dikyuva et al. 2017), which was collected from a diverse group of 116 native signers from 26 cities across Türkiye. The signers, who ranged in age from 12 to 65, were either congenitally deaf or became deaf before the age of three and had an early exposure to TİD (see Table 1). This current research examined 13 h and 10 min of dyadic video conversations involving 88 native signers of TİD from 14 different cities in Türkiye, namely Adana, Ankara, Antalya, Balıkesir, Bursa, Çanakkale, Diyarbakır, Edirne, Eskişehir, İstanbul, İzmir, Kayseri, Kocaeli, and Konya. The dataset comprises 93,151 sign tokens, representing approximately 11.6 % of manual sign gloss annotations of the TİD corpus.

4.2 Analysis and procedure

The study employed the ELAN tool (ELAN 2024) to annotate and analyze the linguistic properties of the negative existential constructions in TİD. Although all data in the TİD corpus had previously been coded (by deaf, native signers of TİD), it was necessary for the current research to provide specific annotations regarding the appearance of YOK. In the initial phase of the study, the research questions were used to identify negative existential constructions, including the manual existential negator (i.e., YOK). These constructions were then examined in the corpus data. In a second step, the linguistic features of these constructions were annotated in order to categorize aspects of these constructions. Consequently, supplementary ELAN tiers were incorporated to delineate the attributes of the negative existential constructions to be examined. In this comprehensive coding, the dataset comprising 453 tokens of the manual existential negator YOK was then coded for the following

variables: (i) clause position, (ii) mouth activity type and spreading behavior, and (iii) function. The coding scheme is presented in Table 2.

Table 1: The TİD signers and total number of tokens used for the present study, divided by age group.

Group	Age	Date of birth	No. of signers	Total tokens (<i>N</i>)
Young adults	16–28	1987–1999	46	44,584
Middle-aged adults	29–44	1986–1971	32	29,467
Older adults	45–62	1970–1953	10	19,100

Table 2: The coding scheme used in ELAN for the present research.

Category	Subcategory	
R1	<i>gloss</i>	First signer's right hand
L1	<i>gloss</i>	First signer's left hand
R2	<i>gloss</i>	Second signer's right hand
L2	<i>gloss</i>	Second signer's left hand
Neg-Ex-ID-gloss	YOK1	–
	YOK2	–
Pre-location	<i>gloss</i>	A manual sign in L1 position
Post-location	<i>gloss</i>	A manual sign in R1 position
Type of mouthing	full	A manual sign is accompanied by a complete mouthing (e.g., /yok/)
	inflected	An accompanying mouthing that is similar in structure to an inflected Turkish lexical element (e.g., /yok mu/)
	reduced	A specific type of mouthing in which only a subset of syllables or even individual phonemes from a lexical item are articulated (e.g., /yo/)
	free	A mouthing behavior that is not accompanied by a manual sign
	variant	A form of spoken lexical word that varies from the standard mouthing
	unreadable	An indistinct mouthing
Spreading of mouthing	single	Mouthing does not spread beyond the single sign YOK
	double	A manual sign is accompanied by two different mouthings
	right	Mouthing spreads progressively to the next manual sign
	left	Mouthing spreads regressively to the previous manual sign
Type of mouth gesture	rounded lips	–
	other	Other mouth gestures apart from rounded lips (e.g., tongue protrusion, pursed lips, etc.)
Spreading of mouth gesture	single	Mouth gesture does not spread beyond the single sign YOK
	right	Mouth gesture spreads to the next manual sign
	left	Mouth gesture spreads to the previous manual sign
Function	negative	–
	existential	–
	negative	–
	possessive	–
	standard negator	–
	negative	–
	interjection	–
	rhetorical	–
	negation	–
	prohibition	–

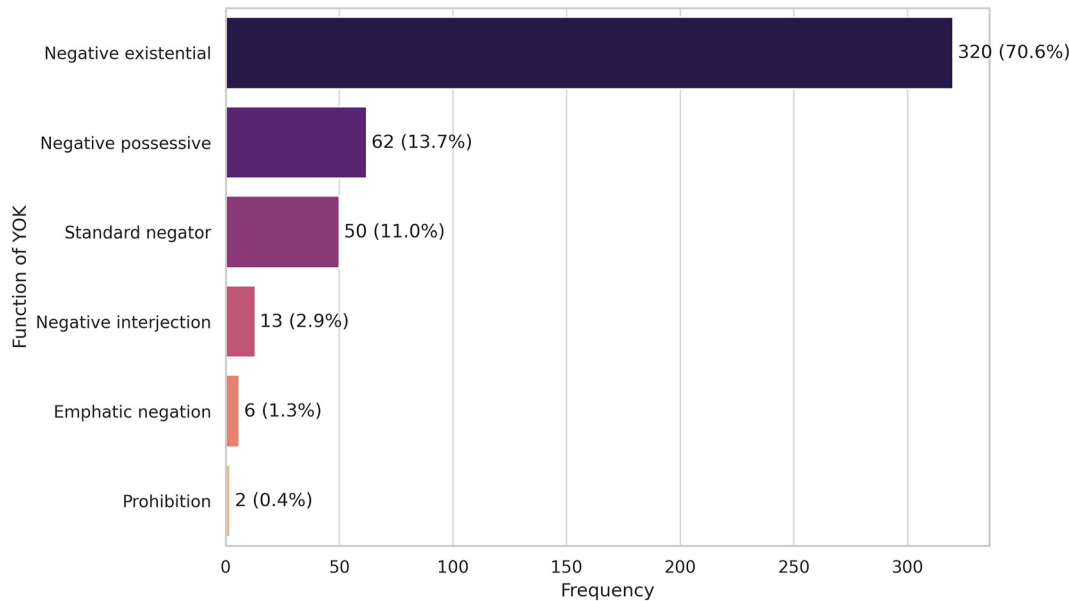


Figure 4: The distribution of the functions of *yok* in the dataset.

5 The negative existential marker *yok* in TİD

5.1 The distribution of the standard negation function of *yok*

Based on a corpus analysis of the 453 tokens of *yok*, the distributional results of this study provide insights into the frequency of *yok* functional features. As illustrated in Figure 4, the statistical analysis indicates that the existential function of *yok* is the most prevalent in the database, constituting 70.6 % ($n = 320$) of the examples in the database. The possessive function of *yok*, on the other hand, accounts for 13.7 % ($n = 62$) of the examples. The standard negation function of *yok* accounts for 11.0 % ($n = 50$) of the examples. The remaining functions of *yok*, including interjection, emphatic, and prohibition, collectively account for 4.6 % of the examples in the database ($n = 21$). This statistical distribution reveals that the functions of *yok* are typically seen in three basic types and that its use in the standard negative function is not a rare phenomenon.

In the domain of corpus linguistics, log-likelihood scores have been employed to assess the statistical significance of variations in the size of language corpora for the purpose of conducting detailed corpus profiling (Rayson and Garside 2000). In the present study, the presence of unexpected values in three distinct age groups is investigated. The log-likelihood ratio of the standard negation function of *yok* was calculated as illustrated in Table 3.

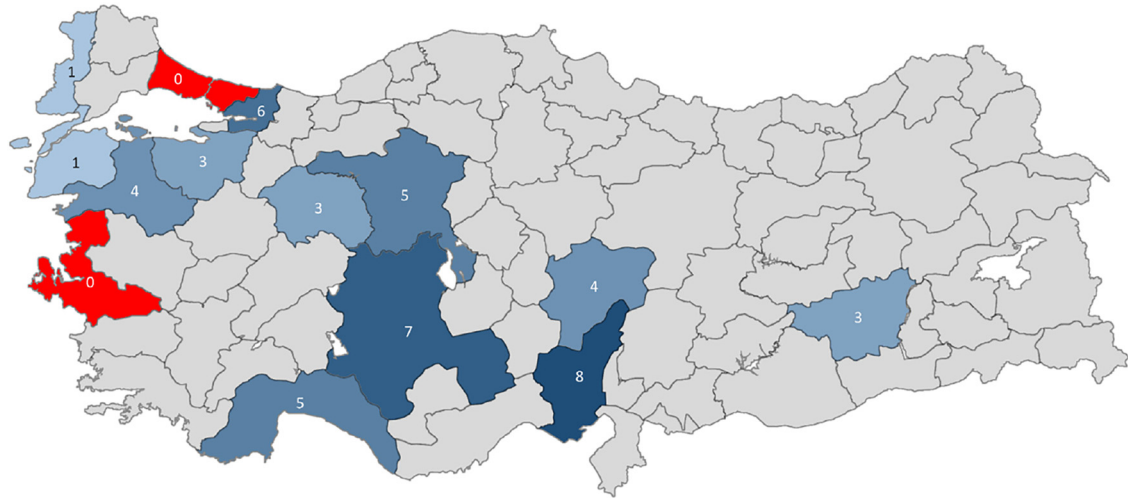
In accordance with the established $p < 0.05$ level of significance for the log-likelihood ratio of 3.84, it was determined that there was a statistically significant difference between the young adult and older adult groups. However, no significant difference was observed between the young adult and middle-aged adult groups, nor was there one identified between the middle-aged adult and older adult groups. These observations indicate that the standard negation function of *yok* is more prevalent in young TİD signers, suggesting that the grammaticalization of this function is a more recent development in the language's evolution.

It is worth noting that grammatical variation remains a subject of considerable uncertainty due to the dearth of research focusing on the linguistic factors that shape the spectrum of variants observed in any signed language (for detailed discussion, see Johnston and Schembri 2010).

As previously mentioned, the present study's sample is limited to 14 cities in Türkiye. The analysis reveals that *yok* was used in the standard negation function in 12 cities (indicated in blue in Figure 5) but was not used in this way in İstanbul or İzmir (marked in red). This observation lends robust evidence to the supposition that there is

Table 3: Log-likelihood ratio of the standard negation function of *YOK* across age groups.

Comparison	Group 1	Total tokens (<i>n</i>)	No. of tokens of <i>YOK</i>	Group 2	Total tokens (<i>n</i>)	No. of tokens of <i>YOK</i>	Log-likelihood	Difference (%)
Young versus Middle-aged	Young	44,584	30	Middle-aged	29,467	15	0.80	32.19
Young versus Older	Young	44,584	30	Older	19,100	5	4.73	157.04
Middle-aged versus Older	Middle-aged	29,467	15	Older	19,100	5	1.83	94.45

**Figure 5:** The distribution of the standard negation function of *YOK* across cities in Türkiye.

an absence of regional variation. However, it is also evident that the inclusion of data from Türkiye's eastern cities is necessary to test the hypothesis.

5.2 Application of the TID data to Croft's negative existential cycle

The presence of both a postverbal negation marker, *DEĞİL* 'not', and a postverbal negative adverb, *HİÇ* 'never', as presented by Makaroğlu (2021), is a previously documented phenomenon; see (9) and (10).

- (9) AGE SEVEN EIGHT NINE LIKE, REMEMBER *DEĞİL*
 'My age was like seven, eight, nine, I don't remember (exactly).'
 (Makaroğlu 2021: 130)
- (10) AGE TWENTY FOUR, *HİÇ* EUROPE SET-FOOT *HİÇ*
 'I am 24 years old (but) never ever set foot in Europe.'
 (Makaroğlu 2021: 135)

As Dikyuya et al. (2017) explain, when *HİÇ* 'never' appears in a position that is not within the scope of *DEĞİL*, the sentence is considered ungrammatical, as shown in example (11). This means that *HİÇ* needs to be within the scope of sentential negation, as shown in (12).

- (11) **IX₁ HİÇ SEE*
 Intended meaning: 'I have never seen (it).'
 (Dikyuya et al. 2017: 225)

- (12) IX₁ HİÇ SEE DEĞİL
 ‘I haven’t ever seen (it).’
 (Dikyuva et al. 2017: 225)

In light of the observed patterns, it is evident that HİÇ functions as a negative polarity item, a requirement for its position under negation phrase and its inclusion within the scope of overt sentential negation. However, as demonstrated in (13), when HİÇ appears in a preverbal position within the scope of YOK, the sentence is grammatical, contradicting the example given in (11). This observation clearly indicates that the usage of YOK in a postverbal position appears to have evolved as a standard negator sign.

- (13) PT1 SIGN.LANGUAGE HİÇ PUT YOK PT5.close
 ‘They didn’t include the sign language (program)’
 [42.003.P54 S02:47 E02:50]

Croft (1991: 9) refers to the B~C stage as “the most important step in support of our hypothesis”, and it is evident that this stage gives rise to the most intriguing questions. At this point, the negative existential marker is employed for standard verbal negation. The negative existential may engage in competition with the verbal negator, and it is sometimes utilized in fulfillment of the role of the verbal negator. As illustrated in examples (14)–(17), TİD displays the characteristics of stage B ~ C, wherein the negative existential progressively replaces the verbal negator in certain aspects of the grammatical system. TİD thus provides an excellent illustration of this stage in signed modality. Here, verbal negation is typically conveyed through YOK which has developed into a negative perfect construction.

- (14) SCHOOL ALL LITTLE SAVE YOK
 ‘No one at school saved me even a little bit.’
 [01.007.P4 S04:20 E04:22]
- (15) LITTLE GET.ANGRY BORED YOK
 ‘I didn’t get angry or bored, not even a little bit.’
 [01.010.P4 S06:33 E06:36]
- (16) PT5.close.bend:PRO1 BOOK.READ, UNDERSTAND YOK PT5.close.bend:PRO1
 ‘I used to read (but) I didn’t understand.’
 [06.002.P5 S03:54 E03:56]
- (17) PT5.close.bend:PRO1 TELL YOK
 ‘They did not tell me that.’
 [01.008.P3 S01:45 E01:46]

As demonstrated in these four examples, the temporal anchoring of the situations is situated with respect to reference points in past time, relative to utterance time. The negative perfect construction is employed to indicate the nonoccurrence of an eventuality preceding an interval or specific point in time that defines the topic time for the given sentence. Similarly, in instance (18), the nonoccurrence of the event (i.e., teaching what to do in case of a burn) is stated as relating to an established topic time, which is the burning of signer’s arm during her childhood.

- (18) NO.ONE ₃TEACH₁ YOK PALM.UP
 ‘No one had taught me anything.’
 [01.008.P3 S00:18 E00:20]

Many languages alternate between the present perfect (e.g., *I have seen*) and the preterit (e.g., *I saw*; Bybee and Dahl 1989). In accordance with prescriptive grammar frameworks, the preterite serves to express perfectivity. That is to say, it is employed to denote a situation that is temporally bounded in the past and reported for its own sake. Conversely, the present perfect is indicative of the present relevance of a past situation (Comrie 1976; Harris 1982). As demonstrated in (19) and (20), YOK does not employ alternation between present perfect and preterite forms.

- (19) Mouth: /destekle-mi-yor-Ø/
 Manual: DEAF SUPPORT YOK, RIGHT EXIST
 ‘It has not supported the deaf person. You’re right!’
 [41.014.P51 S09:17 E09:20]
- (20) ATATÜRK BORN YOK₊, BEFORE
 ‘Atatürk was not born yet. It had been before.’
 [17.004.P22 S09:35 E09:38]

In the context of inflected mouthings, example (19) co-occurs with the Turkish mouthings *destekle-mi-yor-Ø* [support-NEG-IMPF-3SG].⁴ Assuming that language contact is the principal force behind mouthings in a code-blending setting, signers subconsciously develop formal and semantic congruence between two morphological systems (in this case, TİD and Turkish) (for a detailed discussion, see Emmorey et al. 2005).

In the view of Croft (1991), a communicative necessity for additional emphasis represents the functional input for the transformation from type B to type C, wherein the existential negation is expanded to negate verbal clauses. The relationship between negation and interrogatives is a crosslinguistic phenomenon. Interrogatives are less direct than negation and serve as a face-saving strategy for expressing negation. For example, in TİD, negation may be indicated by the interrogative marker (i.e., brow raising), followed by the negative existential element YOK (and mostly by PALM.UP), as seen in (21) and (22).

- (21) br hs
 POSITIVE VAR, YOK PALM.UP
 ‘There’s nothing positive.’
 Lit: ‘Is there anything positive? No, of course not.’
 [07.010.P11 S06:27 E06:28]
- (22) br hs
 BUS COMMUTE SAFE, YOK PALM.UP
 ‘It’s not safe to commute by bus.’
 Lit: ‘Is it safe to commute by bus? No, of course not.’
 [07.009.P10 S01:06 E01:08]

In these examples, both negation and an emotional state, potentially indicating displeasure, are conveyed. Also, this linguistic construction is frequently employed as an existential negator to generate an emphatic negative form. This type of usage has been documented on numerous occasions and has gained widespread acceptance. It does not appear to be confined to a particular emphatic context of utterance. As evidenced by examples (23)–(25), the usage of YOK appears to have emerged in utterances denoting strong denials by the speaker. The complexity inherent in these examples stems from the speaker’s deliberate employment of a specific denial strategy, aimed at conveying a particular case in an indirect manner.

- (23) PT5.close.bend:PRO1 HEAD EXPAND YOK
 ‘It is not case that my knowledge was improving.’
 [01.009.P3 S03:02 E03:04]
- (24) FATHER MOTHER INFORMATION ₃GIVE₁ YOK
 ‘It was not a case that my parents informed me.’
 [07.009.P10 S02:09 E02:11]
- (25) TRAIN GUIDE YOK
 ‘It was not the case that they trained and guided them.’
 [21.002.P25 S00:05 E00:07]

⁴ The following abbreviations are used in glossing spoken Turkish and mouthings from Turkish: 3 third person; DAT dative; EX existential; IMPF imperfective; NEG negation; PRTC participle; SG singular.

It is clear that the choice to use the existential negator *yok* shows a pragmatic need for greater emphasis, and this strategy is more effective than the standard method of negation. From a semantic standpoint, this reanalysis has given rise to the use of the construction as a denial operator, a usage that has also been attested in spoken Turkish (Seydi 2020), as illustrated in (26).

- (26) *Okul-a git-tiğ-i yok.*
 school-DAT go-PRTC-3SG NEG.EX
 ‘It is not the case that he is going to the school.’
 (Seydi 2020: 653)

In the existing literature on the subject, the grammaticalization of stand-alone negation words is a well-documented phenomenon. These words, which are also known as “absolute negators”, “pro-sentence words no!”, “negative replies to polarity questions”, “short answers no!”, “negative interjections”, and so on, have been the focus of numerous studies. This phenomenon can be attributed to the emergence of negative existential forms (Croft 1991; Veselinova 2014, 2016). Veselinova (2013: 127–133) notes that the development of negative existentials into pro-sentences and subsequently into standard negators has also been attested in other languages. As shown in examples (27) and (28), the form *yok* in TİD has effectively become the default wording for a brief affirmative response to a yes/no question, represented by the interjection ‘No!’.

- (27) A: PRESS.REMOTE TV REMOTE WATCH
 ‘Do you turn on the TV with the remote? And watch it?’
 B: *yok*
 ‘No!’
 [35.019.P44 S01:48 E01:50]
- (28) A: PT1:PRO2 RELIGION SCHOOL EDUCATION GO PT1:PRO2
 ‘Did you go to a religious school?’
 B: *yok, hiç* PT5.close.bend:PRO1
 ‘No!, I’ve never been.’
 [41.004.P49 S01:17 E01:20]

To conclude, it is reasonable to say that the occurrence of negative existential sign *yok* in the postverbal position allows it to be interpreted as a standard negator. Contrary to earlier assumptions that the negative existential marker *yok* was confined to clause-final predicate position and predominantly employed in existential function, this study has demonstrated that *yok* is also utilized in standard negation in postverbal position.

6 Conclusions

The present study is grounded in synchronic evidence derived from Croft’s (1991) negative existential cycle, a theoretical model postulating a connection between negation and the existential predicate as a driving force behind the evolution of standard negators. It demonstrates that TİD presents characteristics of stage B ~ C, wherein *yok* is progressively substituting for the verbal negator in the grammatical system. However, it has not yet been extended to the whole grammatical system and is currently limited to specific contexts.

In the context of the theory and modeling of language change, it is crucial to emphasize that the NEC is a variationist model. Its stages do not progress sequentially; rather, they tend to coexist. The synchronic data from the TİD provide substantial support for this assertion, demonstrating that standard negativity can be encoded in alternative ways. Croft’s (1991) theoretical framework, particularly the identification of the intermediate B ~ C stage, provides a valuable insight into the processes of negation and the connection between negation and negative existential predication, along with their relationship to other domains within the grammar. In the context of TİD, two domains of inquiry are the perfective aspect and the emphatic form. Applying this model suggests that the negative existential sign *yok* has progressed along the following pathway:

negative existential marker > negative perfective marker > standard negator

To conclude, in the following examples, (29) and (30), the standard negative marker *DEĞİL* and *PALM.UP* cooccur with the negative existential mouthing for a particular instance of standard negation. Within the framework of grammaticalization, units characterized by distinct linguistic content, originating from two discrete channels, have the capacity to undergo integration within the domain of visual-gestural modality. The preliminary observations concerning the role of negative existential mouthings in standard negation thus give rise to a number of theoretical inquiries regarding the characteristics of multimodal grammar in signed modality.

- (29) Mouth: _____ /yok/
 Manual: YOUNG BEFORE PT5.close.bend:PRO1, SWEAT *DEĞİL* PT5.close.bend:PRO1
 ‘Before, when I was young, I didn’t sweat.’
 [06.013.P7 S09:39 E09:41]
- (30) Mouth: _____ /yo/
 Manual: PT5.close.bend:PRO1 MEMORIZE *PALM.UP*
 ‘I didn’t memorize it.’
 [01.009.P3 S04:56 E04:58]

Furthermore, the interaction of existential mouthings and negative manual signs in NEC offers a novel perspective on the concept of “multimodal grammar”, thereby supporting the notion that every construction has a multimodal potential in sign languages. Therefore, it is argued that these issues should be regarded as a motivating factor for reevaluating and refining the conception of “construction”, rather than for excluding multimodality in sign languages. Future research on negative existentials and their multimodal properties in TİD and other sign languages will provide further insights into the nature of the Croft cycle.

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