

# John Benjamins Publishing Company



This is a contribution from *Historical Linguistics 2017. Selected papers from the 23rd International Conference on Historical Linguistics, San Antonio, Texas, 31 July – 4 August 2017.*

Edited by Bridget Drinka.

© 2020. John Benjamins Publishing Company

This electronic file may not be altered in any way.

The author(s) of this article is/are permitted to use this PDF file to generate printed copies to be used by way of offprints, for their personal use only.

Permission is granted by the publishers to post this file on a closed server which is accessible to members (students and staff) only of the author's/s' institute, it is not permitted to post this PDF on the open internet.

For any other use of this material prior written permission should be obtained from the publishers or through the Copyright Clearance Center (for USA: [www.copyright.com](http://www.copyright.com)).

Please contact [rights@benjamins.nl](mailto:rights@benjamins.nl) or consult our website: [www.benjamins.com](http://www.benjamins.com)

Tables of Contents, abstracts and guidelines are available at [www.benjamins.com](http://www.benjamins.com)

# Contact and change in Neo-Aramaic dialects

Geoffrey Khan

University of Cambridge

Aramaic, a Semitic language, has survived down to modern times as a spoken language in a large diversity of Neo-Aramaic dialects. This paper examines various aspects of contact-induced linguistic change in the subgroup of dialects known as North-Eastern Neo-Aramaic (NENA). These dialects have for many centuries been in contact with various other languages, including Semitic (Arabic) and non-Semitic (Kurdish, Persian, Armenian, Turkic languages). Various motivating factors can be identified for contact-induced change in the NENA dialects. These are sociolinguistic and internal systemic. When change occurs it often involves only partial convergence. Change sometimes results in imitations of the morphology of the contact language using internal morphological elements. Sociolinguistic and internal systemic factors can also inhibit change in a contact situation.

**Keywords:** Aramaic, Neo-Aramaic, contact-induced change, perfect, copula, word order, homophony, aspiration, ergative, Kurdish, Armenian

## 1. The Neo-Aramaic dialects

The Neo-Aramaic dialects are modern vernacular forms of Aramaic, a Semitic language, which has a documented history in the Middle East of over 3,000 years, the earliest inscriptions being datable to approximately 1,000 B.C. The Neo-Aramaic dialects that have survived down to modern times are generally classified into four subgroups:

1. Central Neo-Aramaic (southeastern Turkey west of the Tigris)
2. North-Eastern Neo-Aramaic (northern Iraq, southeastern Turkey and western Iran)
3. Neo-Mandaic (southwestern Iran)
4. Western Neo-Aramaic (Syria)

Due to upheavals in the Middle East over the last one hundred years thousands of speakers of Neo-Aramaic dialects have been forced to migrate from their homes or have perished in massacres. As a result, the dialects are now highly endangered.

In this paper I shall focus on the Neo-Aramaic dialects of the NENA subgroup, which was spoken by Christian and Jewish communities. The dialects of this subgroup have in general undergone a more advanced degree of historical change than other subgroups. Within the NENA subgroup, moreover, historical change has resulted in considerable diversity across the various dialects (Khan, 2007, 2011).

One factor that has had a bearing on divergent development of dialects is the existence of social boundaries between communities. This is reflected most clearly by the fact that there are many differences in all levels of grammar and also in the lexicon between dialects spoken by Christians and those spoken by Jews in the same geographical area. This is exemplified in (1), in which selected features from the Christian and Jewish dialects of Urmi (northwestern Iran) are compared:

(1)	Christian Urmi (Khan, 2016)	Jewish Urmi (Khan, 2008a)
	<b>Phonology</b>	
	* $\theta$	<i>t</i>
	* <i>bay<math>\theta</math>a</i> 'house'	<i>b<math>\acute{e}</math>ta</i>
		<i>l</i>
		<i>bel<math>\acute{a}</math></i>
	<b>Morphology</b>	
	3ms gen. suffix	<i>-u</i>
		<i>-<math>\acute{e}</math>u</i>
	1ms copula	<i>-<math>\acute{i}</math>v<math>\acute{a}</math>n</i>
		<i>-<math>\acute{i}</math>l<math>\acute{e}</math>n</i>
	<b>Syntax</b>	
	Word order	basic VO
		basic OV
	<b>Lexicon</b>	
	big	<i>+j<math>\acute{u}</math>ra<sup>1</sup></i>
	hair	<i>+m<math>\acute{a}</math>s<math>\acute{y}</math><math>\acute{e}</math></i>
	he went	<i>x<math>\acute{á}</math>fl<math>\acute{e}</math></i>
		<i>z<math>\acute{á}</math>ll<math>\acute{e}</math></i>

It is important to note that the Christian and Jewish communities in the region were not separated from each other geographically or physically (there were no Jewish ghettos). There was, moreover, professional contact between them. The crucial factor that induced divergent linguistic development was the different group identities and social networks of the two communities (Milroy, 1987; Trudgill, 1986, 1989).

1. The symbol + denotes suprasegmental pharyngealization of the word.

Another major factor that has given rise to dialectal diversity is the impact of languages in contact with Neo-Aramaic in Western Asia. Numerous languages, belonging to a variety of language families, are currently in contact with the NENA dialects. The major ones include Kurdish (Kurmanji and Sorani varieties), Persian, Armenian, Turkic and Arabic. The influence was almost completely unidirectional, since there is no clear evidence of convergence of these languages with NENA, apart from a few NENA loanwords in Kurdish (Chyet, 1995).

In this paper I shall examine various aspects of contact-induced change in the NENA dialects.

## 2. Constraints on change

Firstly I should like to draw attention to factors that have blocked change.

### 2.1 Constraint on lexical transfer

One of these is a socially-motivated constraint on lexical transfer from contact languages. This is reflected by the almost total exclusion of Armenian loanwords from NENA. Many speakers of NENA dialects were in close contact with speakers of Armenian. This contact was particularly close in the Urmi region, where there were many intermarriages between the Christian NENA-speaking communities and the Armenian-speaking communities. This contact is reflected by borrowing of some features of phonology and syntactic structure, but there are virtually no Armenian loanwords in the NENA dialects of the Urmi region and no documented code-switching. This appears to be the result of a deliberate attempt to mark a boundary between the group identity of the NENA-speaking community from that of the Armenian-speaking community. The motivation is the need to preserve NENA group identity in a situation of intimate social connection and cultural homogeneity between the two groups, in which the boundaries between group identities are particularly under threat. No such attempt was made to exclude loanwords from socially more distant groups such as those of speakers of Kurdish or Turkic, who do not constitute a threat to the group identity of NENA-speakers.<sup>2</sup> The replication in NENA of Armenian phonological features and syntactic patterns would have been below speakers' "level of awareness" (cf. Silverstein, 1981).

---

2. For a similar phenomenon of conscious lexical exclusion between speech communities in close contact in Amazonia see Epps and Stenzel (2013, p. 36) and Floyd (2013), and the general discussion about language contact in the region by Aikhenvald (2003).

## 2.2 Size of community and geographical location

Other factors that constrain convergence with contact languages include the size of the language community and the terrain of its geographical location. Some of the most conservative NENA dialects are those that were spoken by the Christian Tiyare tribes, who, until 1915, lived in a large group of NENA-speaking villages in the Hakkari mountains of southeastern Turkey (Gaunt, 2006, p. 414; Talay, 2008a, 2008b). The dialects of NENA-speaking communities that were smaller in size have typically converged to a greater extent with languages in contact. Some of the dialects that have undergone the most radical contact-induced linguistic changes are those spoken by communities of Jews in northeastern Iraq and western Iran. All of these communities were small tight social networks embedded within villages or towns where the majority of the population spoke other languages. Many were very small communities, in some cases consisting of only a handful of families in a village, e.g. Dobe, Ruwanduz, Rustaqa (Khan, 2002b). As for terrain, the Hakkari region where the Tiyare tribes lived was mountainous, which is likely to have contributed to their geographical isolation from contact languages and also made the networks between the Tiyare villages looser. A high density of population of NENA speakers in villages on the Urmi plain (northwestern Iran, Gaunt, 2006, p. 417), which were less geographically isolated, did not result in such linguistic conservatism, on account of higher exposure to contact and a geography that was more conducive to tighter networks. The linguistic conservatism of the Tiyare tribes appears to be the result of a combination of their geographical isolation and their large population of loose networks. This would correspond to the theory of socio-linguists that innovations are diffused less easily in large loosely networked communities than in small tightly networked communities (e.g. Nettle, 1999, p. 139; Trudgill, 2009, p. 102).

## 2.3 Potential homophony

A further factor that blocks contact-induced change is the need to prevent homophony in linguistic systems. An example of this can be found in the Jewish dialects on the eastern periphery of the NENA area, in western Iran and adjacent areas in northeastern Iraq. In the majority of NENA dialects the subject inflection of the past stem of verbs is expressed by a series of oblique suffixes. The verbal system of Jewish dialects on the eastern periphery has converged more closely with that of Iranian languages of the area and has replaced the oblique inflection of past stems with direct, nominative, person suffixes in intransitive verbs that do not have agentive actionality.<sup>3</sup> This has taken place in all non-agentive verbs except the copula

---

3. For further details of this aspect of the NENA verbal system see Coghill (2016) and Khan (2017).

verb ‘to be’. The reason for this is that a change from oblique to direct person suffixes would have resulted in homophony between the past and present copula:

- (2) J. Sanandaj<sup>4</sup> (western Iran) (Khan, 2009)
- |                    |                   |            |
|--------------------|-------------------|------------|
| past transitive:   | <i>fte-le</i>     | ‘he drank’ |
|                    | drink.PST-OBL.3MS |            |
| past intransitive: | <i>bxe-Ø</i>      | ‘he wept’  |
|                    | weep.PST-NOM.3MS  |            |
| past copula:       | <i>ye-le</i>      | ‘he was’   |
|                    | be.PST-OBL.3MS    |            |
| present copula:    | <i>ye-Ø</i>       | ‘he is’    |
|                    | be.PRS-NOM.3MS    |            |

#### 2.4 Change inhibited by contact

Finally, contact with another language can act as a constraint on change of a particular feature, if the contact language shares this feature with NENA. This applies to some NENA dialects that have been in contact with Arabic dialects for many centuries. On account of the genetic relationship between Arabic and Aramaic, both of which are Semitic languages, they share some features that are not found in languages of other genetic families in the area. In NENA dialects in contact with Arabic certain features that correspond in form to those of the Arabic dialects of the area are preserved whereas these features undergo change in NENA dialects that are not in contact with Arabic. An example of this is the development of the interdental consonants /θ/ and /ð/, which belonged to the historical consonantal inventory of the NENA dialects. In many dialects these have been eliminated, in most cases by merging them with stops or sibilants, on account of the fact that interdentals do not occur in the contact languages. On the Mosul plain in northern Iraq, however, where NENA dialects have been in close contact with Arabic dialects that have interdentals, the NENA interdentals are preserved. This applies, for example, to the NENA dialect of Qaraqosh (Mosul plain, Khan, 2002a), which preserves interdentals as distinct from stops. This is contrasted below in (3) with the Christian NENA dialect of Urmi (northwestern Iran, Khan, 2016), in which the interdentals have merged with stops:

- (3) Mosul Arabic<sup>5</sup> Qaraqosh C. Urmi
- |          |          |     |
|----------|----------|-----|
| /t/, /θ/ | /t/, /θ/ | /t/ |
| /d/, /ð/ | /d/, /ð/ | /d/ |

4. Christian and Jewish NENA dialects of a particular place are distinguished by the abbreviations C. and J. respectively.

5. Jastrow (1979).

Some other documented cases of contact inhibiting change involves, as here, the contact of closely related languages, e.g. Jastrow (2015), who discusses some cases of the conservative influence of Arabic on the phonology of Central Neo-Aramaic dialects, and Enrique-Arias (2010) on the lack of change in Spanish in Majorca due to contact with Catalan.<sup>6</sup> Dickey (2011), in his discussion of the conservative influence of German on the western Slavic verbal system calls this a process of ‘replica preservation’.<sup>7</sup>

### 3. Systemic motivations for contact-induced change

#### 3.1 Elimination of homophony

We have seen in § 2.3. how contact-induced change may be blocked in a particular item in a linguistic system if this change would have eliminated functionally significant morphological distinctions. Conversely, if functionally significant morphological distinctions have been lost by internal developments in a NENA dialect, then convergence with contact languages may take place to compensate for this.

An example of such systemically motivated borrowing can be identified in the paradigm of the possessive suffixes in NENA. The 2fs suffix is *-ax*. The historical form of the 2ms suffix is *\*-āx* and by the normal process of historical phonology the reflex of this in the modern NENA dialects should have been *-ax*, i.e. a homophone of the 2fs suffix. In order to resolve this homophony the long *\*ā* of the historical 2ms form *\*-āx* shifts to /o/, which results in the maintenance of paradigm distinction between the 2ms *-ox* and 2fs *-ax*. The shift of *\*ā* to a back rounded vowel is not a general feature of NENA but is a feature of languages spoken in areas adjacent to NENA to the west of the Tigris river. This applies to Kurdish and Armenian dialects of the area and also the Central Neo-Aramaic subgroup (Jastrow, 2011). The shift of *\*ā* > /o/ in the 2ms suffix *-ox*, which is a general feature of all NENA dialects, can be identified as a borrowing from the phonology of neighbouring languages that is motivated by a morphological system.<sup>8</sup>

6. I thank Sarah Thomason for the last reference.

7. I am grateful to one of the anonymous reviewers for this reference.

8. Cf. the work of Malkiel (1968, 1976) on the morphological motivations for “irregular” sound changes in Romance.

### 3.2 Enrichment of resources

In some cases a borrowing from contact languages can result in the enriching of the original linguistic systems in NENA dialects. An example of this is the development of a phonemic distinction between aspirated and unaspirated unvoiced stops in some NENA dialects. In earlier Aramaic, and Semitic in general, unvoiced stops are aspirated. In some NENA dialects, such as C. Urmi (Khan, 2016, vol. 1, 92–110), an additional series of unaspirated stops and affricates has developed through convergence with the phoneme inventories of Kurmanji Kurdish and Eastern Armenian (in (4) the unaspirated phonemes are distinguished with a circumflex diacritic above or below the letter):

(4)		Proto-NENA	C. Urmi	E. Armenian	Kurmanji
	<b>labials</b>				
	voiceless aspirated	*p <sup>h</sup>	/p <sup>h</sup> /	/p <sup>h</sup> /	/p <sup>h</sup> /
	voiceless unaspirated	–	/p̂/	/p̂/	/p̂/
	voiced	*b	/b/	/b/	/b/
	<b>dental/alveolar</b>				
	voiceless aspirated	*t <sup>h</sup> , *θ	/t <sup>h</sup> /	/t <sup>h</sup> /	/t <sup>h</sup> /
	voiceless unaspirated	–	/t̂/	/t̂/	/t̂/
	voiced	*d, *ð	/d/	/d/	/d/

The unaspirated stops have developed in various contexts in C. Urmi and are put to functional use. One such case is found in the morphophonology of verbs. The past perfective inflection of NENA verbs begins with a consonant cluster. When the first consonant of the cluster is a fricative and the second is an unvoiced stop, the stop is unaspirated in all dialects by a well-known process of de-aspiration after fricatives, e.g.

(5)	Qaraqosh (Khan, 2002a)	
	past perfective	present
	/xp <sup>h</sup> ərre/ [xp̂ərre]	/xap <sup>h</sup> ər/ [xap <sup>h</sup> ər]
	dig.PST.OBL.3MS	dig.PRS.3MS
	'he dug'	'he digs'
	root /x-p <sup>h</sup> -r/	'to dig'

In NENA dialects that have unaspirated stops in their phonological system, such as C. Urmi, the unaspirated allophone in the cluster of the past perfective forms is re-analysed as an underlying unaspirated phoneme, i.e. [xp̂] > /xp̂/. This has been licensed by convergence with the phonological system of languages in contact. As a result, the unaspirated stop has come to be analysed as a radical of the morphological root, i.e. /x-p̂-r/. In other inflections of the verb where the stop is separated from the fricative by a vowel, therefore, the stop is still unaspirated:



(6) C. Urmi	(Khan, 2016)
past perfective	present
/x <sup>h</sup> ǝrrə/ [x <sup>h</sup> ǝrrə]	/xa <sup>h</sup> ǝr/ [xa <sup>h</sup> ǝr]
dig.PST.OBL.3MS	dig.PRS.3MS
‘he dug’	‘he digs’
root /x- <sup>h</sup> -r/ ‘to dig’	

The reanalysis of the allophone as an underlying unaspirated stop has the function of regularizing the inflectional system and reducing complexity in the correspondence between surface phonetics and the underlying phonology. This situation reflects Dahl’s observation (2004, pp. 42–45) that an increase in complexity of resources (in our case the addition of a new series of phonemes) can be sometimes matched by a decrease in complexity of the rules of a language system.

#### 4. Partial convergence

##### 4.1 Perfect construction

The various NENA dialects exhibit differing degrees of convergence with the contact languages. This applies, for example, to the convergence of the NENA verbal system with that of the Iranian languages. The verbal system exhibited by the NENA dialects reflects a major restructuring of the system found in earlier Aramaic due to contact with Iranian. This included the development of ergativity in some constructions, which is a feature of Western Iranian (Coghill, 2016; Jügel, 2015). The convergence of most NENA dialects with the Iranian ergative structures, however, was only partial. This is clearly seen in the development of the NENA perfect. In many NENA dialects an innovative perfect construction has developed consisting of a resultative participle and copula. This replicates a Kurdish model. In Kurdish the construction has ergative alignment, whereby the participle and copula agree with the object of a transitive clause:

(7) Kurmanji	(Thackston, 2006a)
<i>wî ez dît-ime</i>	
3s.OBL 1s.NOM see.PTCP-COP.1s	
‘He has seen me’	

In most NENA dialects, by contrast, transitive perfect clauses have accusative alignment, in that the copula and participle agree with the subject and the object has oblique marking. NENA replicates the morphological configuration of the Kurdish model (participle + copula) but not the syntactic alignment or argument structure of the Kurdish construction, e.g.

- (8) C. Barwar (northern Iraq) (Khan, 2008b)
- a. 'aw xəzy-əle-li  
he.NOM see.PTCP.M-COP.3MS-OBL.1S  
'He has seen me'
- b. 'ay xziθ-əla-li  
she.NOM see.PTCP.F-COP.3FS-OBL.1S  
'She has seen me'

Some Jewish dialects on the eastern periphery of the NENA area, however, exhibit greater degrees of convergence with the Kurdish model. In the Jewish dialects of western Iran, for example, the participle and the copula agree with the object in transitive perfect constructions, e.g.

- (9) J. Sanandaj (Khan, 2009)
- 'o-gora baxt-äke grəfta-ya  
that-man woman-the pull.PTCP.FS-COP.3FS  
'The man has pulled the woman'

What both these perfect constructions across the various dialects have in common is the head of the construction consisting of participle and copula. This is a replication of the corresponding morphology of the head of the perfect construction of Kurdish. In this case, therefore, there is a greater tendency to replicate the head of the construction than its morphosyntax and argument structure. NENA dialects that replicate also the syntactic structure can be said to have converged to a greater extent with the contact language. This can be expressed in the following hierarchy of convergence, in which the symbol > is to be read 'shows a greater tendency to be replicated in a language contact-situation than':

- (10) head constituent > morphosyntax and argument structure of head

One can possibly identify a parallel to this split between converged head constituent and non-converged morphosyntax in the distinction in codeswitching between embedded language and matrix language (Myers-Scotton, 1993). According to Myers-Scotton (1993, p. 83), all system morphemes which have grammatical relations external to the head constituent will come from the matrix language even if the head is from the embedded language, i.e. embedded language head constituent with matrix language morphosyntax.

In the model of contact-induced change proposed by Matras and Sakel (2007), one may say that the head constituent acts as the "pivot" of the convergence and the "replica construction evolves around the new pivot in a way that generally respects various constraints of the replica language" (Matras & Sakel, 2007, p. 830).

## 4.2 Copula

In earlier Aramaic the indicative present copula in nominal sentences is expressed by an anaphoric pronoun, which is typically enclitic. This is illustrated, for example, by Syriac, which has paradigms of independent personal pronouns and a corresponding paradigm of enclitic forms of these pronouns, which function as copulas:

(11) Syriac

	Independent pronoun	Enclitic pronominal copula
3ms.	<i>hū</i>	<i>-ū</i>
3fs.	<i>hī</i>	<i>-ī</i>
3mpl.	<i>hennōn</i>	<i>-ennōn</i>
3fpl.	<i>hennēn</i>	<i>-ennēn</i>
2ms.	<i>'att</i>	<i>-att</i>
2fs.	<i>'att</i>	<i>-att</i>
2mpl.	<i>'attūn</i>	<i>-ttūn</i>
2fpl.	<i>'attēn</i>	<i>-ttēn</i>
1s..	<i>'enā</i>	<i>-nā</i>
1pl.	<i>ḥnan</i>	<i>-nan</i>

Enclitic copulas are an areal feature of the region and are found in the languages that are in contact with NENA, e.g. Armenian, Turkic languages, Kurdish and Persian. An enclitic copula is found also in Arabic dialects spoken in southeastern Turkey and northern Iraq belonging to the so-called *qaltu* sub-group (Jastrow, 1978, pp. 131–136). In Armenian and Iranian languages the copula is in origin a verb, though in most cases it has been reduced to verbal subject person markers.

Examples of the correspondence between the Kurdish enclitic copula and the person inflection of the present verb are given here for the standard forms of Kurmanji (Northern Kurdish) and Sorani (Central Kurdish):

(12)

	Kurmanji Kurdish <sup>9</sup>		Sorani Kurdish <sup>10</sup>	
	Enclitic copula	Present verb inflection	Enclitic copula	Present verb inflection
3s	<i>-e</i>	<i>-e</i>	<i>-a</i>	<i>-e(t)</i>
3pl	<i>-in</i>	<i>-in</i>	<i>-in</i>	<i>-in</i>
2s	<i>-î</i>	<i>-î</i>	<i>-î(t)</i>	<i>-î(t)</i>
2pl	<i>-in</i>	<i>-in</i>	<i>-in</i>	<i>-in</i>
1s	<i>-im</i>	<i>-im</i>	<i>-im</i>	<i>-im</i>
1pl	<i>-in</i>	<i>-in</i>	<i>-în</i>	<i>-în</i>

9. Thackston (2006a, pp. 30, 34).

10. Thackston (2006b, pp. 25–26).

Some Jewish dialects on the eastern periphery of the NENA area exhibit a very close convergence with this Kurdish model, in that the copula, although pronominal in historical origin, has acquired verbal person inflection. This is seen, for example, in the J. Sanandaj NENA dialect:

(13)	J. Sanandaj		(Khan, 2009)
	Independent Pronoun	Indicative Enclitic Copula	Irrealis copula verb
	3ms. 'o	-y-e	<i>hāw-e</i>
	3fs. 'o	-y-a	<i>hawy-a</i>
	3pl. 'oni	-y-en	<i>hāw-en</i>
	2ms. 'āt	-y-et	<i>hāw-et</i>
	2fs. 'āt	-y-at	<i>hawy-at</i>
	2pl. 'axtu	-y-etun	<i>hāwe-tun</i>
	1ms. 'ana	-y-ena	<i>hāwe-na</i>
	1fs. 'ana	-y-an	<i>hawy-an</i>
	1pl. 'axni	-y-ex	<i>hāw-ex</i>

The enclitic copula has lost its structural relationship to the independent pronouns in J. Sanandaj. The inflectional endings of the enclitic copula have become those of the inflection of present verbal forms (i.e. verbal forms with a base that is derived historically from the active participle of earlier Aramaic). More specifically, the inflection of the copula resembles that of the present form of the verb *h-w-y* 'to be' (given in the right column above), which is used suppletively to express the irrealis and the future tense.

The majority of NENA dialects do not exhibit a complete levelling of the inflection of the copula with that of the person markers of verbs but rather only a partial convergence. There is variation in convergence to the Kurdish model within the copula systems of individual dialects. Three hierarchies in this internal systemic variation may be represented as follows (the sign > is to be read 'has a greater tendency to develop verbal morphology than'):

- (14) i. 1st and 2nd person > 3rd person  
 ii. Negative polarity > Positive polarity  
 iii. Past tense > Present tense

This is reflected by the fact that in the main body of NENA dialects the 1st and 2nd person forms of the positive indicative copula have verbal inflection but not the 3rd person forms (Khan, 2001, 2012) and in several NENA dialects the 3rd person form has developed verbal inflection in the negated copula and past copula but not in the positive present copula (Khan, forthcoming).

The items on the left side of these hierarchies are generally regarded as the marked members of the categories in question. There is, therefore, a greater

tendency here for convergence with the contact language to occur in the case of the marked items. This phenomenon may be compared to the observed fact that in language contact situations there is often loss of complexity, in particular in the non-dominant language. It has been reported that marked, i.e. complex, constructions in the non-dominant language are lost in language contact (e.g., Clyne, 1992). This in turn could perhaps be correlated with the loss of complexity in situations of suboptimal acquisition of language (Dahl, 2004, p. 281). Borrowing of a feature from a contact language is in effect the loss of that feature in the replicator language. Marked forms, therefore, would be lost more readily, on account of their semantic complexity, than unmarked forms, which are underspecified semantically.

### 4.3 Word order

Various degrees of convergence with contact languages across the NENA dialects can be identified also in the order of objects in verbal clauses. Christian dialects and Jewish dialects west of the Zab have a basic word order of VO in verbal clauses. Jewish trans-Zab dialects have a basic order OV. The OV syntax of the Jewish trans-Zab dialects is an innovation that has come about through convergence with contact languages, such as Kurdish and Turkic, which also have a basic OV order.

The NENA dialects that have a basic VO order in verbal clauses may front the O argument for pragmatic purposes. This pragmatic fronting is more frequent in some dialects than in others. It is more frequent in dialects in Iran (e.g. C. Urmi) than in dialects in Iraq (e.g. C. Barwar). This is seen in (15), which presents relative percentages of the occurrences of OV and VO in equivalent samples from C. Barwar (Iraq) and C. Urmi (northwestern Iran). These are compared with J. Urmi (trans-Zab, northwestern Iran), which has a basic OV order:

(15)		VO	OV
	C. Barwar	80%	20%
	C. Urmi	50%	50%
	J. Urmi	7%	93%

The differences in frequency of OV between C. Barwar and C. Urmi can be interpreted as reflecting differing degrees of convergence with the basic OV syntax of contact languages. This convergence is clearly greater in C. Urmi.

The lack of clear distinction between the overall frequency of VO and OV in the C. Urmi dialect evokes the question as to how one should decide what the basic word order is in this dialect. From a comparative perspective of NENA one can identify in addition to frequency also two further criteria:

- (16) Diagnostics for change of basic word form VO to OV
- i. Frequency of OV
  - ii. The auxiliary verb shifts to a position after the head verb
  - iii. The locus of pragmatic strategies involving the O argument shifts from the pre-verbal field to the post-verbal field

Certain verbal constructions in the C. Barwar, C. Urmi and J. Urmi dialects consist of a non-finite verbal form and a verbal copula that functions as an auxiliary (C. Barwar *hawe*, C. Urmi *ʼavə*, J. Urmi *hawe*). In C. Barwar and C. Urmi the auxiliary is placed before the lexical verbal form, whereas in J. Urmi it is placed after it, e.g.

- (17) C. Barwar: AUX—VERB *hawe*                         ʼəθya  
   be.AUX.3MS                         come.PTCP.MS  
   ‘He may have come.’
- C. Urmi:    AUX—VERB *ʼavə tiyya*
- J. Urmi     VERB—AUX *ədya-hawe*

The order lexical verb – auxiliary is the pattern that is found in Kurdish, e.g. Sorani (Thackston, 2006b, p. 61)

- (18) *hāti-bā*  
 come.PTCP-COP.IRR.3MS  
 ‘He may have come.’

The postverbal position of the auxiliary in J. Urmi, therefore, reflects a greater degree of convergence with Kurdish than the preverbal positions in C. Barwar and C. Urmi. Whereas C. Urmi frequently places object arguments before the verb, exhibiting thereby some degree of convergence with the OV syntax of Kurdish, the auxiliary position in this dialect does not converge with the syntax of Kurdish and is regularly placed before the verb. The difference between the two constructions is that the fronting of the object argument before the verb can be used as an optional pragmatic strategy that is not a grammaticalized syntactic pattern, whereas the position of the auxiliary cannot be changed for pragmatic purposes without the grammatical pattern changing. The position of the auxiliary vis-à-vis the head verb is a grammaticalized pattern and it only changes when there is a change of grammatical pattern. It reflects, therefore, a change in grammatical word order, i.e. basic word order. This correlates with an objectively verifiable increase in placement of the O argument before the verb and so it is justifiable to posit that the change in grammatical word order reflected by the changed auxiliary position is correlated with a change in basic grammatical order of the verb and its object complement. This is in line with the cross-linguistic tendency for auxiliary verbs to precede the lexical

verb in VO languages and follow the lexical verb in OV languages (Anderson, 2011, p. 297; Dryer, 2009; Greenberg, 1966, universal 16).

We may infer from this that convergence with the syntactic arrangement of the contact language is more likely if this order can be used with a pragmatic function without changing the basic grammatical word order:

(19) pragmatic strategy > grammatical pattern

The ultimate change of the basic grammatical order to OV in a dialect such as J. Urmi would be the completion of a pathway of grammaticalization of pragmatic strategies. This would be a syntactic correlate of the process of semantic change through grammaticalization proposed by scholars such as Traugott and König (1991) and Bybee (2010, 2015), whereby meaning changes by the grammaticalization of features in the pragmatic context of use. Already Meillet (1921, pp. 147–148) referred to grammaticalization not only of lexical items but also of the shift from Latin “free” word order to French “fixed” word order. Givón (1979, pp. 207–33) argues that language change may involve the shift from a pragmatic mode of communication (e.g. topic – comment) to a syntactic mode (subject – predicate) by a process he calls syntacticization. Lehmann (2008) discusses the grammaticalization of information structure, whereby “pragmatic relations lose their specificity”. In the case of word order change in NENA, the grammaticalization of information structure has been contact-induced, just as grammaticalization of lexical items may be contact-induced (Heine & Kuteva, 2002, 2003).

When OV becomes the basic grammatical order, as in J. Urmi, the preverbal field cannot be used as the locus of an effective pragmatic strategy. Instead use is made of the postverbal field for pragmatic strategies that are performed by object preposing in dialects with a basic VO order. In dialects with a basic VO order, for example, a topical referent is fronted to perform the pragmatic strategy of expressing the close cohesion of the event or situation with what precedes.

(20) C. Barwar (Khan, 2008b, p. 874)  
 'u-*fwíqle* zúze díye táma zille.<sup>l</sup> θéle xa-xèna,<sup>l</sup> 'an-zúze  
 and left.he money his there went.he came.3MS another DEM-money  
*fqíl-í-le* (OV) 'u zille.<sup>l</sup>  
 take.PST-ABS.PL.-ERG.3MS and-went.he  
 'He left his money there and went off. Another man came, **took the money** and went off.'

This pragmatic strategy of object fronting can be identified also in dialects that have a frequent OV order, but a basic grammatical order of VO, such as C. Urmi:

- (21) C. Urmi (Khan, 2016, vol. 2, p. 335)  
*márrə xa náfa ʔttən ju-<sup>+</sup>dússaḵ<sup>l</sup> bədmáyala <sup>+</sup>ʔalli. ... ʔo-náfa*  
 said.he a-man there.is in-prison resembles.he to.me DEM-man  
<sup>+</sup>*bəḵṭál-u=lə.* | (OV)  
 kill.PROG-OBJ.3MS=COP.3MS  
 ‘He said “There is a man in prison who resembles me.” ... He kills this man.’

In dialects with a basic, grammatical order of OV, such as J. Urmi, on the other hand, the same function is expressed by postposing the topical object after the verb, e.g.

- (22) J. Urmi (Khan, 2008a: 165)  
*əl-<sup>+</sup>hudaé <sup>+</sup>rába <sup>+</sup>rába <sup>+</sup>mjizilu.<sup>l</sup> <sup>+</sup>rába <sup>+</sup>talàn*  
 OBJ-Jews much much harassed.PST-ABS.3PL.-ERG.3PL (OV) much plunder  
*wádlu l-<sup>+</sup>hudaé.<sup>l</sup> (VO)*  
 do.PST-ERG.3PL OBJ-Jews  
 ‘They harassed the Jews a great deal. They plundered the Jews a lot.’

The use in J. Urmi of VO to express the pragmatic strategy that is expressed by OV in C. Barwar and C. Urmi is diagnostic of basic word order change in J. Urmi to OV. It distinguishes dialects where OV is basic from those in which, although it is frequent, it is still a pragmatic strategy (e.g. C. Urmi). The strategy is to use a structure that is chiasmic to the basic grammatical word order of the language system, even if this word order does not occur in the immediately preceding clause.

## 5. Imitation of morphology

A number of contact-induced changes in NENA dialects have resulted in morphological forms that are identical to, or at least very similar to, the phonetic shape of corresponding forms in the contact languages. An example of phonetic imitation can be found in the development of a preverbal particle in present indicative verbs in NENA dialects. This is a morphosyntactic construction that is found in most of the contact languages of the area. What is of particular significance is that there is convergence across the languages not only in morphosyntactic pattern but also in the phonetic shape of the preverbal particle, as can be seen in (24):

- (23) NENA (Txuma) *ki-fate* ‘he drinks’  
 Arabic (Azəx): *kū-nəktəb* ‘we are writing’  
 Armenian (Muš) *kə-sirim* ‘I love’



In all these languages the particle has a similar phonetic shape but each has developed using diverse types of morphological material that is internal to each language: NENA *ki-* < \**kā* ‘here’ + 3ms copula, Arabic *kū-* < demonstrative *k* + 3ms pronoun *uwe*, Armenian *kə-* < deictic particle ‘behold’ (Makaev, 1977).

Such cases of resemblance in phonetic shape of morphemes across languages in contact may be compared to the phenomenon of “homophonous diamorphs” that have been observed to occur in code-switching between genetically related languages (Muysken, 2000, pp. 133, 149). Clyne (1967) has suggested that the distinction between two codes may be neutralized at the point where they share a pair of homophonous diamorphs, since it is hard to classify such elements unambiguously in terms of either of the two codes. Code-switching between genetically related languages and, consequently, typically exhibiting a high degree of structural equivalence, referred to by Muysken (2000) as “congruent lexicalization”, involves switches of all lexical categories, including function words, and morphological integration (Law, 2017). In the case of the phenomenon of imitation in NENA, the languages are not necessarily genetically related nor is there a historically inherited homophony across morphemes, but rather homophonous diamorphs and structural equivalence are created by a process of contact-induced change. The phenomenon is an adaptive mechanism (for the concept see Farrar & Jones, 2002, p. 12) involving levelling of surface phonetic shape but retention of distinct underlying morphological representations. In the J. NENA dialect there was no extensive codeswitching, but there was massive lexical replacement. It would appear, therefore, that codeswitching is not a necessary condition for the creation of such diamorphs.

## 6. Reflection of change in contact language

The final aspect of contact and change that I would like to draw attention to is illustrated in (24):

- (24) a. Bahdini Kurmanji (MacKenzie, 1961, pp. 210–211)  
*yê hatî*  
 EZ.MS come.PST.PTCP  
 ‘He has come.’
- b. J. Betanure NENA (Mutzafi, 2008, p. 79)  
*’ile əθya*  
 COP.3MS come.PST.PTCP.MS  
 ‘he has come’

In the Bahdini dialects of Kurmanji Kurdish a relative/attributive particle, known as *ezafe*, underwent change to a copula, via a cleft construction (Haig, 2011). Different dialects of Bahdini spoken across northern Iraq and south-eastern Turkey exhibit a variety of degrees of transitional development, to the extent that the grammatical category of the *ezafe* particle is often not transparent. The fact that NENA dialects in a particular area replicate such *ezafe* constructions with an unambiguous NENA copula (as in 24b) can be taken as evidence of the underlying morphosyntactic structure of the construction in the contact language, indicating that the change has reached completion.

## 7. Summary

In this paper I have presented an overview of some aspects of contact and change in the NENA dialects. A summary of the main points is as follows:

- Various constraints on contact-induced change may be identified, including socially-motivated resistance to lexical borrowing, factors blocking diffusion such as the large size of communities and loose networks, prevention of homophony in morphological systems, and the existence of structural similarities between forms in the NENA dialects and corresponding forms in contact languages.
- Contact-induced change may have an internal systemic motivation. If functionally significant morphological distinctions have been lost by internal developments in a NENA dialect, then borrowing from contact languages may be motivated to take place in order to compensate for this.
- Contact can increase the complexity of resources, which are put to use to reduce the complexity of linguistic systems.
- Historical change in NENA has advanced at different rates across the dialects. Different dialects exhibit different degrees of convergence. In many cases the convergence is partial. Hierarchies of features can be identified with regard to their relative tendencies to converge with contact languages.
- The outcome of contact-induced change can be a form that is identical to or closely resembles the phonetic shape of the corresponding form in the contact language.
- The replication by NENA of constructions in contact languages that are not transparent may cast light on the underlying structure of such constructions in the contact language.

## Abbreviations

ABS	absolutive	PL	plural
AUX	auxiliary	PROG	progressive
COP	copula	PRS	present
DEM	demonstrative	PST	past
ERG	ergative	PTCP	participle
F	feminine	S	single argument of canonical intransitive verb
IRR	irrealis	SG	singular
MS	masculine	1	first person
NOM	nominative	2	second person
OBJ	object	3	third person
OBL	oblique		

## References

- Aikhenvald, A. Y. (2003). *Language contact in Amazonia*. Oxford: Oxford University Press.
- Anderson, G. D. S. (2011). Auxiliary verb constructions (and other complex predicate types): A Functional–Constructional overview. *Language and Linguistics Compass*, 5(11), 795–828. <https://doi.org/10.1111/j.1749-818X.2011.00311.x>
- Bybee, J. L. (2010). *Language usage and cognition*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511750526>
- Bybee, J. L. (2015). *Language change*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139096768>
- Chyet, M. L. (1995). Neo-Aramaic and Kurdish: An interdisciplinary consideration of their influence on each other. *Israel Oriental Studies*, 15, 219–249.
- Clyne, M. (1967). *Transference and triggering*. The Hague: Nijhoff.
- Clyne, M. (1992). Linguistic and sociolinguistic aspects of language contact, maintenance and loss: Towards a multifacet theory. In W. Fase, K. Jaspaert, & S. Kroon (Eds.), *Maintenance and loss of minority languages* (pp. 17–36). Amsterdam: Benjamins. <https://doi.org/10.1075/sibil.1.04cly>
- Coghill, E. (2016). *The rise and fall of ergativity in Aramaic: Cycles of Alignment Change*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198723806.001.0001>
- Dahl, Ö. (2004). *The growth and maintenance of linguistic complexity*. Amsterdam: Benjamins. <https://doi.org/10.1075/slcs.71>
- Dickey, S. M. (2011). The varying role of po- in the grammaticalization of Slavic aspectual systems: Sequences of events, delimitatives, and German language contact. *Journal of Slavic Linguistics*, 19(2), 75–230. <https://doi.org/10.1353/jsl.2011.0009>
- Dryer, M. S. (2009). The branching direction theory of word order correlations revisited. In S. Scalise, E. Magni, & A. Bisetto (Eds.), *Universals of Language Today* (pp. 185–207). Berlin: Springer. [https://doi.org/10.1007/978-1-4020-8825-4\\_10](https://doi.org/10.1007/978-1-4020-8825-4_10)
- Enrique-Arias, A. (2010). On language contact as an inhibitor of language change: the Spanish of Catalan bilinguals in Majorca. In A. Breitbarth, C. Lucas, S. Watts, & D. Willis (Eds.), *Continuity and change in grammar*. (pp. 97–118). Amsterdam: Benjamins. <https://doi.org/10.1075/la.159.05enr>

- Epps, P. & Stenzel, K. (2013). Introduction. In P. Epps & K. Stenzel (Eds.), *Upper Rio Negro: Cultural and linguistic interaction in northwestern Amazonia* (pp. 13–52). Rio de Janeiro: Museu Nacional Museu do Índio – Funai.
- Farrar, K. & Jones, M. C. (2002). Introduction. In M. C. Jones & E. Esch (Eds.), *Language change: The interplay of internal, external and extra-linguistic factors* (pp. 1–18). Berlin-New York: De Gruyter Mouton. <https://doi.org/10.1515/9783110892598.1>
- Floyd, S. (2013). Semantic transparency and cultural calquing in the northwest Amazon. In P. Epps & K. Stenzel (Eds.), *Upper Rio Negro: cultural and linguistic interaction in northwestern Amazonia* (pp. 271–306). Rio de Janeiro: Museu Nacional Museu do Índio – Funai.
- Gaunt, D. (2006). *Massacres, resistance, protectors: Muslim–Christian relations in Eastern Anatolia during World War I*. Piscataway, NJ: Gorgias Press.
- Givón, T. (1979). *On understanding grammar*. New York: Academic Press.
- Greenberg, J. H. (1966). *Language universals with special reference to feature hierarchies*. The Hague: Mouton.
- Haig, G. (2011). Linker, relativizer, nominalizer, tense-particle. On the Ezafe in West Iranian. In F. H. Yap, K. Grunaw-Härsta, & J. Wrona (Eds.), *Nominalization in Asian languages: Diachronic and typological perspectives* (pp. 363–390). Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.96.13hai>
- Heine, B. & Kuteva, T. (2002). *World lexicon of grammaticalization*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511613463>
- Heine, B. & Kuteva, T. (2003). On contact-induced grammaticalization. *Studies in Language*, 27, 529–572. <https://doi.org/10.1075/sl.27.3.04hei>
- Jastrow, O. (1978). *Die mesopotamisch-arabischen qaltu-Dialekte* (Vol. 1). Wiesbaden: Harrassowitz.
- Jastrow, O. (1979). Zur arabischen Mundart von Mossul. *Zeitschrift Für Arabische Linguistik*, 2, 36–75.
- Jastrow, O. (2011). Țuroyo and Mlahşô. In S. Weninger, G. Khan, M. Streck, & J. Watson (Eds.), *The Semitic Languages: An International Handbook* (pp. 697–707). Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110251586.697>
- Jastrow, O. (2015). Language contact as reflected in the consonant system of Țuroyo. In A. M. Butts (Ed.), *Semitic languages in contact*. Leiden-Boston: Brill. [https://doi.org/10.1163/9789004300156\\_013](https://doi.org/10.1163/9789004300156_013)
- Jügel, T. (2015). *Die Entwicklung der Ergativkonstruktion im Alt- und Mitteliranischen – Eine korpusbasierte Untersuchung zu Kasus, Kongruenz und Satzbau*. Wiesbaden: Harrassowitz.
- Khan, G. (forthcoming). The diachronic development of the copula in Neo-Aramaic dialects.
- Khan, G. (2001). Quelques aspects de l'expression d' "être" en néo-araméen. In A. Donabédian (Ed.), *Langues de Diaspora. Langues en Contact* (pp. 139–148). Paris: Ophrys.
- Khan, G. (2002a). *The Neo-Aramaic dialect of Qaraqosh*. Boston, MA: Brill. <https://doi.org/10.1163/9789004348585>
- Khan, G. (2002b). The Neo-Aramaic dialect of the Jews of Rustaqa. In W. Arnold & H. Bobzin (Eds.), "Sprich doch mit deinen Knechten aramäisch, wir verstehen es!" 60 Beiträge zur Semitistik, *Festschrift für Otto Jastrow zum 60. Geburtstag* (pp. 395–410). Wiesbaden: Harrassowitz.
- Khan, G. (2007). The North-Eastern Neo-Aramaic Dialects. *Journal of Semitic Studies*, 52(1), 1–20. <https://doi.org/10.1093/jss/fgl034>
- Khan, G. (2008a). *The Jewish Neo-Aramaic dialect of Urmi*. Piscataway: Gorgias.
- Khan, G. (2008b). *The Neo-Aramaic dialect of Barwar* (Vols. 1–3). Leiden: Brill. <https://doi.org/10.1163/ej.9789004167650.i-2198>
- Khan, G. (2009). *The Jewish Neo-Aramaic dialect of Sanandaj*. Piscataway, NJ: Gorgias Press.

- Khan, G. (2011). North-Eastern Neo-Aramaic. In S. Weninger, G. Khan, M. Streck, & J. Watson (Eds.), *The Semitic languages: An international handbook* (pp. 708–724). Berlin-Boston: De Gruyter Mouton. <https://doi.org/10.1515/9783110251586.708>
- Khan, G. (2012). Remarks on the historical development of the copula in Neo-Aramaic. In F. Corriente, G. del Olmo Lete, Á. Vicente, & J.-P. Vita (Eds.), *Dialectology of The Semitic Languages Proceedings of the Iv Meeting on Comparative Semitics Zaragoza 11/6–9/2010* (pp. 25–31). Sabadell: AUSA.
- Khan, G. (2016). *The Neo-Aramaic dialect of the Assyrian Christians of Urmi* (Vols. 1–4). Leiden-Boston: Brill. <https://doi.org/10.1163/9789004313934>
- Khan, G. (2017). Ergativity in Neo-Aramaic. In J. Coon, D. Massam, & L. Travis (Eds.), *Oxford Handbook of Ergativity* (pp. 873–899). Oxford: Oxford University Press.
- Law, D. (2017). Language mixing and genetic similarity. *Diachronica*, 34, 40–78. <https://doi.org/10.1075/dia.34.1.02law>
- Lehmann, C. (2008). Information structure and grammaticalization. In E. Seoane & M. J. López-Couso (Eds.), *Theoretical and Empirical Issues in Grammaticalization* (pp. 207–229). Amsterdam: Benjamins. <https://doi.org/10.1075/tsl.77.12leh>
- MacKenzie, D. N. (1961). *Kurdish dialect studies*. London, New York: Oxford University Press.
- Makaev, E. A. (1977). The origins of the modal particle *ke* in Armenian. In N. Ya Gabaraev (Ed.), *Questions of Iranian and General Philology* (pp. 195–200). Tbilisi: Metsniereba.
- Malkiel, Y. (1968). The inflectional paradigm as an occasional determinant of sound change. In W. P. Lehmann & Y. Malkiel (Eds.), *Directions for historical linguist* (pp. 20–64). Austin: University of Texas Press.
- Malkiel, Y. (1976). Multi-conditioned sound change and the impact of morphology on phonology. *Language*, 52, 757–778. <https://doi.org/10.2307/413294>
- Matras, Y. & Sakel, J. (2007). Investigating the mechanisms of pattern replication in language convergence. *Studies in Language*, 31(4), 829–865. <https://doi.org/10.1075/sl.31.4.05mat>
- Meillet, A. (1921). *Linguistique historique et linguistique générale*. Paris: Champion.
- Milroy, L. (1987). *Language and social networks*. Oxford: Blackwell.
- Mutzafi, H. (2008). *The Jewish Neo-Aramaic dialect of Betanure (province of Dihok)*. Wiesbaden: Harrassowitz.
- Muysken, P. (2000). *Bilingual speech: A typology of code-mixing*. Cambridge: Cambridge University Press.
- Myers-Scotton, C. (1993). *Duelling languages: Grammatical structure in code-switching*. Oxford: Clarendon.
- Nettle, D. (1999). *Linguistic diversity*. Oxford: Oxford University Press.
- Silverstein, M. (1981). The limits of awareness. In *Working Papers in Sociolinguistics* (Vol. 84). Austin: Southwest Educational Development Laboratory.
- Talay, S. (2008a). *Die Neuaramaischen Dialekte Der Khabur-Assyrer in Nordostsyrien: Einführung, Phonologie und Morphologie*. Wiesbaden: Harrassowitz.
- Talay, S. (2008b). The neo-Aramaic dialects of the Tiyari Assyrians in Syria: with special consideration of their phonological characteristics. In G. Khan (Ed.), *Neo-Aramaic Dialect Studies* (pp. 39–63). Piscataway: Gorgias Press.
- Thackston, W. M. (2006a). *Kurmanji Kurdish. A reference grammar with selected readings*. Renas Media. Retrieved from <http://www.fas.harvard.edu/~iranian/Kurmanji/index.html>
- Thackston, W. M. (2006b). *Sorani Kurdish: A Reference Grammar with Selected Readings*. Retrieved from <internal-pdf://Sorani-Grammar-2192906496/Sorani-Grammar.pdf>

- Traugott, E. C. & König, E. (1991). The semantics-pragmatics of grammaticalization revisited. In E. C. Traugott & B. Heine (Eds.), *Approaches to Grammaticalization* (Vol. 1, pp. 189–218). Amsterdam: Benjamins. <https://doi.org/10.1075/tsl.19.1.10clo>
- Trudgill, P. (1986). *Dialects in contact*. Oxford: Blackwell.
- Trudgill, P. (1989). Contact and isolation in linguistic change. In L. E. Breivik & E. H. Jahr (Eds.), *Language change: contributions to the study of its causes* (pp. 227–238). Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110853063.227>
- Trudgill, P. (2009). Sociolinguistic typology and complexification. In G. Sampson, D. Gil, & P. Trudgill (Eds.), *Language complexity as an evolving variable* (pp. 98–109). Oxford: Oxford University Press.

