What social factors make languages more complex?

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Resumen
The present article is aimed at challenging the statement that all languages are equally complex by considering morphology and syntax. To support this claim, the following article will examine the impact of social factors, a possible implication of time and history, the effects of language contact, and the important influence that language learning and literacy exercises in language change. Finally, it will also address the influence of social and cultural sophistication on language complexity.
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Abstract
The present article is aimed at challenging the statement that all languages are equally complex by considering morphology and syntax. To support this claim, the following article will examine the impact of social factors, a possible implication of time and history, the effects of language contact, and the important influence that language learning and literacy exercises in language change. Finally, it will also address the influence of social and cultural sophistication on language complexity.
Keywords: language complexity, language, origins, social factors.

During the last centuries, the truism that all languages are equally complex has been shadowing the field of linguistics. In the 1950s, Charles Hockett reasoned that since all languages are used to accomplish similar communicative aims they need to be similar in complexity. In fact, he assumed that simplicity in one linguistic aspect (e. g. morphology) will imply the complexification of another (e. g. syntax) (Sampson 2009). In fact, Shosted (2006) attempted to prove this assumption finding no decisive conclusions on the issue. In addition, as Deutscher (2009) pointed out, the so called ALEC which stands for All Languages are Equally Complex has been reported as a *central finding* in the field of linguistics. Nevertheless, the arguments supporting this rather far-fetched assumption are far from being tangible, as providing concrete evidence will imply examining the complexity of all languages which until now no one has even attempted to embark on such an arduous job. Moreover, it was not until the beginning of the twentieth century when some researchers began to question the validity or plausibility of this *central finding* by challenging the reasons that supported this ambitious claim (Gil 2009). Hence in this essay, I will argue that all languages are not equally complex. Therefore, by especially considering morphology and syntax, I will discuss some of the social factors that may cause these differences in complexity among languages. Thus, the first part of this essay will analyse the implication of time and history on linguistic complexity. Then, I will address the issue of language contact by which languages might simplify or complexify differently. Moreover, I will describe the important role that language learning and literacy play in language change. The final part of the essay will be centred on examining the influence that the social and cultural sophistication exercises on languages

It seems to be quite difficult to find a complete definition for language complexity which accomplishes all the aspects that may add sophistication to a particular language. On the one hand, some scholars have regarded language complexity from a quantitative perspective, in the sense that the more grammatical rules, syntactic units, pragmatic distinctions or inflections that a language bears mean more linguistic complexity (Hawkins 2009). On the other hand, language complexity should also consider the internal complexity of syntactic rules or the difficulty in learning and process a particular language (Miestamo 2009). In fact, Arends (2001) states these qualitative aspects of language complexity despite being equally important to define language complexity, have often been disregarded. Thus, the issue of language complexity seems to be more difficult to address that it may appear. Therefore, this essay will be centred on determining any correlations that may exist between language complexity and social structures.

THE ROLE OF HISTORY AND TIME IN LANGUAGE COMPLEXITY

Gil (2009) underlined the important role that diachrony plays in accounting for grammatical complexity. Since languages are dynamic systems in continuous change, non-creole languages have been evolving throughout thousands of years. Nevertheless, unlike other human traits which have evolved over time for survival purposes, grammatical complexity, being more difficult than humans need to perform daily tasks, seems to be the result of "processes of self-organization whose motivation is system-internal" (Gil, 2009, p.33). In addition, according to Hurford (2009) languages undergo a cultural evolution over time by which they become more complex. Thus, it seems reasonable to suppose that languages which have been target of change over thousands of years have become more complex (Deutscher 2009). Moreover, as Sampson (2009) suggested languages may complexify over time until they cannot be processed by the human brain and they result more effortful to learn. Furthermore, Trudgill (2001) agrees that older languages are more complex than new. Thus, it can be concluded that languages are more likely to acquire complexity than become simpler over time.

Nevertheless, both Deutscher (2009) and Trugill (2009) noted that languages undergo processes of simplification over time as well. In fact, there is evidence from certain languages that these simplification changes do occur (Dahl 2004). For example, Modern English has lost the most part of the rich morphological inflection of Old English over time. In addition, Dahl (2004) claimed that both processes of simplification and complexification tend to occur simultaneously over time. Moreover, some linguists believe that languages have emerged from a simple language similar to creoles, and complexities have been added over time (e. g. McWorther 2001). Nevertheless, McWorther (2001) argued that languages retain these complexities while simplification occurs and both processes complement to each other finding a balance.

In addition, it is worth mentioning that some linguists argued that creoles are simpler than other languages because they have not had sufficient time to acquire the same complexities as other languages (e. Arends 2001, McWorther 2001). Nevertheless, other researchers such as Lefebvre (2001) have started to show that creole languages are not as simple as many scholars have assumed, since some of the irregularities present in the substratum languages are transferred to creoles by adult speakers.

LANGUAGE CONTACT

Language contact appears to be one of the most widely accepted causes that trigger both linguistic complexity and simplification (e. g. Sampson 2009, Trudgill 2004). According to Trudgill (2009) simplification and complexification may occur simultaneously in all languages. Nevertheless, he claimed that high contact situations lead to language simplification, while complexification tends to occur in low contact situations.

This is the case of the simplification of verbal system in Basque which is spoken by around 600, 000 on the north coast of Spain (Ethnologue). Although Basque is not Romance language its history cannot be conceived without attending to Spanish (Etxebarria 2004). Basque verbal inflexion distinguishes synthetic forms and periphrastic forms. Nowadays, only a handful of verbs maintain the original synthetic forms to express progressive aspect in present, for example the verbs *nator* 'come' and *dakit* 'know' bear its past synthetic forms *nentorren* came and *nekien* knew and hypothetic forms *banetor* and *baneki* respectively. The rest of the verbs in Basque have lost these synthetic forms and nowadays use their periphrastic forms, consisting of the auxiliary and main verb, to express progressive aspect (Landa & Elordui 2001). Moreover, according to Lakarra (2002) all the verbs in Basque presented synthetic conjugation. Nevertheless, nowadays only some of them have preserved this inflection, the most part of them have acquired a periphrastic construction which express tense, mood and aspect more transparently than their synthetic counterparts. In addition, Gómez and Sainz (1995) have suggested that this linguistic change seems to stem in the long term contact that Romance languages such as Latin and Spanish which bear periphrastic verbal forms have exercised on Basque.

In addition, Trudgill (2001) studied the so called Balkan Sprachbund which refers to the high contact situation where languages belonging to different families of the Indo-European have coexisted for a long time (e. g. Greek, Albanian, Bulgarian and Rumanian). He reported that some languages have converged in certain grammatical features which have lead to simplification such as the loss of certain case distinctions (e.g. genitive and dative), the expression of the future and present perfect tense by separate words rather than by morphological inflections and the loss of infinitive which is expressed through repetition of the inflected form of the verb which facilitates the processing of the sentence (i. e. a clause such as I want to write may result in something similar to I want that I write, both verbs bearing the first person singular inflection).

Nevertheless, as expected with this type of generalisations considering around 6, 000 languages, some exceptions have been reported (e. g. de Groot 2008) which demonstrate that the opposite process can also occur, especially if the languages in contact are different. For example, the South American language Quechua, which in the areas of lower Spanish contact does not show much use of subordination, seems to be adopting a richly recursive system in the high language contact areas (Sampson 2009).

LANGUAGE CHANGE TRIGGERED BY ITS SPEAKERS

Moreover, Trudgill (2009) also claimed that language contact may trigger linguistic simplification due to the so called pidginization which is more likely to occur in communities whose language learners are adults or post adolescents. It is widely assumed that language contact involving adult language learners leads to language simplification due to the inability of adults to learn perfect languages, in other words the irregularities of particular languages (Hurford 2009). Therefore, they tend to regularise these features (Trudgill 2009). On the other hand, child language learning leads to complexification, as before passing the critical threshold for acquiring a language, humans are able to learn languages maintaining their particularities and complexities. In fact, Wray and Grace (2007) stated that while adult learners tend to learn languages analysing the systematic correspondences and attending to regularities, children seem to learn the language as it is without reasoning over how the language works. Therefore, communities with more native speakers are more likely to preserve language complexities than languages which are learnt by non-native adults (Trudgill 2001).

There is evidence from gender marking features in Germanic languages that support this claim. While the most global Swedish and Danish present two gender markings, many varieties spoken in low contact areas still preserve three while English or Afrikaans have lost gender marking completely (Trudgill 2002). Thus, this demonstrates that languages which are more prone to be learnt by adult non-native learners seem to lose morphological complexity compared to those spoken by native speakers.

THE ROLE OF LITERACY AND THE EMERGENCE OF SUBORDINATION

Throughout the middle of the twentieth century, descriptivists conveyed the idea that the unwritten languages of the third world contain a grammar equally complex as the well-known European languages (Sampson 2009). Nevertheless, languages with no written representation need to overcome the limits of information load that the human brain can process. In fact, according to Wray and Grace (2007) the human brain can maintain six-word-long sentences in the short term memory. Therefore, speakers of languages which are exclusively oral and thus, do not have a written medium tend to develop some mechanisms such as repetition and construct simple structures to convey their messages and cope with the limits of memory load.

Hence, it seems to be a direct connection between the emergence of written language and the appearance of complex constructions. Although texts can overcome the brain processing limit as both reader and writer can resort to the ideas once and again, written language is a highly descontextualised use of the language (Hurford 2009). Moreover, since the comprehender is reading a message in a different time that was produced, the writer needs to make available all the linguistic tools to understand the message to the reader, while in speech these detailed information concerning context seems to be unnecessary as it is part of the common ground of both the speaker and the addressee (Hurford 2009). Thus, written language enables the construction of more sophisticated structures beyond the simpler, repetitive and thus easily remembered structures of oral languages (Wray & Grace 2007).

In addition, it is worth noticing that written language enables the second language learner to analyse the structures rules and mechanisms of how a particular language works, consequently facilitating the transition from an esoteric use of language to an exoteric and most universal domain (Wray & Grace 2007). Hence, written languages may contribute to make these languages available and learnable to non-native adult speakers, leading to language simplification.

Furthermore, the emergence of complex and finite subordinate clauses seems to be intimately connected to the appearance of written language. While spoken language involves adding information, subordination has to do with comprising a message into a sentence (Wray & Grace 2007). For example, the emergence of grammatical subordination in Inuktitut, a language spoken in Greenland seems to coincide with the implementation of writing (Wray & Grace 2007).

Until the emergence of writing language around 4, 000 BC, orality was characterised by aggregative and paractative strategies and thus, thus subordination was unnecessary (Karlsson 2009). However, by this preliterate time non-finite

subordinate clauses were used. Nevertheless the more complex finite embedding seems to coincide with the advance of writing. In addition, Sumerian is considered to be the first written language to show subordination around 3, 000 BC (Karlsson 2009).

DOES SOCIAL AND CULTURAL SOPHISTICATION CORRELATES WITH LANGUAGE COMPLEXITY?

A lot of research has been done in the field of sociolinguistics to find correlations between certain social structures and specific linguistic features. In addition, some scholars seemed to be reluctant to assume these social and linguistic associations as they did not attend to the social realm of language. Nevertheless, one thing is certain: languages are used and changed by their speakers who belong to particular social structures. Therefore, it appears reasonable to think that language complexity may be associated with particular social structures.

According to Trudgill (2009) small and isolated communities tend to favour the emergence of irregularities, redundancy and low transparency. Moreover, Sampson (2009) suggested that the languages spoken by these small and closely tight communities tend to show more complexity than those used by larger and are exposed to non-native learning. Hence, these small communities seem to maintain more thoroughly the irregularities and particularities of their languages from outside contamination. In addition, in these conditions of very little language exposure to outsiders seem to facilitate the maintenance of irregularities and thus, complex structures.

The fact that in isolated communities linguistic change occurs more slowly than in locations which are in close connection with other communities is exemplified by some Germanic languages. Icelandic which has around 200,000 speakers (Ethnologue), who live in an island, does not seem to show any kind of variation within the language, in other words, dialects are not appreciated. In contrast, Danish which is used by around 5 million speakers and contact with other European languages is facilitated by its geographical location, shows rapid change which lead to language simplification (Dahl 2004)

In addition, as Trudgill (2002) pointed out, there are noticeable differences regarding the development of Germanic languages and language complexity. Even through Danish, Swedish, Norwegian, Faroese and Icelandic belong to the Old Norse language family they seem to have taken quite different developmental lines. Faroese which has around 50, 000 speakers (Ethnologue) have maintained more complex morphology and irregularities, typically found in Old Norse than for example Norwegian who is used by around 4 million speakers (Hurford 2009). Moreover, Trudgill (2002) points out that Faroese and Icelandic have preserved more irregularities of Old Norse and thus, they have undergone fewer changes than their continental counterparts. Therefore, there seems to be a direct correlation between social features such as community size and geographical location and language complexity. Thus, closely tight communities tend to preserve the irregularities which add increasing complexity to their languages.

Hence, if the communities are well established and with little exposure to language contact, linguistic changes tend to be slower, as speakers tend to maintain the original complexities and particularities of languages (Trudgill 2002). In addition, these small communities do not need elaborate or complex structures to communicate with their neighbours as they share much of their common background, thus they seem to speak in what Bernstein named "restricted code" (Trudgill 2002). Thus, in global languages, more sophisticated structures are used to communicate and compensate the lack of common information shared by speakers. Therefore, it can be suggested that small communities whose inhabitants share a great deal of information regarding their background, there is no need for subordination or sophisticated constructions to specify a referent, as it can be easily understood by the hearer with simpler constructions and shared assumptions (Sinnemäki 2009). Therefore, there seems to be an apparent correlation between the use of relative structures and social complexity (Hurford 2009).

For example, there seems to be a direct correlation between the complexity of deixis and social structure. Deixis is used by languages to refer to a particular time (tense marking), place (demonstratives) in a specific time in communication (Hurford 2009). According to Trudgill (2002), deitic inflections are lost as social complexity increases. In addition, deixis are more commonly found in nonliterate communities with small number of speakers. Moreover, the occurrence of deitics depends on the degree of background information shared by speakers and addressees. Languages spoken by smaller communities tend to mark deitic expressions morphologically rather than by using separate words such as in the demonstratives *this* or *that* in English (Hurford 2009).

In addition, some languages used in small and closely tight communities used references to landscape to refer to left and right (Hurford 2009). By using for example near the river or up the hill, they are avoiding the confusion that the

arbitrary left and right may cause to the hearer. Nevertheless, it is worth mentioning that these referential expressions would be unsuccessful in large communities where people talk to strangers which may not share these references as they are in contact with different kinds of landscapes (Hurford 2009)

Furthermore, the languages spoken by small communities appear to have more complex morphology but use more transparent syntactic constructions especially after a long history of relative isolation. Conversely, in larger communities with looser ties and with locations which favour language contact tend to present a simpler inflectional system and more complex constructions (Hurford 2009)

CONCLUSION

In conclusion, the widely assumed claim that all languages are equally complex has started to be challenged by some linguists in the twentieth century. In addition, as argued in this essay, supporting evidence can be found in the social interrelations that language establishes with its speakers. Although it seems to be reasonable to think that languages have complexified over time, but evidence from Modern English shows that complexification occurs as well. Therefore, both simplification and complexification seem to co-occur over time finding a balance between the two. In addition, language contact seems to be central in determining that languages differ in complexity. It is regarded that simplification tends to affect languages in high contact locations while complexification occurs in lower contact situations (e. g. Basque and Balkan Sprachbund), exceptions have been reported, confirming the reverse process as well (e. g. Quechua). Moreover, speakers seem also to contribute actively in accounting for differences in language complexity. Due to their inability to learn perfect languages, adults tend to simplify languages, while children can learn languages with their irregularities and complexities. Furthermore, the appearance of writing in some languages has lead to differences in complexity among languages. Written languages facilitate processing subordinate and complex messages as they can resort to the text, while oral languages tend to be simpler to overcome limits in memory load. Finally, language complexity seems to correlate with social sophistication. Small closely tight communities share much contextual information therefore they tend to preserve their linguistic complexities. Conversely, global languages which tend to be more exposed to non-native (adult) learners tend to be become simpler. To sum up, the rather far-fetched assumption that all languages are equally complex seems to be invalid in the twentieth century linguistics.

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