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LEXICAL CREATIVITY IN COMMUNITY TRANSLATION CORPUS FROM GHANA

ABSTRACT

Although corpus-based research is becoming more common in many languages and in translation studies in general, it tends to be scarce or even nonexistent in Akan and many other African languages that are often considered as minority languages. In fact, failure to use Akan in various fields has hindered its development to some extent, particularly in online electronic resources, human language technology and for optimising online presence. The limited availability of resources, such as reference corpora and specialised dictionaries, suggests that translators who work from and into Akan often have to rely solely on their ingenuity in the process of translation. The study, therefore, explored a bidirectional English–Akan parallel corpus, built earlier by the researcher in another study. Using the descriptive translation studies approach, Skopos theory and Baker’s (1992) translation strategies, the paper analyses lexical creativity as a strategy used to resolve translation problems specific to the language pair: borrowing, compounding and reduplication. Akan may not be a typical minority language, but it is in a disadvantaged position compared to English, which serves as the official language. Consequently, many documents are primarily written in the official language, thereby creating a form of imbalance in terms of language development and translation challenges for community translators and interpreters who work from and into Akan. The research sheds light on how the above-mentioned corpus can empower community translation in Ghana. It also identifies lexical creativity as an effective strategy to stimulate the need for the development of such a community language and to curb the imbalance in relation to English regarding terminology, text-type development, reference resources and translation tools. As translation tools such as Linguee rely on parallel corpora, the bidirectional English–Akan parallel corpus may be uploaded online or enlarged to develop general and professional language tools, and can serve as a basis for other enquiries.

Keywords: *corpus, community translation, minority language*

1. INTRODUCTION

Technological advances have had enormous influence on research across domains, including translation studies. Indeed, computers now offer innovative ways of studying any language and permit the critical examination of phenomena that would have been obscure as a result of an inability to consider it from various angles (Kenny 2014).



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Corpus linguistics has enabled researchers, now, to explore large data with relative ease, and they have become aware of the fascinating insights that can be derived from the application of corpus methods to textual analysis (Ngula 2018).

Corpus-based research is generally quite scarce in Ghana, and much more so in the field of translation studies involving Ghanaian languages (Ngula 2014; Sarfo-Kantankah & Yussif 2019). This is perhaps due to the unavailability of authentic electronic texts in these languages, compared to English, which is the most computerised language in the world. There are reference corpora in other languages, such as French, Spanish and Portuguese, of which many are accessible online for various purposes (Kenny 2014).

Brato (2018) built a monolingual corpus (Historical Corpus of English in Ghana/HICE Ghana) to trace the evolutionary cycle of English from a historical angle and to compare it to other varieties of English. The study reveals that postcolonial Englishes go through several stages of lexical expansion as they progress over time. Borrowings are common at the initial stages, followed by the nativisation phase, where other word-formation processes, such as derivation, compounding and semantic shifts, are used. However, as Asare-Nyarko (2021) points out, this research did not involve any Ghanaian language, although many 'Ghanaianisms' are coined from indigenous languages.

According to Ngula (2014), the use of electronic corpora for linguistic analysis has not yet received serious scholarly attention in Ghana, or Africa in general. He observes that there is not yet a single machine-readable corpus of any type publicly available for research. From this perspective, the researcher concludes that the first step towards the development of languages taught in schools, including Akan, Ewe, Ga, Dagbani and other foreign languages, such as French, is the initiation of large-scale corpora in these languages (Ngula 2014). Other Ghanaian scholars have observed this unavailability of authentic electronic texts in African languages, which means there is little good training data, and a failure to adopt major language technologies for local problems (Azunre et al. 2021). Shoba (2018) observes that the general failure to use African languages in various specialised fields has hindered their development in the areas of electronic and online resources, as well as human language technology.

In addition, the outbreak of COVID-19 underscored the importance of translation and research involving indigenous Ghanaian languages, many of which are not widely diffused (GhanaWeb 2020). The need to pay particular attention to community translation (an emerging genre in translation studies that focuses on, in particular, translation into low-resource languages) led health officials to recommend the use of local languages to create awareness about the disease (Asare-Nyarko 2021). In fact, translations of various text types usually involve complex and alien concepts (Munday 2008), which are particularly challenging for community translators who work from and into Akan, with its limited reference resources and translation tools. Due to imbalance between community languages and official languages, for instance, in terms of terminology and text-type development, community translation goes beyond accurate and stylistically equivalent reproduction of texts (Taibi 2011). Particular strategies and lexical creativity are, therefore, needed to overcome these challenges and to arrive at a quality product that serves its communicative purpose.

This paper, therefore, explores a bidirectional English–Akan parallel corpus that had been built earlier by the researcher in another study (Asare-Nyarko 2021). Using the descriptive translation studies approach, Skopos theory and Baker's (1992) translation strategies, it

analyses lexical creativity as a strategy to resolve translation problems specific to English and Akan, specifically, borrowing, compounding and reduplication. The paper shows that corpus-based research in translation studies and language in general involving Akan and other Ghanaian languages is crucial for the development of these languages, to increase their digital visibility, and developing language resources, such as specialised dictionaries, terminology banks, professional translation tools and general language apps for language service providers who work from and into Akan. The study is divided into eight broad sections. The first is the introduction, and the second will discuss community translation around the world, the relevance of community translation to human rights, and community translation in Ghana. The third section will cover the linguistic landscape of Ghana, while the fourth will focus on corpus research in translation studies, particularly the importance of parallel corpora. The fifth section will describe the theories underpinning the research, specifically, Skopos and text-type theories. The sixth section will explain the methodology used for the study, including a brief description of the bidirectional English–Akan parallel corpus used for this study. The seventh section will capture lexical creativity in terms of borrowing, indigenised loanwords, compounding and reduplication. The final section is the conclusion.

2. COMMUNITY TRANSLATION

Translators, in general, have played key roles in the development of languages, writing systems, literature, the spread of religions and knowledge throughout history (Delisle & Woodsworth 2012). Community translation is a response to interlingual and intercultural communication needs, which are created by the rapid transformation of the world into a globalised village. The concept of community translation encompasses all translation carried out to facilitate intercommunity relations in a given country where diverse linguistic (and cultural) communities cohabit (Taibi & Ozolins 2016). It is worth noting that the major difference between translation and interpreting is that the former is expressed in the written form while the latter is in the oral form. The ultimate aim of both translators and interpreters is communication, and they work from source to target languages (Hale 2007).

Community translation involves translation in diverse fields, such as healthcare, education, welfare, environment, court and religion, where written language services are needed in a variety of situations to facilitate communication between public and private services and readers of non-mainstream languages. It may include the translation of consent forms, medical prescriptions, birth certificates, death certificates, legal documents, academic transcripts, drivers' licenses, translation of sign language to written form, and so on.

Taibi (2011) defines community translation as the translation of texts generated by the larger community (society), or by smaller communities (linguistic or ethnic communities within the larger society, local communities, religious groups, etc.), to ensure communication with all citizens and residents, so that they can participate in the community and be empowered. In certain parts of the world, community translation enables speakers of languages other than the local or national languages to access information – legal, healthcare, welfare, schooling, traffic, environment, among others – that they need to integrate into their new society and to play an active part in it (Lesch 1999; Taibi 2011).

According to Taibi and Ozolins (2016), community translation is described in different ways with various shades of meaning in different parts of the world, which is typical of an emerging subdomain. For example, in the United Kingdom, community translation is described as 'public

service translation', which encompasses non-professionals translating software or websites that they use. 'Collaborative translation', 'crowd-sourcing', 'fan translation', 'user-based translation', 'lay translation' and 'citizen translation' also reveal how nebulous the concept of community translation can be; Pym (2011) recommends the term 'volunteer translation' for these instances (Taibi & Ozolins 2016). In the case of Ghana, community translation may include texts produced by the government and NGOs on civic education, the constitution, environment, and health, translated into indigenous languages for a particular target group (Asare-Nyarko 2021).

Community translation may also refer to a translation intended to ensure communication with citizens and residents to empower minority language speakers by giving them access to information and enabling them to participate in society (Taibi & Ozolins 2016). Minority languages are often spoken by a minority in a community. They have minimal written resources and low status, while majority languages or languages of wider diffusion are usually spoken by the majority of the population in a country or region, and are generally considered as high-status languages. For instance, although Ga, the language of the natives of the Greater Accra Region, is among the nine languages selected for use in education in Ghana, it may be considered as a minority language, as it is spoken by the minority of the population and has limited written resources. Minority languages or languages of lesser diffusion may refer to both verbal and non-verbal languages, including sign languages for persons with hearing and speech impairment (Bastin, in Tiayon 2005).

The concept of minority language is significant in community translation. A minority language, also known as language of limited diffusion, is generally a language that has relatively few speakers in one specific location or geographical area in relation to the population as a whole (Taibi & Ozolins 2016). The terms 'majority' and 'minority' in many definitions of community translation may not always be accurate, as it could have nothing to do with the number of people speaking it, because a language may be numerically greater, but in a disadvantaged social or economic position, which makes the language of wider communication attractive (Edwards 2010). In other words, whether a language is a minority language is not necessarily determined by the number of speakers of a language, but its status and the use of that language at a particular place. For example, Akan is spoken by the majority of the population in Ghana, much like English is. Yet, it is disadvantaged in terms of social and economic status compared to English, which serves as the official language. Similarly, French may not be a minority language in Togo and Ivory Coast, but speakers of French in Ghana may be considered as minority language speakers.

In fact, in some parts of the world, community translation services are either nonexistent or fall short of meeting community needs; some governments and decision-makers cite cost and budgetary constraints to explain the shortcomings of community translation services (Taibi & Ozolins 2016). Africa is one of the most complex continents in terms of linguistic diversity, with over 2 000 indigenous languages and shared international languages (Tiayon 2005). However, community translation services are inadequate, or even nonexistent, and many of these languages have not even attained literary status (Kuto 2020; Tiayon 2005). Suffice it to mention that the linguistic diversity in Ghana, and increasing literacy in indigenous languages through informal education, have created a need for translating and even interpreting, not only into international languages, but into local languages too (Asare-Nyarko 2021). Consequently, translators in Africa may be required to perform certain tasks that are usually associated with interpreting, and vice versa, as many indigenous languages are at different stages of

development and literary status. Let us turn our attention to the link between community translation and human rights.

2.1 The relevance of community translation to human rights

The concept of community translation is strongly linked to linguistic rights, such as the right to use one's own language in legal, administrative and judicial acts, and in education. These rights, among others, are enshrined in international conventions, such as Universal Declaration of Linguistic Rights (Unesco 1996), Convention on the Rights of the Child (Unicef 1989), International Covenant on Civil and Political Rights (United Nations 1966) and Convention against Discrimination in Education (Unesco 1960).

This connection between community translation and human rights is also affirmed by researchers, who point out that, although some languages may boast of more widespread use than others, speakers of minority languages, in particular, have the right to use the language they know best to access services in their communities (Lesch 1999; Taibi & Ozolins 2016; Tiayon 2005).

Commenting on the importance of local languages to development in the world, Irina Bokova, director general of UNESCO (2014), on the occasion of International Mother Language Day, emphasised that:

Local languages constitute the majority of languages spoken across our world in the field of science. They are also the most endangered. Excluding languages means excluding those who speak them from their fundamental human right to scientific knowledge.

Many local languages are endangered due to their limited use, particularly in formal settings, while others are yet to attain literary status. In communities where such languages of limited diffusion exist, effort is not always made to translate or interpret documents into these languages so that speakers can access crucial information. This situation affects the development of such languages, and their online presence (Taibi & Ozolins 2016; Shoba 2018). The next subsection provides an overview of community translation in Ghana.

2.2 Community translation in Ghana

History suggests that community translation has been practised in Ghana for years, in many ways, also together with the much older and distinct practice of community interpreting. With the arrival of Europeans, community translation developed from community interpreting, and native speakers served as language mediators between the indigenes and Europeans. Research indicates that, over time, forms of pidgin languages developed due to language contact (Dakubu 2012).

Missionaries, including Methodists, Presbyterians and Catholics, contributed significantly to the early development of writing systems for local languages in Ghana. Vast volumes of religious literature, including hymns and the Bible, were translated during this period. An attempt was also made by Johann Gottlieb Christaller, a German missionary, translator and philologist, together with some Akan linguists and translators (David Asante, Theophilus Opoku, Jonathan Palmer Bekoe and Paul Keteku), to translate religious literature into Akan and to compile aspects of oral literature (proverbs), grammar books and dictionaries (Christaller 1875; 1879; 1881; Christaller 1871). Currently, some Christian literature, such

as Weekly Bible Lessons, are translated at least quarterly or annually into Akan and other indigenous Ghanaian languages (Methodist Church Ghana 2022).

3. THE LINGUISTIC LANDSCAPE OF GHANA

Ghana is linguistically diverse, with at least 75 local languages belonging to the Niger-Kordofanian family, particularly the Gur languages spoken in the northern part by about 24% of the total population, and Kwa languages spoken in the south by about 75% of the population (Encyclopaedia Britannica 2014). According to information provided in person by the Bureau of Ghana Languages and the Faculty of Ghanaian Languages Education at the University of Education, Winneba, to date, 12 government-sponsored Ghanaian languages are studied at educational institutions: Mfantse, Asante Twi, Akuapem Twi, Dagaare, Dagbani, Dangme, Ewe, Ga, Gonja, Kasem, Gurene (Farefare) and Nzema. Research reports that about 51% of adults in Ghana are literate in English and indigenous languages, while smaller portions of the population are literate in either English only (14%) or in a Ghanaian language only (3%). Moreover, the literacy rate of adults in urban areas is about 56%, while it is about 37.7% in rural areas (Adika 2012; Ghana Statistical Service 2019). English and Akan are widely spoken in many settings. In fact, English has been used as lingua franca in formal and informal contexts since independence in 1957, when it was accepted as the de facto official language. It is currently used in education, politics, the media, legal affairs, and administration. In addition to standard English, there is also Ghanaian Pidgin English, which exists mostly in the southern towns and the capital, Accra. Ghanaian Pidgin English is locally known as 'Pidgin' (English), 'Broken' (English), and formerly as 'Kru English' or 'Kroo brofo' (Huber, 2004). Huber (2004) also identifies two varieties of Ghanaian Pidgin English: the 'Uneducated' and 'Educated/Student' Pidgin English. The former is usually used as a lingua franca in highly multilingual contexts, while the latter is often used as an in-group language to express solidarity; the main differences are lexical rather than structural.

Educated Ghanaian Pidgin English is usually common among male students at secondary schools and universities, probably to express solidarity and intimacy with peers (Huber 2004). However, this seems to be changing, as Rupp (2013) observes that the use of Student Pidgin has been spreading to other contexts, among girls, and even to homes in Ghana. It is noteworthy that women are less likely to use Ghanaian Pidgin English, and mixed-gender groups more often converse in Standard English or indigenous languages. As a matter of fact, conversations sometimes involve mixed codes, and speakers do not always stick with one linguistic code.

The term Akan, which refers to a cluster of languages, has been used in Ghana since the 1950s to describe a number of Kwa languages, with dialects spoken particularly in Ashanti, Brong-Ahafo, Eastern and Central Regions (Dolphyne 1988). Akan was adopted at a time when there was an attempt to standardise the orthographies of the three major dialects of Akan that had attained literary status with peculiarities specific to each dialect. It is a widespread language that is used by about 9 309 200 people in Ghana, of whom 8 309 200 use it as L1 and 1 000 000 use it as L2 (Ethnologue 2020). Dialects of Akan include Agona, Akuapem Twi, Akyem, Asante Twi, Brong, Mfantse (Fante), Kwawu, and Wasa (Bodomo 1997). According to Brown and Ogilvie (2009), Akan is the most used language after English in the electronic public media, and, in some areas, it is used even more than English.

The English alphabet originated mostly from the Roman or Latin alphabet, and has 26 letters – five vowels and 21 consonants. It evolved gradually, and a few other letters were introduced from a Germanic alphabet, as Old English included sounds that the Roman alphabet had no letters for (Upward & Davidson 2011). Conversely, Akan alphabet has 22 letters and is based on the Latin system of writing: seven vowels and 15 consonants. It follows writing conventions similar to that of English, including rules on punctuation and capitalisation. The letters C (c), J (j), Q (q), V (v) and Z (z) are not usually included in the alphabet of Akan dialects. However, the Mfantse dialect includes the consonant Z (z) as a letter. The Akan writing system itself has evolved over the years, and special characters appear in older Akan texts as o and e for *o* and *e* respectively, together with diacritics (Christaller 1879; Asare-Nyarko 2021). The next section covers the relevance of corpus research in translation studies.

4. CORPUS RESEARCH IN TRANSLATION STUDIES

Corpus originally meant any collection of writings, in a processed or unprocessed form, usually by a specific author (Baker 1995). Baker (1995) also points out that the term may now (i) refer primarily to a collection of texts held in machine-readable form and capable of being analysed automatically or semi-automatically in many ways; (ii) no longer be restricted to writings, but include spoken as well as written text; and (iii) include a large number of texts from a variety of sources by many writers and speakers on a large number of topics.

Corpora in translation studies may be monolingual, bilingual or multilingual. They may be translations into different languages or only texts originally produced in different languages. They can also be comparable (texts that are not translations of each other) or parallel, which is also known as translation corpus (texts that are translations of each other). Moreover, corpora may also be described as either unidirectional, where translation is from a source language into a target language only, or bidirectional, where translations are both ways (Altenberg & Granger 2002; Zanettin 2014).

Parallel corpus, also known as translation corpus, is an essential resource in translation studies, as the current study will show. This type of corpus involves texts and their translations (Zanettin 2014). Source and target texts may be aligned at word, sentence or paragraph levels. The first parallel corpus was the *Canadian Hansard Corpus*, which consisted of Canadian parliamentary proceedings published in English and French (Li 2020). *Translational English Corpus* is also one of the first corpus projects created for research purposes, and has been developed since the mid-1990s under the direction of Mona Baker at the University of Manchester; it is currently available online (Zanettin 2014).

Parallel corpora serve as an “archive of past translations structured in such a way as to promote reuse” (Macklovitch & Russel 2000, cited in Genette 2016). In fact, parallel corpora have practical usefulness in translation studies, and in community translation, in particular. They serve as data to analyse translators’ choices or the relationship between source and target texts, translation universals, translators’ styles, among others.

Similarly, parallel corpora may be reused, reprocessed or enlarged, instead of building new corpora from scratch for every new project (Li 2020), which can reduce the considerable time translators spend on research. They also serve as essential resource for research in other domains, including linguistics, lexicography, pragmatics and literary studies. They serve as resources for computer-assisted translation tools, such as electronic dictionaries, spellchecker programmes, translation memories (TMs), concordancers, alignment software and terminology banks (Genette 2016).

5. THEORIES UNDERPINNING THE STUDY

5.1 Skopos

The Skopos theory, described as a “framework for a general theory of translation”, was first introduced in the 1970s by Vermeer; a term for the purpose of translation (Munday 2008; Nord 2018; Trisnawati 2014). According to Munday (2008), Skopos was integrated with previous functionalist approaches (Katharina Reiss’s text types and language function) in a collaborative work between Reiss and Vermeer in 1984. The theory¹ states that every translation is action and goal-oriented. Consequently, it needs a purpose that plays the key role of “prime principle determining any translation process” (Nord 2018, p. 26). For Vermeer, translation defines the function of the translation product through what Nord (2018 p. 29) describes as the “translation brief” or “translation commission” (an instruction given by oneself, or by someone else, to carry out a given action, which, in this case, is the action of translating). The theory is relevant to this study, as it enabled contrastive analysis of source and target texts to determine instances of lexical creativity in Akan.

5.2 Text types and links to translation methods

Inspired by Karl Bühler’s three-way categorisation of the functions of language, Reiss (1977) categorises texts into three communicative situations: informative (content is the main focus of the communication), expressive (use of aesthetic dimension of language) and operative (dialogic and directs an appeal to the text receiver).

It is worth noting that some texts may fall in between two or more text types. Moreover, the three basic functions may alternate with one another in the same text (Reiss & Vermeer 2014). For instance, a biography may alternate between informative (provides information about the subject) and expressive (expresses sender’s attitude) types. In such situations, transmitting the predominant function of the source language is the determining factor by which the target text is assessed (Reiss 1977).

Reiss also asserts that there are occasions when the function of the target text may differ from that of the source text. For instance, Jonathan Swift’s *Gulliver’s Travels* was originally written as a satirical novel to criticise the government of the day, which is mainly the operative text type; today it is read and translated as ordinary, entertaining fiction (Munday 2008). Alternatively, a target text may have a different communicative function than the source text. For example, an operative election address in a source text, which is translated for analysts in another country to inform them about policies presented in the said election address, becomes informative and expressive, not necessarily operative, as it is in the case of the source text (Munday 2008).

The challenge of the text-type theory is the coexistence of functions within the same source text and the use of same source text for different purposes. This implies that a community translator needs to identify and analyse these elements in a text and find appropriate ways of rendering them in the target text. The translation method used depends on more than just text type and may include other factors, such as the translator’s own role, the purpose of the text and sociocultural pressures (Munday 2008). The relevance of text-type theory to this study lies in the collection of diverse texts to achieve representativeness.

1 The term skopos, is of Greek origin and means purpose (Munday 2008).

6. METHODOLOGY

The present study is corpus-based and it uses the descriptive translation studies approach (Kenny 2014). This approach does not prescribe how translations ought to be done, but observes how translations have been done in practice in a specific culture (Suh 2005). The theoretical framework underpinning the research is Baker's (1992) professional strategies, and functionalist theories, particularly, the theories of Reiss, Nord, Vermeer and Snell-Hornsbey (text-types and Skopos theories). These professional strategies and functionalist theories are built on equivalence, by viewing the text, and not the word or sentence, as the level at which communication occurs (Reiss 1977/89, cited in Munday 2008). The study is limited to community translation in Ghana, and focuses mainly on a parallel corpus involving both the Fante and Asante Twi dialects of Akan.

The study is based on a bidirectional English–Akan parallel corpus that had been built earlier by the researcher in another study (Asare-Nyarko 2021). This corpus was built in the latter part of the year 2020 and contains 58 electronic texts from several domains. The total word token of the subcorpus in Akan is 298 487, while that of English is 314 571. As the total number of words for corpora are not usually set once and for all (they are open-ended in nature), the researcher hopes to update it regularly to increase its size.

Relevant sources of community translation texts were identified. They included texts from government agencies and media outlets which were accessible to the public. These texts were considered as community translation texts, as they were intended to ensure communication with residents of Ghana, to empower minority language speakers by giving them access to information and to enable them to participate in society (Taibi & Ozolins 2016). The texts were originally in Microsoft Word, PDF and JPG formats and required further conversion to .txt. With respect to corpus-building tools, Microsoft Word was mostly used to open and sort the collected texts. The 'Find and Replace' function enabled the researcher to replace unprocessed letters in the Akan alphabet – they were mostly replaced by other characters after conversion to .txt format with Zamzar and AntConc file converters. This was done because a number of corpus-processing tools, such as ParaConc and AntConc, only process corpus data in the .txt format. Although ParaConc is made for parallel corpora, some features, such as text alignment, did not work properly, as the software seemed unable to fully meet the needs of the Akan language. 'Find and Replace' had to be used to replace the special letters in Akan (ε and ɔ) in .txt, since the file converters seldom recognised them. It was later discovered that the simple saving option in Microsoft Word, 'Embed Fonts in the File', can resolve this challenge to a large extent, and enable professional tools such as Trados to recognise special characters (Asare-Nyarko 2021). Nova text aligner was, therefore, used to align texts for analysis.

Text types that were collected included the following categories: informative (presents objects and facts), expressive (expresses sender's attitude) and operative (makes an appeal to the text receiver). Texts used for the corpus of this research developed themes such as COVID-19, HIV/AIDS, tuberculosis, teenage pregnancy, drug abuse, history, biographies, news articles and religious texts, with subthemes on social issues, hymns and music in general. Most texts were from English into Akan, except for texts related to music, which had initially been written in Akan and then translated into English (Asare-Nyarko 2021).

7. LEXICAL CREATIVITY

In the following subsections, different types of lexical creativity, including borrowing, compounding and reduplication, observed in the bidirectional English–Akan parallel corpus, will be discussed. Generally, lexical creativity refers to the coining of novel lexical items, creative manipulation of existing words and even new collocations of existing words (Kenny 2014). These new words depend on contextual factors, such as semantic, textual and social environments in which they occur (Munat 2007).

7.1 Borrowing

Borrowing could refer to the process whereby new words are formed by adopting words from other languages, together with the concepts associated with them. Borrowed words (loanwords) usually cut across parts of speech, including proper nouns, common nouns, acronyms, and abbreviations.

According to Vinay and Darbelnet (1995), borrowing is the simplest of all translation methods to use to overcome a ‘lacuna’ (or lack of equivalence), which is usually metalinguistic, such as a new technical process, or an unknown concept. A gap exists between English and Akan, as the latter is seldom used in certain contexts. The cause of this lacuna may be the absence of standardised terms, and a shortage of resources, such as specialised corpora and dictionaries.

Borrowing could also be used to add the flavour of the source language culture to a translation. According to scholars, the decision to borrow a source language word or expression to introduce an element of local colour is a matter of style and, consequently, of message. For Baker (1992), the strategy of borrowing is usually used to deal with culture-specific items, modern concepts and buzzwords. Ndhlovu (2012) adds that borrowing could be used when the languages involved are entirely different, in which case there is usually a greater chance of diversity in perception and values. Consequently, culture-specific terms and concepts are not easily translated, and this is the reason why borrowing becomes a common method in such instances. Baker identifies two types of loaning: translating using a loanword, or using a loanword and an explanation.

Example 1 contains several instances of borrowing identified in the bidirectional English–Akan parallel corpus:

Example 1: Loaning Plus Explanation

<p>EN</p> <p>Their efforts will be in vain if we, at home, do not support them. In addition to the incentive package given to all health workers, Government has enabled domestic production and supply of protective equipment to our health workers to increase significantly – they have received, in recent days, nine hundred and five thousand, and thirty-one (905,031) nose masks, thirty one thousand, six hundred and thirty (31,630) medical scrubs, thirty one thousand, four hundred and seventy-two (31,472) gowns, forty six thousand, eight hundred and seventy (46,870) head covers, and eighty three thousand, five hundred (83,500) N-95 face masks.</p>	<p>AK</p> <p>Se yeaniko hon mboa a, hon mbodzemo no, botum aye gyan. Dza aka nkruahye, anaa de akyedze a yedze maa apowmuzden edwumayefo nyina no, nye de Aban ama ndwumakuw bi aye yarba no afadze no anaa Protective Equipments wo hen man yi mu ha ara ama apowmuzden edwumayefo, mbirc obeye ma doowara dze hon ho aagye oko no mu. Ndansa yi ara hon nsa aka nose mask anaa dza yedze hyc hen fiwen no, mpeem ahankron na anum, na edusa baako (905, 031) Medical Scrubs anaa sapor so, Mpem edusa baako, ahaansia na edusa (31, 630) Gowns anaa asopitsi ntar no so Mpem edusa baako, ahaanan na eduoesuon ebien (31,472) Head Covers anaa asopitsi kyew no so Mpem eduanan esia, ahamwctwe na eduoesuon (46,870) na N-95 face mask no so Mpem eduowctwe ebiasa na eduoenum na hon nsa aka.</p>
<p>Gloss: Recently, we have received ‘nose mask’ or ‘what we put on our nose’ ‘Head Covers’ or ‘hospital caps’</p>	
<p>EN</p> <p>The truth is that this will be a long war, broken up into several battles. Indeed, we registered a modest success in the important battle to trace and test many of the persons who had come into contact with infected persons, and we cannot, and will not rest on our laurels. We will not let our guard down, as the fight against this virus has to progress. We will pursue vigorously our strategy of enhanced 3Ts, i.e. tracing and testing to allow us identify infected persons, and isolating and treating them. It is the surest way to root out the virus.</p>	<p>AK</p> <p>Nokwar nye de, oko yi beye dza obekyer, a woakyekye mu esin esin. Ampara, yedzin nkonyim wo oko mapa a, enyi a yedze dzi nyimpa a wonye dodow a woenyia yarba no bi no, dzi ehijia no eklyir. Na yenuantum na yennkotum aagye hen ahom. Yerenngyeegyaa hen ho mu, wo ber ko a owo de yetu mpon wo oko a yedze retsia yarba mboa wa yi mu. Yedze nsiye nyina bowow do wo hen nhwehwemukwan a yeato ne dzin 3Ts no eklyir, a ono nye Tracing anaa enyi a yedze dzi ajarfo na dodow a wonye hon edzi ehijia eklyir. Testing anaa yabsye hen ho nsu mu nhwehwem nna Treating anaa ajarfw a yedze ma hon wo aber a nhwehwemu no ada edzi ye wowo yarba no bi, lji ye kwan pa yedze tu yarba no ase.</p>
<p>Gloss: Our best-laid plan that we call 3Ts, namely, ‘Tracing’ or ‘the monitoring of patients’ and those who have got into contact with them, ‘Testing’ or ‘running of tests to check our body fluids’ and ‘Treating or the care given to those who test positive for the disease’.</p>	

Giving the loanword with an explanation is an attempt to simplify the new word or term, so that the reader can understand it clearly. Explanatory equivalence or paraphrase is usually provided to overcome non-equivalence in the target language (Shoba 2018). Loanword with an explanation can be used when the target language lacks a concept presented by the source language (Ndhlovu 2012).

Shoba (2018) conducted a similar study in South Africa and explored the use of parallel corpora in compiling specialised bilingual dictionaries for English and isiXhosa. In isiXhosa, the lack of equivalents is obvious in specialised fields such as health. In this regard, when translators face the difficulty of finding a full or partial equivalent, they opt for using a loanword, a loanword with explanatory equivalent, or both, to convey a clearer message to target readers. Culturally, head cover in Akan is *dukuu*, and is usually worn by women; however, *kyew* is used above, probably because of the shape of the hospital head cover, which is worn by both men and women.

7.1.1 Indigenised loanwords

This is a strategy under borrowing, and it involves modifying a word slightly to remove some of the 'foreignness' of the word and spelling it according to the orthography of the target language (Wallmach & Kruger 1999). The loanword changes in terms of structure, spelling and pronunciation to suit the target language, but the meaning and sound remain the same, to maintain the meaning of words while making the message accessible to the target language reader. In this respect, it is much easier to remember words coined from target language elements than borrowed words from a source language (Ndhlovu 2012).

This type of loaning occurs several times in the parallel corpus, as indicated in Example 2.

Example 2: Indigenised Loanwords

i)	
EN	AK
By the grace of God, the work of the Electoral Commission, and the effective measures put in place by the Government, these prophecies of doom did not materialize. There were, nonetheless, deeply regrettable isolated incidents of violence, which I condemn unreservedly, and which I expect the Police to deal with without fear or favour, but the exercise was generally peaceful.	Nyanankopon adom nti, dwuma a abatow asoe edzi na nhyehyee pa a, aban dze ku akwan mu nti, dem nlicmhye bon ahorow nyinara annyee edwuma. Eso ni nyinara mu no, awerhow mu ara, basabasa kcr do a, maakasa etsia papaaga. Na morehwe kwam de apolicalafo bohwe nye assem edzi wo akokodur na enyiwodzin nyinara mu. Eso se ye bo no tfofa a, dwumadzi no yez asomdwee.
Gloss: the police	
ii)	
EN	AK
I am happy that I have the opportunity this evening to engage with you, again, in your homes. I want, at the outset, to thank all of you for your prayers and expressions of good wishes when doctors advised me to go into quarantine for two (2) weeks. God being so good, I am back again at work. I thank you very much for your concern.	Oye me enyigye de menyia akwanya de menyie hom benya nkitahodzi wo hom efie bio. Odzikan, mepc de meda hom nyinara ase wo hom mpaabo na tsidaa pa a hom dze maa me, aber a adoketafa tuu me fo de memfa me ho nhye dan mu adapen ebien no. Nyanankopon adom ntsi, masan aba bio wo m'edwuma do. Meda hom ase pi wo hom akoma pa no ho.
Gloss: doctors	
iii)	
EN	AK
Avoid contact with live animals and pets Don't self medicate! Visit a hospital for assistance	Gyae de enye mboa a nkwa wo hon mu anaa efie mboa no dzi ehya Mma zwoara nhnye wo ho mmfa edur, ko asopitsi ma womboa wo
Gloss: Hospital	

In example i), the source language item 'police' is borrowed completely in terms of concept, orthography and phonology. Nonetheless, the target language affixes (prefix *a* and suffix *fo*) are added to give it local colour.


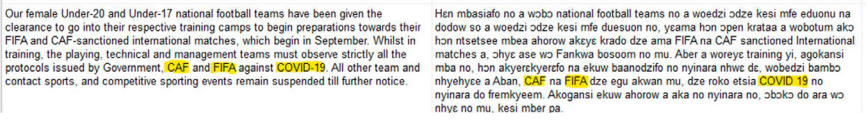
Similarly, in example iii), the source language term 'doctors' is borrowed without the plural marker 's'. Akan affixes (prefix *a* and suffix *fo*) are added to indigenise it.

The word 'hospitals' has been borrowed and adapted (*asopitsi*) to Akan phonology, as the word-initial consonant cluster sequences /hospi/ and the word-final ones /tals/ are not originally part of the language. The phonology and orthography of the source text item have, therefore, been modified to give it a local colour and to enable target language readers to easily identify with it.

7.1.2 Pure loanwords

A pure loanword is a word that is taken over from the source language to the target language without changing its phonological and morphological structure (Mtintsilanaa & Moris 1988). It is usually employed as last resort compared to indigenised loanwords. Using pure loanwords as strategy is particularly common in dealing with culture-specific items, modern concepts and buzzwords. One of the advantages of this strategy is that the loanword maintains its meaning in the target language. However, some loanwords may be unnatural in the target language, because of spelling and pronunciation, making them, to some extent, inaccessible to target readers. The following are examples of pure loanwords in the parallel corpus:

Example 3: Pure Loanwords

i)	EN	AK
		
ii)	EN	AK
		

In example i), the recent term ‘coronavirus’ remains unchanged in the target language. Typically, Akan does not have the letter V (v) as part of its alphabet, even though it uses most of the Latin alphabet.

Similarly, the example in ii) shows how the standardised term, worldwide, for coronavirus is also borrowed directly from the source language. COVID-19 is, therefore, a pure borrowed term from the source language, as the sound ‘v’ is not typical of the target language. Well-known abbreviations related to football – CAF (Confederation of African Football) and FIFA (*Fédération Internationale de Football Association*) – are also borrowed directly from the source language in terms of concept, orthography and phonology.

Although borrowing is considered to be a form of lexical creativity, or a term formation strategy to develop African languages such as Akan, there may be some reservations to its usage. Some pure loanwords are cumbersome and unidiomatic in the target language, which makes it difficult for target readers to identify with them, and may hinder communication to some extent (Shoba 2018).

7.2 Compounding

Compounding refers to the combination of two or more free morphemes in a single lexical item (Kenny 2014, p. 75). According to Kenny (2014), free morphemes are minimal meaning units that can stand alone as independent words, while bound morphemes are minimal meaning units that must be combined with other morphemes to form freestanding words. Compounds may be written as two or more orthographically separate words, or a single unhyphenated or hyphenated word, much like in English. The parallel corpus used for the present study suggests that unhyphenated compounds are more common in Akan.

Compounds may be classified using various criteria, such as, according to the parts of speech of their component morphemes, the syntactic relationship between these components, or the semantic relationship between them (Kenny 2014). For Appah (2009), distinguishing between compounds and phrases in Akan does not pose much of a problem, as constituents of a compound usually undergo “complex tonal perturbation”, unlike phrases. He explains furthermore, that when a noun that usually has a suffix occurs as the first element in a phrase, the suffix will usually be present. However, this suffix will be omitted when a compound results from a combination. In other words, the absence of such a suffix from a noun that normally has it signals that one is dealing with a compound. The derived compound might then have a new suffix. Example 4 provides instances of compounds identified in the parallel corpus.

Example 4: Compounding

i)

EN

AK

We have also scaled up the domestic production of personal protective equipment, and our health care facilities, so far, have taken delivery of fourteen thousand, five hundred and fifty (14,550) scrubs, eleven thousand, nine hundred (11,900) gowns, nineteen thousand, nine hundred and eighty (19,980) head covers, two hundred and sixty three thousand, two hundred and eighty one (263,281) **nose masks**, thirteen thousand, and two (13,002) N-95 nose masks. Forty-one thousand, one hundred and seventeen (41,117) varying sizes of sanitizers have also been produced locally and delivered to our health facilities.

Yasan so ama hɛn mu do, oɛa no bamba aɛadze anaa PPEs a yeɛe no wo oman yi mu no ho. Mprempren yi, yetum aye sapow mpem duanan ahaenum na eduonum (14,550), ayarhwe ntar mpem dubialo na ahaakon (11,000), kyew mpem dualkon ahaakon na eduowctwe (19,980), nose mask anaa akata hwen mpem ahaebien, ahaeduosia ebiasa, ahaebien na eduowctwe baako (263,281) **akata hwen** mpem duebiasa na ebien (13,002) N-95 nose mask mpem eduanan baako, oɛa na duesoon (41,117). Sanitizers anaa edur oɛa oɛa mbowaba no so, yeaye no asoto asoto ama hɛn apɛwɛmɛdzen asoɛe aɛhorow no.

9

Gloss: nose cover

ii)

EN

AK

Ultimately, salvation will come with an effective and accessible treatment. We hope and pray that this will happen tomorrow, but it may very well happen in a couple of months, in a couple of years or it may take even longer. Until then, we have to learn to adapt to the conditions. It is not normal that we have to wear **masks**, but now we have to; it is not normal that we cannot shake hands with each other, and it is certainly not normal that we cannot hug our family members and loved ones; but that is our current reality. Until treatment is found, COVID-19 will remain a part of our lives.

ɔye den ara a, agye bodua nɛwano mapa bi do aba. Hɛn ahotoɛo na mpaabo nɛye dɛ, oɛbaa akɛyena. eso obotum so aba no dɛ nɛwano beba abosoom ebien nɛtumu, wo mfe ebien nɛtumu anaa mpo obotum edzi mber tsentsen ara yie. Onkisasi dɛm aber no, otwar dɛ yesua dɛ yɛbema ho adzeye no akokwar hɛn. Omɛmfa kwan mu dɛ ɔwo dɛ zɛhye **akataenyim**, eso seiseiaara otwar dɛ zɛhye, omɛmfa kwan mu dɛ yɛntum mɛmfa nsa nɛto nsa yamu nɛkyiakɛyia hɛn ho hɛn ho, nna omɛmfa kwan mu dɛ, yɛntum nɛka hɛn ebusuafɛ na adɛfo mɛmfa; eso ono nɛye tɛseba a yɛwo mu mprempren yi. Onkisasi dɛ

7

Gloss: face cover

iii)

EN

AK

1. Any passenger arriving in Ghana must be in possession of a negative COVID-19 PCR test result from an accredited laboratory in the country of origin. The test should have been done not more than seventy-two (72) hours before the scheduled departure from the country of origin. All airlines have been instructed to ensure compliance with this directive for all passengers wishing to travel to Ghana, and those airlines who fail in this regard will be duly sanctioned;

2. disembarking passengers must do so wearing **face masks**;

1. Kwantunyi biara a ɛreba Ghana no, otwar dɛ onya COVID 19 nhwehwɛmu amandzɛbo dasedzi krataa wo nhwehwɛmubea a oman a ofi mu reba no agye ato mu, a okɛye dɛ onnyi yarba no bi. Otwar dɛ ɔye nhwehwɛmu no, annye koraa no ndonhwer Eduosuon Ebien anaa 72 hours, asana akwantu ber no aso ma odze efi oman a ofi mu reba no mu. Yɛdɛ dɛm akwankɛye yi ho amandzɛbo ama wimɛhɛn aɛhorow nyinara, mber obɛys a akwantufo a wopɛ dɛ woba oman yi mu no bedzi nhɛhyɛse yi do. Wimɛhɛn aɛhorow a wobubu nhɛhyɛse yi do no, mber nɛye hɛn bedzi no dɛ mber ɔse;

2. Akwantufo a woreba no otwar dɛ wɛhye **akataenyim** no bi na wodɛze ba;

Gloss: face cover

iv)

EN

AK

Fellow Ghanaians, let us remember at all times that this phased opening up of our country continues to put an obligation and responsibility on each one of us to remain vigilant, and respect the enhanced hygiene, **mask-wearing** and **social distancing** protocols that have become part and parcel of our daily routine. They are proving to be effective, so let us employ them wholeheartedly. That is the way we can restore, as quickly as possible, the blessings of normalcy for which we all yearn.

There is no room for complacency; we must be very much on our guard because some countries have experienced spikes after recording major achievements in containing the spread of the virus. We should not go down that road. Social distancing, enhanced hygiene, and the **wearing of masks** are obligatory for each one of us.

Enuanom Ghanafo, hom ma yɛn nkɛe abir biara dɛ nhɛhyɛɛ a yeaye dɛze rebuei hɛn man no pon ato ho no bolko do ara dɛe asodze aboto hɛn mu biara do. Ama yaako do ara aye enyidaho na yɛdɛze obu ama ahonyidɛze, **akataenyim nɛhyi** na **atsɛsɛw nɛtam** bamba nhɛhyɛɛ a abaka hɛn dabaa adzɛye no ho. Nhɛhyɛɛ aɛhorow dɛe nɛsusundɛ pa reba nɛta hom ma hɛn nyinara mfi akoma pa mu nɛndzi ne nyinara do. Iyi nɛye kwan pa a ye botum edua do dɛe ndzɛmba asan esi n'akwan mu bio enyimenyim yi ara.

Nhyira a ɔwo ahoohar adzɛye mu a hɛn nyinara repir rehɛhwɛ no, onnyi dɛ hɛn bo dwe hɛn ho. Otwar dɛ yeɛe enyidaho papaapa osiandɛ aman afɛfor bi sanɛe hyia akwanhyia bio wo yarba no ho wo bir ko a nna ne nɛsae no ano abɛr adze koara n'ekyir. Onnyi dɛ ye fa dem nkwantɛpon no do. Hɛn mu atsɛsɛw nɛtumu, ahonyidɛze mapa ana **nkatsaenyimɛhyɛ** ye asodze ma hɛn mu biara.

The term *akata hwen* is a neologism the translator created to resolve the translation problem caused by the concept of ‘nose mask’, which had become universal during the COVID-19 pandemic, though not lexicalised in Akan. Speakers of the target language can easily identify with the new term, as they know the signified or ‘signifié’ (the conceptual part of the sign), with sign being the inseparable union of a concept and its written or spoken linguistic form, even though the signifier or ‘significant’ (linguistic part of a sign) has not yet been created in the language.

The new term created here through compounding is unlikely to create much of a problem for native speakers, as they can easily distinguish it from a phrase based on “tonal perturbation”, which Appah (2009) identifies as one of the significant elements that distinguish a phrase from a compound in Akan as *akata hwen* (has covered a nose) and *akata hwen* (nose cover) respectively. The prefix *a* usually indicates a form of action expressed by the verb.

Moreover, the terms ‘mask-wearing’ and ‘social distancing’ have been translated as *akataenyim nhyei* and *atsetsew ntam* respectively. These terms are relatively new in Akan. Consequently, the translator exhibits lexical creativity by coining a word (through compounding) which describes the concept in the source language and respects the word formation process in the target language. Akan nouns typically have stem(s) and may have affixes (Appah 2013). In this regard, the assumption of a new or changed prefix could signal the formation of a new word. For Christaller (1875), if the new word is a consolidation of two words, it can be construed to be a compound.

For the first word of the structure of this compound, which functions as base, the prefix *a* was added to the verb *kata* (cover) and then the noun *enyim* (face) was added. Furthermore, the last component of the compound is in itself a compound: The prefix *n* was added to the base (verb) *hye* (wear) and finally, the suffix (*i*). The addition of these affixes to the base *hye* changes the new word to a noun. For this reason, a native speaker will pronounce the new word with the “tonal perturbation” that distinguishes it from the phrase. Also, during nominal derivation, verbs and their objects that normally occur in the verb–object order, because Akan is a subject–verb agreement language, surface in the order object–verb, as in the case of *akataenyim nhyei*.



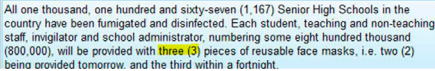
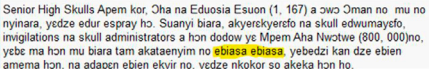
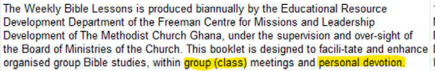
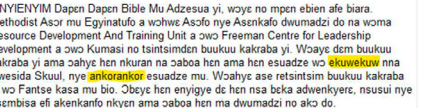
The second compound, *atsewtsew ntam*, confirms the observation of Dolphyne (1988) that a compound itself may be reduplicated; she explains that it is a frequent form of compound formation in Akan. In this instance, the base (verb) of the first component of the compound, *tsew* (separate), has been reduplicated to convey the repetitive nature of the action of separation expressed by the verb *tsew* and to emphasise the action as well. Moreover, a prefix *a* has been added to the reduplicated verb base to form a noun, and then, the final component *ntam* (space between persons).

7.3 Reduplication

Dolphyne (1988) defines reduplication as a type of compound formation that involves the repetition of the whole or part of a stem. The reduplicated parts may be identical in tone and consonant or vowel sounds. According to Boakye (2015), there are usually two types of reduplication: full reduplication, where the whole form or base is repeated, and partial reduplication, where only a portion of the base, which can be a syllable or more, is repeated. Reduplication in Akan usually involves the entire base and may involve singular as well as plural nouns. Adjectives, numerals and ideophones may also be reduplicated in Akan. Reduplicated

adjectives indicate intensity, and the extent of this intensity is linked to the number of times the adjective is reduplicated. Also, some adjectives are only used in their reduplicated forms. Reduplication of verbs usually express repetitive or iterative and distributive ideas (Dolphyne 1988). Example 5 shows how this word formation process occurs in the parallel corpus.

Example 5: Reduplication

i)	
EN	AK
	
Gloss: weekly weekly	
ii)	
EN	AK
	
Gloss: three three	
iii)	
EN	AK
	
Gloss: ekuwekuw (groups groups)	
Gloss: ankorankor (individual individual)	

The reduplication of *dapɛn* in example i) changes the noun meaning ‘week’ to an adverb meaning ‘weekly’ in this context. Here, the entire base has been reduplicated to form the new word. It indicates the repetitive nature or imperfective nature of *adzesua*, (learning), which is itself derived from the verb phrase *sua adze* (learn thing), and the verb–object order changed to object–verb, as discussed above.

Similarly, in example ii), the number *abiasa* (three) has been reduplicated for foregrounding of the idea of each student, teaching staff and non-teaching staff receiving three pieces of reusable face masks, as well as the repetitive idea of sharing and moving from one person to the other.

In example iii), the base itself of *ankor* appears to have gone through the process of compounding as *anko* often precedes a personal pronoun by dropping the pronoun (*m’* and *w’*) to form a base and the addition of the noun and number *kor* (one). Similarly, the noun *ankor* has been repeated to emphasise the idea of ‘personal’ Bible studies.

Dolphyne (1988) argues that, in a few cases, reduplicated nouns function as adjectives. The plural noun *ekuw* (groups, associations or organisations) is repeated to form a new word that functions as an adjective and qualifies the noun *esuadze* (study or studies). The adjective *ekuwekuw* varies in terms of groups and even includes subgroups within the groups concerned in this context.

8. CONCLUSION

This paper explored lexical creativity using a bidirectional English–Akan parallel corpus built earlier by the researcher in another study, as contribution to corpus-based research in translation studies in Ghana.

The study reveals the lexical challenges involved in translating from English into Akan. To overcome these lexical gaps, borrowing, compounding, reduplication – common word-formation processes in Akan – were used to overcome translation challenges. Lexical creativity as a strategy highlights the increasing need to develop Akan as a community language, together with other Ghanaian languages, as a step towards overcoming the imbalance in terminology associated with translating into a minority language. Much like Linguee and other online resources, the parallel corpus for this study will be enlarged and uploaded onto a website and other online platforms for other purposes.

Considering the current demographic situation, language landscape and diverse education levels of the Ghanaian population, community translation as an activity and profession will play a key role in meeting the communicative needs of communities. This will require more interdisciplinary research and trained community translators and interpreters to improve intercultural understanding and to help address problems in good time, taking into account the heterogeneity of the target audiences.

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