ANAPHORA IN QUESTION-ANSWER SESSIONS IN UNIVERSITY ELF CONTEXTS

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Abstract - Identity chains (Hasan 1984) - strings of co-referential noun phrases - constitute a lesser researched area in the field of ELF, as has the more general area of cohesion (but see Hüttner 2009, Christiansen 2011). Following on the work on anaphora of such scholars as Reinhart (1983) and Cornish (1999), and on cohesion (e.g. Halliday and Hasan 1976, Halliday 2004), Christiansen (2009a/b, 2011) focuses on the link between text cohesion and discourse coherence. The interactive perspective of discourse (seen as the process of which text is the product; see Widdowson 1984: 100) is especially relevant to an ELF context of spontaneous spoken interaction. As Guido (2008) evidences, different inter-cultural concerns constitute a crucial dimension to the complex multi-code interaction. Consequently, the diverse ways in which speakers from different L1 backgrounds employ anaphors and construct identity chains are key elements in the co-construction of a dialogic text. In this case study, six extracts of transcripts taken from the VOICE corpus (2011) of conference question and answer sessions set in multicultural contexts are analysed qualitatively. The different ways that participants construct identity chains (e.g. whether they use full forms of various kinds or anaphoric pro-forms) are classified. The analysis focuses on both how individual anaphors are resolved and how relations between anaphors and antecedent triggers are encoded, and how identity chains are constructed and organized individually. The objective is to identify which kinds of noun phrase (various subtypes of full and pro-forms) are used by diverse groups of EFL speakers both in relation to their own contributions and to those of other speakers (with a threefold distinction made between the same turn of the same speaker, a different turn of the same speaker, and a different turn by a different speaker).

Keywords: discourse, anaphora, co-reference, interaction.

1. Introduction

This paper analyses the types of anaphoric cohesive devices that are found in six extracts of transcripts taken from the VOICE corpus (2011) of conference question and answer sessions. Our aim is to examine how speakers of diverse ELF backgrounds use anaphora in the construction of their discourse in order principally to discover how different kinds of anaphoric devices (reference, substitution, ellipsis) are used by a sample of ELF speakers. In doing so, we hope to gain an insight into the nature of ELF not as a single monolithic variety of English but rather as a hybrid amalgam of different variations each at least partly informed by speaker’s L1.

We shall start our discussion with some comments about the nature of ELF (Section 2) and then make some brief comments about cohesion and its relevance to ELF (Section 3). After outlining our corpus (Section 4), in Section 5, we shall report the results of our analysis.
2. The nature of ELF

As Graddol (2006: 87) notes “An inexorable trend in the use of global English is that fewer interactions now involve a native-speaker”. In a nutshell, ELF can be defined as the variations of English used by predominantly non-native speakers (NNS) communicating among themselves. Such a topic for research requires a new approach. Conventional approaches have seen the native speaker (NS) as central, serving in effect as a model and point of reference or standard, setting the norms for the non-native speaker (Figure 1). This perspective, which owes much to the prescriptive tradition which existed before linguistics established itself as a separate academic discipline, is still intrinsic to much ESOL teaching and the way that people all over the world perceive what is “correct” and “incorrect” as regards language, not least English.

![Figure 1](image)

Traditional approach seeing NS variety as norm-setting standard for discourse even between NNS.

From the purely ELF point of view that we adopt, the native speaker loses their centrality and indeed the distinction itself between native and non-native speaker becomes irrelevant, both being just participants in a discourse. This approach espouses the idea that ELF should be viewed as a distinct linguistic phenomenon – not merely a form of interlanguage\(^1\) or version of NS English. As such, ELF has its own norms, and has the possibility of either becoming endo-normative (and thus a variety in its own right rather than exo-normative) or remaining a collection of different L1-mediated approximations of NS standard English. If the former were to occur, which would seem expectable in contexts where NS speakers were not present, then a situation as in Figure 2, would come about in which ELF is in fact not an imperfect copy of standard NS speaker but a variation of English in its own right. Furthermore, ELF is not a fixed phenomenon but something much more fluid and flexible, as it is unique to each specific context in which it occurs; it comprises a synthesis of the various versions of English produced by the different participants in the particular discourse event in which it manifests itself.

\(^1\) See Selinker (1972), Pit Corder (1981).
This idea of ELF as an amalgamation of the different versions of English spoken by the participants is in fact in perfect tune with the realisation that, even in discourse among native speakers, each speaks their own idiolect and that any variety of English itself (whether or not, purely for socio-cultural or political reasons, accorded the status of standard) is in effect a composite. In both cases the participants’ – NNS or NS of a non-standard variety – may well state that they use another variety as a model (in the case of the former, a NS variety; in the case of the latter, some standard one). Nonetheless, the text that they produce should be analyzed objectively from the perspective of the state of affairs illustrated in Figure 2 rather than the more prescriptive, less descriptive, approach of Figure 1, which compares the actual text with its supposed counterpart as would be produced by equivalent native speakers. The latter approach is still remarkably widespread, despite the fact that – to paraphrase Benedetto Croce, the idealist philosopher – each text is a unique unrepeatable speech event whereby meaning is inextricable from the specific context of use.

Using an analogy with information technology, traditional approaches to languages see them as propriety software, which can be changed, modified or altered only by the copyright holders, that is to say, either the native speaker community or (self-)appointed bodies of “experts” such as the Académie Française, for French. By contrast, ELF can be seen as something more akin to a Creole than a regulated standard and in computing terms resembles so-called open source software whose code is made public so that any developer or group thereof can modify it for their own needs, typically in a collaborative manner.

Anaphora, co-reference, and the existence of so-called identity chains (strings of co-referential items within a text) constitute a particularly fertile area for research into this aspect of ELF precisely because they are such salient features of texts in all languages (see Christiansen 2009a) and also because the whole area of anaphora and co-reference and cohesion in general (see Halliday and Hasan 1976, Halliday 2004) is one whose complexity and abstract nature is often given only scant attention in English language courses. Consequently, it is an aspect of NNS performance where subjects have been less preconditioned to attempt to adhere to NS models, it being assumed rather that they will pick them up passively through exposure to relevant input or through trial and error. Within this scenario, it is possible that they will transfer L1 norms into English, some of which may well operate on similar lines to those found in English or may develop new

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2 As the scholar of Yiddish language Max Weinreich so eloquently put it, quoting a participant at one of his lectures: “a shprakh iz a dialekt mit an armey un flot” (“a language is a dialect with an army and a navy”) – See Pinker (1994: 28).
3 On attitudes to pronunciation, see Christiansen (2014), Jenkins (1998).
4 (1908: 23) “Ogni espressione è espressione unica” [every expression is a unique expression].
ones (that is adhering neither to the patterns of their L1 nor English) in response to the demands of communicating within the specifically ELF speech situation.

In the next section, we shall discuss anaphora and cohesive co-reference in general.

3. Anaphora and cohesive co-reference

Anaphora and cohesive co-reference are two of the principle types of cohesion (the others being conjunctions and lexical cohesion) and, as such relate to the way that items in a text presuppose each other, that is, rely upon each other for their interpretation. By far the most widely cited study of cohesion is that of Halliday and Hasan (1976), although in pedagogical grammar it was an area that had been dealt with sporadically. Christiansen (2011) provided a major review arguing that in essence, cohesion is a way of encoding and marking out the coherence of the discourse incompletely manifested by the text.

Anaphora has been the subject of considerable research in its own right in diverse branches of linguistics such as systemic linguistics and transformation generative grammar. It can be seen as an umbrella term for a variety of relations between items (including those which Halliday and Hasan 1979 class as reference devices, substitutes and instances of ellipsis). In contrast to studies of cohesion in the tradition of Halliday and Hasan, which have tended to concentrate on presupposition only within texts (usually written) and then only in standard English, studies of anaphora (see Reinhart 1983 and Cornish 1999) have taken a wider view that looks at supposition in the context of discourse (of which the text is just one component).

Both the distinction between anaphora and co-reference, and an illustration of a so-called identity chain is shown in the extract below (taken from the corpus that will be the subject of this study):

an example would be 1<an (.) student from a country far away>? 1<he> WANTED to be rude and impolite because 1<he> was so angry. (...) 1<he> was about to take 1<his> driving Llicence? (...) and then 1<he> didn't succeed? (...) and erm 2<the norwegian officer that had decided so> (.) came and (come) up to 1<him> and said 1<you> didn't succeed. (...) and 1<THIS foreign student> was SO ANGRY (...) 1<he> said (...) what 1<he> would have said (...) to a man in 1<his> own culture. the most BAD thing 1<he> could think of. (...) 1<i> have had sex with 2<your> sister? @ 2<the norwegian officer> looked at 1<him> and said (...) oh? did 1<you> know 2<my> sister?

(PRqas18)

In this extract, two principle identity chains can be identified, that is strings of referring expressions that share the same referent. The first is related (number 1, with the referring expressions delimited by diamond brackets) to the student and the second to the police officer (number 2). Within these chains, are found both antecedents and anaphors, that is respectively, the full forms, for instance “a student from country a far away”, and the various pro-forms such as the pronouns he, I, you and the determiners your, my, his. The

5 Who, confusingly adopt the term reference precisely for what we here call anaphoric co-reference – see Christiansen (2011: 53-63).
6 See Quirk et al. (1972), who were among the first to deal with it as a phenomenon in itself and in a systematic manner.
7 For a different discourse-based approach which takes into account different varieties of English see Christiansen (2011).
8 This number refers to the transcript identification code used in VOICE.
Anaphora in question-answer sessions in university ELF contexts

latter, as deictic nominal entity referring devices (deictic NERE, see Christiansen 2009a), do not have fixed reference; the referent is retrieved either directly in the context (e.g. I, you) or via a full form which serves as an antecedent (to be exact, an antecedent trigger - see Cornish 1999), activating, in some undisclosed way, the relevant referent in the mind. The relationship of anaphora rests on the fact that, without the antecedent, the referent of the deictic NERE cannot be accessed. Anaphora can be contrasted with the situation of co-reference as found between the items <an student from a far away country> and <this foreign student>. Various factors make it clear that these two expressions share a referent (mainly the demonstrative determiner this in the second indicating that the concept referred to is, cognitively speaking, close at hand - i.e. in this specific case, has just been mentioned) but the interpretation of neither is strictly-speaking dependent on the other and could both function independently as antecedent triggers.

In Standard English, three separate kinds of anaphors can be identified: co-referential anaphors (the pro-forms of the kind just described); substitutes; and instances of ellipsis. Substitution and ellipsis both differ from anaphoric co-reference in that, while the relationship between an anaphoric referential device and its anaphor lies at the semantic level and rests on the fact that they share a referent, with substitution and ellipsis, there is a grammatical relationship where one item replaces another within the structure of the sentence (see Halliday and Hasan 1976; Christiansen 2011). Furthermore, the referent of a co-referential anaphor is something determinate (accessible or identifiable in the terms of Lyons 1999), while the referent of a substitutive or elliptical item is indeterminate. Substitution and ellipsis are often extended to verbs and clauses (e.g. “I think so”), both ways of referring to processes as opposed to entities (see Christiansen 2009a), as can anaphoric co-reference, but less commonly so in English (e.g. “she did it”).

Below are examples of nominal substitution and ellipsis from the VOICE corpus:

we have the DISADVANTAGE of having (. ) NAtionalties on (our) er er (. ) names? but er it's not always (hard for us) because you (. ) VERY often (need) two countries [ANTECEDENT] you know? country [ANTECEDENT] of background and the country [ANTECEDENT] where you are WORKING or maybe a third one [ANAPHOR]?

(PRqas18)

i wanted to (. ) to ask you two Ø [ANAPHOR] in particular of the last two the last two presentations

(PRqas224)

In the first example, the anaphor one stands in for country, as retrievable via the three antecedents. In the second example, the reference is exophoric, which we will discuss shortly, which means that the antecedent, or the noun phrase that is ellipsed (speakers), is not manifested in the text but can be located in the discourse. In short, it is implicit rather than explicit.

9 Cornish’s use of the terms anaphora, endophora, and exophora is markedly different from Halliday and Hasan (1976) who rather see anaphora (and cataphora: when the antecedent follows the anaphor), for example, as a specific type of endophora, contrasted to exophora as the two main types of reference (see Christiansen 2011: 35), exophora being in essence deixis. Halliday and Hasan’s approach is thus informed by a failure to distinguish between text and discourse.

10 The link between language, thought and the physical world beyond the mind remains unclear despite much ongoing debate in philosophy and research in cognitive science (see Nelson 1992; Pinker 1994, 1997).

11 As Christiansen (2009a: 103-106) notes, reference of this kind (by means of items dubbed compound reference verbs by Halliday and Hasan 1976: 125) is the unmarked option in Italian.
The difference between substitution and ellipsis is that, with the former, an item (basically, one for nouns, do for verbs and so for clauses) is used as an anaphor, whereas, with ellipsis, the space in the syntactic structure that would have been occupied by the anaphor is left blank. Halliday and Hasan (1976: 88) note that ellipsis is essentially substitution by nothing, hence, Halliday (2004) lists only four types of cohesion, treating ellipsis as a type of substitution. Christiansen (2011: 131-132) is cautious about this simplification, noting that the syntactic processes behind each are quite different. He points out that if they were so similar then there would be no need for substitution to exist at all seeing that a more economical alternative exists in ellipsis. Indeed, substitution differs from ellipsis in that substitution provides an opportunity not just to replace an item with a more economical form (a convenient short general token such as one) but also to modify that same token with an adjective and thus to add extra information about it (e.g. “a third different one”): something not possible with ellipsis. Also, and very importantly with English, where number is only encoded by certain determiners (cf. this / these; but which, his etc.), the nominal substitute one (revealingly, something which can only be used when the antecedent is a countable noun) provides a way to mark number that ellipsis does not afford (see Christiansen 2011: 105-6).

An extra aspect to the use of anaphors is what we could call its dimension, that is to say, where in relation to the speech event the antecedent is found: within the same text (endophora); outside of the text but within the discourse of which it is a manifestation (exophora); or outside both the text and the discourse, but in the external context (deixis). Examples of each are illustrated below:

1) **Endophora** (intra-discoursal, intra-textual, indicating something in the linguistic, textual, context: co-text):

because THAT kind of LEAVES the whole thing [ANTECEDENT] (. .) leaves (. .) it [ANAPHOR] open like WHICH way eVENTually (. .) some new field of s:cientific research is going to eMERGE  
(PRqas224)

2) **Exophora** (intra-discoursal, extra-textual, indicating something in the linguistic, discoursal, context):

*•46S3: now it’s very different from bef- er from before (. .) so so er for example you know my granddad get married? (. .) and they [ANAPHOR] (. .)  
*•47S4: <soft> mhm </soft>  
*•48S3: their [ANAPHOR] children do not have (. .) the right to l- of the cit- of the <pvc> urbans </pvc> residents (. .) so? they cannot receive educat<7>ion THERE </7>  
(PRqas495)

3) **Deixis** (extra-discoursal, indicating something in the extra-linguistic context):

MAY I [ANAPHOR] introduce (. .) to you [ANAPHOR] (. .) our [ANAPHOR] first speaker?  
(PRqas18)

As can be seen, only with endophora is the antecedent found together with the anaphor in the actual text. With deixis, the antecedents for the anaphors are present in the context (e.g. I = the speaker; you = the audience; our = all those present). In cases of exophora, the antecedent has to be recovered from the discourse. This is a vaguer, more complex area, especially given that, while the text and extra-linguistic context are largely the same for all participants (with minor differences due to personal interpretations of physical stimuli), the discourse is something much more subjective, based on each participant’s personal and cultural background, their interpretation of the speech event itself, their objectives and so
on. A somewhat simple case is found in example 2 where the speaker mentions their grandfather and the fact that he had got married, thereby alluding to a wife without explicitly mentioning her as such. Immediately afterwards, the speaker refers to these two people (grandfather and wife) via the anaphors *they* and *their*, which however have no antecedent in the text, *my grandad* being only one of the two elements.

The discourse is something constructed by each partly using the portion of the text constructed by them and the other participants but also by their own expectations, their background and knowledge of the world: by the cognitive landscape, to use a metaphor, in the mind of each participant. Communication does not only involve the exchange and sharing of information; it also ideally involves the merging of discourses and the co-construction of a shared cognitive environment. Anaphora, employed by addressees and resolved by addressees is a key element in discourse and the associated potentialities for diverging interpretation make it a central element in communication between speakers of different variations of ELF and from different L1 backgrounds. The work of scholars like Cornish and Reinhart show that many of the mechanisms involved would appear to be shared by many languages and would seem to constitute linguistic universals.

This potential for radically different manifestations of anaphora in ELF texts is illustrated by the example below also discussed in Christiansen (2011: 355-359), an extract of the United Nations’ Universal Declaration of Human Rights (1948) in its versions in standard English, Italian and Nigerian Pidgin English:

4) All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

5) Tutti gli esseri umani nascono liberi ed eguali in dignità e diritti. Essi sono dotati di ragione e di coscienza e devono agire gli uni verso gli altri in spirito di fratellanza.

6) Everi human being, naim dem born free and dem de equal for dignity and di rights wey we get, as human beings, God come give us beta sense wey we de take tink well, well and beta mind, sake for dis, we must to treat each other like broda and sister.

Ignoring the fact that examples 6 and 4 are both varieties of English and that 5 constitutes a different language all together, it can be seen that as regards cohesive reference, standard English (4) resembles Italian (5) more than it does Nigerian Pidgin English (NPE) (6). In both English and Italian, a full noun phrase at the beginning of the phrase (functioning as antecedent) is followed by one third person anaphoric pronoun (*They* / *Essi*) and then reciprocal reflexive anaphors (*one another / gli uni ... gli altri*). In Example 6, there are many more pronouns of various kinds including personal (*dem/we/us*), demonstrative (*dis*), relative (*wey*) as well as a reciprocal reflexive expression (*each other*). As Christiansen (2011: 356) notes, the fact that standard English is closer to Italian than to NPE cannot be attributed to linguistic factors alone, even allowing for the fact that the latter shows strong influences from local languages such as Hausa, Yoruba and Igbo (see McArthur 2003), but must be due to cultural ones too.

Evidence for this is found in the fact that the NPE version contains many more anaphoric reference devices than would seem to strictly be necessary in terms of designating the referent alone. It would seem that in NPE there is a requirement for more

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12 This constitutes what some have called an anaphoric peninsula because the anaphor is partially retrievable via an antecedent at the text level: “*Woman*: Why didn’t you write to me? *Man*: I did Ø … started to Ø, but I always tore ’em up.” (Cornish 1999: 157) where the referent of ‘em’ is the unexpressed object of ‘write’, i.e. ‘letters’.
specification of links between salient entities than in either Standard English or Italian. Such repeated evocation appears to have a rhetorical function (Christiansen 2011: 357). Another such device, which like all such strategies is culturally determined, are the shifts in grammatical person from dem (them) to we. This repositioning from the third to first person seems to underline the fact that the addressee both fall within the actual scope of reference of the full-form “Evri human being” – a connection left only implicit in the Standard English and Italian versions. The register of the English and Italian is formal and impersonal (Darstellung or representational for Bühler 1934), while in NPE it is personal and engaging (Appell or vocative).

The difference in the manifestations of anaphora in Examples 4 and 6 show how two addressors may use cohesive markers differently to highlight contrasting elements of the underlying discourse. Anaphora then is one area of ELF where one can expect to find a great deal of variety with far reaching implications for the way that the discourse underlying the interaction comes to be interpreted by the participants engaged in it and consequently for how the unfolding interaction develops.

In this paper, which constitutes a brief preliminary study in ELF of this highly complex area, we will not attempt to examine in depth how the patterns of anaphora employed by individual speakers reflect their respective L1s since we have neither the necessary expertise in the multitude of diverse languages found here nor the space. Rather, we will embark on a description of the types of anaphora found in an ELF corpus in an attempt to identify the general tendencies in line with our comments in Section 2, with regard to the need to study ELF, like any other linguistic variety, as a phenomenon in its own right and resist the temptation for constant comparison as if the features examined are only relevant insofar as they conform to or diverge from the model of NS English.

4. Corpus

The corpus used for this analysis consisted of six extracts from the VOICE corpus (2011) of conference question and answer sessions (approximately 1,000 words each from the beginning of each, using as a cut-off point the first change in speaker turn after the 1,000 word mark). The relevant aspects of each extract for our purposes here are summarised in Table 1 below.

The VOICE corpus identification code for each transcript is given first then, in brackets, the number of words in the extract is given (only approximate because this figure includes vocalisations such as ‘er’ ‘um’, incomplete words or other non-linguistic elements such as laughter). Next along the top row, are the VOICE identification codes for each speaker in the extracts and below each one their L1. The speakers highlighted in dark cells are those who dominate that extract, producing more of the text, in terms of words, than the other speakers.

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13 Indeed very few studies of cohesion in languages other than English exist (but see Christiansen 2009a for a study of Italian).
14 How far the other participants contribute is something reported and commented upon in Christiansen (2013).
In this section, we will give figures for the frequency of various kinds of anaphora, going largely from the general to the specific. We will concentrate on the anaphora employed by one speaker from each extract, selecting the speaker who, for whatever reason, dominates in that they produce most of the text (see Table 1).

To begin with, we shall look at the dimension of reference that is employed by the speakers, deixis (extra-discoursal), or anaphoric (intra-discoursal), which in turn can be divided into exophoric (intra-discoursal, extra-textual) or endophoric (intra-discoursal, intra-textual) – see Section 3. In this and the tables which follow, to allow a straight comparison between the different speakers and the two ways of referring, we also give the figures (to two decimal places) as percentages of the total of instances of the specific categories compared combined.

Comparing deixis with anaphora, it can be seen that for every speaker except Sp4 (for whom there is a perfect balance between the two), anaphors outnumber deictic devices. There is however variation between speakers over the precise difference (see the figure for standard deviation: SD), the lowest for anaphora, other than Sp4, being Sp3 followed closely by Sp6, and the highest is Sp2 with Sp5 just behind. Deixis entails designation of items in the physical context and is a typical feature of spoken discourse where a speaker refers to things outside of the discourse but present in the non-linguistic physical environment. Anaphora instead is a feature of self-contained discourse where the external non-linguistic context is not referred to.
As regards exophora and endophora, for every speaker, the latter is more frequent than the former, although in the case of Sp2 there is very little difference. The mean (i.e. M: second bottom row) is that endophora outnumbers exophora by about 3 to 1. The essential difference between these two dimensions of anaphora is that with endophora the antecedent trigger is explicit as it is manifested within the text itself, whereas with exophora it is implicit as it is an unexpressed part of the discourse. In the latter case, there is greater room for ambiguity as recovery of the antecedent, and thus the referent, relies on what is mutually manifest to addressor and addressee. In fact, in the whole corpus analysed here, only one case of an “unresolved” anaphor was found (a deictic – non anaphoric - possessive personal reference device produced by Sp4) whose antecedent was not obvious to this analyst. There were also nine cases of misdirected anaphors (eight of which produced by the six dominant speakers focused upon in this study) where the grammatical person and number of the anaphoric device did not appear to concur with that of the antecedent. Of these, only two stand out: “they don't really er understand what they see around you.” (Sp1); “the debate is really too much concentrated on the maasricht CRiteria itself” (PRqas409 Sp4), the latter may be explained by the fact that criteria is an irregular plural (singular: criterion) although a participant in a university question and answer session might be expected to be aware of this. The other seven involve confusion between this and these (e.g. “this kinds of youth center” Sp6) and could thus equally be


In this and examples below, the emphasis is ours.
seen as a pronunciation issue (confusion between /iː/, /ɪ/, and /ɪ/) rather than problems with resolution of anaphors.

That exophora exists without incomprehension occurring and communication breaking down implies that participants are very much “in sync” with each other or “on the same wavelength” as it involves allusion to concepts which are relevant to the discourse but are not explicitly referred to in the text, something that one would assume is harder in discourse between participants of many different cultural backgrounds. Having said this however, national and ethnic cultural differences apart, the fact that the university question and answer sessions from which these speaker contributions are taken are all on very specific areas in which participants share an interest means that much common knowledge can be taken for granted.

There are two forms of endophora: that where the anaphor comes after the antecedent (confusingly, Halliday and Hasan 1976 use the term anaphora specifically for this); and that where the anaphor precedes the antecedent (cataphora). The mean for the former was 95.99% and for the latter only 4.01% (and three of the speakers did not use cataphors at all). This is unsurprising as cataphora (forwards-endophora) is rarer than backwards-endophora and, in our corpus, was mainly limited to examples like “the reform of the pension systems” (PRqas409 Sp4) which involve the syntactic phenomenon of what Halliday and Hasan (1976: 75) call structural cataphora where the deictic determiner the is presupposed by the postmodification of the noun phrase, creating a very localised cohesive tie.

In Table 3 below, we compare the frequency of anaphora of all kinds (anaphoric co-reference, substitution and ellipsis) with normal co-reference (i.e. that which does not involve asymmetry and the existence of an antecedent – see Section 3).

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Co-reference</th>
<th>Anaphora</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>% Co-ref</td>
</tr>
<tr>
<td>Sp1</td>
<td>23</td>
<td>13.45%</td>
</tr>
<tr>
<td>Sp2</td>
<td>35</td>
<td>21.74%</td>
</tr>
<tr>
<td>Sp3</td>
<td>14</td>
<td>21.54%</td>
</tr>
<tr>
<td>Sp4</td>
<td>16</td>
<td>28.57%</td>
</tr>
<tr>
<td>Sp5</td>
<td>41</td>
<td>36.61%</td>
</tr>
<tr>
<td>Sp6</td>
<td>36</td>
<td>23.84%</td>
</tr>
<tr>
<td>M</td>
<td>24.29%</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>7.77</td>
<td>SD</td>
</tr>
</tbody>
</table>

Table 3
Occurrences of Anaphora compared to co-reference in corpus

As can be seen by the means (second from bottom row), on average, the different speakers use anaphors three times as often as they do co-referential devices with a standard deviation (average difference) from the mean of 7.77 for the percentages, which is a relatively low figure, indicating that the results for the different speakers are similar. It is Sp1 who uses fewest co-referential devices and most anaphors, and Sp5 who uses most co-referential devices and fewest anaphors. That all the speakers use anaphors more than co-
referential devices is in line both with the fact that almost all languages in the world\textsuperscript{18} require pronominalisation in certain well-defined syntactic contexts\textsuperscript{19} and with the more general principle of economy as identified by Christiansen (2009a), whereby shorter and/or less complicated forms (in cognitive terms) are preferred to longer, and/or more complex ones.\textsuperscript{20} Here it can be seen that the speakers are adhering not merely to NS norms but to a type of linguistic behaviour which, Christiansen (2009a) argues, is a linguistic universal.

Looking specifically at the way in which the figures for anaphora break down, in Table 4, we give the figures for the various kinds of anaphor found in the corpus.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|}
\hline
\textbf{Anaphora} & \textbf{co-reference} & \textbf{Ellipsis} & \textbf{substitution} \\
\hline
\textbf{L1} & \textbf{No.} & \% Anaphor & \textbf{No.} & \% Anaphor & \textbf{No.} & \% Anaphor \\
\hline
Sp1 & Nor & 147 & 99.32\% & 0 & 0\% & 1 & 0.68\% \\
Sp2 & Kor & 125 & 99.21\% & 0 & 0\% & 1 & 0.79\% \\
Sp3 & Hun & 49 & 96.08\% & 2 & 3.92\% & 0 & 0\% \\
Sp4 & Slv & 39 & 97.5\% & 1 & 2.5\% & 0 & 0\% \\
Sp5 & Slo & 71 & 100\% & 0 & 0\% & 0 & 0\% \\
Sp6 & Chi & 112 & 97.39\% & 3 & 2.61\% & 0 & 0\% \\
\hline
M & & & 98.25\% & & & 1.51\% & \\
SD & & & 1.49 & SD & & 1.72 & SD \\
\hline
\end{tabular}
\caption{Different types of anaphora used by speakers}
\end{table}

By far, the most common type of anaphora employed by the various speakers is anaphoric co-reference (plain reference for Halliday and Hasan 1976). There is much similarity in the figures of the individual speakers as shown by the very low standard deviations. Substitution and ellipsis are used notably less, indeed some speakers use one or the other not at all, and one, Sp5, employs neither.

The reason for the less frequent use of ellipsis and substitution in general can be attributed to the fact that, although the principle of economy is universal, these two particular ways of achieving it exist at a grammatical level (see Halliday and Hasan 1976) and are thus closely tied in with the structure of the particular language in question. By contrast, reference and co-reference exist at the non-language-specific, semantic level. The fact that substitution is the least used of all can be explained in two ways. Firstly, putting a token such as a nominal or verbal substitute (e.g. one, do) is marginally less economical than simply leaving the item out as is done in ellipsis. More importantly

\textsuperscript{18} For some apparent exceptions see Lasnik (1991).

\textsuperscript{19} See Chomsky (1982) and his concept of binding conditions. See Christiansen (2009a 120-124) for some apparent exceptions, the rationale for which for seem to be connected with cohesion rather than structure.

\textsuperscript{20} Christiansen (2009a), in his study specifically of noun phrase selection in written Italian, identifies four interrelated factors influencing the type of referring expression used in a given context; in no particular order: the principle of economy; referential efficacy (how precisely the expression unambiguously designates the referent); the informative function (whether the referring expression, in addition to designating, can be used to add extra information about the referent – see also Christiansen 2009b and 2011) and the stylistic convention of the avoidance of formal repetition (the tendency to vary the way in which a referent is referred to; e.g. synonyms, superordinates and more general words, and synecdoches etc.).
however, as Christiansen 2011 notes, the precise mechanisms that underlie the use of substitutes (particularly of the nominal and verbal kind) are tied in very closely with the structure of English noun and verb phrases and their specific features (e.g. the fact that modifiers of noun phrases do not show number, or the extensive use of auxiliaries or supplementary do – Christiansen 2002 – in verb phrases) which render them a peculiarity of English and hardly a linguistic universal at all. An ELF speaker will thus be less likely to be able to use their own L1 as a resource in formulating such devices. Indeed, the low frequency of substitutes in particular and their complete absence from the production of four of the six speakers indicates that these speakers are not following an English NS model in this respect.

Another interesting observation is that, although the raw figures for the occurrence of substitutes and elliptical devices are low (no more than 1 or 2 occurrences in each case), it is relevant that speakers tend to use one or the other; in no case both. Nor does L1 seem relevant in this respect; Sp1 (L1 Norwegian) and Sp2 (L1 Korean) both use substitution but not ellipsis, and Sp3 (L1 Hungarian), Sp4 (L1 Slovene), and Sp6 (L1 Chinese) all use ellipsis but not substitution. It is of course possible that these various disparate L1s do share common features (absent however from Slovakian – see Sp5) that may account for the use of one rather than the other, but it would seem unlikely in our view although we must confess to the lack of the required linguistic competence in the specific languages concerned. Rather, it would seem that Sp1 and Sp2 simply adhere more to the NS model in this than do the other four speakers.

In Table 5 we look at the various types of ellipsis and substitution found in the corpus.

<table>
<thead>
<tr>
<th></th>
<th>Sp1</th>
<th>Sp2</th>
<th>Sp3</th>
<th>Sp4</th>
<th>Sp5</th>
<th>Sp6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nor</td>
<td>Kor</td>
<td>Hun</td>
<td>Slv</td>
<td>Slo</td>
<td>Chi</td>
</tr>
<tr>
<td>Ellipsis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clausal</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Nominal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Verbal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Substitution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clausal</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nominal</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5
Types of anaphoric ellipsis and substitution found in corpus.

As can be seen, occurrences of ellipsis and substitution are few, but cover different subtypes of each. The most common form of ellipsis in the corpus was clausal (4) followed by one case each of nominal and verbal ellipsis. Clausal ellipsis is relatively common in spoken discourse as it occurs in answers to questions as in “yah maybe you should speak slowl? (.)” – “yeah=” (PRqas495) where the one-word affirmative reply involves the ellipsis of the clause mirroring (with the appropriate change in grammatical person) the original question (i.e. “yeah Ø [I should speak slowly]”). Had the corpus involved shorter speaker turns and had there been more interaction between different participants, then the figures for this specific kind of ellipsis might well have been higher. Indeed for the whole corpus (including all speakers), there were 11 cases. For substitution it is notable, apart from the very few occurrences, that there are no examples of verbal substitution (the use of auxiliaries to replace lexical verbs, e.g. in the example of clausal ellipsis just given “Yes I should do”). These however are relatively infrequent even in NS discourse as verbal ellipsis will achieve the same effect more economically (see
Christiansen 2011), so too much should not be read into their absence in this corpus.

In Table 6, we look at the figures for the occurrences of the various types of anaphoric co-reference found in the corpus:

<table>
<thead>
<tr>
<th>L1</th>
<th>Comparative</th>
<th>Demonstrative</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>% Anaphoric co-ref</td>
<td>No.</td>
</tr>
<tr>
<td>Sp1</td>
<td>Nor</td>
<td>6</td>
<td>4 %</td>
</tr>
<tr>
<td>Sp2</td>
<td>Kor</td>
<td>5</td>
<td>4 %</td>
</tr>
<tr>
<td>Sp3</td>
<td>Hun</td>
<td>4</td>
<td>8 %</td>
</tr>
<tr>
<td>Sp4</td>
<td>Slv</td>
<td>4</td>
<td>10 %</td>
</tr>
<tr>
<td>Sp5</td>
<td>Slo</td>
<td>4</td>
<td>6 %</td>
</tr>
<tr>
<td>Sp6</td>
<td>Chi</td>
<td>2</td>
<td>2 %</td>
</tr>
<tr>
<td>M</td>
<td>5.65 %</td>
<td>M</td>
<td>40.49 %</td>
</tr>
<tr>
<td>SD</td>
<td>3.09</td>
<td>SD</td>
<td>14.73</td>
</tr>
</tbody>
</table>

Table 6
Types of anaphoric co-reference found in corpus.

Overall (see mean, second bottom row), the most common type of anaphoric co-reference is personal (that which relies on deixis by means of indication of grammatical person: first, second or third: e.g. my, you, she) followed by demonstrative (deixis by indication of spatio-temporal position in relation to some point of reference, usually the speaker and the time of speaking: e.g. this, those, now, then) and lastly, by a long way, comparatives (where items are contrasted and thus there is indication of the second item: e.g. same, more, less, such). In fact, between individual speakers there is some variation in which of the two is more frequent: personal or demonstrative anaphoric co-reference (as evidenced by the relatively high figures for standard deviation for these two compared to the low one for comparative co-reference); Sp2 and Sp5 use demonstrative co-reference more frequently than they do personal co-reference and for Sp6 the figures for each are the exactly the same.

Demonstrative reference is particularly interesting because it comes in three distinct categories: accessible (i.e. the), spatial (e.g. this, that) and temporal, relating to the difference dimensions of deixis (e.g. now, then). Accessibility is a category identified by Christiansen (2011: 79), who following Lyons (1999), uses it to describe what is traditionally known as the definite article, which serves to indicate that the noun it modifies is a given, readily recoverable, concept which the addressee can be expected to identify without further indication or clarification. In Table 7, we summarize the data regarding the occurrences of various kinds of demonstrative reference found in the corpus.

21The same forms can also be used as conjunctions, examples of which were found but do not concern us here - see Christiansen (2013).
Anaphora in question-answer sessions in university ELF contexts

As can be seen, for every speaker, accessible demonstratives outnumber spatial and temporal ones, but the high figure for standard deviation shows that degree of difference varies greatly between speakers except in the case of temporals (although one speaker, Sp5 does not use them at all, while for another, Sp3, they account for 19% of their output of demonstratives). Sp2, for example, uses very few spatial demonstratives compared to accessible ones, whereas Sp4 uses more spatially. The differences between temporals and spatial are accountable largely by what the speaker in question is talking about: space or time. By contrast, with accessible and spatial, the factors at play are more subtle and complex and there is a need to examine each category in its own right, from various perspectives.

Looking specifically at accessible, in Table 8 we show the figures for accessible broken down according to dimension of co-reference (see Table 2).

As Table 8 shows, accessible demonstrative reference devices are used almost exclusively for anaphora: the one exception being a single deictic use where the antecedent is found within the extra-linguistic context (i.e. “and er the colleague here also mentioned”, Sp4). Within the category of anaphora, they are used more typically for exophora than for endophora, indicating that speakers freely avail themselves of the concept of mutual manifestness, as evidenced also in Table 2, indicating that they feel that much of the discourse can be left implicit and there is no need to render everything explicit at the textual level. That this tendency reveals itself so strongly with accessible demonstrative reference (i.e. the determiner the) is interesting especially in the case of Sp2 who, as in Table 2, is the speaker, who displays this trait most. The figures for this specific speaker are raised by the fact that he uses the definite article in structures like those which in standard NS English and in the discourse of the other speakers are treated as general reference and fronted by the so-called zero article indicating that the reference is non-definite (10 out of a total of 44 examples or roughly 25%). Such a use (e.g. “i would like talk about (. ) the recent trends in korea?”), is typical of many languages where reference to general categories is encoded as definite (i.e. the specific category) while it is usually treated as non-definite (i.e. general) in NS English (see Lyons 1999, Christiansen 2009a) – c.f. English and Italian: “Cats eat mice” / “I gatti mangiano i topi”. It is interesting that

Table 7
Types of demonstrative found in corpus.

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Accessible</th>
<th>Spatial</th>
<th>Temporal</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>No.</td>
<td>% Dem ref</td>
<td>No.</td>
</tr>
<tr>
<td>Sp1</td>
<td>Nor</td>
<td>23</td>
<td>58 %</td>
</tr>
<tr>
<td>Sp2</td>
<td>Kor</td>
<td>54</td>
<td>86 %</td>
</tr>
<tr>
<td>Sp3</td>
<td>Hun</td>
<td>7</td>
<td>44 %</td>
</tr>
<tr>
<td>Sp4</td>
<td>Slv</td>
<td>4</td>
<td>29 %</td>
</tr>
<tr>
<td>Sp5</td>
<td>Slo</td>
<td>29</td>
<td>67 %</td>
</tr>
<tr>
<td>Sp6</td>
<td>Chi</td>
<td>35</td>
<td>60 %</td>
</tr>
<tr>
<td>M</td>
<td>57.22 %</td>
<td>M</td>
<td>35.25 %</td>
</tr>
<tr>
<td>SD</td>
<td>19.64</td>
<td>SD</td>
<td>16.69</td>
</tr>
</tbody>
</table>

22The essential difference between the two perspectives can be highlighted by paraphrase. In English “Cats, in general, eat mice, in general” versus in Italian “Members of the specific category of cats eat members of the specific category of mice”.

\[ \text{lingue e linguaggi} \]
all the other speakers in our survey, whatever their L1, appear to adhere to the norms of NS English despite the fact that definiteness as a concept is nebulous and complex and is encoded in widely different ways by languages in general (see Lyons 1999).
Looking at the figures on Table 10, it can be seen that most spatials are endophoric, then deictic, with only one example of exophora (proximal). In every category, the standard deviation is high indicating that there is a great deal of variation between speakers. The figures for deictic and exophoric spatials are too small to make generalisations but the data for endophora does allow one to identify some interesting tendencies. In general, endophora and exophora are of interest because the concepts of distal and proximal are subjective, reflecting attitudes and degrees of psychological distance (see Christiansen 2011 77-80) rather than physical space as they do with deixis proper.  

The patterns for endophora used by the speakers in this survey show that some (Sp1, 4, 5, 6) favour proximals. One (Sp3) shows no preference, and another (Sp2) uses only distals. Sp4 only uses distals for exophora and mostly proximals for endophora. It is tempting to conclude that this speaker treats intra-textual antecedents as proximal and extra-textual ones as distal, but the fact that there is only one example of a deictic means that there is not enough data to support this.

It is significant that, for endophora, most speakers do use both distals and proximals, albeit in different proportions, showing that the distinction between distal and proximal is a relevant marker of psychological distance also in their discourse. Contributing to this is the fact that the basic distinction between near and far would seem to be a linguistic universal common to all languages (although different languages may also have additional categories to simple proximal and distal or may compound definiteness with such things as grammatical person, see Lyons 1999: 107-111). It would be interesting to examine how the concept of psychological distance is manifested by different speakers of different lingua-cultural backgrounds but this would be a major enterprise in itself and far beyond what we can hope to achieve in a short paper such as this.

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23In an analysis of newspaper articles in English, McCarthy (1994: 267) found that whereas *it* is used to refer to a “topical entity in current focus” (i.e. current theme), and *this* signals a “shift of entity or focus of attention to a new focus” (i.e. new theme), and *that* “a topical entity which is not the current one”.

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6. Conclusions

Looking at the results of our analysis, it can be seen that modes of cohesion more peculiar to English such as ellipsis and especially substitution are less frequent in ELF while those which constitute linguistic universals are used freely by all speakers in this survey whatever their L1. These universals however prove adequate in ELF to ensure that the discourse is cohesive, something proved by the fact that at no point in the corpus examined is there major incoherence causing the interaction to stall or breakdown.

This study also shows that different speakers of ELF draw upon the same set of resources for anaphora and cohesion but to different extents. This means that the type of cohesion produced within the discourse varies between different speakers. Variation of this kind is made possible by the nature of cohesion itself. Linguists like Halliday (1961) and Katz and Fodor (1963) see texts as structural units, in effect super sentences. However, as Hoey (1991) points out, this is true for neither, largely because it is impossible to define what is and is not a well-formed sentence or text. Taking into account that cohesion regards loose organization rather than rigid structure and that consequently the boundary between well-formed and ill-formed is less clear, it is possible for participants in ELF discourse to transfer L1 norms into English, some of which may well operate on similar lines to those found in English. Alternatively, they may develop new ones (that is adhering neither to the patterns of their L1 nor English) in response to the demands of communicating within the specifically ELF speech situation.

Such variation and improvisation leads to a discourse which, though functional from a communicative point of view, may at times display what we may call cohesive disuniformity. The analogy that one may like to entertain when considering this kind of lingua franca discourse between speakers of different L1s is of a musical group in which members, rather than being components of a well-rehearsed orchestra playing a limited range of conventional instruments under the guidance of a conductor, are part of an improvised band playing an eclectic range of instruments from a variety of different traditions.

There is, as we have mentioned elsewhere (Christiansen 2009a, 2011, 2013), a need for more studies such as this to further ascertain how far conventional descriptions of cohesion from NS discourse fit ELF discourse, which we believe should be ultimately treated as something that potentially has its own norms. More studies into aspects of cohesion in languages other than English are also required to provide not only new perspectives into the study of cohesion itself (see Christiansen 2009a) but also better understanding of the cohesive strategies that ELF users bring with them from their own L1 and to investigate whether some cohesive strategies employed in ELF are not entirely new or hybrid and come neither from NS English nor from the speaker’s L1.

Finally, a more detailed analysis of the concepts of cohesive uniformity and disuniformity as identified here in order to analyse the effects that each has on the discourse interpretation of different participants.

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24 With the sentence, this issue is often obscured by confusion with the concept of clause, which is undoubtedly a structural unit. In reality a sentence, an informal unit, sometimes corresponds with a single clause sometimes with a complex of clauses - see Christiansen (2011).

25 Of course, the different kinds of music may appeal to different people and, to some, disuniformity may equate with discord, disagreement or imbalance while others may enjoy the variety, the innovation and the juxtaposition of different styles. Be this as it may, such matters regard aesthetics which is not the concern of linguistics as a descriptive science, and our use of the term disuniformity is entirely neutral.
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