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Introduction to the volume

The 10th Postgraduate Conference in Linguistics and Language teaching was held at Lancaster University on July 13th 2015. It gave postgraduate linguistics students from the UK, Europe and beyond the opportunity to meet, network and share their original research in a wide range of areas of linguistic studies, including psycholinguistics and second language acquisition, language teaching and learning, discourse analysis, corpus linguistics and pragmatics. This volume presents three papers from the conference focusing on conversational analysis, discourse analysis, and psycholinguistics respectively.

In *Code-switching and social identity construction among Arabic-English bilinguals: A stance perspective*, Hanan Omar A Ben Nafa analyses how code-switching is used in the spoken interaction of a small female group of Arabic-English bilingual friends living in the North West of England. Using the construct of stance, the paper explores how the code-switching examples in the conversation reflect the complexity of the speakers' identities and their socio-cultural values.

In *The language of reports in general English language testing: A corpus-based analysis*, Maria Melissourgou investigates written language in reports assessed in English language programmes. As a result of a genre and corpus analysis, the author identifies how words and linguistic patterns are related to the expression of meaning and style. On the basis of her analysis, the author also discusses the implications of the study for teaching and assessment.

Finally, *Executive Function and Language Learning: Differentiating Vocabulary and Morpho-Syntax* by Harriet Stone and Diana Pili-Moss investigates the relationship between the learning of a miniature artificial language (Brocanto2) and a cluster of cognitive abilities (executive function) in a group of 20 young adults. Unlike previous studies, the authors argue for an analysis of linguistic gains differentiating between the learning of vocabulary and the learning of morphosyntax, and show that only gains in vocabulary positively relate to higher executive function performance.

We would like to thank the Department of Linguistics and English Language and Elsevier for their generous support, our invited speakers for their kind participation, and the group of students who volunteered on the day for their hard work. You all importantly contributed to the event's success.

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Code-Switching and social identity construction among Arabic-English bilinguals: A stance perspective.

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Abstract

This is a qualitative, semi-ethnographic study that closely analyses audio-recorded, informal, peer group interactions of a small group of adult, female, Arabic-English bilingual friends, who are part of the Arabic-speaking minority in Manchester, UK. Unlike traditional approaches where speakers' Code-Switching (henceforth CS) was believed to denote a homogenous or a unified identity that is unquestionably reflected through language, this study adopts a stance-based approach to examine how speakers utilise CS patterns to (re)construct and negotiate individual and interactional aspects of their identities. Stance is an indexical tool that speakers utilise in order to evaluate their interlocutors' utterances or the interlocutors themselves and to position themselves in relations to either/both. This paper explores the indirect relationship between the different CS patterns speakers exhibit and the multifaceted aspects of their identities. It also examines the extent to which the stances speakers take respond to or challenge wider sociocultural values and macro identity labels, (e.g. Arab/English, student, immigrant/sojourner). Being a report of a working project, the paper argues that the CS style participants develop and use strategically can be explained through certain evaluative stances, similar embraced lifestyle choices and shared ideological associations speakers make between both languages used and their social significance.

Keywords: identity construction, stance, interactional, Code-Switching, ethnographic.

1. Introduction

This study is located in the conventions of Social Constructionism that considers reality an ‘ongoing human production’ where individuals have some agency to subjectively (re)create their reality (Berger & Luckmann, 1966, p. 192). In the case of language, switching codes can be a means through which speakers may (re)construct aspects of their identities, adopt or highlight different/partial roles that are not necessarily 'dual' or contrasting as was commonly believed. The complexity of the linguistic practices of bilinguals can be well captured if the notion of identity is approached within a poststructuralist context (Bauman 1991; Giddens: 1991). In the dynamic, postmodern societies of today's world, speakers can constantly negotiate/redefine their identities, or ‘cross over’ to languages/varieties of other groups they do not ethnically belong to (Rampton, 1995).

In contrast to how identities of bilingual speakers have been theorised previously (Blom & Gumperz, 1972; Gumperz, 1982), this study does not assume a direct link between the language(s) speakers deploy and their ethnic/cultural identity. It suggests that the two linguistic varieties a bilingual uses go hand in hand and can be seen as mutually significant (Woolard, 1999) in creating a ‘new’ space for the bilinguals to occupy and utilise for self-positioning (Finnis, 2013, 2009). To make sense of the Code-switching (henceforth CS) practices of a group of London Greek Cypriot community, Georgakopoulou and Finnis (2009, p. 469) rightly argue that their CS ‘does not only create identities [based on] socially and culturally derived positions but also ... [based on] desiring and fantasizing personas’. It is often claimed that it is ordinary/inevitable for bilinguals to experience a change when switching between two languages. Each language or a 'voice' may trigger a cultural shift or a distinctive interpretative framework that can lead to different positions or stances associated with each voice/code (Sapir 1929; Whorf, 1941, in Pavlenko, 2014) that speakers use to make sense of their experiences. The analytic tool used to demonstrate this idea is that of 'Stance';

an indexical process by which a linguistic feature becomes indirectly and interactionally associated with a social meaning or a certain value.

2. Theoretical Framework

Before I define what I mean by CS, I would like to first clarify what I mean by the term 'Bilingual'.

2.1 Who is a bilingual?

The term bilingual has traditionally been used to describe a speaker with a 'balanced' competence of two languages. For example, Bloomfield (1933, p. 55-6) considers bilingualism to be a result of ‘perfect foreign-language learning [that] is not accompanied by loss of the native language’ and results in a ‘native-like control of two languages’. As correctly argued by Romanie (1995, p. 5), this way of measuring speakers' bilingualism, and using words such as 'native-like' and 'balanced' marks other groups of bilinguals: 'late' or 'non-balanced', as deficient. Who I consider to be bilingual in this study is not one who has a native-like competence in two languages, but one who can communicate efficiently in both.

A group of current scholars, such as Li Wei (2000) and Grosjean (2010) consider bilingualism to be a rather practical activity that is manifested through bilingual forms of speech, such as CS, and is not a matter of fluency that is abstractly/rigidly measured. Similarly, Auer (1988) asserts that bilingualism can only be demonstrated through actual use and performance (Auer, 1988, p. 191).

2.2 Overview of Code-Switching

CS is a linguistic process where speakers alternate between two languages, a linguistic behaviour that is exhibited by bilingual speakers with different levels of proficiency in either language. It is usually defined as the 'juxtaposition within the same speech exchange of […] speech belonging to two different grammatical systems or subsystems' (Gumperz, 1982, p. 59). The codes/languages discussed in this study are Arabic and English. The variety of Arabic that the participants speak is not the Modern Standard Arabic, but the colloquial Arabic of Libya and Syria.

According to Gumperz (1982), bilinguals mainly and unconsciously switch between two codes in order to make a communicative effect that is dependent on the sum of the structural units of the two switched codes (1982, p. 61). Strategic CS can also be a verbal contextualisation cue by which interactants construct and negotiate meanings and identities. For instance, CS is almost exclusively produced in peer group interactions and is utilised as an in-group identity marker, often indicative of certain ideologies and experiences that a particular group members share.

CS is mostly known to be practiced by 'early' bilinguals - as called by Hoffman (1991) - or second-generation immigrants as a result of a constant 'balanced' exposure to two languages that are often spoken in different mediums (Gumperz & Hernandez, 1969, p. 2). Although it is not always the case, CS usually occurs between two languages of different prestige and status, such as a majority and a minority/community language. CS can also characteristic of the speech of recent and adult immigrants who are usually referred to as 'sequential' or 'late bilinguals' (Pavlenko, 2014, p. 21; Hoffman, 1991). These may include international students, and professionals who belong to a wide range of minority language groups, particularly from developing countries.

2.3 Patterns of CS

Code-switches can take the form of a grammatical item, lexical item (e.g. noun or a verb), a phrase or a clause. The first of these is called ‘Insertion’, that is adding a simple - often lexical - unit belonging to one language to the sentence boundary of the other language (Muysken, 2000, p. 1-3). ‘Alternation’ is another pattern which describes the process of switching to another language, often outside the sentence boundaries of the other language - by using complex and longer linguistic items, such as phrases or clauses (Muysken, 2000, p. 4-5).

In example (1) below, the English noun *offer* is inserted after the Arabic definite article ‘the’, as part of the Arabic sentence ‘You got the offer?’. The noun *offer* functions as the object of the Arabic verb *got*. Insertions tend to function as referential points, and *offer* here is referential of the speaker’s everyday experience of a shopping context in the UK. It also fills a lexical gap because it is accurately expressive while the known, equivalent Arabic word, such as *Fursa* (opportunity) is not be suitable for this context.

Example (1)

Fadia: شريتي واحدة ولا خديتي ال **offer**?

(*Did you buy one or you got the offer?*)

In the next example, the Arabic clause ‘I mean not that’ is alternated with the English one ‘she's not nice’, which completes the meaning of the Arabic part of the sentence.

Example (2)

Narjis: مسكينه هي طيبه يعني مش إنو **she’s not nice**

(*Poor her, she’s kind. I mean not that she’s not nice*)

3. Traditional Models of CS

3.1 'We-code/they-code' Model

At the beginning of their work on CS, Blom and Gumperz (1972) developed this model to explain the CS behaviour of several groups of speakers of different bilingual communities. It was generally argued that bilinguals use their first language or the ‘we’ code, to signal an in-group identity and reinforce a shared ethnic identity. However, and based on the group of bilinguals they studied, it was claimed that the formers’ use of a second language or a ‘they’ code is usually associated with an out-group identity. Speakers' identity then was viewed as a simple/automatic marker of their membership in a particular ethnic or socioeconomic group which they had been assigned to since birth.

3.1.1 Criticism & Alternatives

The approach was later criticised for its regard of identity as static or fixed, in addition to how it unproblematically correlated speakers' use of language with aspects of their master identity, such as ethnicity, and regarded the latter as given (Cameron, 1990). Instead, language is suggested to be a social action that should be regarded as being as crucial as other social categories in the role it plays in constructing individuals' identities (Eckert, 2000). Through viewing it as a social ‘practice’, language can be a means through which speakers 'do' their identities rather than only reflecting an identity they have (Eckert, 2012, p. 88). Further, speakers may index new social meanings and ideological views by exploiting the very same linguistic features differently, at different contexts (Eckert, 2008).

Ethnography is another important element that should be incorporated to investigate how speakers locally make sense of their lives and what codes they use for meaning-making and self-representation (Stroud, 1998, 2004; Sebba & Wotton, 1998). This can be achieved

through paying attention to the conversational interactions of a specific group of speakers, and examining how their interactions and linguistic orientations conform to or subvert wider social norms (Stroud, 1998, p. 323; Cashman, 2005, p. 305). In Bailey's (2000, 2007) studies of a group of Dominican bilinguals, CS is considered a 'we code' and used to negotiate a unique bilingual identity for the speakers; a strategy through which they perform a group membership and separate themselves - linguistically and culturally - from young, recent immigrants.

3.2 The 'Sequential' approach:

Unlike Gumperz's approach, Auer (1984, 1998) and Li Wei (1995, 1998) argued that the meaning of CS utterances is contextually and interactionally constructed through interlocutors' strategic and mutual meaning production that emerges through the local and sequential organisation of turns. By taking Conversation Analysis (CA) as an analytic method, they reject ‘brought along’ associations between speakers' utterances and their social categorisation, such as ethnic identity (Auer, 1992). Instead, only ‘brought about’ associations or those that interlocutors draw on in their talk actually matter, such as a direct reference to their ethnic group (Ibid).

The model was mainly criticised by many, such as Blommaert (2005, p. 67) and Coupland (2001, p. 11-12) for dismissing the role of ethnography and considering context to be only explicitly constructed by participants themselves as their macro identity labels cannot be assumed to be relevant to their linguistic choices.

4. A comprehensive model for exploring identity

To study identity in a comprehensive manner, approaches working in opposite paradigms: 'micro' and 'macro' are potentially more fruitful if combined together, as macro identity-related issues can be more fully discussed/challenged through looking at how language is used in everyday, local interactions. Bucholtz & Hall (2008, p. 154) suggest that studying identity at the ‘interactional’ level has to be complemented by considering ‘ethnographic’ and ‘sociocultural’ aspects of the community. They argue that ‘identities may be linguistically indexed through labels, implicatures, stances’, and that it is, for example, through stance that we can understand how language and identity are interlinked (Bucholtz & Hall 2005, p. 585).

Taking a stance-based approach is not a common practice in CS studies, with Jaffe’s (2007, 2009) examination of CS practices of bilingual teachers in Corsican bilingual schools being the only example in the literature thus far. Before giving an account of the stance-based approach, I will first define what I mean by 'stance'.

4.1. What is Stance?

The concept of stance was first alluded to in the seminal work of Goffman (1981) on ‘Footing’. Footing is seen as a general term that covers speakers' ‘change of gears’ or their different acts of alignment and stancetaking instances in conversations (Goffman, 1981, p. 126). It was in her 1993 work where Ochs first conceptualised 'stance' as an analytic tool that mediates between the language used by speakers and the specific social identity or the social role they adopt. Stance can be defined as the change in a speaker's current footing and the way a speaker takes a 'momentary' or an 'enduring' attitude towards the content of her utterance(s) and towards those of her interlocutors or the interlocutors themselves. One can mark a change in her footing by showing different levels of orientation towards their

interlocutor's utterances. A change in footing can be realised in one's or a co-participant's linguistic and non-linguistic production as well as in the utterance's content or/and form.

Stance is also defined as an act ‘that is achieved dialogically [to] evaluat[e] objects, position subjects … and align with other subjects’ (Du Bois, 2007, p. 163). Regardless of the number of stance types (e.g. affective, epistemic, etc.) found in the literature, Hunston & Thompson (2000) suggest that speakers in all their stancetaking acts are generally and necessarily taking an evaluative act or an attitudinal perspective. It is a tool through which speakers express their feelings and opinions or make judgments.

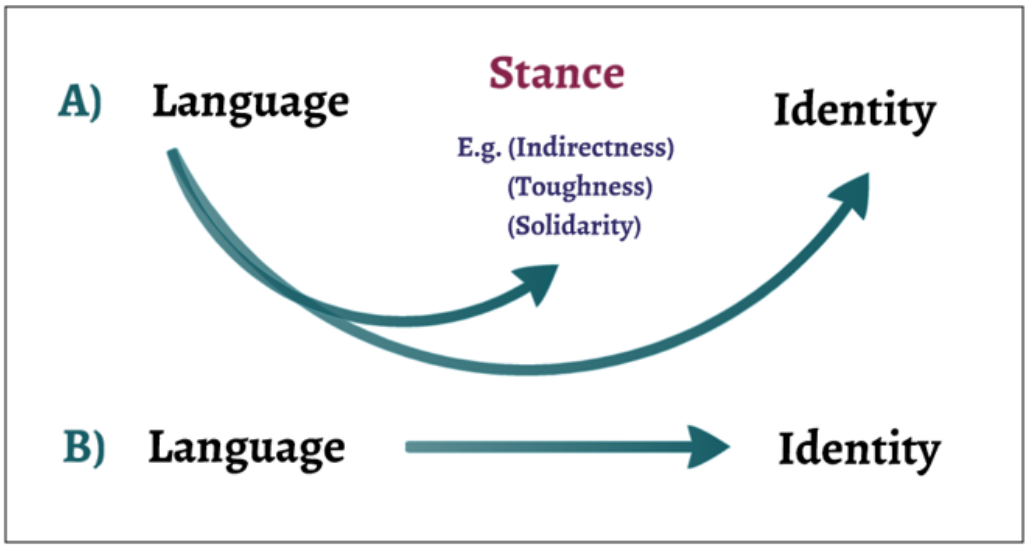
4.1.1 A stance perspective to CS

This process of the non-artificial/indirect linking of a linguistic variable to a social meaning is best illustrated through the term 'indexicality', which is mainly associated with the influential works of Ochs (1992) and Silverstein (2003). The importance of this term stems from the way it makes examining identity construction and negotiation through language feasible. An indexical value - a speaker's stance - is the social meanings that is constituted through using a certain linguist feature(s) at a particular context. The link between one's given identity categories and the way they index identity is complex and far from direct. It is through stance, however, that this relationship is embodied (See fig. 1 below). An individual's choice of a linguistic variable/code manifests the identity labels a speaker believes to have currency in a particular situation.

Linguistic variable(s) can be deployed to index a speaker's personal stance or social role she temporarily adopts, e.g. indirectness or toughness. Then, regularly taken stances by particular speakers are generalised to become naturally associated with that speaker and are deemed characteristic of their linguistic style. At a later stage of the habitual usage of (a)

particular linguistic feature(s), a stance becomes part of or directly associated with the identity of that particular speaker.

Figure 1. Illustration of the indexicality process



5. The Present Study

This study explores the way in which speakers momentarily exploit CS in enacting and performing the fluidity and multiplicity of their identities. In doing so, it highlights the different types of stances these speakers take up to 'do' identity work. The research questions this paper attempts to answer are:

1- How do speakers utilise CS patterns to negotiate aspects of their identities?

2- To what extent are the speakers' stances used to conform to/challenge macro aspects of their identities (e.g. Arab/English, student, immigrant/sojourner)?

5.1 Research Population

This sample is a ‘purposive’ one (Lanza, 2008, p. 83). The five participants are my friends (See table 1 below, pseudonyms used) and were selected after a close and long

observation of their CS patterns, which I initially hypothesised to be relevant for my study, and thus could be utilised for addressing CS identity-related issues. One of the participants - 'Narjis' - is an *English-Arabic* early bilingual whereas the rest of the five, including me, are *Arabic-English* late bilinguals. The Arabic-English bilingual community in Manchester as well as in England is very heterogeneous; thus, I do not claim this sample to be a representative one.

Table 1. Participants' Profiles

Name	Age	Age of Arrival to UK	Age of L2 Acquisition	Education	En. Level
Narjis	36	1-4/11+	**Ar**. 4	BSc Pharmacy	Native
Zainab	34	27	12	PhD Biomedical Science (Current)	Advanced
Hania	26	20	10	PhD Sociolinguistics (Current)	Native-like
Kamila	25	19	12	PhD Linguistics (Current)	Native-like
Aya	25	19	11	BSc Food & Nutrition	Advanced/ Native-like
Fadia	24	18	10	PhD Education (Current)	Native-like

As an insider researcher, I am aware of the potential implications that my position may have on the research. Subjectivity is to be redressed throughout by adopting reflexive, methodological approaches (listed below) to help maintain a sense of neutrality and make sure my interpretations of the participants' stances are validated.

5.2 Methodology & Data Collection

To approach bilingualism from a sociolinguistic perspective means that it is regarded as a social action and a bilingual speaker is a ‘social actor’ who shapes and constructs her reality through linguistic variation (Li Wei, 2008, p. 12). To capture the intricacy of bilingual speakers' identities, recent studies on bilingualism have been utilising combined-method approaches and ethnographic methods (Pavlenko & Blackledge, 2004, p. 26). In line with such studies, the current one adopts a multiple-method approach to gain a deeper understanding of how speakers utilise CS to negotiate their identities. These methods are:

- **Semi-structured interviews.** It is important to conduct interviews and explicitly ask participants about their attitudes towards CS and their linguistic ideologies instead of only relying on my own interpretations of their stances. The interviews are intended to be semi-structured, ‘ethnographic chats’ (Selleck, 2013) with about 45 open-ended questions, conducted in an interactional/relaxed manner.
- **Audio recordings (Peer group interactions).** To carry out a detailed, moment-by-moment analysis of the speakers' CS behaviour, long and spontaneous conversations are needed. Thus, I have recorded a series of small group interactions (1 or 2 hour long recordings), which I am part of.
- **Self-recordings**. Speakers are asked to self-record themselves with a friend of theirs (not a main participant) whose proficiency of English is not as advanced as they are. The reason is to examine whether this friend's 'less' advanced command of English has any effect on the participants' CS strategies or intensity level.
- **Questionnaires.** They are designed to collect general information about the participants' demographic details and linguistic background.

- **Retrospective participant commentary**. These commentaries are important to check speakers' reflections on some excerpts from recorded interactions, a method adopted in many ethnographic works (Rampton 1998**,** p. 291; 1995). Taking this reflexive approach is essential to neutralise and confirm or modify my interpretations of the participants' stances.

6. Findings/Discussion

The results obtained so far - mainly drawn from peer group interactions and questionnaires - show that CS is an unmarked and a conventional speaking style that all participants display in their in-group conversations. CS is used for both referential and non-referential (indexical) functions, such as filling a lexical need for a word or expression and conveying abstract goals and communicating identity-related issues (See table 2 below). Most switches are made from Arabic to English where English is quite saliently used to be polite and pay compliments to others while Arabic is usually used to be direct or critical. Moreover, English can be used to sound formal, but is also used to sound informal and express emotions; thus, it can be often considered a context-based variable.

Table 2. Stances taken up when switching to either language

English VS. Arabic	
Chosen language	
Adulthood	
Rationality/ Negotiation	
Politeness	
Efficiency	Wordiness/ Elaboration
Informality/ **Positive Attitude**	
Formality/ Indirectness	**Directness/ Criticism**
Competition/ Defence tool	Arguments
Sarcasm	

The social or political context where a group of immigrants are situated, and the symbolic power of each language can affect the language orientations of bilinguals and therefore, their CS practices. Language is not arbitrarily exploited, but it is a means by which speakers may gain access to power (Bourdieu, 2006) or show alignment with speakers of the majority language. In this case, the disparity in the status between the two languages also plays a role in the speakers' linguistic self-positioning as two different codes are not usually considered ‘equivalent resources but hierarchically stratified’ (Blommaert el al, 2005, p. 214). Since English is the dominant language - often used to sound authoritative - speakers might be inclined to use it to adjust to their new environment and survive.

The next section discusses some of these stances speakers associate with English, and these are: indexing 'positive', 'polite', 'competitive' and 'native speaker/authentic' identities.

6.1 CS as indexing an 'Expressive/Positive' persona:

One of the stances the participants strongly associate English with is positivity. In many contexts, participants tend to switch to English when expressing emotions. In example (3) below, Aya uses the English utterance: ‘I finished it’ (L.8) to show her excitement about finally finishing the bitter drink, an event that she later describes (L.11) - using Arabic - as an ‘achievement’. What is interesting about the way Aya produces this utterance: ‘I finished it’ is the intonation she uses in producing it. She uses a rising intonation that sounds very similar to how an English 'native' speaker would produce such an utterance to convey a similar meaning/attitude, such as positive feeling and excitement. It could be argued that this group of speakers express their emotions in an English way through emulating the exact intonation English native speakers use in such contexts. This practice can be a result of integration and frequent contact with English native speakers that less fluent second language learners may

not exhibit. The same rising intonation is also used by other participants in example (5) below by both Kamila and Zainab in producing the utterance: 'It's nice'. On his discussion of the process of 'Dialogism', Bakhtin argues that the words speakers borrow from others 'carry with them their own expression ... evaluative tone, which we assimilate, rework' (Bakhtin, 1986, p. 89).

Example (3)

[Aya is at Narjis's place, drinking a ginger drink because she has a cold, but is not really liking the drink]

1 Narjis: وهادا أقوى من الأول

(And this one *is stronger than the first one*)

2 Aya**:** //هادا أقوى؟!

(*This is stronger?)*

3 Narjis**:** //صح؟(.) ولا ما /حسيتي؟

(*Yeah? Or you didn't notice?*)

4 Aya: **/I dunno**!

5 Narjis: لأنو غلى أكتر

(*Because it was boiled for longer*)

6 Aya: إيه ممكن هو لما يبرد يبدا أسهل إنك إنت تشربيه

(*Yeah, maybe when it gets cold, it's easier to drink*)

(2)

→ 8 Aya: **I finished it**! <A bit surprised>

9 Narjis: **Well done!**

10 Zainab: ما شاء الله كويس

(*Glorious the God! Good*)

→ 11 Aya: إنجاز <laughing>

(*What an achievement!*)

Later, and when I asked Aya for her 'Retrospective participant commentary' and about the reasons for switching at this particular point (L.8), this was her answer:

Example (4)

→ 1 Aya: كأن **to make it funny**

(*It's like to make it funny*)

2 Hania**:** إيه

(*Yeah*)

3 وحتى حسيـ/ـت إن:

(*I also felt that*)

4 Aya: :كأن/ **jokingly** إن هكي* **yeah***

(*As if jokingly, like, yeah*)

→ 5 Hania: وحتى حسيت إن فيها ^**positive**^ **connotations** إن/ **oh I** ^**did**^ **it**

(*And I even thought it has some positive connotation, like: 'Oh I did it'*)

→ 6 Aya: (.)أيوا/

(*Exactly*)

→ 7 =**Yeah**

Although not being quite sure about the reason for her switches in many other instances, Aya here thinks she code-switched to sound 'funny', which is a positive reason behind utilising English. Then, Aya promptly agrees with my suggestion that the utterance

seems to have ‘positive connotations’. This makes more sense when taking into consideration that Libyans and Arabs are not generally used to or encouraged to express their positive feelings; therefore, Aya here could be adopting the voice of English people as an outlet for doing that. This could also have to do with the idea that Arabs tend to exhibit a collectivist orientation as opposed to the individualistic orientations of most Americans and Western Europeans (Hofstede, 1984; Hofstede & Hofstede, 2005). Schwartz and Bilsky (1990) define collectivism as embracing a culture where individuals are family-orientated, sacrificing their free will and personal needs out of consideration for family and wider community (Schwartz & Bilsky, 1990, p. 140). Although this may not be applicable to all parts of the Arab world today, being tradition-based societies means that individuals' behaviour could be restricted to a point that expressing emotions can be difficult to negotiate as they are not usually approved of (Kafaji, 2011, p. 67).

Expressing emotions using English could be a result of a socialisation process by which individuals - second language learners - indirectly adopt some speech/cultural values of native speakers. Culture here is considered to be a mental framework/ideology that is not automatically obtained by merely being born in a specific society, but is achieved through social and environmental communication. Hall (1980: 63) argues that the traditional definition of culture as a range of customs, traditions and artistic taste does not constitute what a culture is, but it is a reflection of an ideology or overarching, cultural values.

The next example - example (5) below - illustrates how the participants use English to make another positive move, and that is to be nice to others and pay compliments to them. Here, it was a time when they have not seen me for a while, so Zainab says: ‘You’ve put on weight’. Then she and Kamila directly state that using Arabic, where they sound a bit critical, but not necessarily meant it to be so (L.3 & 4). Although I did not take this badly, Zainab has probably noticed I was surprised by her comment and starts making up for that. She uses

some English (L.5), then starts the stream of compliments using ‘it's nice’ three times in three different lines after which Kamila echoes her towards the end where I start giving in (L.9). Eventually, I am convinced (L.13) and happily say ‘Thanks’.

Example (5)

1 Zainab: سامنه يا هانية!

(*You've put on some weight, Hania*)

2 Hania: <Embarrassed> لأ مش حتى هكي و::ه عر/فتكم. عرفتكم كلكم بتقولولي

(*No, it's not that, ohh I knew you'll, I knew you'll all tell me*)

→ 3 Zainab: /لالا مل./لا مليانه عن قبل

(*No, no, you've put on some weight compared to before*)

4 Kamila: إيه صح

(*Yes, true*)

5 Zainab: =لا مش سامنه (**Something ba/:d)**

(*No, I didn't mean you gaining weight as something bad*)

6 Kamila: /كويس حلو لا!

(*No, it's good, nice*)

→ 7 Zainab: **It's nice,** /عرفتي؟

(*It's nice, you know?*)

8 Kamila: /إيه

(*Yeah*)

{...}

9 Hania: <Embarrassed> مـ:ممكن زايده شوية مش /عارفه

(*Maybe a bit, I don't know*)

→ 10 Zainab: /لا لا **it's nice** هكي

(*No, no it's nice like this*)

11 Kamila: =**It's** ^**nice**^ نحس

(*It's nice, I think*)

→ 12 Zainab: (.)حلو/ إيـ:ـه **very nice**

(*Yes nice, very nice*)

13 Hania: /**Thanks** <laughing>

It can be suggested that the pragmatic effect created here is not only a result of using the English utterance on its own, but it is more because of the switching from Arabic to English and the contrast made between them, particularly (L.3 & 7) as English in (L.7) seems to work as a softener to the directness caused by the Arabic utterances. Most stances discussed here are a reflection of a meeting point between the two languages and not necessarily of specific associations inherent to either language. This example is a good illustration of the late-bilingual participants' admiration/adoption of some of the English people's values, such as being nice and having a positive mindset.

6.2 CS as signifying a 'Polite/Indirect' attitude:

Another common stance with which switching to English associated with is being polite/indirect. Indexing a 'polite' attitude is one stance that all the late-bilingual participants made it clear at many points when explicitly asked for the reasons behind their CS, in questionnaires and interviews. Example (6) below shows how Aya uses English to tentatively make an indirect request from Narjis about whether she can use her iPad. The context might have slightly played a role in the very 'polite' way Aya approached Narjis as it seems like Aya is somewhat embarrassed by asking Narjis for a favour during her visit. Also, she is probably being careful not to interfere in anyone's business since Narjis's kids are the ones playing on

the iPad most of the time, and not Narjis herself! Thus, and as a way of not sounding 'imposing' or to perhaps save her face, Aya is pessimistically anticipating that ‘the iPad [is] busy’ (L.3) followed by her actual request: ‘If I can use it?’ (L.3), which is produced as an unclear, low-voice utterance.

Narjis then overlaps with Aya and uses Arabic to take a different evaluative stance and quickly reassure her that she can definitely use it (L.4); casually chatting with Aya about her work (L.6). The 'polite' effect made by the use of English here is further illustrated by Narjis's use of Arabic for a quick, direct answer in the turn right after the one where Aya makes her indirect request.

Example (6)

1 Aya: Narjis!

2 Narjis: آه حبيبتي

(*Yes, darling*)

→ 3 Aya: =**Is the iPad busy?**(.) (***if I /can use it?***)

4 Narjis: /لالا(.) بدك تـ تشو/في هاداكا شغلك؟

(*No no. You want to d do your work?*)

5 Aya: (بس ال/* **kids*)(.)** ايه//

(*But the kids. Yes*)

6 Narjis: //**Oh yeah**(.) صح؟/ إنت امبارح نعستي وما صار منو

Oh yeah, you felt sleepy yesterday and couldn't get it done, right?)

Unlike Aya's slightly hesitant reply in example (4) above where I had to prompt her to think of why she code-switched then, I did not need to do the same here (see example 7 below). Within thirty seconds of my question, Aya says that she thought she code-switched to

‘ask politely’ or to be ‘indirect’ which tallies well with what most of the participants often use English for in other examples.

Example (7)

1 Aya: **It's kind of, I think, to ask politely**(.) *//**Or dunno***

2 Hania: //**Aha yeah(.) yeah** <smiling>

3 Aya: **Or indirectly, I dunno**

6.3 CS as a 'Competitive/Defensive' strategy:

Example (8)

1 Kamila: **This is** قصدي **a, a subjective /thing** عرفتي؟

(*This is, I mean, a subjective thing, you know?*)

2 Zianab: باهي. إيه إيه باهي لما تنوضي شبعانه نوم /

(*Ok, yeah yeah, when you feel you’ve had enough sleep*)

3 Kamila: =إيه باه؟

(*Yeah, Ok?*)

4 Zainab: **How can you persuade yourself** إنك إنت ترجعي ترقدي مره تانية؟

(*How can you persuade yourself to go back to sleep?*)

5 Kamila: =نحط راسي عالمخده <laughing>

(*I just put my head on the pillow*)

{...}

6 Zainab: **I can't understand you** الصراحه/ <Smiling>

(*I can’t understand you, to be honest*)

9 Kamila: عرفتي؟ **it's ^impossible^ for you to /understand it**

(*You know? It's impossible for you to understand it*)

10 Zainab: .حتى إنت/ **I think you ^cannot^ understand my situation**

(*You too, I think you can't understand my situation*)

In this example, Zainab, Fadia and I can't believe what Kamila has just told us, that she can go back to sleep after waking up at night, not feeling the need for sleep. Being aware that she is the only one who thinks about this differently, Kamila starts defending herself using English: 'This is ... a, a subjective thing'. As a way of challenging Kamila's stance, Zainab also takes the same stance Kamila is taking and uses English to try to test the logic behind what Kamila is saying (L.4). Few turns later, Kamila reiterates and claims that it is something personal and is 'impossible for [Zainab] to understand', a point at which Zainab interrupts her and competitively replies that equally, Kamila 'cannot understand her situation'.

It can be seen that switching to English here heightens the argument as both interlocutors seem to be considering it as a resourceful or empowering means through which they can make their point. According to the process of 'authentication/authorization' developed by Bucholtz & Hall (2004, p. 386), using English here represents a 'strategic use of linguistic markers of expertise' through which each of the interactants temporarily authorises herself to be the one who could eventually have the last word in the discussion.

6.4 CS to perform an 'Authentic English speaker' identity:

Example (9)

[Hania & Zainab were having another conversation when Fadia turned to Kamila and asked her to bring her her mobile phone]

1 Fadia: **Do you know the password**?

2 Kamila: **To you:r thingy**?! [Referring to Fadia's mobile]

3 Fadia: **No**!

[At this point, Hania & Zainab have finished their conversation and they're listening to Fadia & Kamila]

4 Kamila: =**I don't know**.

5 اللي هنا؟! <Laughing> [Referring to the internet router]

(*Ooh this one here?*)

6 Fadia: **To my ^thingy**^?!! (**Am**) كميله أنا/فاتحاته!

(*To my thingy?! Am, my phone is switched on, Kamila!*)

7 Kamila: /**Yeah I know I was thinking why is she asking me the question in the first place?!**

(1)

8 آ:ه امم [trying to figure out what the letters are]

(*Eee, Emm*)

9 Fadia: =^**Du:de!**^ **Just tell me the pa:sswo::rd** <Exaggerated American accent>

10 Kamila: هيا

(*In a bit*)

Similar to the previous example, English here is used to either make a teasing remark, such as that made by Fadia: 'To my thingy?!', or to defend oneself, such as Kamila's replies (L.4 & 7) when trying to come up with an excuse of the unexpected way she interpreted Fadia's request (L.1-3). This playful sarcasm was created through the way each of the two

speakers accommodate to/build upon each other's evaluative stances. What is interesting here, however, is the accent which Fadia produced the English utterance (L.9) in is a very strong American accent: ‘Just tell me the passwo::rd’ /pæs.wɻd/. This can be an illustration of the analogy Rampton (1998) makes between the bilinguals' voices and the codes they exploit. He bases this on Bakhtin’s notion of ‘double-voicing’ (1981, p. 189), the idea that people's utterances are often borrowed and built on others'. Similarly, Rampton suggests that utterances a bilingual produces can be seen as belonging to somebody else or another group the bilingual (dis)associates herself from/with. Heller also views switching to another code as a way of enabling bilinguals to ‘take refuge in voice of the other … without [having] full membership in one or the other’ (1988, p. 93, 87).

Bakhtin's notion of ‘Uni-directional’ voicing is also relevant as it refers to the case where a speaker's utilisation of others' words does not greatly differ from the way they are originally used’ (Bakhtin, 1984, p. 193). Considering the 'quite authentic' accent Fadia uses, her voice as the (borrower/bilingual) and that of the original (imagined native speaker) seem to greatly overlap and cannot be easily distinguished. Unlike ‘Vari-directional’ where a speaker is believed to be 'Stylising' the voice of the other out of ridicule or to use in banter (Bakhtin 1984; Rampton, 2013: 361), I would argue that Fadia is putting on an American accent to be perceived as 'funny'/'witty' by Kamila and the unaddressed speakers (See Snell, 2010, p. 648).

One social move that Fadia's CS to (American) English cannot be indicative of is the possibility that she is claiming an (ethnic) membership to an American community. Speaking in an American accent does not rule out the fact that Fadia is an Arab. Her exploitation of a distinctive feature of American English, such as the alveolar /ɻ/ in ‘passsword’, helps her to claim a personal legitimacy or a linguistic membership in addition to the privilege that comes

with it when a 'non-native' emulates a 'native' speaker. Similarly, Jaffe (2009, p.19) argues that one of the reasons for which CS can be used is to 'attract attention to its form' and not the content/social meaning (See Jaffe, 2000). Finally, the CS exhibited in the last example may provoke questions about linguistic membership and highlight the blurry boundaries between some problematic terms, such as 'native' and 'non-native' speakers, and 'sojourner' and 'second-generation immigrant'.

7. Conclusion & Limitations:

By incorporating 'stance' as an analytic approach, this study has discussed the indexical relationship between the CS strategies a group of Arabic-English bilinguals take and their personal and relational identities. Based on the results collected so far, the paper has shown that CS is a linguistic, resourceful means through which speakers perform multiple aspects of their social identities that are not tied to inherent associations with either language. A number of evaluative stances, such as being 'positive', 'polite', 'competitive/defensive' and 'authentic speaker' were considered to account for some of the CS acts speakers take.

As a report of a working project, this paper has some limitations by definition. One of the aspects that still needs to be investigated is a full list of the different types of stances speakers take up when switching to either language. Since the focus in the current paper was mainly on the switches made in the direction of English, switches made in the opposite direction (to Arabic) - which are expected to be less frequent - could also be examined in future work. The study would also benefit from carrying out a quantitative analysis of many facets of the speakers' CS behaviour, such as the difference in the CS frequency/intensity level of each participants and the reasons they mostly utilise CS for.

7.1 Academic Impact:

From a methodological perspective, this study endeavours to contribute to the body of knowledge already existing on the linguistic and stylistic construction of identity. It aims to engage with the on-going discussion concerning the effectiveness of utilising a variationist-based tool, such as 'stance', together with Interactional sociolinguistics and ethnography (Schilling-Estes, 2004, p. 165) to examine how identity is enacted on various levels (Phonetic or morpho-syntactic variables to discourse-level variables, as it is the case here). Also, issues around CS patterns developed by adult and late bilinguals belonging are hardly addressed in the CS research area. Conversely, the CS patterns of early/simultaneous bilinguals - belonging to different communities and speaking different language pairs - are well established (Giampapa, 2004; De Finna, 2007; Finnis, 2013; Al-Rowais, 2012).

Transcription Symbols

- Arabic: Text
- English: **Text**
- Translation: (*Text*)
- Loud: Text
- Not clearly identified:(Text)
- Quiet utterance *Text*
- Mode of production < >
- Overlapping or interruption: /
- Simultaneous start: //
- Latching =
- Abrupt stop: .
- Natural Pause (.)

- Emphasis: ^Text^

- Lengthened sounds: X:

- Untranscribed interactions {.}

References

Al-Rowais, Hawazen. 2012. *Code switching between Arabic and English, social motivations and structural constraints.* MA Research Paper. Indiana: Ball Street State University. Available at <http://cardinalscholar.bsu.edu/bitstream/123456789/196186/1/Al-RowaisH_2012-3_BODY.pdf> [Accessed 20 July 2015]

Auer, Peter. 1988. A conversation analytic approach to code-switching and transfer. In Monica Heller (ed). *Codeswitching: Anthropological and sociolinguistic perspectives.* Berlin: Mouton de Gruyter, 187-213.

Auer, Peter. 1984. *Bilingual Conversation*. Amsterdam: John Benjamins.

Auer, Peter. 1992. Introduction: John Gumperz's approach to contextualisation. In Peter Auer and Aldo Di Luzio (eds). *The Contextualisation of Language*. Amsterdam: John Banjamins, 1–38.

Auer, Peter. 1998. Introduction: Bilingual conversation revisited. In Peter Auer (ed). *Code-Switching in Conversation: Language, Interaction and Identity*. New York: Routledge, 1–24.

Bakhtin, M. 1981. *The Dialogic Imagination: Four Essays*. Austin: University of Texas Press.

Bakhtin, M. M. 1984. *Problems of Dostoevsky's Poetics*. Manchester: Manchester University Press.

Bakhtin, M. 1986. *Speech Genres and Other Late Essays*. Trans. by Vern W. McGee. Austin, Tx: University of Texas Press.

Bauman, Zygmunt. 1991. A sociological theory of modernity. *Thesis Eleven* 29(1): 33-46.

Berger, Peter & Thomas Luckmann. 1966. *The Social Construction of Reality: A treatise in the* sociology of knowledge. New York: Anchor Books.

Blom, Jan-Petter & John Gumperz. 1972. Social meaning in linguistic structures: code-switching in Norway. In John Gumperz and & Dell Hymes (Eds). Directions in Sociolinguistics. New York: Holt, Rinehart and Winston, 407–434.

Blommaert, Jan. 2005. *Discourse: A Critical Introduction*. Cambridge: CUP.

Blommaert, Jan, James Collins & Stef Slembrouck. 2005. Spaces of multilingualism. *Language and Communication* 25: 197-216.

Bloomfield, Leonard. 1933. *Language*. Allen and Unwin, London.

Bourdieu, Pierre. 2006. Language and Symbolic Power. In Adam Jaworski and Nikolas Coupland (eds). *The Discourse Reader*. 2nd ed. London: Routledge, *480-490.*

Bucholtz, Mary. & Kira Hall. 2004. Language and Identity. In Alessandro Duranti (ed). *A Companion to Linguistic Anthropology*. Malden, MA: Blackwell, 369-94.

Bucholtz, Mary & Kira Hall. 2005. Identity and interaction: A sociocultural linguistic approach. *Discourse Studies* 7(4-5): 585-614.

Bucholtz, Mary & Kira Hall. 2008. Finding Identity: Theory and Data. *Multilingua* 27(1-2): 151-163.

Bailey, Benjamin. 2000. The language of multiple identities among Dominican Americans. Journal of Linguistic Anthropology 10: 190–223.

Bailey, Benjamin. 2007. Multilingual forms of talk and identity work. In Peter Auer and Li Wei (eds). *Handbook of Multilingualism and Multilingual Communication*. Berlin/New York: Mouton de Gruyter, 341-370.

Cameron, Deborah. 1990. Demythologizing sociolinguistics: Why language does not reflect society. In: John Joseph and Talbot Taylor (eds). *Ideologies of language*. London: Routledge, 79-93.

Cashman, Holly. 2005. Identities at play: language preference and group membership in bilingual talk-in-interaction. *Journal of Pragmatics* 37(3): 301-315.

Coupland, Nicholas. 2001. Introduction: Sociolinguistic theory and social theory. In Nicholas Coupland, Skrikant Sarangi and Christopher N. Candlin (eds). *Sociolinguistics and social theory*. Harlow: Longman, pp. 1-24.

De Fina, Anna. 2007. Code-Switching and the Construction of Ethnic Identity in a Community of Practice. *Language in Society* 36(3): 371–392.

Eckert, Penelope. 2000. *Linguistic variation as social practice: the linguistic construction of identity in Belten High*. Oxford: Blackwell.

Eckert, Penelope. 2008. Variation and the indexical field. *Journal of Sociolinguistics* 12(4): 453–76.

Eckert, Penelope. 2012. Three waves of variation study: The emergence of meaning in the study of variation. *Annual Review of Anthropology* 41: 87-100.

Finnis, Katerina. 2013. Creating a new space: Code-switching among British-born Greek-Cypriots in London. *Pragmatics and Society* 4(2): 137-157.

Georgakopoulou, Alexandra & Katerina Finnis. 2009. Code-switching 'In site' for fantasizing identities: A case study of conventional use of London Greek Cypriot. *Pragmatics* 19(3): 467-488.

Giampapa, Frances. 2004. The politics of identity, representation, and the discourses of self-identification: Negotiating the periphery and the center. In Aneta Pavlenko & Adrian Blackledge (eds). *Negotiation of identities in multilingual contexts*. Clevedon: Multilingual Matters, 192- 218.

Giddens, Anthony. 1991. *Modernity and self-identity: self and society in the late modern age*. Cambridge: Polity.

Goffman, Erving, 1981. *Forms of Talk*. University of Pennsylvania Press, Philadelphia.

Grosjean, François. 2010. *Bilingual: Life and Reality*. Cambridge, MA and London: Harvard University Press.

Gumperz, John & Edwards Hernandez. 1969. Cognitive Aspects of Bilingual Communication. *Working Papers of the Language Behavior Research Laboratory* 28. Berkeley: University of California Press.

Gumperz, John. 1982. *Discourse Strategies*. Cambridge: CUP.

Hall, Stuart. 1980. Cultural Studies: Two Paradigms. *Media, Culture, Society* 2(1): 57-72.

Heller, Monica. 1988. Strategic ambiguity: code-switching in the management of conflict, (ed). *Code-Switching: Anthropological and Sociolinguistic Perspectives*. Berlin: Mouton de Gruyter, 77–96.

Hoffmann, Charlotte. 1991. *An Introduction to Bilingualism*. Essex: Pearson Education Limited.

Hofstede, Geert. 1984. The cultural relativity of the quality of life concept. *Academy of Management Review* 9: 389–398.

Hofstede, Geert. & Gert Jan Hofstede. 2005. 2nd ed. *Cultures and organizations: Software of the mind*. New York. McGraw-Hill.

Jaffe, Alexandra. 2000. Comic performance and the articulation of hybrid identity. *Pragmatics* 10(1): 39-59.

Jaffe, Alexandra. 2007. Codeswitching and Stance: Issues in Interpretation. *Journal of Language, Identity and Education* 6(1): 53-77

Jaffe, Alexandra. 2009. Introduction: The Sociolinguistics of Stance, (ed). *Stance: Sociolinguistic Perspectives*. Oxford: Oxford University Press, 3-28.

Kafaji, Talib. 2011. *The Psychology of the Arab: The Influences That Shape an Arab Life*. AuthorHouse Publishing

Lanza, Elizabeth. 2008. Selecting individuals, Groups and Sites. In Li Wei and Melissa Moyer Melissa (Eds.) *The Blackwell guide to research methods in bilingualism and multilingualism*. Malden; Oxford: Blackwell, pp. 73-87.

Li Wei. 1995. Conversational code-switching in a Chinese community in Britain: A sequential analysis. *Journal of Pragmatics* 23: 281-299.

Li Wei. 1998. The 'Why' and 'How' Questions in the Analysis of Conversational Code-Switching. In Peter Auer (ed). *Code-Switching in Conversation: Language, Interaction and Identity*. London: Routledge, 156-176.

Li Wei. 2000. *The bilingualism reader*. London: Routledge.

Li Wei. 2008. Research Perspectives on Bilingualism and Multilingualism. In Li Wei and Melissa Moyer (eds). *The Blackwell guide to research methods in bilingualism and multilingualism.* Malden; Oxford: Blackwell, 3-17.

Muysken, Peter. 2000. *Bilingual speech: a typology of code-mixing*. Cambridge: CUP.

Ochs, Elinor. 1992. Indexing gender. In Alessandro Duranti and Charles Goddwin (eds). *Rethinking Context: Language as an Interactive Phenomenon*. Cambridge: CUP, 335–358.

Ochs, Elinor. 1993. Constructing social identity: A language socialization perspective. *Research on Language and Social Interaction* 26(3): 287-306.

Pavlenko, Aneta & Adrian Blackledge. 2004. Introduction: New theoretical approaches to the study of negotiation of identities in multilingual contexts, (eds). *Negotiation of Identities in Multilingual Contexts*. Clevendon, England: Multilingual Matters, 1-33.

Pavlenko, Aneta. 2014. *The Bilingual Mind: And What It Tells Us about Language and Thought*. Cambridge: CUP.

Rampton, Ben. 1995. *Crossing: Language and Ethnicity among Adolescents*. London: Longman.

Rampton, Ben. 1998. Language Crossing and the Redefinition of Reality. In Peter Auer (ed). *Code-switching in Conversation: Language, Interaction and Identity*. London: Routledge, 290-317.

Rampton, Ben. 2013. Styling in a Language Learned Later in Life. *Modern Language Journal* 97(2): 360-382.

Romaine, Suzanne, 1995. *Bilingualism*. 2nd ed. Blackwell, Oxford.

Schilling-Estes, Natalie. 2004. Constructing ethnicity in interaction. *Journal of Sociolinguistics* 8(2): 163-195.

Schwartz, Shalom & Wolfgang Bilsky. 1990. Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology* 58(5): 878-891.

Sebba, Mark & Tony Wootton. 1998. We, They and Identity: Sequential vs. Identity-related Explanation in Code-switching. In Peter, Auer (ed). Code-switching in conversation: Language, interactional and identity. London, Routledge, 262-289.

Selleck, Charlotte. 2013. Inclusive policy and exclusionary practice in secondary education in Wales. *International Journal of Bilingual Education and Bilingualism* 16(1): 20-41.

Silverstein, Michael. 2003. Indexical Order and the Dialectics of Sociolinguistic Life. *Language and Communication* 23(3-4): 193-229.

Stroud, Christopher. 1998. Perspectives on cultural variability of discourse and some implications for code switching. In Peter Auer (ed). *Code switching in Conversation: Language, Interaction and Identity.* London: Routledge, 321-348.

Stroud, Christopher. 2004. The performativity of codeswitching. *International Journal of Bilingualism* 8(2): 145-166.

Snell, Julia. 2010. From sociolinguistic variation to socially strategic stylisation. *Journal of Sociolinguistics* 14(5): 618-644.

Thompson, Geoffrey & Susan Hunston. 2000. Evaluation: An introduction, (eds). *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press, 1-27.

Woolard, Kathryn. 1999. Simultaneity and bivalency as strategies in bilingualism. *Journal of Linguistic Anthropology* 8(1): 2–29.

The language of Reports in general English language testing: A corpus-based analysis.

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Abstract

Candidates of international English language exams are often asked to write a report. However, this kind of report is different from the frequently appearing research reports or reports in professional contexts. Information to guide learners specifically about this genre is scarce and not well documented. Therefore, the aim here, is to provide empirical data on the qualities competent writers use to achieve the communicative purpose of this genre. Having previously identified two basic variations of reports in this context, the Data Report and the Personal Observation Report, I describe the most prominent features of the language used in personal view reports based on quantitative evidence. Using a sub-corpus of the WriMA (Writing Model Answers) corpus (Melissourgou & Frantzi, 2015) I conduct a genre and corpus analysis. The WriMA corpus is a genre-based corpus especially created for this type of research. Examining frequent common words, keywords and patterns, we explain how forms relate to functions at semantic, organizational and stylistic level. Finally, I provide statistical data on sizes (text, paragraph, sentence, word-length) classified according to four CEFR levels (Common European Framework for Languages, Council of Europe, 2001).

1. Introduction

This study refers to all interested parties involved in English language testing (candidates, teachers, raters, educational material writers, testing institutions) as it investigates reports, one of genres appearing in the writing tasks of these exams. Throughout the analysis there is a genre-perspective so this study may also be of interest to anyone involved in genre studies (applied linguists,

apprentice writers or people working on automatic genre detection). The main interest however is in supporting writing education.

Using corpus linguistics tools, representative genre-specific language data is processed accurately and objectively, describing what is frequent and how it is used. Evidence is then discussed and interpreted according to genre theory principles.

By placing this sub-genre into its 'context of situation' (Malinowski, 1923; Firth, 1950) I observe the way language functions in specific environments that are characterised by specific participants, roles and purposes. Following a Systemic Functional Linguistics (SFL) perspective, the aim is to help students understand "*what* situational factors determine *what* linguistic features" (Halliday, 1978:32). Another aim is to encourage the teaching of grammar not as a discreet component but as a "network of interrelated meaningful choices" (Haliday & Matthiessen, 2004) used to achieve communication.

Offering insight regarding the particular genre arms teachers, assessors and material writers with specific evidence in order to assist candidates' preparation and evaluate their performance.

2. Genre, register and the Systemic Functional Linguistics framework

According to Hymes (1972:277), "a normal child acquires knowledge of sentences, not only as grammatical, but also as appropriate. He or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what matter." Speakers and listeners during speech production and comprehension strategically make use of typified discourses, which are based on specific social purposes, cultural beliefs, roles and relationships. These discourses are typified in the sense that they are "carried out repeatedly through the same practices" (Tardy, 2009:12), thus becoming recognisable and associated with specific social contexts. They may then be referred to as genres.

The context of situation is mainly defined by the field, the tenor and the mode of discourse (Halliday, 1978). In other words, before going into the text one needs to know what is being said and with what purpose, who the participants are, what is the social relationship between them and what

channel of communication is adopted. The variety of language that matches the specific 'context of situation', the lexicogrammatical choices used to communicate within a specific context is called 'register' (Halliday & Hasan, 1985:38,39).

In the Systemic Functional Linguistics (SFL) perspective the "context plays a part in determining what we say; and what we say plays a part in determining the context. As we learn how to mean, we learn to predict each from the other." (Halliday, 1978:3). By taking a functional view of language the interest is in society rather than the individual, it is the social role of language that is explored and the functions that this language serves.

Supporters of the genre-based-writing-instruction and SFL are known as the Sydney School, as this approach developed in the context of the Australian school system (Christie, 1984; Kress & Knapp, 1992; Martin, 1985, 2009). They argue that students should be taught the primary traits of particular genres through explicit teaching and the modelling of prototype texts. Genre awareness is a prerequisite for teachers in order to help students gain control over texts, boost their confidence and prepare them for active participation in community discourses.

3. Methodology

Corpus linguistics methods process the language data quantitatively. The analysis of corpora offers research on language such accuracy, completeness and speed that it would be impossible to achieve using traditional methods. For this analysis I am using a 'pedagogic corpus', which according to its latest definition by Meunier & Gouverneur, (2009: 179-201), is "a large enough and representative sample of the language, spoken and written, a learner has been or is likely to be exposed to via teaching material, either in the classroom or during self-study activities."

The WriMA (Writing Model Answers) corpus was especially made for this type of study as there were no corpora available designed according to the strict criteria the researchers had in mind. It includes a large sample of model answers appearing in textbooks and websites addressing various well-known international English language exams. It is divided into sub-corpora according to genres.

Texts are additionally categorised according to the CEFR level they address (Council of Europe, 2001).

The Personal Observation Report sub-corpus, consists of 76 texts (17,702 word tokens and 2,888 word types). Texts relate to CEFR levels B1 up to C2. The sub-corpus has been POS (Part of Speech) tagged with TagAnt 1.1.2 (Anthony, 2014), and is analysed using WordSmith Tools v. 6 (Scott, 2015). The metadata stored in Excel sheets contain the prompt, the source, the CEFR level and the word limit, if there is one.

Firstly, the specific sub-genre is explored using the metadata of the corpus to define the context of situation, and then it is contrasted to other genre family members referring to appropriate literature.

The following text analysis is based on high frequent common words and keywords using the whole WriMA corpus (1151 texts, 253,025 tokens), as reference to extract keywords. Keywords are those whose frequency (or infrequency) in a text or corpus is statistically significant, when compared to the standards set by a reference corpus (Baker 2004; Bondi, 2010; Scott 1997; Scott & Tribble 2006).

Looking closer at these words, I explore the communicative roles that language plays looking for functional units and patterns affected by the context in situation. I observe the writers' 'manipulation' of certain words to convey meanings and adhere to the conventions of the specific genre. Functional interpretation is further supported by seeing words in their immediate context using the concordance tool (WordSmith Tools) and noticing their dispersion in texts (dispersion plot tool) when there is a need to check where a specific word is mostly used.

Statistical data such as text, sentence and paragraph length, words per sentence and word-length are also provided as means for each CEFR level. These measures have been widely used in genre analysis (e.g., Nesi & Gardner, 2012) and automatic genre detection (e.g., Stamatatos et al., 2001).

4. Placing the 'Personal View Report' into the 'Report' genre family

Research on the report genre as a whole has mostly focused on 'Research Reports' (Nesi & Gardner, 2012; Paltridge, 1997) and 'Workplace (or Professional) Reports' (e.g. Bondi & Danni, 2015; Flowerdew & Wan, 2010) or both (Devit et al., 2004). This is understandable as the first type is necessary for every student or scholar in higher education and the second is required in companies, organisations or other professional contexts. Research has also involved school-based reports, naming them 'Informational Reports' as this is the type of report widely used in the Australian primary school context (Board of studies NSW, 1998; Cope & Kalantzis, 1993; Derewianka, 1990; Knapp & Watkins, 1994; Martin, 1985).

However, the type of report investigated here resembles neither 'Research' nor 'Informational Reports'. The 'Personal Observation Report' (POR) is not similar to Research Reports, as reporting is not based on raw data, facts and figures. The themes are not generalisable as in the case of school-based Information Reports (e.g. Frogs, the life cycle of a grasshopper, our solar system). The subject is often very specific and the writer is asked to assess and draw personal conclusions based on subjective views and the proximity to a place or personal experience, which the recipients do not share. This is obvious by looking at the prompt:

e.g. *You work for a local magazine. A new take-away restaurant has opened in your area. The editor has asked you to visit it and write a report saying whether you recommend it or not.*

Most of these tasks seem to share more similarities with Workplace Reports since they are more product-oriented, that is, the ability to conduct research is not a prerequisite as in the case of academic Research Reports. In the previous prompt, the use of pronouns (e.g. whether *you* recommend it or not) shows that personal involvement is not only allowed but also required.

In PORs specific recommendations are often asked for instead of general conclusions. Here there is real-like need for immediate sharing of personal knowledge or views based on personal experience for practical reasons, as is the forthcoming assessment of an employee or a group of people visiting the writer's town soon. There is a practical need. As Nesi and Gardner (2012) explain referring to Workplace Reports, "the methodology employed by the professional report writer may

also be of little concern to the reader; clients are unlikely to care about the replicability of results, but do want the right solution to a possibly unique problem".

We could say then, that the POR is a workplace-like report. Since candidates for these exams are often quite young, these tasks are often adjusted to their interests and experience. The writer for instance, works in a children's camp and needs to assess an employee or works for a teenage magazine or needs to recommend places to visit for a visiting group of students.

Workplace simulation is understandable, as the candidates of these exams may need to use the language they are being tested on in workplace environments. However, seeing this genre in high-stakes language exams, one cannot help thinking that the certificates obtained may also be used for university entrance and this kind of tasks does not prepare them for the Research Reports they are going to use in that case. In fact, the need for reading and interpreting graphs in a scientific way, as in the case of reports in academic IELTS (International English Language Testing Services) exams, is not evident here. Few rubrics mention a previously conducted survey and in rare cases the results are included in the rubric. These may be presented in the form of diary-notes or main points, hypothetically written by the writers themselves. Mainly, the writers are asked to report based on their own views.

e.g. *You went to <place> for five days to attend your sister's wedding. Look at the extracts from the diary you kept during your trip there. Then write your report on the trip.*

Between these two reports in language testing, this has seemed to me the most prevalent difference and has been the reason for coining the names 'Personal Observation Report' and 'Data Report' respectively. Although the POR is distinctly different from other family members and it is a common requirement in exams involving millions of candidates every year, it has not been researched enough.

5. Textual analysis

5.1. Structure based on thematic sub-units

The presence of headings and subheadings is a characteristic feature of this genre. Sometimes there is a main heading and other times there is some introductory data before the text is divided into smaller parts. In table 1, we can see that in 22,3% of the total texts there is use of section headings only. A main heading is used in 28,9% of the reports and it is combined with section headings in 26,3 % of these texts. Nearly half of these reports (44,6%) include introductory data in a steady pattern of *To-From-Date-Subject.* This is combined with section headings in 38,1% of the texts. Finally, there is no use of main headings, section headings or data in only 4,2 % of the reports where the layout resembles any type of essay that is, the text is simply divided by paragraphs. It is worth mentioning here that no preference was observed in using any of this across CEFR levels.

Table 1. The use of headings

<table>
<tr><td>Section heading only</td><td colspan="2">Main Heading</td><td colspan="2">Introductory data</td><td>Nothing</td></tr>
<tr><td rowspan="3">22,3%</td><td colspan="2">28,9%</td><td colspan="2">44,6%</td><td rowspan="3">4,2%</td></tr>
<tr><td colspan="2">M.H. + S. H only M.H</td><td colspan="2">I.D. + S. H only I.D.</td></tr>
<tr><td>26,3%</td><td>2,6%</td><td>38,1%</td><td>6,5%</td></tr>
</table>

- *M.H.= Main heading, S.H.= Section heading, I.D.= Introductory data*

In cases where there are sub-headings their role is to divide the texts in thematic sections and classify interesting parts of the object/place/ person described. Sometimes these sections are defined by the question itself, for example:

You are a secretary for a primary school. The headmistress has asked you to assess a newly established local wildlife park to see if it is suitable to use for field trips. Write your report, describing what there is to see and do there and what the facilities and prices are like.

However, most of the times the writers have to decide on their own and prioritise on the qualities they are going to focus on.

This is an important step as it will define the outline of the description and facts taken from this description will perhaps be used later on to justify recommendations. Since there is a word limit in these tests careful planning at this stage seems necessary.

Regarding headings, three words are used really often: *Introduction, Conclusion, and Recommendation(s)*. The word *report* is used both in main headings *[A report on…]* but most commonly in the first sentence stating the writer's aim *[The purpose of this report is to / The aim of this report is to]*.

Then there is a wide range of different words or two to there-word phrases used as section headings. Thematically speaking though there are two categories, which appear often though using varied combinations of words. One of them has to do with 'cost' and the other with 'strengths and weaknesses' as shown in table 2.

Table 2. Common thematic categories in section-headings

'Strength/weaknesses' headings	**'Cost' headings**
Weaknesses	Prices
Strengths	Cost
Positive features	The food and the prices
Positive/ Negative points	Projected costs
Positive/ Negative sides	Prices and service
Positive/ Negative aspects	Availability and cost
Problems	Room prices

Problem areas	Quality and price
	Running costs
	Cost and service
	Facilities and prices
	Prices young people can afford

5.2. Factual language- Specific information of local interest

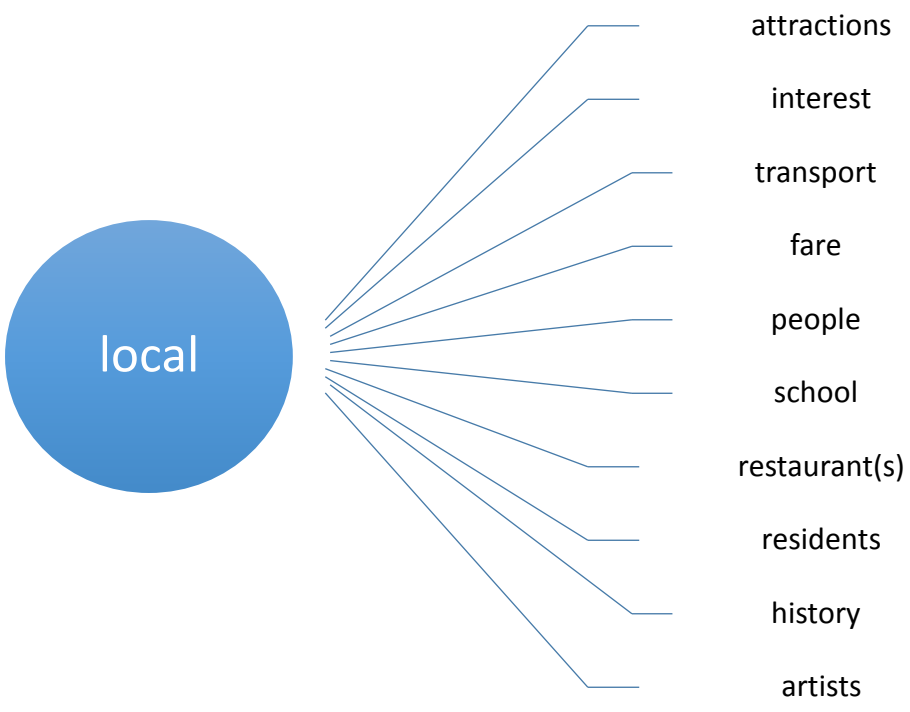
Going back to the prompts we notice that the writer may be working for a magazine or may be a student representing the college students, a company employee, a pupil privileged to be asked by teacher, a part-time employee in a place where young people spend time or a member of a committee. In other words, the writer has been chosen to write a report because of particular abilities or roles in the community. The addressee is usually of higher status; it can be the Editor of a magazine, the Principal, an international research group, the company manager, the coordinator, the chairman of the local board of school governors, the visiting group-leader, the teacher or head teacher.

The writer is trusted to be critical and objective based on hypothetical previous evidence related to his/her performance. In some cases, the ability of the writer to combine studies with a part-time job may also be used as a trick to add extra competence on his/her profile and a real-life view gained from the working sector. This is why, specific, factual language is needed. However, most of the times the interest remains local and the writer knows the hypothetical reader of the report.

As we saw on table 2, mentioning prices is common in these reports. This is done by using specific numbers and percentages and referring to specific currencies. Numbers are also used for dates and ages. However, quantification may also involve grouping sizes in a more general sense [e.g. a wide range of/ a number of / many/ several/ few].

Humans are identified by name and surname; specific locations are also named (restaurants, schools, sports clubs, streets, shopping centres). When humans are not named they are grouped together in distant and general categories (students, people, teenagers, children, teachers, visitors, staff, group) and there is no presence of relatives as it often happens in stories for example. Whether it is for people, places or facilities the adjective *local* comes second in the adjectives used, which shows the proximity as a common cause for the person chosen to report. Figure 1 shows the most frequent collocates of *local* on the right.

Figure 1. Collocates of *local*



5.3. Comparison and evaluation

Comparing features is basic in these reports (see table 2) in order to describe and evaluate the specific entity contrasted to other available options.

Comparison is also common showing the degree of the quality (*very, quite, rather, too* plus adjective) or adjectives in the comparative form. There is extensive use of *more* and *more than* and

comparative adjectives used are more than double the number of those in superlative form. Looking at the dispersion plot, *more* is used throughout the reports. This is because comparison is also used at the justification stage, something is suggested because *it is more + adjective*.

Well + past participle is frequently used to evaluate *[e.g. a well-stocked bookshop/ the complex is well-managed/ a large well-equipped gym]*. Conjunctions and adverbials such as *however, although, despite the*, help to differentiate between the qualities or the features described and go from strengths to weaknesses *[e.g. Everything is arranged in an organised manner, which makes shopping easy. However, the supermarket is not close to the town centre and finding a parking space can be difficult. / Although the local bus service works well during the week with regular, punctual buses, the weekend is a different matter.]*

5.4. Recommendation and justification

Recommendation is a key stage in these reports and often specifically expressed as a section-heading. Then writers may choose to justify their recommendation more clearly. Depending on the type of the question, justification may appear close to the end of the text if the purpose has been to present/describe and then recommend and justify or it may be present throughout the text when the task asks for recommendations only.

Adjectives are essential during the recommendation stage. They are used to describe existing positive qualities *[e.g. the restaurant offers excellent food]* and then recommend the place/person because of them, or to suggest ways of improvement so that the place /person will acquire these qualities *[e.g. New computers with Internet connections would be an excellent resource for students]*. Positive connotation adjectives outnumber those with negative connotations *[e.g. more, good, young, new, excellent, popular, available, great, best, easy, helpful, modern, positive, reasonable, friendly, pleasant, suitable, useful]*.

Modals are also used to suggest improvements, mainly *could* and *should [e.g. although improvements could certainly be made, students should be encouraged to…/ more exercise time could be introduced].]*

Conjunctions such as *because, as, so,* are extensively used to justify the recommendations made *[e.g. There are two attractions that may be taken into consideration, as they seem suitable/ students would have benefitted from a specialised language course as some communication problems were experienced / My suggestion is to visit the (name of place) because it is special]*. Cause and effect relationships are also used to make suggestions and justify them using 'by + gerund' *[e.g. By featuring these activities, people would have the chance to, the problem could be resolved by adding a few chairs]* and *if- conditionals [e.g. if there is a prize to motivate students, I think this will encourage them]*.

5.5. Subjectivity versus Objectivity

Although the writers are allowed to express personal views and in some cases are specifically asked to do so it seems that this is done mostly by describing and presenting features rather than imposing conclusions right from the start. Using description and comparison stages the writers lead the reader to the conclusion that what is recommended is in fact the best option available. While there is some subjectivity in these reports, this is controlled and wrapped in an objective package, more discrete than the subjectivity one can find in an essay where the writer is asked to express his/her opinion for example.

Complex phrases may add formality and objectivity avoiding to address the recipients directly *[e.g. It would be a good idea to, … may be taken into consideration, taking into account the suggestions made above, it is hoped that, it is recommended that…]* using passive instead of active voice. However, active present tense is more frequent.

In the following table (table 3), one can see how phrases including the verb *recommend* are mostly in active rather than passive voice and the extent of personal involvement.

Table 3. Recommending

Active

(The purpose/aim of this report is to … and) to recommend (9)

I would recommend (4)

I strongly recommend (4)

I recommend (3)

I am going to recommend (2)

We recommend (2)

I would not hesitate to recommend (1)

I would certainly recommend (1)

I would definitely recommend (3)

(I am writing this report) to recommend (1)

I highly recommend (1)

I am recommending (1)

Passive

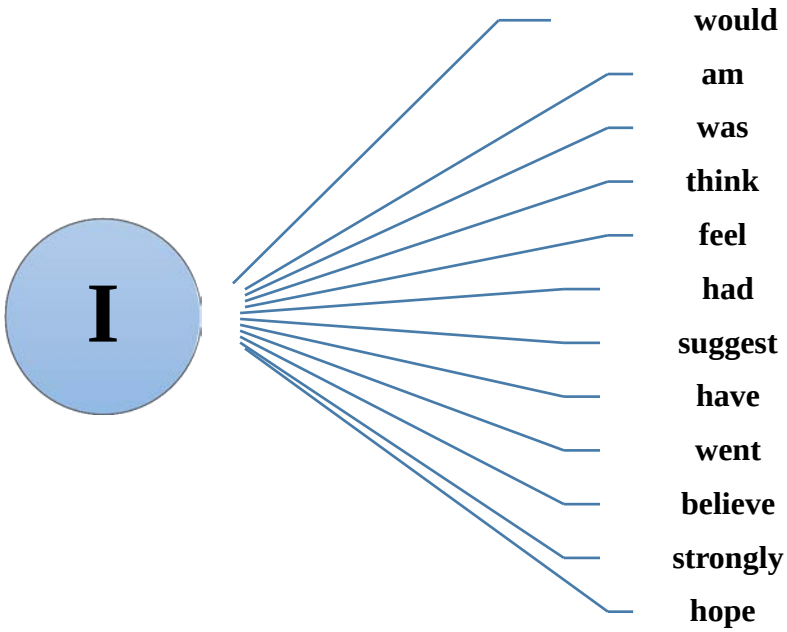
It is recommended that (4)

It is hoped that the measures recommended above (will be adopted) (2)

<place> comes highly recommended for… (1)

Personal involvement is also evident in the high frequency of the personal pronoun *I* and *we*. Out f the texts used in this sub-corpus 64% included the pronoun *I* and 33% the pronoun *we*. In figure 2, the most frequent collocates of *I*, show some participation in visiting the places evaluated as well as clear expression of personal beliefs, opinions and suggestions.

Figure 2. Most frequent collocates (on the right) of the pronoun *I*.



Quantification, as previously shown, is also used both objectively (numbers, percentages) and subjectively in rough evaluations (a wide range of, many, a number of).

Nominalisation is a common technique used by writers to 'pack meaning' and add a sense of objectivity. Processes as well as properties can be turned into things allowing for more information in the same sentence. Nominalisation is evident in section-headings *[e.g. Introduction, Conclusion,*

Recommendation] and in introductory data after the Subject category. *[e.g. Subject: Suggestions on…]*. Some examples of nominalisation instances found in these reports can be seen in table 4.

Table 4. Nominalisation

Noun	Nominalisation instances
suitability	The purpose of this report is to assess the suitability of…
choice	The city museum is a good choice for…
increase	The slight increase in the cost of…
improvements	… although improvements could certainly be made
suggestions	… if the zoo follows these suggestions…
information	… would have appreciated more detailed information…
organisation	… involving the organisation of new entertainment

5.6. Corpus statistics

Measuring sizes and the general organization of the texts (table 5), we notice that there is an upward trend for the number of words used in each CEFR level with the largest increase from B2 to C1 (66 words). The same happens for the number of paragraphs with an exception between B2 and C1 levels which share the same value. Sentences used across texts also follow a steady increase from B2 to C2 but we can see almost no change between B1 and B2. Words used on average consist of 4 to 5 letters. All levels on average use a 5-paragraph model and texts open and close with slightly smaller paragraphs than the ones in the middle.

Table 5. Size and organization patterns

Average/ CEFR	**B1**	**B2**	**C1**	**C2**
Word length per text	167	200	266	291
Paragraphs per text	4,6	4,9	4,9	5,1
Sentences per text	11	11,5	13,5	16,1
Words per sentence	15,2	17,4	19,7	18,1
Mean word length	4,6	4,6	4,9	4,9
Sentences per paragraph 1	1,2	1,5	1,4	1,8
Sentences per paragraph 2	2,8	3	4,1	3,7
Sentences per paragraph 3	3,2	2,7	4,1	3,2
Sentences per paragraph 4	2,5	2,5	2,3	3
Sentences per paragraph 5	2	2,3	1,8	2,1

6. Implications for teaching and assessment

Writing in testing contexts can be challenging. Time constraints and word-limits put extra pressure on candidates who need to be well prepared and confident. Inferences drawn about test-takers' language abilities often result in high-stakes decisions such as university admission, graduation, citizenship and immigration issues or access to jobs and promotion in professional contexts. Anxiety can affect response. Therefore, teachers need to be well informed and use teaching time effectively. They should first try to cover the distance between second-language students and authentic contexts by looking at the genre properties beyond the text. It has been shown that largely important aspects such as the writer-recipient relationship and roles as well as the communicative purposes of the genre can often be understood by reading the prompt carefully.

This analysis has also shown that PORs share some stereotypical properties that could be explored and discussed while modeling and deconstructing the genre. Following a Genre-based-Writing-Instruction approach, the teachers are able to bring these specific uses of language to conscious awareness. If teachers are themselves aware of the basic common characteristics of the specific register they can shortcut the whole procedure by guiding students during the deconstruction stage. It should be noted however, that the findings of this study are not to be given as a rigid template but carefully brought to the attention of the students as common generic tendencies.

Additionally, a range of activities could be built on these language features for further practice preferably incorporated in similar texts.

Finally, these findings can aid both everyday classroom assessment and exam raters' work in raising awareness of the specific genre by providing particular language features and organisational properties used frequently by competent writers. Quantitative evidence from a range of representative genre-specific texts can offer more solid answers than intuition as to what should be taught and what should be sought for during assessment.

References

Anthony, L. (2014). *TagAnt (Version 1.1.2)* [Computer Software]. Tokyo: Waseda University.

Baker, P. (2004). 'Querying keywords. Questions of difference, frequency and sense in keyword analysis.' *Journal of English Linguistics*, 32(4), 346-359.

Board of studies. (1998). *K-6 English syllabus: Modules*. Sydney: Board of Studies.

Bondi, M. (2010). Perspectives on keywords and keyness: An introduction. In Bondi, M. & Scott, M. (eds.), *Keyness in Texts*. Amsterdam-Philadelphia: John Benjamins, 1-18.

Bondi, M. & Danni, Y. (2015). Forward-looking statements in CSR reports: a comparative analysis of reports in English, Italian and Chinese. In Formato F. & Hardie A. (eds.), *Corpus Linguistics 2015 conference abstract book*. Lancaster: UCREL, 58-59.

Christie, F. (1984). Varieties of written discourse. In *Language studies: Course study guide*. Geelong, Victoria: Deakin University.

Cope, B. & Kalantzis, M. (1993). *The Powers of Literacy: A Genre Approach to teaching Writing.* Pittsburgh: University of Pittsburgh Press.

Council of Europe (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment.* Cambridge: Cambridge University Press.

Derewianka, B., (1990). *Exploring How Texts Work*. Newtown, Australia: Primary English Teaching Association.

Devitt, A. J., Reiff, M. J., Bawarshi, A. (2004). *Scenes of writing: strategies for composing with genres.* US: Pearson Education.

Firth, J. R. (1950). Personality and language in society. *The Sociological Review*, 42 (1), 37-52.

Halliday, M.A.K. (1978). *Language as social semiotic: the social interpretation of language and meaning*. Newcastle upon Tyne: Edward Arnold.

Halliday, M.A.K. & Hasan, R. (1985). *Language, context, and text: aspects of language in a social-semiotic perspective.* Oxford: Oxford University Press.

Halliday, M.A.K. and Matthiessen, C. (2004). *An Introduction to Functional Grammar*. London: Arnold.

Hymes, D. H. (1972). On communicative competence. In Pride, J.B.& Holmes, J. (eds.), *Sociolinguistics: selected readings*. Harmondsworth: Penguin, 269–293.

Knapp, P., & Watkins, M. (1994). *Context-Text-Grammar: Teaching the Genres and Grammar of School Writing in Infants and Primary Classrooms*. Sydney: Text productions.

Kress, G. and Knapp, P. (1992), Genre in a social theory of language. *English in Education*, 26: 4–15.

Malinowski, B. (1923). The problem of meaning in primitive languages. Supplement 1 to C. K. Ogden and I. A. Richards, *The meaning of meaning: a study of the influence of language upon thought and of the science of symbolism* (8th edition, 1946). NY: Harcourt Brace and World, 296-336.

Martin, J.R. (1985) *Factual writing: exploring and challenging social reality*. Geelong, Victoria: Deakin University.

Martin, J.R. (2009) Genre and language learning: A social semiotic perspective. *Linguistics and Education*, 20(1), 10–21.

Melissourgou, M. N. and Frantzi, K. T. (2015). *Investigating genre-specific qualities in the Writing part of popular EFL exams: The need for a specialised corpus*. Paper presented at LIF 2015, Language in Focus International Conference, Cappadocia, Turkey.

Meunier, F., & Gouverneur, C. (2009). New types of corpora for new educational challenges: Collecting, annotating and exploiting a corpus of textbook material. In Aijmer, K. (Ed.), *Corpora and language teaching*. Amsterdam and Philadelphia: John Benjamins, 179-201.

Nesi, H., and Gardner, S. (2012). *Genres across the Disciplines: Student writing in higher education.* Cambridge: Cambridge University Press.

Paltridge, B. (1997). *Genre, Frames and Writing in Research Settings*. Amsterdam/ Philadelphia: John Benjamins.

Flowerdew, J. and Wan, A. (2010). The linguistic and the contextual in applied genre analysis: The case of the company audit report. *English for Specific Purposes*, 29(2), 78-93.

Scott, M. (1997). PC analysis of key words – and key key words. *System*, 25(1), 1-13.

Scott, M. (2015). *WordSmith Tools v. 6*, Stroud: Lexical Analysis Software.

Scott, M. and Tribble, C. (2006). *Textual Patterns: Keywords and Corpus Analysis in Language Education.* Amsterdam: John Benjamins.

Stamatatos, E., Fakotakis, N., Kokkinakis, G. (2001) Automatic Text Categorization in Terms of Genre and Author. *Computational Linguistics*, 26(4), 471–495.

Tardy, M. C. (2009). *Building genre knowledge*. Indiana, US: Parlor Press.

Executive Function and Language Learning: Differentiating Vocabulary and Morpho-Syntax

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Abstract

In recent years, the debate around the relationship between executive control and bilingual language proficiency has extended to the investigation of the role of the former in second language learning. The present study is based on data collected from 20 native and near-native adult speakers of English and investigated the relationship between the learning of Brocanto2, an artificial language with a complex morpho-syntax, and two measures of executive function - cognitive flexibility and inhibitory control. Although the result of the present study did not support the existence of a significant relationship between executive function and the acquisition of L2 morpho-syntax, they confirmed the role of vocabulary learning as a factor possibly driving the correlations between language learning and executive function found in previous studies.

Keywords: Executive function, artificial language learning, vocabulary learning

[1] Harriet Stone contributed to sections 2, 3 and 4 re-elaborating materials from her BA dissertation, and Diana Pili-Moss contributed to the Introduction and sections 1, 4 and 5.

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1. Introduction

Executive function (EF) is a label used to denote a number of different high-order cognitive functions localised in the brain's prefrontal cortex (Funahashi & Andreau, 2013; Fuster, 2010). These include among others, working memory, inhibitory control, attentional monitoring and cognitive flexibility. In the last ten years a large body of literature has discussed and provided evidence for the existence of cognitive advantages for bilingual speakers in executive function performance, in both children (Bialystok & Martin, 2004; Yoshida, Tran, Benitez, & Kuwabara, 2011) and adults (Bialystok, Craik, & Luk, 2008; Prior & MacWhinney, 2010). In spite of this evidence, the close relationship between bilingualism and the presence of enhanced executive control is still debated and a number of studies comparing bilinguals and monolinguals have found no significant differences in inhibitory control and switching tasks (Duñabeitia, Hernandez, Anton, Macizo, Estevez et al., 2013; Kousaie & Phillips, 2012; Paap & Greenberg, 2013). Additionally, it is possible that the age of the participants constitutes a modulating factor, as evidence of a positive relationship between bilingualism and executive function performance emerged more clearly in studies with young children or older adults than in studies with younger adults (Bartolotti, Marian, Schroeder, & Shook, 2011).

Extending the scope of the enquiry from bilingualism to first language acquisition and SLA, recent research has investigated the question of how executive function performance relates to L1 proficiency on the one side and to natural and artificial L2 learning on the other. We turn to the review of a selection of these studies in the following section.

2. Executive function and language proficiency

In a recent paper Ibbotson and Kearvell (2015) tested inhibitory control in 81 L1- English five-year olds. Focusing on the relationship between inhibitory control and L1 performance, they administered a child-friendly version of the Stroop task and correlated its outcomes to the children's ability to correctly produce irregular past tense forms, as opposed to a tendency to overgeneralise the production of past forms with the suffix *–ed* . They found that unlike age or vocabulary size, inhibitory control as measured by the Stroop task significantly predicted past tense accuracy.

In general, studies that looked at the relationship between executive function and language performance have either been interested in identifying specific learning advantages in individuals with higher executive control abilities; or have sought to measure executive control enhancements emerging as a consequence of L2 learning. Sullivan, Janus, Moreno, Astheimer and Bialystok (2014) investigated the short-term effects of L2 learning on executive control in a group of L1-English adults learning beginner level Spanish. Adopting a pretest/posttest design, they measured verbal fluency in English using performance on a grammaticality judgement test (GJT), and measured performance on a flanker task before and after 6 months of L2 training. During the GJT and the flanker task they also recorded event-related potential performances (ERP), analysing N400 and P600 effects. Although no differences between the experimental and a control group were found on any of the behavioural measures; analysis of the ERPs in the experimental group revealed a significant decrease in the mean amplitude of P600 waveforms relative to syntactic violations in the GJT, a pattern similar to the one observed in studies where bilingual participant have been compared to monolinguals. Moreover, the experimental group showed a significant correlation between improved performance in executive function from pretest to posttest and reported expected final grades compared to controls.

Bartolotti, Marian, Schoeder and Shook (2011) tested a group of 24 young adults on their ability to learn the words of an artificial language, based on the structure of the Morse code, from exposure to a stream of auditory input. In this study the words were identified in the exposure in implicit learning conditions and without the help of an explicit association of the word form with a meaning. Because of this, the study, unlike other work focusing on word learning, did not measure executive control effects associated to the processing or production of different word forms with the same meaning, but instead manipulated the form of the language input in one of the two conditions in order to induce inhibitory effects. After verifying the absence of a correlation between bilingual skills and inhibitory control, participant were grouped according to the level of their bilingual abilities (low/high) as well as to the level of inhibitory control measured by a Simon task (low/high). All participants were then sequentially exposed to two conditions that differed with respect to the length of the pauses between letters and words in the input. In the first condition (low interference) the

pauses between letters and words were of equal length so that, in the absence of additional cues, the only strategy for word identification consisted in the evaluation of the statistical transition probability between letters in the input. In the second condition (high interference) the pauses between words were shorter than the pauses between letters, and learners experienced interference from the exposure to previous version of the language, so that word learning was possible only through inhibition of the statistical transition cue. The results revealed a significant correlation between inhibitory control and learning in the second condition. However, although a high level of bilingual competence was found to have a positive effect on learning in the first condition, no significant correlation between the two was found.

Kapa and Colombo (2014) is another study that aimed to shed light on the relationship between executive function and L2 learning using an artificial language paradigm. Kapa and Colombo compared the proficiency of a group of 5 year-old children and a group of adults after teaching them a simplified version of SillySpeak, an artificial language used in previous studies with children in a comparable age range (Hudson Kam & Newton, 2005, 2009). Compared to previous artificial language research in this area, this study deployed a language with a richer syntax, including verbs and a two-argument structure.

After vocabulary training the participants were exposed to 300 animated videos with voiceover descriptions, which provided evidence of the language word order and of the linking rules between argument structure and associated thematic roles. In this study the learning conditions under which the participants learned the artificial language were partly explicit and partly implicit. Whilst the nouns were taught explicitly through a picture book, which included translation into English to facilitate memorization, both the verbs and the sentence word order had to be learnt implicitly from exposure to the video clips. The methods used to measure individual differences in vocabulary size and different components of executive function included the Peabody vocabulary test, a digit span task (working memory), a visual Simon task (inhibitory control and attentional monitoring), a flanker task (inhibitory control and attentional monitoring), and a Wisconsin Card Sorting Task (WCST, a measure of cognitive flexibility). All measures were used for both age groups, with the exception of

the more age-appropriate Dimensional Change Card Sort Task (Zelazo, Frye & Rapus, 1996) being used instead of the WCST, for the 5 year-olds. The outcome measures of learning included two measures of vocabulary retention (production and comprehension), a GJT, and two measures of sentence accuracy (production and comprehension). Both age groups showed an overall above chance learning of the artificial language as well as a significant relationship between aspects of executive function and language learning. In the adult group a multiple regression analysis showed that inhibitory control (measured by the flanker task) was a significant predictor of language performance, after L1 vocabulary size and working memory were controlled for.

In the child group the only aspect of executive function that predicted language performance was cognitive flexibility (measured by the DCCS). For both adults and children a principal component analysis revealed that a single factor accounted for most of the variance, a fact the authors ascribe to the possibility that the learners substantially relied on vocabulary learning in the performance of the language tasks (Kapa and Colombo, 2014, p. 243). In other words it is possible that due to the relative simplicity of the artificial language deployed, specific challenges in word order acquisition that would have emerged in a language displaying a level of complexity more closely mirroring the one observed in natural languages, were bypassed.

This brief review of studies concerning the modulating effects of executive function on L2 learning highlights that advances in L2 proficiency have mainly been quantified in terms of vocabulary learning, either by design, or because the measures adopted turned out to rely heavily on lexical retention due to the lack of complexity of the linguistic input. Ideally, a measure of L2 gains following exposure to a novel language should be able to analyse separately how executive function relates to vocabulary learning, and to the acquisition of novel morpho-syntactic patterns. This would be a desirable methodological choice, especially in view of the growing body of research suggesting that these two aspects of language learning are supported by separate long-term memory systems, the declarative memory system for vocabulary and semantics-related learning and the procedural memory system for word order and syntactic rules (Ullman, 2001, 2005). The present study will investigate the relationship between executive function (inhibitory control and shifting) and language learning, with

the aim of teasing apart learning of vocabulary and morpho-syntax, while shedding light on how executive function relates to these two different aspects of language knowledge. In doing so we will adopt Brocanto2 (Morgan-Short, 2007), a miniature artificial language displaying a full syntax including internally complex NPs, morphological gender agreement and verb modifiers. Given this paradigm, we define the research question as follows:

RQ: What is the relationship between executive function and the learning of morpho-syntax and vocabulary in a syntactically complex artificial language?

3. Methods

3.1 Participants

Ten native, and ten near-native English speakers with a range of L1s including Greek, French, German and Italian, took part in the study. Participants completed a language history form, and were excluded from the study if they were found to be proficient in Spanish, due to the fact that the artificial language Brocanto2 is based on grammatical features of this language.

3.2 Artificial Language

The participants were exposed to the artificial language Brocanto2 (Grey, 2014; Morgan-Short, 2007; Morgan-Short et al., 2010; Morgan-Short, Faretta-Stutenberg et al., 2014; Morgan-Short, Finger, Grey & Ullman, 2012; Morgan-Short, Steinhauer et al., 2012). Brocanto2 is based on an original language called Brocanto (Friederici, Steinhauer & Pfeifer, 2002) but is centred on the grammatical rules of Spanish, to avoid any transfer from L1 English participants. The language is taught in the context of a computer board game.

There are 13 lexical items in Brocanto2, including the tokens' names (*pleck, neep, blom, vode*), adjectives to describe the tokens' shapes (*troise/o, neime/o*), an article (*li/u*), four verbs to describe the type of move (*klin, nim, yab, praz*) and

adverbs to indicate the move direction (*noyka*, *zayma*). Brocanto2's nouns have a formal grammatical gender, either feminine or masculine, and adjectives and articles, agree with the grammatical gender of the noun. Brocanto2 employs a fixed SOV order, with adverbs appearing at the end of a sentence (Figure 1).

Sentence Type	*Brocanto2 Stimuli*					
Correct sentence	*Blom*	*neimo*	*lu*	*neep*	*li*	*praz*
	Blom-piece	square	the	neep-piece	the	switch
	"The square blom-piece switches with the neep-piece."					
Word-order violation sentence	*Blom*	**nim*	*lu*	*neep*	*li*	*praz*
	Blom-piece	*capture	the	neep-piece	the	switch
	"The *capture blom-piece switches with the neep-piece."					

* denotes violation.

Figure 1. Correct and ungrammatical Brocanto2 sentences (Morgan-Short et al., 2010).

Participants were exposed to Brocanto2 during vocabulary training, auditory language exposure, comprehension and production training, and the grammaticality judgement task.

3.3 Vocabulary training, language training and language practice

During vocabulary training, participants were exposed to audio recordings of each Brocanto2 word along with its corresponding visual symbol or move configuration. A vocabulary test was then administered where participants were required to reach a score of 100% before continuing with the rest of the experiment. If a participant scored lower than full marks, they were required to view and listen to the lexical items again and repeat the testing stage until 100% accuracy was gained. Number of attempts until 100% accuracy was gained was used as a measure of vocabulary learning.

During language training (auditory exposure), participants were exposed to 13.5 minutes of Brocanto2 training in which they listened to an explanation of the language

including lexical items and categories, and information such as word order and gender. The audio information was aided by visuals. After this, the participants were exposed to some sample sentences along with their corresponding visual moves on the game board. The exposure of the sample sentences aimed to approximate learning a language in a natural setting. Although there were elements of explicit instruction in the training, the participants were not asked to explicitly search for rules at any point during the experiment.

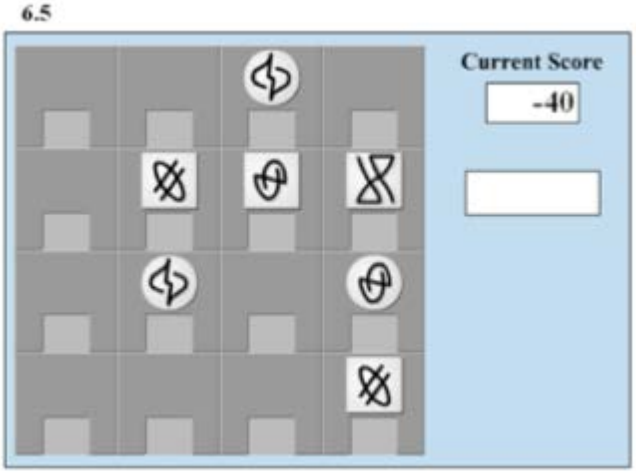

Figure 2. Computer-based Brocanto2 game board (Morgan-Short et al., 2013).

The computer-based board game was used as the basis for language practice and included six comprehension and six production modules (Fig 2). During the comprehension, participants listened to 20 Brocanto2 sentences per module and moved pieces on the game board to match. During the production modules, participants watched a series of 20 moves on the game board per module and then were asked to verbally describe them using Brocanto2. 'Correct' or 'incorrect' feedback was provided after every answer, enabling trial and error decisions to be made.

Within the testing element we looked at the percentage correct for all participants in the comprehension modules (1,2,5,6,9,10) and production modules

(3,4,7,8,11,12) separately. Figure 3 shows the mean accuracy of comprehension and production modules across all participants. There was a clear upward trend as the practice modules progressed. In general, considering the chance level was at 50%, comprehension module 1 was significantly below chance $t(18) = -3.252$, $p < .004$; the final module, 12, $t(9) = 1.991$, $p < .078$ was significantly above chance, with the modules in between expressing a gradual progression, reaching above chance in comprehension module 6 and production module 7.

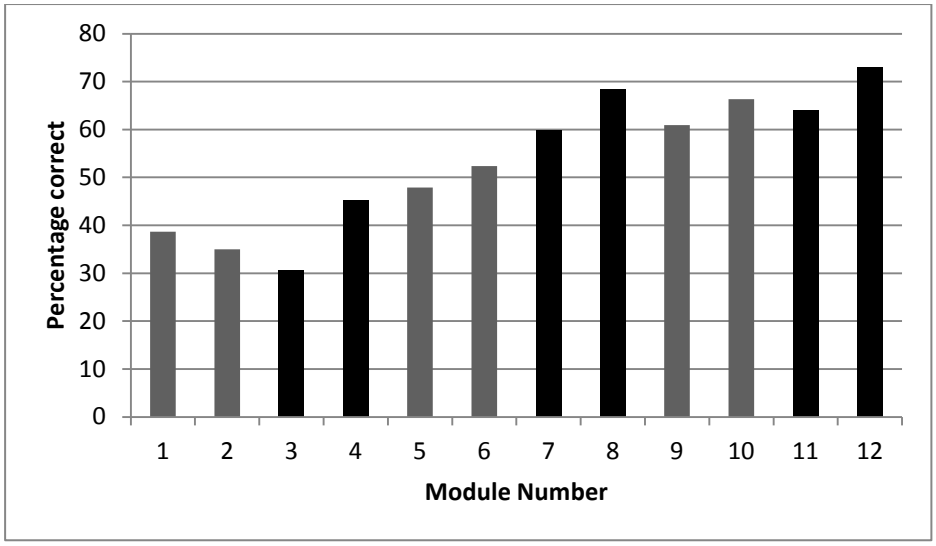

Figure 3. Mean percentage correct on comprehension (light grey) and production (black).

3.4 Cognitive tests

The Flanker test, first developed by Eriksen & Eriksen (1974), was used to test inhibitory control. The task uses a computer screen and target stimuli in the form of chevrons (Fig 4). There were three types of non-target stimuli: congruent flankers, which were chevrons of the same type and same direction as the target; incongruent flankers, same type but opposite direction to the target; and neutral flankers, stimulus of a different type, e.g. squares. 'Congruent' trials involved one target red chevron surrounded by other black chevrons of the same type, pointing in the same direction; in 'incongruent' trials the

surrounding chevrons point in opposite directions to the target chevron. Participants watched the screen and clicked left or right according to the direction of target stimulus, while simultaneously ignoring the non-target distractor stimuli. The Flanker task provides a measure of inhibitory control, calculated as the difference between reaction time (RT) on incongruent trials and congruent trials.

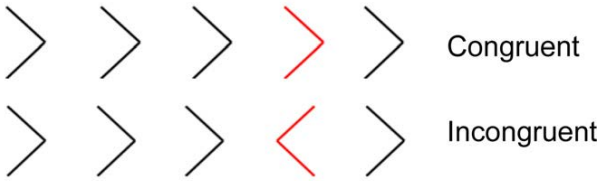

Figure 4. Examples of stimuli from the Flanker test (Luk et al., 2010).

The WCST, engineered by Berg (1948) and Grant and Berg (1948), is a computer-based card game and was used as a measure of cognitive flexibility (shifting). Participants were presented with a card sorting game and asked to match cards by a randomly changing rule; either, match by colour, match by shape, or match by number, using the 'incorrect' and 'correct' feedback to help them. The Psychology Experiment Building Language (PEBL) (Mueller & Piper, 2014) version of the WCST was used to conduct the experiment. Shifting ability was measured as the percentage of perseverative errors following the introduction of a new sorting rule.

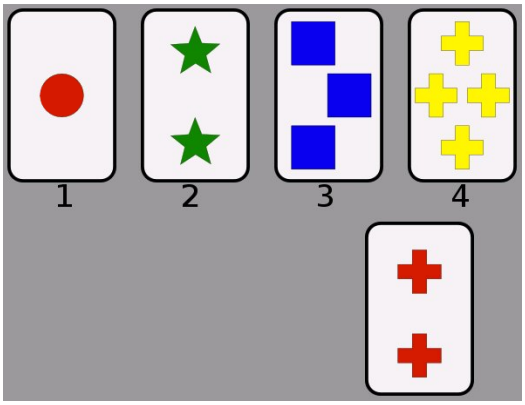

Figure 5. Screenshot from the PEBL computerized version of the Wisconsin Card sort.

3.5 Grammaticality Judgement Task

A grammaticality judgement task was deployed as a measure of language learning. Participants listened to 120 Brocanto2 sentences - 60 of which were ungrammatical - and had to judge whether they were 'good' or 'bad' sentences based on the information they had gained throughout the training and practice stages. They also had to state what their answer was based on, either '*guess*', meaning they might as well have flipped a coin; '*intuition*' where they believed their decision was correct but [they] didn't know why; '*memory*', meaning they relied on recollection or memory; or based on '*rule knowledge'*, meaning they thought they knew the rule and were able to verbally describe it. Above chance performance on *guess* and *intuition* answers indicated implicit knowledge. In this case people would be able to comprehend a language, without a real understanding of how they know or are able to use it (Reber, 1967). Conversely, a score of above chance on *memory* and *rule knowledge* categories would indicate explicit language knowledge.

4. Results

4.1 Vocabulary training

The average number of trials taken for all participants during vocabulary training was 2.05 (*SD* = 0.887). No participant took more than 4 attempts and 6 subjects took only 1. The number of trials necessary to reach the full score was taken as a measure of vocabulary learning proficiency and the value of the positive correlation between this and the score of the Wisconsin Card sorting test was found to closely approach significance (r = .300; p = .058).

4.2 Grammaticality Judgement Task

Performance on the GJT was deployed as a measure of language learning. In terms of overall accuracy, participants classified on average 70.68% (*SD* = 17.57%)

of the test items correctly. Performance was above chance, t (19) = 5.265, p < .001, where chance was taken as 50%, which indicates that exposure resulted in a clear learning effect. Looking at the mean correct percentages of grammatical and ungrammatical items separately, both were above chance, with grammatical items at 73% (*SD* = 20%) and ungrammatical items at 67% (*SD* = 19%).

4.3 Source attributions

The use of source attributions allowed us to see how participants viewed their own knowledge, and meant that we could distinguish between implicit and explicit knowledge gained. Implicit knowledge is categorised here as *guess* and *intuition* (Reber, 1967). Looking within the separate categories of *guess, intuition, memory* and *rule knowledge*, we can see a clear trend of increasing accuracy with the lowest being *guess* and the highest being *rule knowledge*, as would be predicted (see Figure 6). The mean accuracy value for the *guess* attributed phrases was 56.65% (*SD* = 15.16%). For the *intuition* category, mean accuracy was above chance at 64.78% (*SD* = 17.54%). When subjects responded with *memory*, they were 69.7% (*SD* = 18.27%) accurate. Finally, when the answer was based on *rule knowledge*, mean accuracy was 76.93% (*SD* = 21.98%).

A one-sample t-test indicated that subjects performed significantly above chance on responses based on *intuition*, t (19) = 3.674, p < .001, *memory*, t (16) = 4.314, p < .001, and *rule knowledge*, t (18) = 5.198, p < .001. However grammaticality judgments based on *guess* responses were at chance.

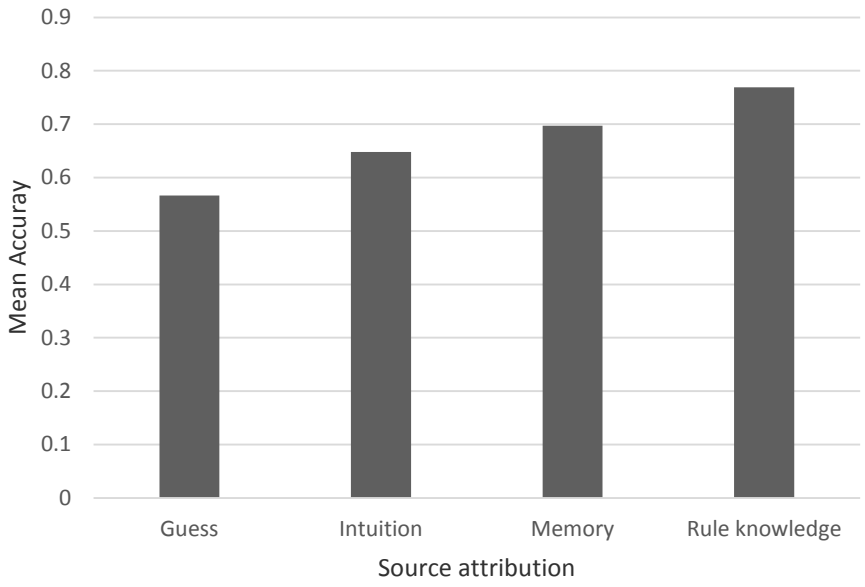

Figure 6. Mean accuracy for source attribution.

4.4 Cognitive tests

For the Wisconsin card-sorting task, in addition to considering the number of correct and incorrect responses, we also looked at the number of perseverative responses; that is to say, the incorrect responses that would have been correct for the preceding rule.

Overall, the mean percentage accuracy was 82.2% (*SD* = 5%), ranging between 72.66% and 88.68% for individual scores (Figure 7). In terms of perseverative responses, there was an average of 40.45 items per participant, an average percentage of 32.75% (*SD* = 4.84%). Here no significant correlation between the WCST and the GJT scores was found, possibly showing that cognitive flexibility is unlikely to be related to how well you are able to learn an unfamiliar language. However, as mentioned before, the correlation between vocabulary learning proficiency and the Wisconsin Card sorting test was found to be closely approaching significance.

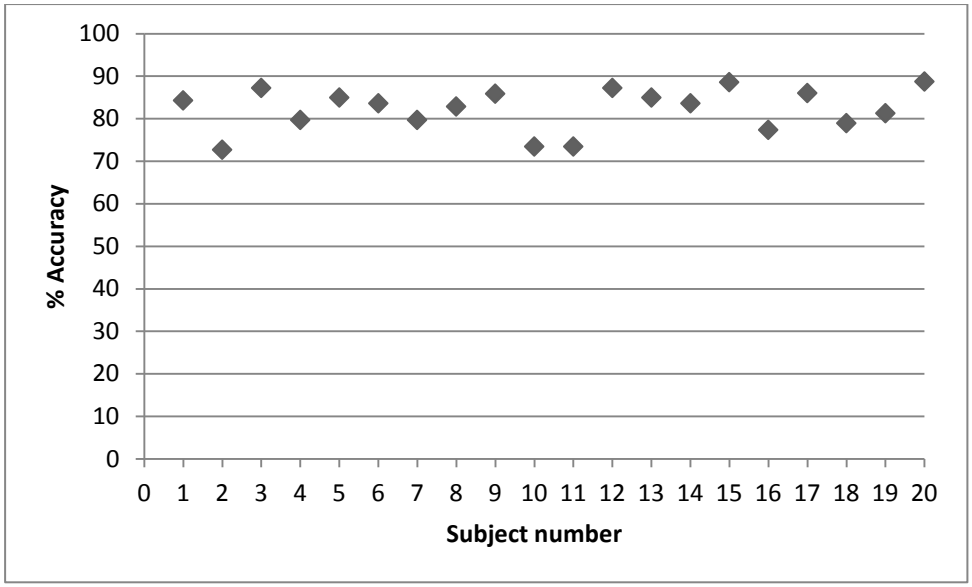

Figure 7. Mean percentage accuracy for the WCST for each subject.

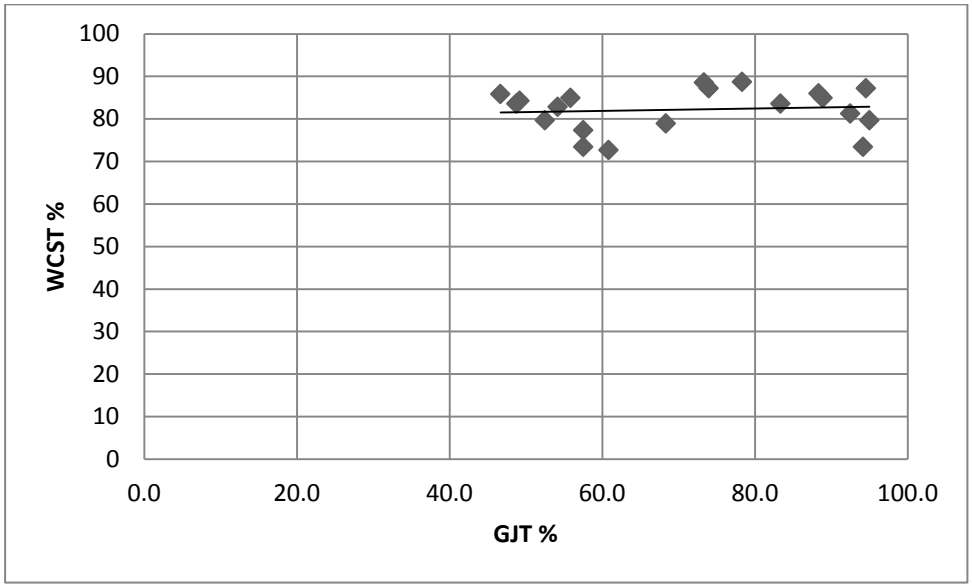

Figure 8. Correlation between mean correct WCST scores and mean correct GJT scores.

The Flanker effect is the average incongruent RT minus the average congruent RT within the CI (congruent/incongruent) block. Flanker effect scores were calculated in milliseconds as a measure of inhibitory control (*M*=32.90*; SD*=53.39), indicating the additional processing time needed for over-coming mental conflict, after

accounting for the switch between congruent and incongruent trials. The mean reaction time across all stimulus types for correct answers was 433.92m/s. A one-sample *t*-test indicated that the flanker task scores were not significantly correlated with the GJT scores, t (20) = 27.96, $p > .206$ (Figure 9).

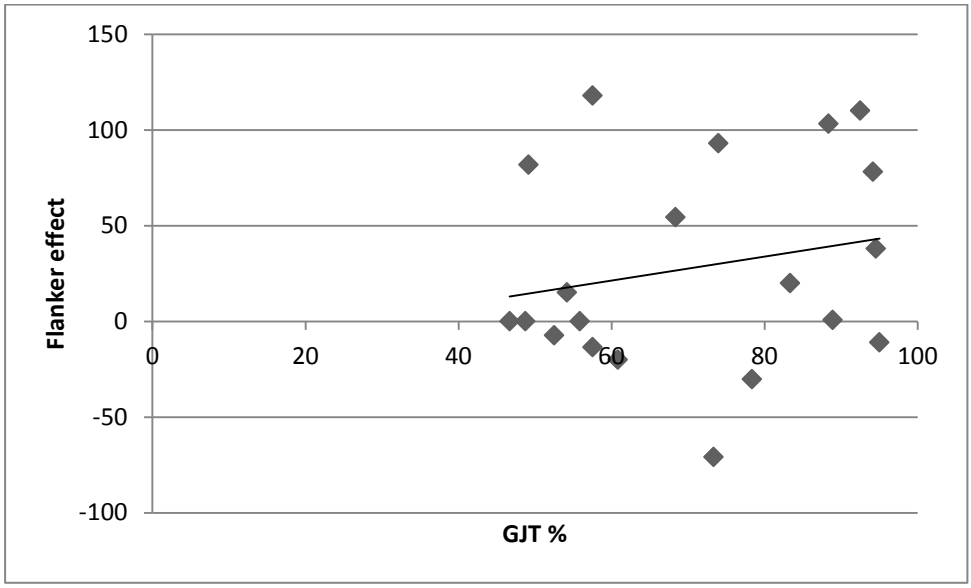

Figure 9. Correlation between flanker effect (milliseconds) scores and GJT scores.

5. Discussion

This study aimed to address whether individual differences of cognitive flexibility and inhibitory control as measures of executive function could account for the wide variation in L2 acquisition ability in adults. Using the Brocanto2 paradigm, a significant learning effect was found on the grammaticality judgement task, consistent with results from previous studies (Grey, 2014; Morgan-Short et al., 2014). The GJT learning effect also suggests that participants were able to learn, not only syntax, but also gender agreement and vocabulary. Extending Morgan-Short el al.'s (2014) research, the source attribution of the participants' knowledge was also measured and showed both conscious and unconscious knowledge. The *intuition* category was above chance at 64.8%, presenting that the learners had gained at least some implicit knowledge (Rebuschat & Williams, 2012). The

memory and *rule knowledge* categories were also both above chance at 69.7% and 76.9% respectively, illustrating the explicit knowledge gained by participants (Tagarelli, 2015). However the explicit source attribution categories of *memory* and *rule knowledge* had a much higher accuracy rate overall, compared to that of *guess* and *intuition*, showing that explicit knowledge was the most reliable. This is not surprising considered that, although participant were not asked to actively search for rules, the language training included some elements of metalinguistic knowledge.

Unlike previous research we did not find a correlation between inhibitory control or flexibility and artificial language learning. For flexibility, it is possible that the lack of variation in WCST played a role in the lack of correlation, as all the participants scored similarly in terms of accuracy, between 72.7% and 88.7%. Adapting the WCST to give a more in-depth test of cognitive flexibility could possibly solve this by giving a finer-grain and more accurate measure, highlighting the variation within the study (Waxer & Morton, 2011). Alternatively, additional measures of cognitive flexibility could be used to give a more reliable score for each participant, as it is known that ID tests do not always give reliable results when deployed in isolation (cf., Morgan-Short et al., 2014).

Also in the case of inhibitory control no significant correlation was found with L2 grammatical development in adults (Figure 9). Unlike what has recently emerged for bilingualism (Tagarelli, 2015; Bialystok et al., 2004), the present results do not support the idea that inhibitory control is related to L2 acquisition.

Considering specifically the type of instruction, Tagarelli (2015) suggested that inhibitory control abilities play a substantial role in the language learning of instructed learners primed to learn explicitly. Contrary to Tagarelli (2015), we found that no correlation between language learning and executive function emerged, although the type of language exposure provided to the participants in the present study included some elements of metalinguistic instruction. In the relationship between executive function and the learning of

complex structures, future research will need to look at the possible different outcomes of instruction that simply provides metalinguistic information vs. instruction that invites more explicit learning strategies (e.g., active rule search).

Our results are also not in line with Kapa & Colombo (2014), who found that shifting ability predicted artificial language learning. However, the discrepancy between the results presented in Kapa & Colombo (2014) and the present study could be traced down to a number of factors, including the complexity of the artificial language and the treatment of vocabulary test scores. Kapa & Colombo (2014) used a much simpler language (Verb-Noun-Noun) compared to Brocanto2, possibly facilitating the learning of syntactic structure in the form of chunks. In terms of coding, the present study looked separately at the grammar and vocabulary results, whereas Kapa & Colombo (2014) included the vocabulary results in their correlations, which may have significantly affected them in ways that are supported by our own findings. Although no significant correlations were found between language learning and executive control, this study found that the correlation between vocabulary learning and cognitive flexibility closely approached significance, supporting a possible substantial role of lexis in the positive relationship with executive function measures (see also Festman, Rodriguez-Fornells and Munte, 2010; Hernandez and Meschyan, 2006).

6. Conclusions and further research

The relationship between enhanced executive function and L2 learning is debated and more research is needed in this area to disentangle the factors at play. An element that has emerged clearly from the literature and is confirmed by the results of the present study is the close relationship between vocabulary learning and higher scores in executive function measures. On the other hand, the findings of the present study did not support the association between executive function and language learning in terms of the acquisition of novel constructions, pointing at a difference between vocabulary and syntax learning which deserves further investigation in future research. It has to be

noted that in this study the participant's L1 differed and although no participants were proficient in languages that shared the morpho-syntactic characteristics of the target, this constitute a variable that should be controlled in the future. Another issue is the relatively small number of participants, which by itself may have affected the statistical significance of the correlations. Further limitations of the study include the absence of more fine-grained cognitive measures, measures of working memory, and a more in-depth investigation of the relationship between executive function and type of instruction. In particular, future research will need not only to differentiate between implicit and explicit instruction, but also analyse which factors in explicit instruction are most likely to positively interact with executive function and support second language learning.

References

Bartolotti, J., Marian, V., Schroeder, S. R., & Shook, A. (2011). Bilingualism and Inhibitory Control Influence Statistical Learning of Novel Word Forms. *Frontiers in Psychology*, *2*, 324.

Berg, E. (1948). A Simple Objective Technique for Measuring Flexibility in Thinking. *The Journal of General Psychology*, *39*(1), 15-22.

Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. *Child Development, 70,* 636–644.

Bialystok, E., Craik F. I. M., Klein R. & Viswanathan M. (2004). Bilingualism, aging, and cognitive control: Evidence from the Simon task. *Psychology and Aging, 19,* 290– 303.

Bialystok, E., Craik F. I. M., & Luk, G. (2008). Cognitive control and lexical access in younger and older bilinguals. *Journal of Experimental Psychology: Learning, Memory and Cognition, 34,* 859-873.

Bialystok, E., & Martin, M. M. (2004). Attention and inhibition in bilingual children: Evidence from the dimensional change card sort task. *Developmental Science, 7,* 325- 339.

Duñabeitia, J. A., Hernández, J. A., Antón, E., Macizo, P., Estévez, A., Fuentes, L. J., et al. (2013). The inhibitory advantage in bilingual children revisited. *Experimental Psychology, 60*, 1-18.

Eriksen B. A. & Eriksen C. W. (1974). Effects of noise letters upon the identification of a target letter in a nonsearch task. *Perception and Psychophysics, 16,* 143–149.

Festman, J., Rodriguez-Fornells, A., & Munte, T. F. (2010). Individual differences in control of language interference in late bilinguals are mainly related to general executive abilities. *Behavioral and Brain Functions, 6*, 5.

Friederici A.D, Steinhauer K. & Pfeifer E. (2002). Brain signatures of second language acquisition: evidence challenging the critical period. *Proc. Natl. Acad. Sci. 99,* 529– 534.

Funahashi, S., & Andreau, J. M. (2013). Prefrontal cortex and neural mechanisms of executive function. *Special Issue on Prefrontal Cortex, 107*(6), 471–482.

Fuster, J. M. (2010). Functional neuroanatomy of executive process. In *The Handbook of Clinical Neuropsychology* (2nd ed.). Oxford: Oxford University Press.

Grant D. A & Berg E. A. (1948). A behavioural analysis of degree of reinforcement and ease of shifting to new responses in a Weigl-type card sorting problem. *Journal of Experimental Psychology, 38,* 404-411.

Grey, S. E. (2014). Natural patterns of language learning in adulthood: bilingual vs monolingual. Doctoral Dissertation. Georgetown University.

Hernandez, A. E., & Meschyan, G. (2006). Executive function is necessary to enhance lexical processing in a less proficient L2: Evidence from fMRI during picture naming. *Bilingualism: Language and Cognition, 9*, 177–188.

Hudson Kam, C. L., & Newport, E. L. (2005). Regularizing Unpredictable Variation: The Roles of Adult and Child Learners in Language Formation and Change. *Language Learning and Development, 1*(2), 151–195.

Hudson Kam, C. L., & Newport, E. L. (2009). Getting it right by getting it wrong: When learners change languages. *Cognitive Psychology, 59*(1), 30–66.

Ibbotson, P., & Kearvell-White, J. (2015). Inhibitory Control Predicts Grammatical Ability. *PLoS ONE, 10*(12).

Kapa L & Colombo J. (2014). Executive function predicts artificial language learning. *Journal of Memory and Language 76*, 237–252.

Kousaie, K., & Phillips, N. A. (2012). Conflict monitoring and resolution: Are two languages better than one? Evidence from reaction time and event-related brain potentials. *Brain Research, 1446*, 71-90.

Luk G., Anderson J., Craik F. I. M., Grady C. & Bialystok E. (2010). Distinct neural correlates for two types of inhibition in bilinguals: response inhibition versus interference suppression. *Brain and cognition 74*(3), 347-57.

Morgan-Short, K. (2007). A neurolinguistic investigation of late-learned second language knowledge: The effects of explicit and implicit conditions. Doctoral dissertation. Georgetown University.

Morgan-Short K., Sanz C., Steinhauer K. & Ullman M. T. (2010). Second language acquisition of gender agreement in explicit and implicit training conditions: An event-related potential study. *Language Learning, 60*, 154-193.

Morgan-Short K., Steinhauer K. & Ullman M. T. (2012). Explicit and implicit second language training differentially affect the achievement of native-like brain activation patterns. *Journal of Cognitive Neuroscience, 24*, 933-947.

Morgan-Short K, Faretta-Stutenberg M, Brill-Schuetz K. A, Carpenter H & Wong P. C. M. (2014). Declarative and procedural memory as individual differences in second language acquisition. *Bilingualism: Language and Cognition*, *17*, 56-72.

Mueller, S. T., Piper, B. J. (2014). The Psychology Experiment Building Language (PEBL) and PEBL Test Battery. *Journal of neuroscience methods*, *222*, 250-259.

Paap, K. R., & Greenberg, Z. I. (2013). There is no coherent evidence for a bilingual advantage in executive processing. *Cognitive Psychology*, *66*, 232-258.

Prior, A., & MacWhinney, B. (2010). A bilingual advantage in task switching. *Bilingualism: Language and Cognition*, *13*, 253-262.

Reber, A. S. (1967). Implicit learning of artificial grammars. *Journal of Verbal Learning and Verbal Behavior*, *6*, 317–327.

Rebuschat, P. & Williams, J. N. (2012). Implicit and explicit knowledge in second language acquisition. *Applied Psycholinguistics*, *33*(4), 829–856.

Sullivan, M. D., Janus, M., Moreno, S., Astheimer, L., & Bialystok, E. (2014). Early stage second-language learning improves executive control: Evidence from ERP. *Brain and Language*, *139*, 84–98.

Tagarelli K. M. (2015). Individual Differences in Artificial Language Learning. The Role of Context. Doctoral dissertation. Georgetown University.

Ullman, M. T. (2001). A neurocognitive perspective on language: The declarative/procedural model. *Nature Reviews Neuroscience*, *2*(10).

Ullman, M. T. (2005). A cognitive neuroscience perspective on second language acquisition: The declarative/procedural model. In C. Sanz (Ed.), *Mind and Context in Adult Second Language Acquisition*, (pp. 141-178). Washington, D.C.: Georgetown University Press.

Waxer M. & Morton J. (2011). Multiple Processes Underlying Dimensional Change Card Sort Performance: A developmental Electrophysiological Investigation. *Journal of Cognitive Neuroscience*, *23*(11), 3267-3279.

Yoshida, H., Tran, D. N., Benitez, V., & Kuwabara, M. (2011). Inhibition and adjective learning in bilingual and monolingual children. *Frontiers in Developmental Psychology*, *2*, 210.

Zelazo, P. D., Frye, D., & Rapus, T. (1996). An age-related dissociation between knowing rules and using them. *Cognitive development*, *11*, 37-63.

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