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## *Proceedings*

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## **Preface**

We are very pleased to publish the *e-Proceedings of the Fourth International Conference on Linguistics and Language Studies (ICLLS 2018)*. The Conference aims to promote studies in language and linguistics. It serves as an international forum for researchers, scholars, educators, practitioners, postgraduate students and experts in relevant fields to exchange ideas, research results and good practices. It also provides an opportunity for building academic networks and for exploring possibilities of research collaboration between institutions at both regional and international levels.

ICLLS 2018 addresses a diversity of key issues in linguistics and language studies. Its papers cover the following areas:

1. Cognitive Linguistics
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5. Language Assessment
6. Language, Culture and Society
7. Language Pedagogy
8. Phonetics and Phonology
9. Semantics and Pragmatics
10. Syntax and Morphology
11. Translation and Interpreting

We would like to thank all authors for their contributions. We are also very grateful to members of the Programme Committee of ICLLS 2018 for their diligent work in reviewing all submissions.

Editors

Patrick Lee, Kat Leung, K C Li, Sharon Wong

June 2018

## Contents

(Papers arranged alphabetically by name of first author)

| No. | Paper Title                                                                                                                                                        | Author(s)                                      | Page |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------|
| 1   | C'est Tamazight nagh Arabic aw French?<br>Linguistic and Social Conflicts in Post-Colonial<br>Algeria                                                              | Nassiba BENFERDI                               | 1    |
| 2   | Languages Systems and Children's Literature: the<br>Essentiality of Omission in the Languages of<br>Picture Books                                                  | Michelle CHAN                                  | 9    |
| 3   | Effectiveness and Students' Perceptions of Group<br>Work on Learning English Grammatical Patterns:<br>Investigation on Middle and High School Students<br>in China | Zhiqiu CHEN                                    | 16   |
| 4   | Exploring the Influences of Non-Verbal Digitals in<br>Mediated Communication: An Analysis of Emojis<br>and Cantonese Perception                                    | King Fung CHENG                                | 27   |
| 5   | Acoustic Characteristics of English Word Stress<br>Produced by English and Mandarin speakers: They<br>Said "OBject" or "obJECT"?                                   | Zeyu FENG                                      | 44   |
| 6   | A Corpus-based Comparative Study of Amplifiers<br>used by Chinese EFL Learners and Native English<br>Speakers                                                      | Qiuyu GUO                                      | 53   |
| 7   | Multiple Case Studies On How Digital Gaming<br>Affects L2 Learners' English Learning                                                                               | Haojie HONG                                    | 64   |
| 8   | Word-initial Consonants Acquisition and the<br>Effects of Consonant Frequency in Vietnamese<br>Language: From a Statistical Learning Model                         | Thanh Thao Nguyen<br>HUYNH<br>Stephanie STOKES | 71   |
| 9   | Grammatical Weight and Relative Clause<br>Processing in German and Cantonese                                                                                       | Yat Han LAI                                    | 77   |
| 10  | Gender and Speech in Two Disney Movies: The<br>Portrayals of Female Characters in the Princess<br>and the Frog and Tangled                                         | Uteng LAM                                      | 84   |
| 11  | The 'chef' and 'guests' 'new' 'tea' 'experience' –<br>A Closer Look into the Corpus of Hotel Press<br>Release (CorHPR) (2014-present)                              | Locky LAW                                      | 91   |

|    |                                                                                                                                 |                                              |     |
|----|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----|
| 12 | Case Study: Analyzing Speech Acts of a Spousal Caregiver When Responding to a Patient with Auditory Hallucination               | Patrick Chi-wai LEE                          | 102 |
| 13 | Peer-Assessment's Impact on Self-Regulation: Pairs Vs. Groups                                                                   | Oliver Anthony Ashton<br>MARPOLE             | 110 |
| 14 | An Analysis of Cantonese Aspectual Marker '-zo'                                                                                 | Alice Yuen Ying MOK                          | 125 |
| 15 | Translating Requests in Audiovisual Translation                                                                                 | Vittorio NAPOLI                              | 131 |
| 16 | On Danish Bare Nominal Adjuncts - a Reply to Barrie & Yoo (2017)                                                                | Michael NGUYEN                               | 143 |
| 17 | Cognitive Theoretical Approach to Understand Hindi Sarcasm: A Corpus Based Pilot Study                                          | Sandeep Kumar SHARMA<br>Sweta SINHA          | 158 |
| 18 | Backward Anaphors                                                                                                               | Harjit SINGH                                 | 170 |
| 19 | Observing Oral Input for Second Language Development: A Case Study of English Pronunciation in Hong Kong Kindergarten Education | Billy T.M. WONG<br>Sara LAI<br>Kam Cheong LI | 174 |
| 20 | The Use of Visual Chunking Strategies in Writing Chinese Characters                                                             | Sin Ying Sharon WONG                         | 180 |
| 21 | Music as a Mnemonic Cue: The Effects of Songs on EFL Children's Vocabulary Acquisition                                          | Shirley YANG                                 | 192 |
| 22 | Teachers' and Students' Views toward First Language Use in High School English Classes in China                                 | Xiaolin ZHANG                                | 204 |
| 23 | Language Ideology and Attitudes towards English Accents                                                                         | Cheyann ZHAO                                 | 212 |



# C'est Tamazight nagh Arabic aw French? Linguistic and Social Conflicts in Post-Colonial Algeria

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**Abstract.** This paper sheds light on the multilingual community of Algeria. It highlights the social and linguistic contact between Tamazight, Arabic and French. The specific province under investigation is Oum El Bouaghi (OEB) which is situated in the north-eastern region of Algeria, 200km away from the Tunisian border. The Matrix Language Frame Model by Myers-Scotton (1993) is used to tackle the issue of the Matrix Language (ML) and the Embedded Language (EL) given the fact that it is the most elaborate up-to-date model. This analysis attempts to explain to what extent the concept of the ML is manifested in OEB native speakers of Algerian Arabic. Mainly, ideas of frequency and dominance are emphasized. There are two data sets to support the preliminary results of this paper: one data set was collected in a fieldwork in OEB in 2017, and data set two was recorded online from OEB radio station. As for the attitudes towards language use, both direct and indirect questions were used along with the researcher's introspective observations. The findings, though primary, do not agree with the MLF paradigm especially in a social context. In addition, the so-called language hierarchy is more of a formality than a reality.

**Keywords:** Algeria, Arabic, French, multilingual, Tamazight.

## 1. Introduction

Code-switching (be it alternation or insertion) between Arabic and French (and Tamazight in Tamazight regions) is the norm in Algeria as it is in countries such as Luxembourg (between Luxembourgish, German, French and, also English). In some countries, there is a whopping number of official and national languages depending on the area (the like of India with over eighteen official languages). The sociohistorical development of such multilingual communities led to language competition which ended up with the official recognition of more than one language. In Algeria, Modern Standard Arabic is the official language while Tamazight is the national language. Tamazight is 'mentioned' in the constitution but does not enjoy much of a legal status. French is neither official nor national but widely spoken as part of Algerian Arabic. In this paper, we answer the following questions:

- How is the sociolinguistic situation in Algeria and OEB by 2018?
- In what ways are Tamazight, Arabic and French used and manifested in OEB in everyday conversations and online?
- Does the hierarchy between the languages exist? In what form?
- To what extent does the Matrix Language in the MLF Model apply to the linguistic and social situation in Algerian speech communities?

## 2. Oum El Bouaghi: Historical and Social Context

Oum El Bouaghi (OEB) is a province situated in the North-eastern region of Algeria. It has been inhabited since 8000 B.C. Amazighen (Berbers) were the indigenous people in the area and it was inhabited respectively by Numidians, Romans (1<sup>st</sup> C.), Vandals, the Byzantine Empire, Islamic Conquests (Starting from the 7<sup>th</sup> and 8<sup>th</sup> C.), the Ottoman Empire (16<sup>th</sup> C.) and finally the French in the 19<sup>th</sup> Century (Stora, 2001 & Goodman, 2005). The province came under French control in 1842. From 1848 to 1962, French Algeria comprised three *départements* (regions): Constantine in the east, Algiers in the center and Oran in the west. *Les Territoires du Sud* (South Territory) covered the rest of the country. OEB was a part of Constantine and it was not until 1974 that OEB became officially an independent Wilaya (province). The administrative division of 1974 recognized OEB as distributed in the form of 12 Daïras (cities) and 29 Baladiyahs (municipalities). OEB used to be a part of Aurès which historically, was the name given to the east of Algeria). Aurès, led by Amazighen, was the starting point towards the Algerian War of Independence. In this region settled an ethnic group of Amazighen called

Chaouia and they communicated using a variety called Tachawit. Nowadays, not every person in the Wilaya is supposed or expected to know or understand this variety but a lot of them do. Varieties of Algerian Arabic (AA) exist as well along with French.

### 3. Languages in Conflict

Algeria had its fair share of conquests from divergent and conflicting cultures. Under the control of every conquest, different policies were in place. With every invasion, changes penetrate the culture and the people resulting in a new modified set of social constructs and conflicts. This holds true for almost any ex-colonized country. In the case of Maghreb (Morocco, Tunisia, Algeria), “it was the Algerian leadership who demonstrated ideological intransigence in recovering both language and identity” (Baldauf & Kaplan, 2007, p. 7) after the independence. Algeria in 2018 is far from being united at a variety of scales. What is relevant here is the imbalance between what languages are official and what is used in the media by both people in power and the rest of Algerians. The constitution does not necessarily correlate with the needs and the realities of the people it governs because “language conflict arises when people try to carve out a space for their own tongue” (Benrabah, 2013, n.p.) even if it were highly impractical in language planning and policy terms. Historically, the Algerian identity moulded gradually and still is in confusion. Each person wants to belong somewhere, to be identified as such and such, to be different yet a component of one set of unified colourful social strata. This innate need to gain clarity and establish rules and boundaries led to endless battles which recently, are not any less complicated. It is as it has been since the settlement of Arabs: “Algerian Arabs” vs. “Algerian Amazighen”.

#### 3.1 Tamazight In Power

Tamazight is the indigenous language of North Africans and so it was the medium of communication since the first millennium B.C.E. After many conquests in their land, Amazighen became a minority and settled mostly in Morocco and Algeria. They were spread in the form of isolated tribes from the Siwa Oasis in Egypt to the Atlantic shores and from the Mediterranean coast to the banks of the Niger River. Because Berber tribes settled in different areas usually separated from one another, they developed a remarkable diversity in their language. Lyovin (1997) considers Tamazight a branch that is represented by “a number of languages scattered over North Africa from Senegal to Egypt” (p. 188), whereas for Comrie (1987), Tamazight is “a cluster of closely related yet not always mutually intelligible dialects” (p. 648). It is in fact a collection of mostly spoken dialects but it came to develop a standardized form that is taught in Moroccan and some Algerian schools. Despite the confusion over where Amazighen come from before settling in North Africa, it is agreed that Tamazight belongs to the Afro-Asiatic language family. Nowadays, Tamazight is written using either Tifinagh, Arabic or Latin alphabet (the last two are more common). Scholars classify Berber dialects quite differently. According to Skutsch (2005), there are *Kabilians* in the West of Algeirs; *Shawia* in the Aures Mountains; *Mzabit* and *Tuareg* in the Saharan regions (p. 211). Skutsch also mentioned “Berber Hebrews” communities who migrated to Israel after 1956 but before that, they settled for probably thousands of years in the *Shleuh* areas in Morocco. Earlier classifications, the like of Ruhlen (1987, p. 86), include Eastern Berber (two varieties in Libya), Northern Berber (four varieties in Morocco and Algeria) and Tuareg (various minor varieties in Algeria, Libya, Niger, Mali, and Burkina Faso).

#### 3.2 Tamazight Dethroned

It is quite common to see that over the colonial period in North Africa, Tamazight gradually became less valued and less used. This attitude towards Tamazight is partly contingent upon the social status of co-existing languages. Adegbija (2001) compared major languages such as the ones that are made official to a ‘big fish that deliberately swallows up smaller languages’. The big fish being the prestige, the presence and the post-colonial effect of European languages (French in this case, and Arabic) that takes over and make other languages insignificant in comparison. In a more recent work, Martí et. al. (2005) referred to the “marginalisation of the culture and language of the Berber people in the countries of North Africa” as “cultural genocide” (p. 80-81). This marginalization and “language hegemony and attacks on minorized languages can produce ideological minority views that allow dominated groups to elevate their tongue as a we-group-building mechanism” (Benrabah, 2013, n.p.). Though Tamazight gained an official status in 2016, it was not manifested across the country and it is only in the Kabyle region that the language is appreciated the most.

Tamazight faced fierce competition over centuries. Even with constant protests and movements, the language is past its prime. Such competition does resemble more than just European ex-colonies in Africa, in fact, it is quite similar to several territories even in the Anglophone region (post-colonial Ireland and Irish Gaelic) due to English political, social and economic domination. In Algeria, Modern Standard Arabic (MSA) is the official language since 1963, therefore, its implementation over the past fifty years is far stronger than the newly recognized national language (Tamazight) in 2016. The unofficial status of French did not prevent it from having control over important educational and industrial sectors and on everyday use of AA. This language competition raises the concept of linguistic imperialism and dominance of certain languages over others. According to the Cultural Imperialism Theory by Johan Galtung (1971), the Periphery (which refers to ex-colonized less developed countries) is always dominated by the Centre (more developed industrial countries) especially when a European language (in the case of Algeria) takes lead in sectors like education and technology. Benrabah (2013) also explained the concept of linguisticism as “the phenomenon of hierarchizing languages and marginalizing speakers of minorized languages, in similar ways to racism and sexism” (Benrabah, n.p.) especially in previously colonized communities.

## 4 The Drama Triangle and Language Policy

### 4.1 The Three Drama Triangle

The competition between the three languages in Algeria and OEB in specific has been exercised in various forms. Stora (2004) refers to this situation as a crisis that was “not only linguistic but cultural, and even political in the broad sense of the term [and that] was clear at the time of the eruption of the Berber Spring of 1980” (p. 170). This situation can be understood via Karpman’s Triangle (1968) of Victim, Persecutor and Rescuer. The Triangle was widely used in psychotherapy to deal with conflicts between people but it can be generalized, to some extent, to the language situation in Algeria. All three languages can take up any of those roles depending on the geographical region. For the most part in OEB, Tamazight is the Victim (oppressed and unhappy), AA is the Persecutor (controlling and dominating) and French is the Rescuer (saves the day). To quickly clarify, French is the Rescuer because the Rescuers’ job is to take on work they are not responsible for, they attract attention, assist and please. In regions such as Tizi-Ouzou, we might see AA as the Victim, Tamazight as the Prosecutor and French stands as the Rescuer. Also, based on Horney’s (1992) strategies of humans’ inner conflicts, most Algerians are *moving towards* Arabic, *moving away from* French, and *moving against* Tamazight.

### 4.2. Language Policy and Language Planning (LPLP)

It is quite obvious how “many analysts stress anguish associated with its [Algeria’s] language politics –using words like ‘psychic pain’, ‘trauma’, ‘humiliation’, ‘intolerance’, and ‘castration’ –to describe its postcolonial history” (Sharkey, 2012, pp. 439-440). It is interesting that the fight against colonialism and the language issue in post-colonial Algeria has been considered so unique that it happened “nowhere else in Africa” (Djité, 1992, p. 16). Myers-Scotton (1996) discussed the struggle of official languages in Africa as a whole and in Kenya and Zimbabwe in specific pointing out similar issues to Algeria. It was clear that making indigenous languages official is uneasy, unpractical, sometimes emotional and considered unacceptable for many. A lot of African countries such as Senegal assigned the former colonial language (in this case French) as official though Wolof (West Atlantic language of the Niger-Congo family) is widely spoken and understood by Senegalese. Similarly, during the French presence on Algerian soil, “French law declared that Algeria was part of France...Arabic was to be considered a foreign language in Algeria” (Abdulrazak, 1982, p. 25). The French controlled the education system by shutting down the Qur’anic schools, which were the main source of learning Arabic back then. Shortly before and during the independence, the attempt was to discard French as a national language and focus on implementing a language policy that establishes Arabic as the official language of the country. This process was called Arabization. The proceedings of this policy targeted the language in particular, opposing a “linguistically diverse society”, but it also aimed at spreading Islam all over the country. It was not strictly implemented until the 80s but the process was not straightforward, if anything it evolved at a snail’s pace and eventually turned out unsuccessful (the same happened in Tunisia).

The conflict between the three languages can happen at any stage of LPLP. It might happen mostly when deciding which language to choose and why (Status Planning), or when a corpus of the language is collected and structured (Corpus Planning), or even when the implementation is in a place and it is time to spread the language (Acquisition Planning). In Algeria, the competition ended up by choosing MSA as a national language and Amazighen were never happy with that. Recently, there were open strikes across all schools and universities especially in the regions of Tizi Ouzou and Bejaya (El Khabar, Echorouk, Ennahar online newspapers 2017-2018). The majority in Parliament rejected passing the bill about developing Tamazight

to be taught in all private and public institutions across the country. Algerian authorities maintain that Berber demands can only be considered gradually depending on the budget and the resources. However, Berbers believe that the government keeps stalling them year after year without initiating any sound changes such as making Tamazight a compulsory language in schools just like they were obliged to learn Arabic. They claim that the whole system is discriminating against them and that “they feel like refugees on their own land”.

In an attempt to minimize any rebellious movements and avoid another Amazigh Spring (1980), the government acted upon certain demands. Tamazight was recognized a national language in 2016, Amazigh New Year (12<sup>th</sup> January) was declared as a National Holiday in December 2017, and in 2018 the government issued the first manifesto in Tamazight. However, the situation is not getting any easier because most Algerians in different regions consider this issue the least of their concerns. They claim that the economy of the country nationally and internationally and how it is affecting all the sectors is a priority that renders Amazigh demands insignificant in comparison. This, in turn, led to further conflicts between Algerians themselves over what language is to be more appreciated. It does not stop here. A glimpse over the Algerian society and over all forms of social media, displays non-stop rivalry. A rivalry which gave birth to hatred and hostile comments and (verbal or physical) clashes between Algerians advocating for Arabic, Algerians advocating for Tamazight, Algerians regarding the conflict as pointless, and the Algerian government.

## 5 The Matrix Language in Algerian Arabic

### 5.1 Code Switching

Language contact phenomena including Code Switching (CS) have been extensively defined and differentiated by many scholars (Weinreich, 1953; Clyne, 1967, Mahootian, 1993; Poplack, 1980; Hoffmann, 1977, & others). Because the main model of analysis in this paper is the Matrix Language Frame (MLF) Model, the definition of CS also follows this model by Myers-Scotton (1993, 1997). She acknowledged the involvement of two or more languages during CS and one of her first examples in *Duelling Languages* was CS between Swahili, English and Luyia. As she phrased it, “codeswitching is the selection by bilinguals or multilinguals of forms from an embedded variety (or varieties) in utterances of a matrix variety during the same conversation” (1993, p. 3). The MLF Model cannot possibly be explained in detail within the limits of this paper but the concepts of Matrix Language (ML) and Embedded Language (s) (EL) (s) will be explained and discussed gradually during the analysis.

### 5.2 OEB Dialect under Analysis

**Data Collection:** this paper is built around two sets of data:

#### First Data Set (DS1)

Collection of this data took place between the 20<sup>th</sup> of August and mid-September 2017. Recordings were made in different settings (cafés, houses, university) in the cities of Souk Naamane and OEB. Total recording time is 47 minutes and 15 seconds. There are thirteen participants in total and four focus groups. All participants are male between thirty and sixty-one years of age. They all have different levels of education beyond Baccalaureate (A Levels).

#### Second Data Set (DS2)

This data was collected online mainly from OEB radio station. Audio recordings targeted radio programs where people tend to speak more spontaneously. That includes programs where random calls are received from the public or when a group of people tackle several issues on the spot without much of a ready-made script. Participants were both male and female of different ages and educational backgrounds. Because the recording was online, participants' criteria could not be controlled.

## Discussion

One interesting observation about the two data sets is the frequency of use of the three languages. In DS1, participants were asked to speak comfortably in whatever language they choose. What turned out to be most comfortable and natural for them is Tamazight (Tachawit) and that is what they mainly used together with few Arabic elements and very few French switches. In DS2, French was used almost as equally as Arabic with very few Tamazight words. Also, language attitudes were collected via online research and informal interviews with participants. It was mainly observation but it was also in the form of direct and indirect questions (this technique can be seen in Belazi 1991).

## The Matrix Language Redefined: Social Implications

One of the main characteristics of the ML according to Myers-Scotton (1993) is frequency and dominance. The concept of one language dominating appears to be relative and dependent on a number of factors including frequency. These factors contribute to how frequent one language is used. Frequency of use of system morphemes from language X under the MLF Model tells us that Language X is the ML. The EL would only supply content morphemes. That means that even if the EL is more frequent (i.e. more content morphemes), it is still less dominant and secondary to the ML. Observe the following examples from DS2:

**une route, ma-tkun-sh dédoublée ‘and-ha un dévers de deux virgule cinq pour cent**

*a road, NEG-is-NEG two-way has-it a slope estimate of 2.5 per cent*

(When a road is not two-way, it has a slope estimate of 2.5 per cent)

**ki-ddir dédoublement, l’axe de la route il est translaté, rayah y-walli fi terre-plein**

*when-you do two-way, the axis of the road it changes, it-become in terrace*

(When you do the two-way, the axis of the road changes, it’s going to be placed in the terrace)

**bassah lamma t-kun un terrain plat c’est très difficile d’assurer l’assainissement**

*but when 3SG a ground flat it is very difficult to ensure the sanitation*

(But when the ground is flat, it is very difficult to ensure the sanitation)

In all three examples, French morphemes are more frequent. However, according to the MLF Model, the system morphemes and the morphosyntactic frame of the sentences define what the ML is (the morphemes were further classified under the 4M Model by Myers-Scotton and Jake, 2000). One point to note here is that when we deal with morphosyntactic frames in this research, we are addressing Arabic as a dialect (not MSA grammar), and French in spoken form (which can be grammatically different from Standard French). The MLF Model tells us that the ML is French in the 1<sup>st</sup> example but it is AA in the 2<sup>nd</sup> and the 3<sup>rd</sup>. This Matrix characteristic of frequency and dominance raises some issues. Dominance in linguistic terms is not dominance in social terms. The question here is not what morphosyntactic frame is respected because speakers do not consciously assess the grammaticality of all the utterances they produce. Using more Tamazight morphemes in an Arabic sentence structure would not mean that Arabic is dominating. Speakers’ language repertoires supply morphemes in a certain grammatical frame and linguistically, the concept of the ML mostly stands true. However, from a social point of view, the frequency of use of one language or more has an impact over what language stands dominant and more prestigious even if the embedded linguistic frames show otherwise. Observe the following conversation from DS1 (AA is in italics in the examples):

- *Fsab’a w xamsa w ‘ashrin, ūtakkersh bekri.* (at 7:25, you don’t wake up early)
- *ūttekrexsh zik?* (I don’t wake up early?)
- Max mani hatroḥath *a ben ‘ammi?* (why? Where do you go *man?*)
- Thamurth thawsa’ *a din Allah!* (The world is large *for God’s sake!*)
- Ihih *badal* thamurth *ha sidi!* (so move out of this world *man!*)
- *Nbadal* thamurth *ha mani harroḥ?* (move out of this world? Where do we go?)
- Annrg *s lkora l’arḍiya?* (do we leave the earth?)
- Natsh *brabi nshallah* a-llangliz (if God will, I go to England)

The AA *bekri* and Tamazight *zik* both mean ‘early’. Also, Tamazight *thamurth* and AA *lkora l’arḍiya* refer to ‘the earth’ or ‘the world’ in this context. In DS1, Tamazight and AA are used interchangeably in a more flexible and less noticed manner than French and AA. The reason can be that Arabic and Tamazight belong to the same language family (and in some instances, they sound similar) whereas French has a Latin origin and it stands out during CS. The expressions *a ben ‘ammi/a sidi*, *a din Allah*, *uḥaq rabi* and *brabi nshallah* refer to the same meanings and usage of expressions such as “man /mate” “for God’s sake/oh my God” “I swear” and “if God will” respectively. These can be referred to as fillers and they seem to be used in Arabic within data that is mostly in Tamazight. However, to account for Tamazight (in DS1) or AA or French (in DS2) as ML or ELs, content and system morphemes need to be counted. The system morphemes, as few as they can be, signal the dominance and therefore determine the ML. This process, apart from being a laborious undertaking, does not necessarily reflect the societal aspect of language use. One main issue is that in analyzing one utterance at a time, the morphosyntactic frames can be of any of the participating languages, or can correspond to more than one grammar, or in other cases, a decision cannot be made until all the morphemes are counted.

The problem of the ML dominance has been the subject of criticism. Bentahila (1995) noted that Myers-Scotton (1993) was in fact counting words instead of morphemes claiming that it was better suitable for certain agglutinative languages. In his Moroccan Arabic/French data, Bentahila concluded that both languages exist in near-similar frequency (and that is the case in DS2) which means that the frequency criterion seems to fail. Muysken and de Rooij (1995) point out a similar issue in Myers-Scotton Swahili/English data arguing that “it is hard to see what purpose is gained and what criteria can be used to assume that Swahili is the ML throughout.” (p. 1047). In addition, Myers-Scotton (1995) utilized evidence from Kamwangamalu and Lee (1991) concerning the credibility of speakers to judge upon the matrix language. As straightforward as this might seem, speakers do not always agree on what the ML is in different test sentences and the overall judgement turns out inconsistent. Also, in an attempt to make the process of identifying the ML more specific, Myers-Scotton (1995) discussed what she calls ‘the ML turnover’ where the ML shifts from one language to another in the middle of a conversation. In quantitative terms in DS1, Tamazight is more frequent and stands clearly as the ML. In DS2, French and AA are distributed almost equally and Tamazight is the EL. The analysis of single utterances however confirms this ML turnover which means that any of the participating languages can be the ML and the EL at the same time. If any language can be the ML and the EL, the concept of morphosyntactic dominance becomes moot. Also, this frequency and ‘turnover’ reveal that languages are not in a traditional top-down pyramid hierarchy where the chain of command (dominance) always starts at the top and flows to the rest ‘layers of subordinates’. The languages move up and down a flexible hierarchy –that resembles a team-based structure and allows simultaneous participation of all languages depending on the context of conversation, the setting, the topic, the speakers and the speakers’ personal choices.

It is interesting to see the huge difference of the languages used depending only on the setting and context of conversation between the two data sets. This raises the question of formality and social prestige: is using Tamazight as the ML sounds informal and less prestigious compared to using Arabic as the ML? Does formality and prestige share such correlation as numeric variables (the more X, the more Y and/or the less X the more Y, etc.)? The answer is unclear. In OEB, there is a specific Tamazight (Tachawit) radio station where Tamazight is the ML with very few Arabic and French insertions. On the station we recorded from however, the ML is Arabic (fluctuating with French for some speakers), while Tamazight is hardly used. Interestingly, speakers assign prestige to different languages. For instance, though mixing French with AA in certain contexts sounds informal, it does display more prestige. The majority of participants (80%) in the study also assigned the most formality and prestige to Standard Arabic (not the dialect) and described French as ‘inevitable’ in AA (this was achieved by direct questions to the participants). Tamazight, in turn, is agreed by all participants to be the ‘language of the tribe’, a symbol of solidarity, and a precious heritage they are proud of. In this context, they explained that they can use both Tamazight and AA in informal comfortable settings.

Tamazight (along with Latin and Phoenician) was also spoken in Tunisia around the 2<sup>nd</sup> century B.C. However similarly to Algeria, what dominated eventually is Arabic and French. In a study of CS by Belazi (1991), both Tunisian Arabic and MSA were associated with conservatism, religiosity and nationalism. He continues “political leaders in Tunisia as well as in Algeria and Morocco always insisted on the danger of losing the Islamic religion and the Arabic language, if the French were not vigorously opposed” (pp. 109-111). The results from the study also show that “using French as opposed to Arabic makes the speaker sound somehow more modern, intelligent, serious, important, elegant, educated and ambitious” (p. 111). Therefore, traits like education, success, technology, modernism and elegance were associated with using French. On the contrary, Bentahila (1983) reported that more than 75% of participants who were directly asked disapproved mixing French with Moroccan Arabic and considered it as “lack of education, carelessness, affectation and lack of identity” (p. 233).

## Results from Online Research and Informal Interviews

One interesting point to cover was the use of Arabic and Tamazight in OEB. Participants explained that a lot of Amazighen in OEB do not speak Tamazight because they were Arabized (like the researcher herself). Lawless (1995) argues that in fact most Algerians are Arabized Berbers and so the difference between Arabs and Berbers is linguistic, not ethnic. Therefore, those who speak Tamazight tend to use Arabic when the person they are talking to does not speak Tamazight. Also, Tamazight is more comfortable and intimate as they relate it with their heritage and identity. They also explained that they were not aware most of the time that they are switching. Resorting to French and Arabic depends on the topic of conversation. They pointed out for example that Tamazight does not have all the words they want to use so Arabic (or French) words come in handy to fill that gap. This issue of vocabulary availability was also discussed in Lance (1975). Speakers have the first say on what language to use and with whom to use it. In Algerian speech communities, there are endless possibilities of scenarios where the three languages can stand as the ML and the EL in one conversation. One speaker can choose to switch differently with different people. Speakers’ choices of these languages may in fact be intentional or unintentional. In an online research across social media platforms, it was clear that Algerian

younger generations make more conscious decisions about using French and consider it to be more prestigious and elegant. Peers with poor levels in spoken French (mainly pronunciation but also vocabulary) are laughed at and considered 'less civilized' or 'less educated' in many cases. Also, CS between AA and French seems to be more prestigious and encouraged than borrowing (in the sense of phonologically integrating a French word to sound "more Arabic" or confine to Arabic phonology).

## 6. Conclusion: Languages as Partners-in-Crime

In so many ways, languages can be humanized or thought of in terms of actual beings or powers or spirits. There are famous languages, discrimination against languages, languages that are born and dead, languages with different characteristics depending on the geographical region while some sound and look similar. Some languages become official and some are neglected as secondary. Some languages are more powerful than others, some are assigned more elegance and prestige, some sound violent and harsh, some sound romantic or funny. There are complicated languages and easier, more relaxed languages. Languages change due to many factors and sometimes we cannot explain how and why certain features evolve the way they do. Languages can co-exist (in peace or at war) even if the competition goes for centuries on end. Just like psychology books and holy manuscripts describe human behavior, dictionaries and linguistics books tell us about language behavior. We as humans enjoy entertaining the idea that we are in control of everything including the language we use. Little do we consider how the languages we speak or try to learn control us more often than we care to admit. In most cases, the use of language is unconscious and we attribute that to our mind selecting forms from the linguistic repertoire we built over the years. What if a language 'wants' or 'does not want' to be selected and then it does or does not get selected?

This analogy might seem as complete hokum but it does tell us something about language as a form of communication. There is a continuum of relationships between co-existing languages. There is no 'dominant' or 'matrix' language. There is no language hierarchy and if there is, it allows for flexible exchange of roles. At least this is the case in Algeria. Tamazight, AA and French in OEB are not peers but partners. They regularly help and depend on one another to enable communication, they co-existed for centuries and even with all the trouble and battles they are going through, they still share the same goal. Though many scholars disproved the switching between languages (associating it with terms like Tex-Mex, Japlish, linguistic decay, semilingualism, etc.), that did not stop the phenomenon of language contact (be it switching, mixing, borrowing, etc.). Languages collaborate, cooperate, work in teams but always make sure that each one is unique. The way languages behave defines what is informally and colloquially referred to as partners-in-crime (with crime meaning 'something good' in philosophical terms).

In social terms, the MLF Model paints the ML as some sort of 'authoritarian language villain' that controls the rest of the ELs even if the latter outnumber the former. OEB in 2018 displays a variety of language use with innumerable possibilities of switching at sentence boundaries (verbs, nouns, prepositions, etc.) between AA, French and Tachawit. Also, there seems to be a remarkable difference and frequency of language use depending mainly on the context. Though results are preliminary, the outcome can be interesting and open for further implications. The fact that many Amazighen have been successfully arabized makes for a compelling case of study. As Gordon (1966) says, "Algeria's future will remain a fascinating case-study for Orientalists and for those interested in development and modernism" (p. 246).

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# Languages Systems and Children's Literature: the Essentiality of Omission in the Languages of Picture Books

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**Abstract:** Peter Hunt (2005) describes picture books as “a polyphonic form that embodies many codes, style, textual devices and intertextual reference, and which frequently pushes at the boundaries of convention”. Maria Nikolajeva and Carole Scott, similarly, explain that pictures are iconic signs that describe or represent, while words are conventional signs that narrate. Picture books communicate through the collaboration and the compatibility of these two sets of signs (2006). Besides, the reading of picture books also requires the imaginative involvement of readers. Inter-textual knowledge is essential in decoding the signified of both verbal and visual texts. Nevertheless, some picture books rely on the intentional usage of “omission”, or the “gap” between the two sets of signs. The use of omission initiates readers to fill in the absence information with their syntactic and semiotic knowledge, and additionally, to acknowledge the “omission” as the critical agent that completes the story. Here, Jon Klassen's *This Is Not My Hat* (2012), Agnès de Lastrade and Valeria Decampo's *Phileas's Fortune: a story of self-expression* (2009), and Carson Ellis' *Du Iz Tak?* (2016) are explored. These works exemplify how the absence of certain information in the verbal and visual sign systems, or in the incongruence between them, could bring out and accentuate the messages of the stories.

**Keywords:** picture books, iconic signs and conventional signs, omission of information

## 1. Introduction

Critics are well aware of the fact that picture book is comprised of visual and verbal texts. Peter Hunt (2005) describes picture books as “a polyphonic form that embodies many codes, style, textual devices and intertextual reference, and which frequently pushes at the boundaries of convention” (p. 128). Maria Nikolajeva and Carole Scott (2006), similarly, define picture books as a “combination of two levels of communication, the visual and the verbal”. It communicates by “means of two separate sign systems, the iconic and the conventional” (p. 1). The collaborations of these two produce various forms of counterpoints that push “the boundaries of convention”. While visual texts present the iconic codes all at once and provide little reading direction, verbal texts provide a schema for reading, highlight the significance of specific visual codes, and identify the visual weight. When it is challenging for verbal texts to narrate all details, visual texts present the descriptive information that is absent in the conventional sign system. It may appear that the verbal and visual languages are compatible with each other, nevertheless, in some picture books, some features are strategically omitted in their collaborations. This paper examines the use of omission in several selected picture books: Jon Klassen's *This Is Not My Hat* (2012), Carson Ellis' *Du Iz Tak?* (2016), and Agnès de Lastrade's and Valeria Decampo's *Phileas's Fortune: a story of self-expression* (2009). It is argued that omission brings out the counterpoints between visual and verbal narration, amplifies certain features of the work, while it is also a stimulus for readers' imagination as well as an essential component that completes a picture book.

### 1.1 Critical Review

Joseph Schwarcz (1991) states that picture book is based on “combinations and confrontations of verbal narrative text with series of illustrations in practically unlimited variations of content, context, and style” (p. 5). Such observation is widely shared by critics who examine the dynamics between the visual and verbal elements of picture books (Agosto, 1999; Golden, 1999; Nikolajeva & Scott, 2001; Nodelman, 1988; Schwarcz, 1982, 1991; Wolfenbarger & Sipe, 2007). Perry Nodelman (1988) suggests that “their complementarity is a matter of opposites completing each other by virtue of their differences” (p. 221). The picture shows more than words can say since it “inevitably contains more visual information than necessary for the verbal message it accompanies”; while the words could place a focus “on pictures in such a way as to make them assertive” (p. 212). In this sense, a picture offers not only a visual equivalence to the text, but also presents more descriptive details and adds information that is not mentioned in the verbal narration. Words, on the other hand, “provide a cognitive map, a schema that [the reader] can apply to inherently unassertive pictures in order to determine the varying significance [the reader] might find in their details” (p. 213). Pictures display all the codes as a whole, and

readers have to break down the interplays by themselves; words “anchor the images” and reduce the significances of the images (Golden, p. 103) for the reader. Nodelman claims that the two are complementing each other when “each speaks about matters on which the other is silent” (p.221). Joanne Golden argues that texts and images are interdependent, and semantic significance and meanings are generated through their collaboration.

Similar to Nodelman, Nikolajeva and Scott are aware of the fact that by default, visual and verbal narratives vary in their model of communication. Pictures are iconic signs, which “the signifier and the signified are related by common qualities”, and “the sign is a direct representation of its signified” (p. 1). The function of the picture is to describe and represent, and it offers no specific order of reading. Words, nonetheless, are “conventional signs”, which have “no direct relationship with the object signified”. It is based on “an agreement among the bearers of a particular language, both the spoke the language and communications” (p. 1). The function of the word is to narrate and provide a direction of reading and identify a focus in a visual narration. Since the models of communication are fundamentally different from each other, it is inevitable that the interplay between them generates numerous forms of collaboration. Joseph Schwarcz (1982) identifies two fundamental relationships between the two communication codes: congruency and deviation. It is either that the visual and verbal texts are complementing and amplifying the text, or the two are served as a counterpoint to each other. Similar ideas could be found in Agosto’s writing, in which she suggests that the two functions of visual and verbal texts are augmentation and contradiction. Nikolajeva and Scott further divide the relationship into a few, including the complementary—words and pictures fills each other’s gaps; the symmetrical—verbal and visual narrative are mutually redundant; the expanding or enhancing—visual narrative supports the verbal narrative while the verbal one also depends on the visual one; the counterpoint—the two narratives are mutually dependent; and the sylleptic—two or more narratives are independent of each other (12).

Regardless the relationship between the two, text-image collaboration is not a sum of their parts but an enrichment to the messages of a picture book. Sipe (1998) names such dynamics as “synergy”, meaning that “the total effect depends not only on the union of the text and illustration but also on the perceived interaction or transactions between these two parts” (p. 98-99). Readers need to oscillate between the two sign systems constantly, adjusting the interpretation of the picture in terms of the text and re-adjusting their interpretation of the text in terms of picture. Since reading picture books is a “move across sign systems, new meanings are produced” in an almost never-ending sequence (p.102). To Nodelman, both text and image are “combative”, referring to an idea that they “work together by limiting each other’s meaning” (p. 221). This mutual modification involves filling gaps, identifying the essences, adding information on each other, and ultimately, bringing out and elevating the messages of the picture book.

Besides, the dynamics of text-image collaborations is not determined only by two communication signs but also the imaginative involvement of readers. They have to actively impose their own imagination, knowledge, and experience to decode the signified denotations from the visual narrative and relate them to the verbal narration and vice versa. It is as stated by John A. Bateman (2014) that,

The text and the image are therefore offered independently for the readers to relate, and it is very much up to the reader to make that connection. The spatial layout of the information on the page does not prejudice the issue of what kinds of relations are going to be found or even what parts of the text and image should be brought together. (p.79)

Even if the text and the picture are capable of complementing each other and offsetting each other’s deficiencies, readers are still responsible for filling in the gaps. On the one hand, it is “up to the reader” to make the connections between the visual and the verbal elements. On the other hand, picture books provide a “semiotic gap” for readers, who have to fill in the semiotic gap by decoding the text-image interplay. Similar ideas could be found in Wolfenbarger’s and Sipe’s (2007) writing, in which states that the “dissonance” between words and pictures provides “a playing field” where readers “explore and experiment” (p. 274).

Critics try to examine the dynamics of the text-image collaboration and the enriched message of a picture book, yet, most of them focus on the compatibility between texts and images. Some authors and illustrators, nonetheless, find the value of the unfilled “gaps” and “omissions”. Critics are aware of the additional enrichment provided by the text-image collaboration, but seldom do they examine the blanks and incongruence resulted. These planned unfilled gaps are served as the keys of conveying specify messages in a picture book.

## 2. Three Modes of Omission

### 2.1 Omitted Connections

The visual and verbal narration of Jon Klassen's *This Is Not My Hat* (2012) are complementary to each other since their collaboration complete the plot and characterisation. The contradictory nature of the two language modes, yet, intentionally generates certain gaps between the two narrations. In Klassen's book, the verbal narration is dominated by the focalisation of a small fish, while the views and the descriptions of other characters are entirely omitted. The verbal narration is the confession of a small fish, who has stolen a hat from a big sleeping fish. He explains that the theft is not entirely unethical, since he believes that the hat fits him more than the big fish, "It was too small for him anyway. It fits me just right" (p. 20). He is planning to hide in a place where "plants grow big and tall and close together" and where he believes that "no one will ever find [him]" (p. 14). He is also certain that the crab, which has seen him and his hiding place, "wouldn't tell anyone which way [he] went" (p. 15). The visual narration, however, presents readers the story of the big fish and the rest of the sea from an omniscient point of view. Though the big fish is not included in the verbal narration, readers will gradually figure out that the big fish notices the missing hat, the identity of the culprit, and the hiding place. Additionally, the crab who has witnessed the flight of the small fish, does notify the big fish the location of the wrongdoer.

The omission in the synchronising connection between the visual and verbal texts is comparatively more common than the omissions found in Ellis' and De Lestrade's text, which will be discussed later respectively in this paper. Pat Hutchins' *Rosie's Walk* (1968) is often taken as the model that exemplifies such use of "counterpoint" in a picture book. In *Rosie's Walk*, the words and pictures "contradict" each other and "they are telling two completely different stories" (Nikolajeva & Scott, p. 17). While the text focuses on the narration of Rosie's walk, the picture includes a fox, which follows Rosie and attempts to capture her. The critics argue that "visual narrative is more complicated and excited than the verbal one, which comprises a single, twenty-five-word sentence" only (p. 17). The excitements evoked in the visual narrative include the hilarious stumbles of the fox and its failed attacks. The omission of the fox in the verbal narration amplifies the centrality of Rosie's walk. The narration of Rosie's walk is so loud, metaphorically, that the fox would not be able to overthrow the dominant role of Rosie. In this case, the omission of the fox in verbal narration highlights its subordinating role and subsequently, foreshadows his doomed failure. Besides, the verbal narration focuses only on the places that Rosie goes without including any more descriptive information. The picture book includes only one sentence of narrative throughout: "Rosie the hen went for a walk across the yard around the pond over the haystack past the mill through the fence under the beehives and got back in time for dinner". Visually, the facial expression and gesture of Rosie have not changed much throughout the story, while the fox jumps, stumbles, and is being attacked. The humour and the tension of the story are manifested by juxtaposing the placidity of Rosie's walk and the commotions caused by the fox. Also, the completion of the story is brought by the discrepancy between the narrations.

Likewise, Klassen's work focuses on the missing connections between the two narrations and how indeed such omissions complete the story. Rather than being complementary to each other, the discrepancy between visual and the verbal narration provide additional information to the plot and characterisation. First, the omitted connection reflects the self-obsession and ignorance of the small fish. The verbal narration demonstrates how he genuinely believes that he will be lucky enough to get away from his crime. He constantly justifies his reason for stealing. Ironies are then resulted. The more justifications that he has made for his crime, the more ignorance is revealed. He makes a series of assumptions that the big fish is not going to wake up so soon and he may not find out that he has lost his hat. The small fish even tries to convince himself that the big fish will not know who has stolen his hat or where the wrongdoer will go. It appears that he is so preoccupied by his own narration that he is almost disconnected entirely to the visual narrative. When the small fish has no awareness of the approach of the big fish, readers witness the fluke believed by the small fish is merely an imagination. The incongruence between the verbal and the visual narration also turns the small fish into an unreliable narrator. This fortifies his image of unreliability even though his narration is not intended to be deceptive. It is only that what he narrates is incongruent to the happenings in the sea. Lastly, the entertaining effects of the story are given by the gap between the omitted connections between verbal and visual narration. While the verbal narration does not include any description of the big fish and makes no remarks on the betrayal of the crab, the visual narration introduces the pursuit of the big fish. This turns the story from a confession of a thief to a redeem of possession. Readers witness the flaw of the small fish, and they also expect the punishment of that self-obsessed small fish, a restoration of order or an uphold of poetic justice.

## 2.2. Omitted Semantics

Carson Ellis' *Du Iz Tak* (2012) introduces an invented language of insects. The first few lines of the story are as follows:

Du iz tak?  
Ma nazoot.  
Ta!  
Du Iz Tak?  
Ma ebadow unk plank.  
Du kimma plonk?  
Ma nazoot.

None of these verbal narration is comprehensible by itself. Readers have to deduced the semantics based on the visual presentation of the gestures and expressions of the insects as well as the context that these fictional characters are situated. Christina Quintiliani (2016) argues that readers would have to apply the "main conventions and rules of languages and by closely examining each illustration for subtle clues". Here, this omission of verbal information places the importance of visual languages before the verbal one. The verbal texts are understood because readers are formulating possible linguistic combinations, provided by the visual clues.

Additionally, while the semantics are removed, only the syntax of this invented language is left. Many of the syntactic features of this invented language are similar to the English language. Readers are able to comprehend the language by interpreting the punctuation, sentence structure, and length of sentences. Several dictions also share similar phonological and grammatical structure with English. For example, when the damselflies are looking at the seedling at the beginning of the story, they have asked "Du Iz Tak?" for several times. Their look of wonder and pointing finger indicate their wonder. It could be presumed that the question is "What is this" since the structure between "Du Iz Tak" and "What is this" is alike. In particular, "Iz" does resemble the diction "is" in terms of its length, articulation, and position in a question. Additionally, the visual narrative provides the context of the invented language, and hence, it becomes possible for readers to speculate the implications based on the various hints given, though some connotation may still not be understood completely. After the damselflies, more insects gather around the shoot and wonder what exactly it is. When the seedling grows taller, the insects turn it into a tree fort. Though a spider has invaded the tree fort for a short period of time, the dispute is solved when the spider is snapped by a bird. The insects enjoy their time with the fort until that plant withers. Eventually, readers should be able to find out that the sentence of the insects is in the structure of subject, verb, and object, a grammatical structure also followed by English. The line such as "Du iz tak" could be understood as "what is this"; "Ma nazoot" refers to "I don't know"; and "Su" refers to "Yes". A more complex sentence, such as "Iz tak unk glassdenboot" could also be understood as "is this a flower". Moreover, it appears that the insects also use articles before a noun like English, and so some nouns could be identified, such as that "unk ribble" refers to a ladder; "unk furt" refers to a fort; and "unk gladdenboot" refers to a flower. Nevertheless, the exact understanding of some of the invented languages could not be deduced even with the help of the visual narrative. These include the lines "Ma ebadow unk plonk" and "Du kimma plonk". Since these speculations are soon dropped in the story, readers could only assume that they are the speculations or wild guess made by the insects upon the new seedling. Similarly, it could be surmised that the insects are using "scrivadelly" to compliment the "gladdenboot". However, the exact meaning of "scrivadelly" is highly uncertain. It could refer to the beauty, the colour, the smell or any positive quality of the flower. "Scrivadelly" is spoken only once in the book, and so no other references could be drawn to extract the meaning of this diction.

It is as Sarah Ellis (2016) observes, a neologism is not uncommon in the picture books. Still, a text like the one in *Du Iz Tak* could not "provide a cognitive map", as suggested by Nodelman on the function of verbal narration, since the text is almost incomprehensible without the pictorial assistance. Nonetheless, by inventing an entirely new language, which is incomprehensible on the surface, the author highlights the non-human nature of this language. Such alien language creates a sense that that literary world is exclusively owned by the insects. Even if readers are trying to extract the meanings and the sentence pattern of this language of insects, they will not be able to do so entirely. With such omission of exact semantics, as Quintiliani comments, the languages of insects allow "some individualism in interpretation of the language". Such individualism in interpretation may contribute to the entertaining quality of the story. Besides, it also consolidates the barrier between mankind and the insects. Thereby, with the missing function of specifying or providing a precise textual narrative, Carson Ellis alienates readers from the invented world. It paradoxically reminds readers that in reality, human and insects are different. The use of such new language of insects, on the one hand, could enhance its sense of fantasy by stating that insects do have their languages, and they can communicate and act like a human. While the characters could be read as anthropomorphic creatures, the picture book also illustrates a distinctive group of creatures who possesses its own language, culture, and social practices. Chole Humphreys comments that *Du Iz Tak* "celebrates the beauty of discovering something new and celebrating its existence". Indeed, it is as if Ellis is celebrating the uniqueness of the insects' community and so she gives the insects their own literary world.

Indeed, such alienation of the insect world from mankind and the incomprehensiveness in its language fortify the substantiality of that fantasised world.

### 2.3. Omitted Completeness

The omission is necessary to complete the messages in Agnès de Lastrade and Valeria Decampo's *Phileas's Fortune: a story of self-expression*. Self-expression and communication in this book are closely associated with consumption, financial confinement, and capitalism. All words are produced by a word factory day and night. The townsmen have to purchase words and swallow them before they speak. As a result, the richer a person is, the more expressions can he or she use; the underprivileged, tragically, have to suffer from an incompleteness in their verbal expressions. For instance, there is a scene in which two gentlemen are consuming "discourses" in a restaurant. The discourses are illustrated in a shape of spaghetti, referring that these are indeed complete sentences. On another page, however, a girl and her family can only afford consuming some words and letters in soup. These conditions empower the rich a more comprehensive form of communication while the poor is incapable of articulate their thoughts and ideas fully.

The main plot of *Phileas's Fortune* concerns the romance between Phileas and Cybele. Yet, two love confessions are given by Oscar and Phileas to Cybele respectively. Oscar, who appears to be wealthy enough to consume adequate vocabulary, says, "I love you with all my heart, Cybele. When we grow up, I know we will marry" (p. 23-4). Phileas cannot afford costly words but can only express himself through the words caught by a butterfly net. Unlike the loud and complete declaration of Oscar, Phileas says, "cherry, ruby, chime"<sup>1</sup>. Oscar's expression is comprised of well-constructed sentences. Nonetheless, his accurate usage of language alludes more to his economic power and offsets his sincerity. His alluded wealth alienates him from Cybele, who appears to be living in a less privileged lifestyle. At the same time, the delivery is presented visually with block and bold letters, framed in rectangles and arranged in a shape of radiation. It appears more like an announcement than any romantic speech. More than the literal meaning, his words are embedded with a marble-like pattern, which further reinforces a cold and emotionless image of his declaration. Syntactically, Oscar's speech is complete, but such quality can only highlight the absence of his sincerity.

With reference to Phileas' usage of dictions, the connotations of "cherry", "ruby", "chimes" are secondary to the allusions conveyed. On the first spread pages of Phileas' confession, Phileas on the verso says, "cherry! ruby!". The next spread shows that last part of his line, "chime!" on the verso and Cybele is placed on the recto. The two characters are linked visually by a line formed by fragmented dictions and some petal-like pieces. Using two spread pages for this line slows down the pace of reading because the completion of the message requires a page-turning. The deceleration fortifies the fact that such confession is carefully articulated by Phileas. It is as Phileas claims in the previous spread that he needs to take "a deep breath" and "finds all the love he has in his heart" before he "utters his words" (p. 25). The words start off with a lower case and end with a small exclamation mark, signifying that each word is delivered in a tender yet an affirmed manner. It is a deliberate effort that the confession is only presented with several content words and they are barely related to each other. Such fragmentation of a sentence or the absence of a full complete sentence corresponds to the poverty of Phileas, who could not afford sentences like Oscar does; while at the same time, highlights the effort of Phileas in catching these words with his butterfly net, presented in the previous pages. The manner of delivering these words also underlines how the sender, Phileas, and Cybele, the receiver, cherish them. Phileas closes his eyes and places his hands on his chest, indicating that he utters his speech wholeheartedly. Cybele, likewise, closes her eyes and places her hands on her chest, showing that she hears his expression and comprehend his sincerity. The similarities between the gestures indicate that she is able to acknowledge the efforts of Phileas, indicating that she also reckons that these words are selected especially for her even if the connotations of these words are not closely related.

In addition to Phileas' effort, the verbal narration is being understood with a heavy poetic sense when three distinct imageries are generated. "Cherry" itself may conjure up senses of sweetness, contextualising the taste of the confession and enriching the image of Cybele in the view of Phileas. "Ruby" formulates ideas of preciousness and sparkles, and thereby, corresponding to the pricelessness of Cybele to Phileas. These ideas could also refer to the valuable effort of Phileas, and ultimately, making reference to the pricelessness of Phileas' expression of love. "Chimes" could recall a sense of euphony, corresponding to the whisper-like expression of Phileas. While the confession is finished with "chime", the illustrator is trying to stimulate the imagination of chime, and inspiring readers to associate and assimilate the voice of Phileas to melodious music. In this way, other than the contextual connotations of "cherry", "ruby", and "chimes", the voice of Phileas is

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<sup>1</sup> *Phileas's Fortune: a story of self-expression* is the translated English version of a French picture book, *La grande fabrique de mots*. The original version of these three words are "cerise", "poussière", and "chaise" respectively in French. This study focuses on the English edition only, and it is expected that certain arguments are not applicable to the original French version.

shown through the curves of the font and a breeze-like line that connects up the words, Phileas, and Cybele. Though the sizes of the three keywords are bigger and lines are bolder than the rest of the curve, the font still follows the flow of the line and makes no abrupt disturbance. The shadows of the three keywords, in particular, highlight the substantiality of the context, and consequently, indicating the credibility of the message. The shadows could also serve as a form of echo, which states the lingering effects of Phileas' voice and the imageries of those words in the mind of both Phileas and Cybele. In short, "cherry", "ruby", and "chimes" arouse an imagination of positive senses visually, verbally, and even audibly. Phileas' love confession, hence, is elevated from a mere message to a romantic communication between the sender and the receiver. Besides, both Phileas and Cybele are similar in size, and they have taken a similar space on a page, indicating that both of them are in equal terms. This refers to the fact that both Phileas and Cybele belong to the same social class, and they would be able to understand each other even if there are certain omissions in both the structure and content of the verbal narration.

The significance of the shape and ideas of butterfly has been included throughout the book, and the insignificance of this image at the beginning corresponds to the omissions in the narratives of Phileas' confession. It is claimed on the previous page that the words of Phileas will metaphorically "off they float to Cybele like beautiful butterfly" (25). Butterfly is the patterns on the clothes of the poor, and it is also one of the "useless" words that floats in the air. By showing that the dictions will "float to Cybele like beautiful butterfly", the illustrator assimilates the shape of the speech with the flight of a butterfly, presenting visually the senses of beauty and lightness. "Butterfly" serves as a major component in the confession of Phileas since signifies that the society is eradicating items like a butterfly or its associated meanings, such as romance, love, and sincerity. Besides, the tone of grey dominates most of the scenes in the first half of the book, but the last few pages are painted with a reddish tone along with the inclusion of a butterfly patterns. As well as the fact that the colour is one of the signs related to the difference between the rich and the poor, the words and letters imprinted on the clothes and the shopping bags of the rich could also concretise the differences. The colour of black and white generates a sense of coldness on those rich characters, showing that they are detached from emotion. A gentleman is illustrated with an angry glare. His dismay towards a poor girl, who is strategically dressed in red, in front of him, evidences how the rich looks down upon the underprivileged or in other words, those who fail to communicate in the socially recognised form. It is not only that it becomes obvious to the readers that the hair accessories of Cybele are in the shape of a butterfly and the pattern on Phileas' clothes are small butterflies, but the butterflies are also literally presented in the last page, forming the frame for the word "again". The last spread pages present an idea that the completeness in the sentence structure, which associates with wealth, is not as prestige as the incomplete sentence that alludes to efforts and sincerity.

Fragmented language is encouraged and aspired for because it represents a new and powerful force that could overthrow townsmen. With this background which involves a predominated power and authority in the standard form of communication in this town, a counter-force is simultaneously introduced in the first few pages of the book. In the first two pages, the word factory dominates the whole page, yet, there are arrays of red houses located next to the factory. Although they are smaller in scale and shorter in height, their red rooftops show a strong contrast with the dark grey factory. It is as if there is a hidden and unrecognised power surviving in the town. The function of the discrepancy between the literary meaning and the real implication create the telepathic communication between Cybele and Phileas because it proves that intention outweighs the form of expression. Indeed, this message is the main idea that has been underlying all forms of the power struggle aforementioned and the conflict between the mainstream consuming culture and subculture. Perhaps, this also indicates that love is more important the form of communication, which depends heavily on the consuming culture. Nevertheless, this book does not only state that there are more communication forms than merely visual and verbal communication; but it also discusses the function of language. The completeness of communication depends not on the completeness of sentence structure nor the selection of vocabulary, but it depends on goodwill. The omission of the semantics in certain dictions, as in this case, interestingly, highlights the priority of sentiment to the exact content of a communication and the forms of presentation.

The expression of Phileas proclaims clearly that language is more than syntax or vocabulary. The "accuracy" of language use is not the prime important in the course of communication, instead, sincerity and endeavour are more precious and treasured. De Lestrade and Docampo associate the "completeness" in language presentation with a series of negation such as the unbalanced social hierarchy, the haughtiness of the rich, the association of aloofness and apathy, and so on. They also reject the prestige of the authority in communication. Self-expression and interactions with others should not be confined to financial concerns. Ultimately, communication is not bounded by the accuracy of language usage, instead, communication should concern if a person is trying to making a connection with the other party trustfully.

### 3. Conclusion

With the purpose of completing the messages of a picture book, omissions in the visual and verbal languages are filled by each other. Critics pay attention to and examine the text-image collaboration, and thus, look into the complementarity of text and images as well as the way they offset the deficiencies of each other. However, it appears that some books would like to make use of such omission and present an idea that it is not necessary for the visual and verbal narrative to complement or dependent on each other entirely. "Omission" could be served as one of the dynamic interplays between the visual and the verbal narratives. It could introduce additional plots and subplot, provide additional characterisation, affect the identification of readers with the fictional characters, and fantasise the literary world. On top of these, omission could also enrich the associations of text and complete messages.

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# Effectiveness and Students' Perceptions of Group Work on Learning English Grammatical Patterns: Investigation on Middle and High School Students in China

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**Abstract.** To facilitate EFL learning and teaching, the effectiveness of group work has been paid great attention in the field of education. This study aims to investigate the effectiveness of group work on learning English grammar patterns and the students' attitudes towards group work by conducting an experiment and a survey. Altogether 160 students were involved in this study, including 80 middle school students and 80 high school students. Within each school level, students were randomly assigned to one experimental group who participated in group work and one control group who worked on the same grammar task individually. Following the curricula of the two school levels, the middle school participants worked on the present perfect tense, while the high school participants focused on the subjunctive mood. All the participants were required to complete a pre-test, an immediate post-test and a one-week delayed post-test. Each test lasted for 10 minutes. The questionnaire survey was conducted in class after the immediate post-test. It was found that the students at both school levels who worked in groups had greater gains in the two post-tests than those who worked individually, although the gains were small and not significant. The survey results showed that the experimental groups at both school levels held more positive attitudes towards the use of group work than the control groups, in particular with regard to enjoyment and the effectiveness of learning grammatical patterns. In addition, middle school students had significantly more positive perceptions about the use of group work than the high school participants. It is recommended that teachers could adopt appropriate frequency of group work to facilitate and motivate learning. Besides, more emphasis of using group work should be put among high school students to promote collaborative learning.

**Keywords:** group work, EFL, learner perceptions, middle and high school students

## 1. Introduction

Cooperative learning refers to a teaching method in which students at different levels are grouped together to work on a certain goal (Gomleksiz, 2007). According to Mc Grath (2004), learners aim to deal with their weaknesses by sharing knowledge via working in groups. With the trend of collaboration globally, there are increasing attempts of group work in more and more schools (Leonard, 2001). In China, the traditional classes are teacher-fronted. Teachers are the only source of knowledge. However, with the promotion of education system in recent years, the EFL classes in China have attached with more importance to students' interactions. Since 1980s, educational institutions began to encourage students to take active roles in learning (Hu, 2002). The Outline of the Reform of Basic Education Curriculum (2001) clearly put forward the student-center classes. Thus, as a classroom technique which provides opportunities for students to explore knowledge actively, group work is adopted frequently in China now (Hu, 2002).

Numerous studies related to students' achievements in group work and students' perceptions towards group work have been done before (Ahangari & Samadian, 2014; Rahaman, 2014; Afzali et al, 2015; Meteetham, 2001). However, few of them were conducted in China. Besides, most previous studies only chose college students as their participants (e.g. Taqi & Al-Nouh, 2004; Li et al, 2010.) Thus, it is important to look at the effectiveness of group work at different school levels in China and to complement the findings in this field. This report aims to investigate the effectiveness of group work and students' perceptions towards group work among Chinese EFL students in a middle school and a high school.

### 1.1 Research Questions

To be specific, the study was guided by the following research questions:

1. For the same grammar task, do students learning through group work outperform those learning through

individual work?

If yes, to what extent do students improved their performance through group work?

2. What are students' perceptions towards group work in English classes?
3. Are there any differences in the perceptions of group work between middle school and high school students?

## 2. Literature Review

### 2.1 Theoretical Foundations

The rationale of the cooperative learning is based on several theories: Vygotskian zone of proximal development (ZPD), social learning theory and the constructivism.

**Zone of Proximal Development.** According to Vygotsky (1978), the zone of proximal refers to the discrepancy between what people have the ability to do by themselves and what they cannot do without the help of others. Vygotsky states that learning should just beyond learners' current capability. In order to accomplish the things what learners cannot do, it is necessary to get scaffolding from more competent people. Thus, the ZPD is in favour of learners' interaction with other capable people. Group work, which is a common interaction in class, can be seen as a way to encourage learning.

**The Social Learning Theory.** This theory indicates that it is not the isolated environment but the social context where learning occurs (Bandura, 1971). Negotiation is an important term in this theory. Bandura (1971) stated that social learning underlying the negotiation process. Learners negotiated and solve disputes through social learning. Thus, the concept of learning from social context is greatly relevant to the notion of cooperative learning.

**Constructivism.** Constructivism and the constructivist teaching method pay much attention to the active role of learners in learning experience (Cheek, 1992). This theory is against the idea that learners only receive knowledge passively from teachers. In other words, constructivism focuses on the students-fronted classrooms. Based on this theory, learning is regarded as an active process, and students are encouraged to take responsibilities for their own learning. The cooperation between peers in classes is important, because learners could reconstruct their schema via the interaction with others (Cheek, 1992).

### 2.2 The Effectiveness of Group Work in English Classes

There are numerous previous studies which examined students' achievements in group work in English classes. For example, Ahangari and Samadian (2014) found that college students working on group work could improve their writing skills. In this study, 30 Iranian EFL college students participated in an experiment with a pre-test and a post-test in total, and the participants who took part in the group work achieved higher scores than those who worked individually.

According to Rahaman (2014), learners' reading comprehension can also be improved through collaborative work in classes. Rahaman (2014) conducted an experimental study in a university in Dhaka. In this research, it showed that as compared to participants reading individually, the participants practicing reading within groups could help each other to better comprehend the reading text.

In order to investigate the effectiveness of group work on learners' speaking ability, a study which aimed to examine the effectiveness of cooperative learning on speaking was conducted by Tabatabaei, Afzali and Mehrabi (2015). In this study, sixty Iranian EFL college learners were required to complete several tasks and to do an interview. The results showed that the participants who work in groups outperformed the controlled group.

Besides, the use of group work has positive effect on grammar learning. The relevant study was conducted by Meteetham (2001). A test, an interview as well as the classroom observation were arranged. The study revealed that students can achieve higher grades through working in groups.

Overall, the studies above showed that group work could have positive effects on learners' writing and speaking abilities. Besides, group work could work on students' reading comprehension and increase students' grades in grammar tests.

## 2.3 Learners' Perceptions towards Group Work in English Classes

Learners' perception is an important factor which would largely affect the effectiveness of group work in class. Er and Aksu Atac (2014) investigated the University English major students' perceptions of group work. One hundred and sixty-six students were involved and they were required to fill in a questionnaire. According to the results, about 67% of the students believed the effectiveness of group work in English classes, while only 33% of the learners preferred to work alone.

Taqi and Al-Nouh (2014) did a research in a college in Kuwait. Forty students from two classes participated and performed six phonetics transcription tasks in this study. The questionnaires were distributed after the tasks. It was found that although students who work in groups to complete the tasks did not achieve obvious improvements, all the participants enjoyed working with group members, and they preferred joining the group work in classes.

Li et al (2010) investigated learners' attitudes of group work. In his study, thirteen Chinese students in Australian universities were interviewed. According to the results, it reported that there is a preference of group work among those students. The students who were interviewed believed working in groups can help them better understand and construct the knowledge.

## 3. Methodology

### 3.1 The Participants

One hundred and sixty students were involved in the present study. All the participants were Chinese EFL learners in Shangrao, Jiangxi. Among them, 80 participants were Junior-2 students from two elite classes (instructed by the same teacher) in a middle school. The other 80 participants were Senior-2 students a high school, and they are also from two elite classes taught by the same English teacher. In each school level, there were one control group and one experimental group. The participants were grouped as follows: (1) Middle-school control group (40 middle school students participating individually for the tests and the exercise), (2) Middle-school experiential group (40 middle school students participating in groups for the tests and the exercise), (3) High-school control group (40 high school students participating individually for the tests and the exercise) and (4) High-school experiential group (40 high school students participating in groups for the tests and the exercise). As for the grouping criteria within the experimental groups, participants of different English proficiency levels were grouped randomly so as to produce heterogeneous groups for the group work.

### 3.2 Instruments

**Test Papers and the Grammar Exercise.** The first part of data collection was based on the test results of grammatical patterns. Following the curricula of the two schools, the middle school participants focused on present perfect tense in this experiment, while the target grammatical pattern for high school participants was subjunctive mood. Three tests and one grammar exercise were developed for each school level in total. The three tests (pre-test, immediate post-test and delayed post-test) and one exercise were in different content but at the similar difficulty level. A pilot study was conducted before in a non-participating class, and the difficulty level of the test papers was modified based on the results of the pilot study.

**The Questionnaire.** Students' responses to questionnaires were the second source of data collection. The copies of an anonymous questionnaire (see Appendix) were distributed to the participants for both the control group and the experimental group right after the immediate post-test. The questionnaire contained five Likert-scale questions in total. All the questions were all related to students' general perceptions towards the effectiveness of group work in English course. After the piloting the questionnaire to a non-participating class, some questions were modified and rewritten in both Chinese and English to make sure the participants could understand.

### 3.3 Procedures

The pilot study was conducted one week before the formal experiment to fine-tune the research instruments. The experiment was carried out in class for each of the school levels in June, 2017. Before the experiment, the participants were informed about the research purpose and were ensured confidentiality. Since the participants have already learned certain grammar patterns, there was no teaching activity before the tests. At the beginning, the pre-test was given to the learners to complete individually in order to measure students' base-line competence. Then, the participants were assigned into two groups (one control group and one experimental

group). The control group worked individually to finish a grammar exercise, while the experimental group worked in small groups to accomplish the grammar exercise. After that, all the participants were asked to take an immediate post-test individually. After the immediate post-test, the copies of the questionnaire were distributed to the participants. Ten minutes were given to the students to complete the questionnaires. Finally, the delayed post-test was arranged one week later. Each test and exercise had a time limit (ten minutes) for students to complete. During the tests and grammar exercise, the researcher and the teacher walked around to monitor students and kept the classroom discipline. Both the researcher and the teacher would not give any instructions to participants during the experiment.

### 3.4 Data Analysis

The quantitative data were analyzed statistically. Firstly, there were ten grammar questions in each test. One point was assigned for one question. The average scores and the standard deviation of each test were calculated by using SPSS. To investigate students' improvements after the group work, the paired *t*-test analysis was adopted. Secondly, the numerical data in the likert-scale questions were also put into SPSS by using the independent *t*-test to analyze. There were five options for each Likert-scale question, and each option was correspondent with a score: Strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). The scores in the five Likert-scale questions were added up as the participant's final score.

## 4. Results

### 4.1 The Tests

The means of the scores for the pre-test, immediate post-test and delayed post-test were compared using the paired-samples *t*-test. The results for the middle school and the high school participants are shown in Tables 1 and 2 respectively.

**Table 1.** Comparison of test scores for middle school participants (*N* = 40)

|                                 |                   | Mean   | SD    | <i>P</i> -value |
|---------------------------------|-------------------|--------|-------|-----------------|
| Control group<br>(pair 1)       | Pre-test score    | 6.05   | 1.962 | 0.727           |
|                                 | Post test score   | 6.2    | 1.86  |                 |
|                                 | Gain              | 0.15   |       |                 |
| Control group<br>(pair 2)       | Pre-test score    | 6.05   | 1.962 | 0.943           |
|                                 | Delayed post-test | 6.025  | 1.981 |                 |
|                                 | Gain              | -0.025 |       |                 |
| Experimental group<br>( pair 3) | Pretest score     | 6.775  | 1.675 | 0.12            |
|                                 | Post-test         | 7.425  | 1.591 |                 |
|                                 | Gain              | 0.65   |       |                 |
| Experimental group<br>(pair 4)  | Pre-test score    | 6.775  | 1.675 | 0.942           |
|                                 | Delayed post-test | 6.8    | 1.553 |                 |
|                                 | Gain              | 0.025  |       |                 |

*Note.* Maximum score for each test =10

As can be seen from Table 1, the experimental group in the Middle school achieved higher scores than the control group in all tests. After the group work, the average score for experimental group raised from 6.775 to 7.425, with 0.65 score gain. Although the control group also gained 0.15 score in the immediate post-test, it may result from the grammar exercise. One week after the group work, the average score of the experimental group was fallen back. Thus, compared to the control group, the experimental group obtained higher scores after group work; but the effectiveness of group work on grammar patterns learning is not obvious.

**Table 2.** Comparison of test scores for high school participants ( $N = 40$ )

|                                 |                   | Mean  | SD    | <i>P</i> -value |
|---------------------------------|-------------------|-------|-------|-----------------|
| Control group<br>(pair 1)       | Pre-test score    | 5.35  | 1.507 | 0.878           |
|                                 | Post test score   | 5.4   | 1.265 |                 |
|                                 | Gain              | 0.05  |       |                 |
| Control group<br>(pair 2)       | Pre-test score    | 5.35  | 1.507 | 0.922           |
|                                 | Delayed post-test | 5.375 | 1.162 |                 |
|                                 | Gain              | 0.025 |       |                 |
| Experimental group<br>( pair 3) | Pre-test score    | 5.30  | 1.641 | 0.058           |
|                                 | Post-test         | 5.85  | 1.2   |                 |
|                                 | Gain              | 0.65  |       |                 |
| Experimental group<br>(pair 4)  | Pre-test score    | 5.30  | 1.641 | 0.503           |
|                                 | Delayed post-test | 5.525 | 1.397 |                 |
|                                 | Gain              | 0.225 |       |                 |

*Note.* Maximum score for each test =10

Table 2 compares the average tests score obtained by the control group and the experimental group of high school. After group work, the experimental group obtained higher scores than the control group in the subsequent two tests. The experimental group gained 0.65 score immediately after the group work. However, similar as the experimental group in middle school, the improvement was diminished after a period of one week. Considering the *P*-value, it was found that the improvements of the experimental group after the group work were also small and not significant.

## 4.2 The Questionnaire

One hundred and sixty questionnaires were distributed to all the participants immediately after the post test. The questionnaire contained five Likert-scale questions which were related to students' preference and their perceptions towards the effectiveness of group work in English course.

**Table 3.** Middle school participants' responses for the question items (means and *t*-test results)

| Question items                                                                                              | Groups                    | Mean  | SD    | Mean difference | P-value |
|-------------------------------------------------------------------------------------------------------------|---------------------------|-------|-------|-----------------|---------|
| 1. Enjoy working in groups                                                                                  | Control group (N=40)      | 4     | 0.922 | 0.475           | 0.010*  |
|                                                                                                             | Experimental group (N=40) | 4.475 | 0.632 |                 |         |
| 2. Group work can help students to learn grammar                                                            | Control group (N=40)      | 4.125 | 0.953 | 0.175           | 0.393   |
|                                                                                                             | Experimental group (N=40) | 4.3   | 0.842 |                 |         |
| 3. Using group work to learn grammar is more effective than using group work to learn other English aspects | Control group (N=40)      | 4.05  | 0.998 | 0.05            | 0.816   |
|                                                                                                             | Experimental group (N=40) | 4.1   | 0.888 |                 |         |
| 4. Group work is more useful than individual work                                                           | Control group (N=40)      | 4.25  | 0.915 | 0.075           | 0.683   |
|                                                                                                             | Experimental group (N=40) | 4.325 | 0.685 |                 |         |
| 5. Prefer to have more group works in the future                                                            | Control group (N=40)      | 4.05  | 1.023 | 0.45            | 0.20    |
|                                                                                                             | Experimental group (N=40) | 4.5   | 0.591 |                 |         |

Note. A five-point scale was used: 1=*I strongly disagree*; 3= *neutral attitude*; 5=*I strongly agree*. \*Significance at 0.05 level.

As can be seen in Table 3, all means are over 4.0. The results indicate that both control group and experimental group hold positive attitudes towards group work. B, the experimental group got higher means for all question items than the control group. Especially for question 1, which is related to students' degree of enjoyment towards group work, the experimental group tend to enjoy the use of group work in English classes more than the control group.

**Table 4.** High school participants' responses for the question items (means and *t*-test results)

| Question items                                                                                              | Groups                    | Mean  | SD    | Mean difference | P-value |
|-------------------------------------------------------------------------------------------------------------|---------------------------|-------|-------|-----------------|---------|
| 1. Enjoy working in groups                                                                                  | Control group (N=40)      | 3.425 | 1.009 | 0.525           | 0.009*  |
|                                                                                                             | Experimental group (N=40) | 3.95  | 0.705 |                 |         |
| 2. Group work can help students to learn grammar                                                            | Control group (N=40)      | 3.325 | 0.971 | 0.825           | 0.000*  |
|                                                                                                             | Experimental group (N=40) | 4.15  | 0.691 |                 |         |
| 3. Using group work to learn grammar is more effective than using group work to learn other English aspects | Control group (N=40)      | 3     | 1.109 | 0.075           | 0.749   |
|                                                                                                             | Experimental group (N=40) | 3.075 | 0.958 |                 |         |
| 4. Group work is more useful than individual work                                                           | Control group (N=40)      | 3.35  | 0.948 | 0.175           | 0.394   |
|                                                                                                             | Experimental group (N=40) | 3.525 | 0.865 |                 |         |
| 5. Prefer to have more group works in the future                                                            | Control group (N=40)      | 3.6   | 1.057 | 0.05            | 0.822   |
|                                                                                                             | Experimental group (N=40) | 3.65  | 0.906 |                 |         |

Note. A five-point scale was used: 1=*I strongly disagree*; 3= *neutral attitude*; 5=*I strongly agree*. \*Significance at 0.05 level.

According to Table 4, all means were over 3.0. Neither control group nor experimental group of high school detested group work. Similar to the results from middle school participants, the means for all questions items were higher for the experimental group than those for the control group. For the first two question items, which come to the enjoyment and effectiveness of grammar learning through group work, the experimental group hold more positive attitude than the control group.

**Table 5.** Comparison between Middle school and high school participants' responses for the question items (means and *t*-test results)

| Question items                                                                                              | Groups                        | Mean  | SD    | Mean difference | <i>P</i> -value |
|-------------------------------------------------------------------------------------------------------------|-------------------------------|-------|-------|-----------------|-----------------|
| 1. Enjoy working in groups                                                                                  | Middle school ( <i>N</i> =80) | 4.237 | 0.830 |                 |                 |
|                                                                                                             | High school ( <i>N</i> =80)   | 3.687 | 0.908 | 0.55            | 0.000*          |
| 2. Group work can help students to learn grammar                                                            | Middle school ( <i>N</i> =80) | 4.212 | 0.909 |                 |                 |
|                                                                                                             | High school ( <i>N</i> =80)   | 3.737 | 0.937 | 0.475           | 0.001*          |
| 3. Using group work to learn grammar is more effective than using group work to learn other English aspects | Middle school ( <i>N</i> =80) | 4.075 | 0.951 |                 |                 |
|                                                                                                             | High school ( <i>N</i> =80)   | 3.037 | 1.036 | 1.038           | 0.000*          |
| 4. Group work is more useful than individual work                                                           | Middle school ( <i>N</i> =80) | 4.287 | 0.814 |                 |                 |
|                                                                                                             | High school ( <i>N</i> =80)   | 3.437 | 0.911 | 0.85            | 0.000*          |
| 5. Prefer to have more group works in the future                                                            | Middle school ( <i>N</i> =80) | 4.275 | 0.871 |                 |                 |
|                                                                                                             | High school ( <i>N</i> =80)   | 3.625 | 0.985 | 0.65            | 0.000*          |

Note. A five-point scale was used: 1=*I strongly disagree*; 3= *neutral attitude*; 5=*I strongly agree*. \*Significance at 0.05 level.

Table 5 compares the responses from middle school and high school students. The middle school students achieved significantly higher means for all questions than the high school students. The means of middle school students for all questions were over 4, which indicates strong positive attitude. However, for high school students, they got means which were close to 3, which refers to a relative neutral attitude. Besides, the greatest mean difference between these two schools is shown in question 3. Compared to middle school students, high school students show no agreement to the statement that using group work in grammar learning is more effective than using group work to learn other English aspects.

## 5. Discussion

The data from the tests and students' survey provided important information about the effectiveness and students' perceptions of group work. Based on the results from students' test scores, after group discussion, the experimental groups outperformed the control groups at both school levels. This finding agrees with many previous studies on the effectiveness of group work (Ahangari & Samadian, 2014; Rahaman, 2014; Afzali et al, 2015; Meteetham, 2001). However, after one week, the scores of the experimental groups dropped back. It indicated that the effectiveness of group work in enhancing students' academic grades could not last long. The knowledge students obtained during group discussion was soon forgotten after a certain period of time.

Contrary to expectation, the improvement of the experimental groups after group work was not significant. It revealed that adopting group work on learning grammatical patterns as a technique to enhance students' achievements tended to have limited effectiveness. Besides, by comparing the extents of improvements between middle school and high school participants, it was found that the experimental group of high school achieved relatively larger improvement than the experimental group of middle school. The possible explanation might be the higher peer-directed learning ability and higher learning consciousness of high school students. Compared to the high school participants, middle school students depend more on teachers' instructions.

As for students' perceptions towards group work, the findings are also in constant with the prior research. As amounts of researches noted, students generally reflect enjoyment in group work, and most of them

believe in the effectiveness of group work (Er & Aksu Atac, 2014; Lopez, D & Lopez, M, 2013; Taqi and Al-Nouh, 2014; Li et al, 2010).

Comparing the attitudes of students from the two school levels, the significant differences can be observed. What is worth mentioning is the great difference between the middle and high school students' attitudes towards the effectiveness of group work on English grammar learning. From high school students' perspectives, using group work to learn other English aspects may be more effective than using group work to learn grammatical patterns. This difference may due to high school students' academic pressure. Under the high study pressure, Chinese high school students attach more importance on products rather than the learning process. From their perspectives, memorization seems to be the shortcut to learn English grammar patterns. To prepare for the examination, high school students might more prefer to use the traditional method to learn and memorize grammar patterns individually. Group work, which emphasizes learning process, seems to be unpopular among high school students.

## **6. Conclusion**

### **6.1 Summary of Findings**

This study focused on the effectiveness of group work on learning English grammatical patterns. It aimed to investigate the academic improvements on learning grammatical patterns after group work and students' perceptions towards group work. The participants came from two different school levels: middle school and high school. An experiment and a survey were conducted to accomplish the research goals.

According to the findings, both middle school and high school students benefited from the use of group work in English classes. However, the improvements of students in both school levels who participated in group works were not significant. As for students' perceptions, all the participants did not detest the use of group work in English class. Compared to high school students, middle school students were more easily to be motivated through group work.

### **6.2 Pedagogical Implication**

The findings in this study would provide some implications for ELT classroom in mainland China. This research is especially considered useful for middle school and high school English teachers. Although the effectiveness of group work on English grammatical patterns learning in improving academic grades is limited, group work can be adopted as a classroom technique with the purpose to motivate learning. Through group work, most students, especially middle school students, would be strongly motivated and feel less bored. As a result, students' comprehensive language inputs would increase under the non-threatening learning atmosphere. Besides, in order to promote collaborative learning in high school, it is necessary to put more emphasis on arranging group works among high school students.

### **6.3 Limitations and Future Research**

Despite the contributions, this research also has some limitations. Firstly, the results of this study may not be generalized. All the participants were from two schools in Shangrao, Jiangxi. Thus, the participants might not be representative enough. The second limitation of this study is due to the lack of observation of students' behaviors during group work. Data about students' attitudes and behaviors were collected through self-reported survey only. Therefore, it is recommended that the future research could adopt observation in methodology in order to perfect the investigation of students' actual behaviors during the process of the group work.

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## Appendix

### Questionnaire for middle school and high school participants

**Topic:** Effects of group work on learning English grammatical patterns and students' perceptions: Investigation on Middle and High school students in China

主题：通过小组合作学习英语语法的成效 以及学生对于小组合作学习的看法。

The purpose of this questionnaire aims to investigate students' attitudes towards group work in English classes. The participants do not need to write down their name on this questionnaire. The data obtained from this questionnaire will only be used for this research. The participation is voluntary, and the participant can refuse to answer any questions in this questionnaire.

本次调查问卷旨在调查参与者对于英语课堂上小组合作学习的态度和看法。此调查是匿名参与的，调查对象无需写下姓名。所得数据仅用于本次研究课题。此调查是自愿参与的，参与者可拒绝回答此问卷上的任何问题。

**Introduction:** Please circle the gender, your school level and the group you were assigned to. 请圈出你的性别，年级和组别

性别 Gender:           A. 女 Female                         B. 男 Male

年級 school level: A. 初中 Middle school B. 高中 High school.

组别 Group section :    A. 第一大组 Group1.      B. 第二大组 Group2.

C. 第三大组 Group3.      D. 第四大组 Group4

For Questions 1 to 5, please tick in the most appropriate box. 题 1 至题 5: 请在表格中最符合你想法的一项打勾。

|                                                                                                                                                                                    | Strongly disagree<br>强烈反对<br>(1) | Disagree<br>反对<br>(2) | Neutral<br>中立<br>(3) | Agree<br>赞同<br>(4) | Strongly agree<br>强烈赞同<br>(5) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------|----------------------|--------------------|-------------------------------|
| 1. I enjoy working in groups during my English classes. 我喜爱参与英语课堂的小组活动。                                                                                                            |                                  |                       |                      |                    |                               |
| 2. Group work can help students to learn grammar 小组活动对学习英语语法是有帮助的。                                                                                                                 |                                  |                       |                      |                    |                               |
| 3. Using group work to learn grammar is more effective than using group work to learn English vocabulary, writing and other language aspects 通过小组合作学习语法 比通过小组合作来学习单词, 写作及其他语言部分更有效 |                                  |                       |                      |                    |                               |
| 4. Compared to individual work, group work will be more useful for English learning. 相比于个别单独学习, 小组学习更有效学习英语。                                                                       |                                  |                       |                      |                    |                               |
| 5. I prefer to have more group work for learning grammar patterns in my English class in the future. 我希望今后英语课堂上有更多学习语法句式的小组活动。                                                     |                                  |                       |                      |                    |                               |

# Exploring the Influences of Non-Verbal Digitals in Mediated Communication: An Analysis of Emojis and Cantonese Perception

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**Abstract.** It is widely acknowledged that the usage of non-verbal digitals in mediated communication is gaining prevalence in the contemporary society since these non-verbal digitals have complemented the significant but absent paralinguistic cues that are essential for successful communication. Emojis, small digital icons resembling facial expressions and everyday objects, are believed to carry certain emotional valence per se. Different speech communities, however, seem to have generated different representations for the same emoji. It is suggested by previous studies that readers tend to phrase a sentence in a linear, left to right fashion, and that “each new word serves to add to the meaning to the words which immediately preceded it” (Scovel, 1998: 64). The current study explores the influences of emojis on Cantonese perception in mediated communication among native speakers. It is hypothesised that the valence of the emoji at sentence final position will override the valence of the whole non-verbal statement and even alter it. For illustration, [ngo2 yau2 dak1 gaan2 me1 (face with tears of joy)], meaning what choice do I have, was widely rated as positive when the positive emoji (face with tears of joy) was inserted at the end of the statement in the experiment, even the statement itself originally carry negative valence as rated. 40 participants among two age groups (20-25 & >40) were recruited for the experiment. The experiment focuses on the attitudinal changes of the participants toward non-verbal statements and statements with selected stimuli (face with tears of joy & smiling face with smiling eyes). The results support the hypothesis and further report that the alteration effect can only be found in the younger group. This effect, is noticed to be dependent on and determined by sociocultural and contextual knowledge available in their speech environment. Thus, this paper attempts to discuss and explain the underlying reasons with reference to Morton’s logogen model of comprehension (1969), which the meanings and valences of emojis are stored in and can be retrieved from individual logogen, and require different thresholds of activation, just like how other lexical items work.

**Keywords:** Emojis, non-verbal digitals, logogen model, Cantonese, language perception

## 1. Introduction

Research on language perception in the past few decades has become a central and important topic in the study of Psycholinguistics. Numerous studies published and dealt with how human being processes and decodes written or spoken languages. Scholars have also proposed diverse models to account for the internal mechanisms of language perception (e.g., Morton, 1969 on Logogen model of comprehension; Rumelhart, McClelland, & PDP Research Group, 1987 on Parallel Distributed Processing; Dell, 1986 on Spreading Activation model). Studies of the significance of non-verbal digitals in language perception are gaining more prevalence and attention as it is widely acknowledged that the use of these non-verbal digitals, such as emojis in mediated communication has become an integral part of human life. While some people consider them as a set of paralinguistic elements, some consider them further as actual ‘words’ that convey meanings. However, different speech communities seem to have generated different representations regarding the same emoji. In order to examine the relation between emojis and language perception, we need to examine the use of emojis in non-verbal mediated communication, such as Whatsapp, a mobile communication application commonly used among Hong Kongese. Nevertheless, few studies have been conducted on the influences of emojis on Cantonese perception.

It is believed that when emojis are inserted in the non-verbal sentences, a new dimension is conducted. It increases the complexity of language that the readers have to decode not only vocabulary, phrases, syntactic structures, but also the emojis themselves as a form of non-verbal cues. As emojis are being defined as “visual cues formed from ordinary typographical symbols that when read sideways represent feelings and emotion” (Rezabek & Cochenour, 1998, p.201), the complement of significant but absent non-verbal cues in mediated communication (Walther & D’Addario, 2001) and words that convey meanings (Oxford Dictionaries, 2015), it is intriguing to explore will emojis actually influence Cantonese Perception; if yes, how does it happen? This study hypothesises that as people tend to phrase a sentence in a linear fashion and accumulate meanings from what they have read (Scovel, 1998), the valence of the emoji at sentence final position will override the original

valence of the non-verbal statement and even alter it. Therefore, readers' perceptions of the same typewritten sentence will vary when emojis are added at the end of the sentences. Thus, the following study will discuss and investigate the influences of emojis on Cantonese perception based on the proposed hypothesis and with reference to Morton's logogen model of comprehension (1969), which suggests that the meanings of words are stored in and can be retrieved from individual logogen, and require different thresholds of activation.

## **2. Relevant Studies**

### **2.1 Parallel Distributed Processing**

McClelland, Rumelhart and Hinton (1987) and Scovel's (1998) articles reviewed on the concept of Parallel Distributed Processing (PDP) model and the significance of such model in language perception. It was observed that several separate but simultaneous and parallel processes are employed when receivers try to understand spoken or written language and such processes are applicable for all levels of linguistic analysis but play a conspicuous role in the perception of words and sentences (Scovel, 1998). It was also suggested that the PDP model "assume information processing takes place through the interactions of a large number of simple processing elements called units, each sending excitatory and inhibitory signals to other units" (McClelland, Rumelhart, & Hinton, 1987, p. 10). That is, our comprehension of certain information is depended on the internal interaction between 'units', and no single unit is responsible for all the information processing. Thus, McClelland, Rumelhart and Hinton hypothesised that the identity of a word is itself distributed in the activations of numerous interconnected units (McClelland, Rumelhart, & Hinton, 1987).

### **2.2 Logogen Model of Comprehension**

Morton (1969) introduced the logogen model of comprehension for the access of words stored in the mental lexicon. It was defined that "the logogen is a device which accepts information from the sensory analysis mechanisms concerning properties of linguistic stimuli and from context producing mechanism. When the logogen has accumulated more than a certain amount of information, a response (...a single word) is made available" (Morton, 1969, p.165). Besides, it was believed that the relation between the logogen system and context system is inseparable, which continuous exchange between the two systems was found (Morton, 1969). Therefore, it is intriguing that how do contextual cues actually affect the meanings and valence of emojis stored in the mental lexicon, which is worthwhile to be studied later.

In his later study, Morton (1979) proposed an adaptation of the old logogen model for the analysis of visual words. It was argued that the adaptation or revision has replaced the old one with three crucial elements: visual input, auditory input and output logogens. The picture recognition system, however, is completely separated in the cognitive system but interactive with the input and output systems (see Appendix). Since emojis are a set of recently rising visual words, the new adaptation is adopted for analysis in this study.

In further support of the study, Rosenbaum (1983) and Scovel (1998) provided an intensive account respectively for the activation of the logogen model. Scovel (1998) elaborated on Morton's (1969) idea in relation to the PDP model, stating that the meanings of words are stored in the logogens, and are likened to individual neuron in an immense neuronal network; it is, when people hear or see a word, they will simultaneously stimulate an individual logogen, or a lexical detection device for the word. While high frequency words are frequently fired and easily activated, low frequency words require high thresholds of activation (Scovel, 1998). Rosenbaum further complemented on this, and suggested that "there are logogens whose activation levels at any given time depend both on the frequency with which they are associated or the recency with which they were last used" (Rosenbaum, 1983, p.837). Rosenbaum's idea here is noteworthy because the meanings and representations of emojis for the decoders are always associated with how they were previously used and how often they were encoded with specific meanings. Therefore, the meanings of such representations stored in the mental lexicon may vary due to individual experience, which will also be discussed later.

### **2.3 Reasons for Choosing the two Emojis as Stimuli**

Novak, Smailović, Sluban, & Mozetič (2015) studied and formed a sentiment lexicon among the 751 most frequently used emojis, and it was called the "Emoji Sentiment Ranking" (Novak, Smailović, Sluban, & Mozetič, 2015). It was found that the emojis 'face with tears of joy' and 'smiling face with smiling eyes' ranked in number one and seven respectively. The study suggested that the emojis ranked from number two to six are

either not facial expressions or have distinctive meanings, such as the ‘smiling face with heart-shaped eyes’ (Novak, Smailović, Sluban, & Mozetič, 2015). Thus, the following study will take the two emojis, ‘face with tears of joy’ and ‘smiling face with smiling eyes’ as stimuli since these two emojis are the only two that are opened for interpretation in the top ten ranking of the most prevalently used emojis on twitter in 2015.

The ranking was further consolidated by the data retrieved from Emojitracker, a website that recorded the most updated emoji use on twitter around the world. It was found that the rankings of the two proposed stimuli are still in number one and seven, which they have received approximately 1912212960 and 502585510 times of use as the data changes in every second (Emojitracker, 2017) (see figure 2).

Interestingly, Oxford Dictionaries announced that the pictograph, ‘face with tears of joy’ was chosen as word of the year in 2015 and explained the reasons for it. It was found that the emoji was most frequently used in 2015, which “[it] made up 20% of all the emojis used in the UK in 2015, and 17% of those in the US: a sharp rise from 4% and 9% respectively in 2014” (Oxford Dictionaries, 2015). It was also suggested that emojis in the contemporary world have been “embraced as the nuanced form of expression, and one which can cross language barriers” (Oxford Dictionaries, 2015).

## **2.4 Walther and D’Addario (2001)**

In Walther and D’Addario’s (2001) article reviewing the functions of emoticons, the older version of emojis, and the inextricable relationship between emoticons and verbal messages in computer-mediated communication (CmC). It was suggested that emoticons serve to complement the absent but significant non-verbal cues in CmC, such as “head nob, smiles, eye contact, distance, tone of voice, and other non-verbal behavior [that] give speakers and listeners information they can use to regulate, modify and control exchanges” (Kielser, Siegal, & McGuire, 1984, p.1125). It was also argued that there were insufficient non-verbal exchanges in electronic communication. Therefore, using emoticons, suggestive of facial expressions in CmC can add a paralinguistic component to a message, and complement what is necessary but absent in the CmC.

While the above articles preliminarily summarised some of the fundamental mechanisms and related concepts for language perception, introduced the significance of emoticons (less developed form of emojis) in CmC and presented some of the results in previous studies, indicating the relation between emojis and language perception, the following study will base on what were suggested to further investigate how does the emoji placed at the end of a sentence override the valence of the non-verbal statement and foster alteration, and what actually determines the alteration, by presenting a new experiment.

## **3 Methodology**

### **3.1 Participants**

40 Cantonese native speakers among two age groups, 20 to 25 years old and older than 40, were recruited for the experiment. The general age difference between the two age groups could be considered as generational difference, which means the subjects in the two groups were belonged to two completely separate generations. The younger group that being interviewed was consisted of 20 year-three students who were studying the English Major in Shue Yan University, including ten males and ten females, while the older group was consisted of 20 Hong Kong citizens who aged above 40 years old. The gender proportion in this group was the same with the previous group. In consideration of equality, this study corporated with the subjects from the two gender groups with equal sample size, and the sample size remained at 40 subjects in total.

### **3.2 Materials**

The materials included 5 sets of Whatsapp conversation with different contexts. In each set, three identical pieces of conversation with same wordings but different emojis were presented. The first piece of conversation ended without any emoji. The ‘face with tears of joy’ emoji was added at the end of the last sentence in the second piece of the conversation; and the ‘smiling face with smiling eyes’ emoji was added to the third piece of conversation. Punctuations and gender markers for the non-verbal statements (last sentence of the conversation) were intentionally omitted so as to avoid bias since punctuations could affect the tones and thus the valence of the statements, and certain gender markers might have been linked with certain linguistic behaviors or emotions in the society.

The first set of material was a conversation between different group members in a Whatsapp group chat. They were discussing the division of labour in the Psycholinguistic project which included five parts. While the other four members had already chosen the parts that they were going to complete, Student D stated that she/he had no choice but only the leftover part. The group chat ended with D saying that “我有得揀咩” [ngo2 yau2 dak1 gaan2 me1], meaning what choice do I have. Detailed set 1 is illustrated below (complete material is given in full in the Appendix):

**Student E:** 1. 大家想做邊 part [daai6 gaa1 soeng2 zou6 bin1 pa:t]  
(Which part would u guys select)  
2. Intro, lit review, experiment, analysis, conclusion  
(Introduction, literature, experiment, analysis and conclusion)

**Student A:** Lit Re  
(Literature Review)

**Student B:** Conclusion

**Student C:** Analysis

**Student E:** 咁 D 做 Experiment? [gam5 D zou6 iks'perimənt?]  
(Student D will choose experiment then?)

**Student D:** 我有得揀咩 [ngo2 yau2 dak1 gaan2 me1 (face with tears of joy stimulus) or (smiling face with smiling eyes stimulus)]  
(What choice do I have)

### 3.3 Procedure

The subjects were interviewed and shown the visual stimuli, ‘face with tears of joy’ and ‘smiling face with smiling eyes’ face to face. They were first asked to rate on the scale from -1 to 1 (from negative to neutral 0 to positive) for the non-verbal statements from the Whatsapp conversation without any stimulus. Later, they were asked to selected their preference from positive, negative or remain unchanged after inserting the selected stimuli at the sentence final position. A formula is thus formed and exemplified as follows:

$$-1/0/1(P/N) . \quad (1)$$

Attitudinal changes were recorded for the analysis and discussion. The reason of why the above formula was adopted is because it can explicitly show the attitudinal changes of the subjects without yielding any ambiguous result like 0 (if a subject rated 1, indicating positive for the non-verbal statement, rating -1 after inserting the stimulus would only cause a 0, which is ambiguous and unanalytical. It does not mean that the statement is neutral). To put it in a more readable way, a detailed procedure is demonstrated as follows: First, the first set of conversation ends without emoji was shown to the subjects. The subjects were responsible for rating on the scale from -1, 0 to 1, which indicate the subjects’ negativity, neutrality and positivity towards the last response in the conversation. After rating the statement, an identical Whatsapp conversation but with the “face with tears of joy” stimulus added was shown. Afterwards, the same conversation but with “smiling face with smiling eyes” stimulus was shown. The subjects were asked to consider whether the meaning has become more positive, more negative or remained unchanged. An indicator P (positive) or N (negative) was used to mark on the scale if changes of feelings occurred. No indicator was marked if the subject reported no change in feeling towards the stimuli. For instance, if the subject has chosen -1 in the first step but he later holds a positive feeling after adding the emoji. ‘-1P’ will be stated in the report for the first stimulus, and so on and so forth.

## 4. Results

### 4.1 Attitudinal Changes towards the Stimuli

**4.1.1 Age above 40.** Figure 1 and 2 illustrate the attitudinal changes of the older group (aged above 40) towards the non-verbal statement and the two stimuli, ‘face with tears of joy’ and ‘smiling face with smiling eyes’. It is intriguing to find out that all the subjects from the older group rated positively (100%) after inserting the two emojis at sentence final positions. No matter how the subjects felt in the first piece of conversation,

which ended without an emoji, all of the older participants pointed out that the sentences had definitely been turned from negative or neutral to positive after adding the two emojis.

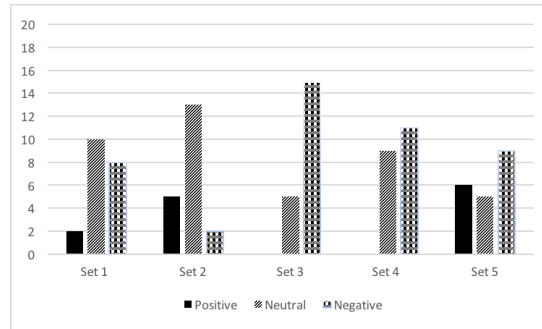


**Fig. 1.** Attitude of the subjects in the older group towards the non-verbal statements.

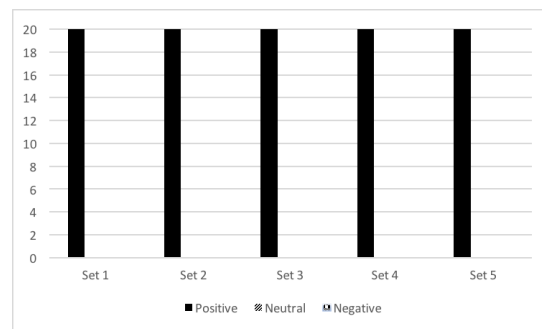


**Fig. 2.** Attitude of the subjects in the older group towards ‘face with tears of joy’ and ‘smiling face with smiling eyes’

**4.1.2 Younger Group (20-25).** The younger age group, however, carried divergent opinions compared to that of the older group. Figure 3, 4, and 5 illustrate the attitudinal changes of the younger group (aged between 20 and 25) towards the non-verbal statement and the two stimuli. The results showed alteration of readers’ perception of the same typewritten content after inserting the two emojis. It seemed that as an emoji that originally possess positive valence, ‘face with tears of joy’ can give a positive meaning to the non-verbal statement since there was constant rise in the rating of positivity (from 1 to 7 rates in set one; 4 to 7 rates in set two; 3 to 9 rates in set three; 0 to 9 rates in set four & 2 to 15 rates in set five) while there was constant decline in negativity after the ‘face with tears of joy’ emoji was inserted. It is notable that the negativity was completely erased in set 3 and 5 that no one rated the statement as negative when the tears of joy emoji was added. It is also remarkable that there was a sharp drop in negativity in set 4, in which it plummeted from 16 rates to merely 4 rates.

However, the same phenomenon could not be applied on the case of ‘smiling face with smiling eyes’. It seems that even the emoji itself originally carries positive valence, it will only make a negative effect to the non-verbal statement. From the results of the younger group, the rating of negativity soared remarkably after the ‘smiling face with smiling eyes’ emoji was added, no matter what their original ratings for the non-verbal statements were. All of the materials received the rating of negative from at least half of the subjects in this group and the mean number of ratings remained at 13.4 over 20, a comparatively high rating among the subjects.

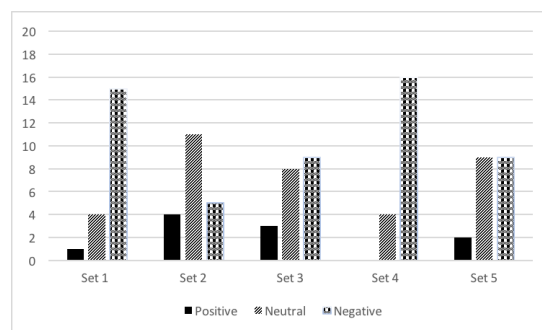


**Fig. 3.** Attitude of the subjects in the younger group towards the non-verbal statements.

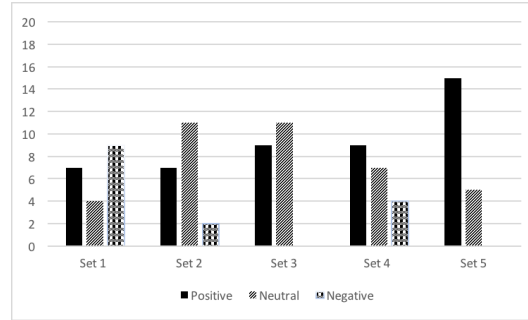


**Fig. 4.** Attitude of the subjects in the younger group towards ‘face with tears of joy’.

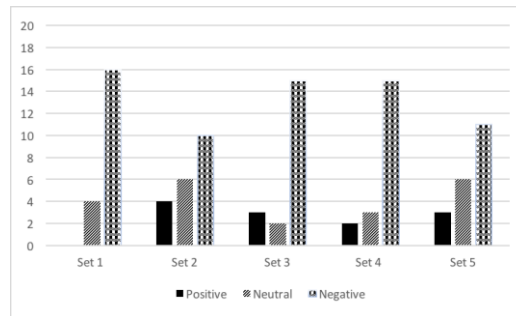


**Fig. 5.** Attitude of the subjects in the younger group towards ‘smiling face with smiling eyes’.

## 4.2 Individual Result

In order to examine the variation, individual result has to be examined. Figure 6 illustrates the individual preference and their attitudinal changes of subjects in the younger group towards set 4 (set with most notable variation) by using the mentioned formula:

$-1/0/1(P/N)$ . It seems that no matter what their preferences were for the non-verbal statement, ‘face with tears of joy’ emoji would only make a statement more positive, whereas ‘smiling face with smiling eyes’ would make a sentence more negative, even the sentence was rated as negative at the first stage.

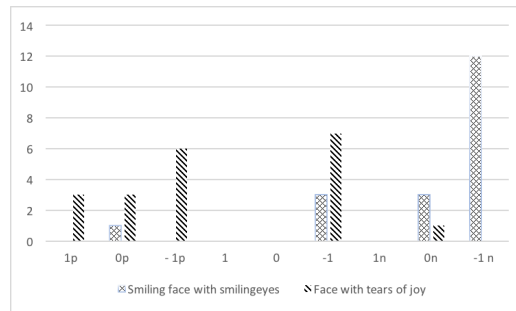


**Fig. 6.** Individual attitudinal change of the subjects in the younger group towards the stimuli.

## 5. Discussion and Conclusion

As stated, it is hypothesised that the valence of the emoji at sentence final position will override the valence of the whole non-verbal statement and even alter it. This alteration, however, can only be found in the younger group, whereas all subjects in the older group rated positively when emojis were inserted at sentence final position. To explore the difference between the two groups, the accumulation and the override of meanings, and the significance of sociocultural and contextual cues in Cantonese perception will be discussed in the following, with reference to Spreading Activation and Morton’s (1969) logogen model of comprehension, so that when certain emojis are inserted at the end of a sentence, meaning of that sentence will differ from the original textual content.

## 5.1 The Accumulation and override of meanings

Emojis convey distinctive meanings in both positive and negative ways based on their original valence. As suggested before, emojis, as a set of visual words, can also fit in Morton's (1979) adaptation of the logogen model, in which their meanings or valence are deduced from inputs and stored in the logogens. However, the representations of such emojis might vary based on what readers' have perceived from the inputs, and when the readers constantly expose to such meanings, they might immediately activate the representations for such emojis without any effort or a high threshold. It turns out that when emojis are inserted at the end of the sentence and their meanings are retrieved from the mental lexicon, they can give new interpretation to the decoders, especially when it is suggested that the meanings of a sentence accumulate (Scovel, 1998). As a result, emojis are perceived as a whole with the statement but not as a part. The primary results of the experiment in this study seem to reject part of what Walther and D'Addario's (2001) study has found, in which it is suggested that a positive valenced emoji can never reduce the negativity of a sentence, which it can only enhance the positivity, and it is the same for a negatively valenced emoji. However, the results of this study show that the presence of emojis affect the meaning of the sentences. When the positive emoji 'face with tears of joy' was inserted at the end of the sentences, negativity was being reduced, and this is shown explicitly in set 3. After inserting the 'face with tears of joy' emoji at sentence final position, near a half of the subjects saw positive changes in rating for the statement which was initially rated as negative.

When emojis are inserted in the non-verbal statements, they serve as an important role for the readers to interpret the meaning of the statement. While reading a non-verbal statement, sometimes it is hard to define the tone of it. Adding an emoji can convey the connotation of the statement with readers' own interpretation according to their own sociocultural background and communicative purposes, and that may explain why the result in the two groups differ and even a positive valenced emoji like 'smiling face with smiling eyes' will causes poignantly negative feeling.

## 5.2 The Interaction of Sociocultural and Contextual Knowledge in the Logogen System

Another main finding of the experiment was that for the student group, the positively valenced emoji 'smiling face with smiling eyes' had caused great negativity. That is, what they perceived as positive or neutral was changed to negative after the emoji was inserted, whereas there was no such change in the older group. For them, employing emojis will simply increase the positivity in the statements. This result can contribute to meanings constructed by sociocultural knowledge, which are stored in the logogens and their interaction with the context system as 'units' (McClelland, Rumelhart, & Hinton, 1987). According to Emojipedia, an emoji reference that documents history of emojis and their meanings in the Unicode standard, and has been called 'the world's number 1 resource on emojis', the supposed meaning of this 'smiling face with smiling eyes' (smiley emoji) is to show "a true sense of happiness" (Emojipedia, 2017) (See Appendix). The other website, makeuseof.com, a modern guide to modern gadgets and technology also states that the emoji is "commonly used for happiness or positive" (Guinness, 2015). It seems that the two tested emojis both possess a positive valence. If it is the case, then adding these emojis at the end of a sentence will simply benefit the conversation. However, it is far more complicated than that.

In the today society, especially in Hong Kong, people may use this 'smiley face' as a buffer of sarcasm or an insult, and that is why some people may perceive it as negative even if it is a 'smiley face' and belonged to 'happy prime' originally. The idea is further accentuated and exemplified by an article talking about the anecdote of the usage of the 'smiley face' emoji in the Hong Kong society from Topick, a local online newspaper (See Appendix), saying that how have the emoji become creepy and sarcastic when it comes to certain situations. For example, in the mentioned situation in the article, a boyfriend is late for his date so that he sends his girlfriend a text saying that he is going to be late. If she replies a 'smiley face', it does not necessarily mean that she is fine with or happy about it. It is sarcastic in a sense that she is implying her anger. In another mentioned situation, the girlfriend asks if her boyfriend is free tomorrow night. He replies her that he has got things to do, then the girl replies with 'okay' and the 'smiley face' at the end of the text. Again, the smiley emoji here is used as sarcasm or a way to express dissatisfaction. This function and meaning or valence of the 'smiley face' emoji seem to be generalized by some of the members in Hong Kong, at least by the subjects in the younger group. Their judgments are more or less influenced by the sociocultural knowledge available in their speech environment. This is justified by the results of the experiment. For most of the materials, at least half of the subjects in the younger group interpreted the statements as more negative after the 'smiley face' emoji was added, and that is because they were affected by their shared sociocultural understanding towards the emoji. Thus, it made them think that the emoji was negative in almost all situations. As for the older group, the results were completely different. No matter how the subjects perceived in the first piece of Whatsapp conversation,

which ended without an emoji, all of them reported that their feelings only altered from negative, neutral or positive to more positive.

As for the ‘tears of joy’ emoji, according to the [emojipedia.com](http://emojipedia.com), it is often mistaken as tear of sadness. In fact, the supposed meaning for this emoji is laughing too much that “it is crying out of happiness” (Emojipedia, 2017). The other website, [makeuseof.com](http://makeuseof.com) notes that this tears of joy is meant to show laughter, and it is closely related to LOL (laugh out loud) (Guinness, 2015).

For further understanding of the sociocultural cues. There is a post from a writer who is called Bluegodzi in Hong Kong, explaining the importance of the tears of joy emoji. He overheard a guy on the phone with his girlfriend, saying that “What is wrong with my attitude? I have already sent you a tears of joy emoji! What do you want from me?” “I have to work and do not have time to deal with your nonsense!”, and before he hung up he yelled “tears of joy!” (Bluegodzi, 2016) (See Appendix). Even though we do not know what they were texting or talking about before, this situation here can still show us how people in Hong Kong see tears of joy emoji as a positive indicator. Also, this situation can justify our results from the experiment as well. For all five sets of material, almost half of the participants (younger group) perceived tears of joy emoji as an emoji to reduce negativity, which means that at least half of them stored this sociocultural understanding with the meaning of such emoji in their mental lexicon. Such sociocultural knowledge and meanings of words are stored in their logogens. According to Saville-Troike (2003), “each identity in a given context is associated with several appropriate verbal and nonverbal forms of expression” (p.17). So for the older group, since they were not in the same speech community with the younger group, they were not exposed to the same sociocultural background and speech environment, and naturally these cues were not stored and activated in their logogens. That might be why even if ‘smiley face’ emoji was added at the end of the statements, they did not see it as negative nor it will change the meaning of the utterance. They only perceived the original meaning of the emoji (positive). On the contrary, the younger group was exposed to the same speech community and they shared the same linguistic norms and language use. That seems to be why they have stored the original meanings, as well as the socioculturally constructed meanings of the emojis, and sometime the frequency and recency of activations make the constructed meanings so powerful that they may override the original valence of the emojis and even the non-verbal statements. Therefore, when the subjects saw the emojis after the statements, the logogen system was immediately triggered, meanings were activated (both original and constructed) and interacted with the context system, so that the ‘appropriate’ meaning was selected from the mental lexicon and being applied.

Another point worth mentioning is that these two groups were from different generations, so they were exposed to different speech communities inevitably. For the younger group, they were all year three students from the same university, which means most of them had certain shared background as they were studying in the same school and were around the same age. As for the older group, they were all aged above 40 and were working in different industries. Obviously, these two groups belong to different speech communities due to their different exposures. As much as they are in different speech communities, they still have some shared background at a point. For example, they are both Hong Kong citizens whose first language is Cantonese, and their linguistic competence is not going to be affected because of the incomprehensibility of the emojis; it is only that their speech performance will differ. It is because these changes of meanings due to sociocultural cues are part of the speech performance instead of competence. Speech performance focuses on the complexity and diversity of language use, as well as the social phenomenon, while competence focuses on grammar and the rules of language itself. Adding an emoji at the end of a statement will not change or affect the grammar of the sentence, but it will increase the diversity and complexity of interpreting the statement, and people will often wondering “how” and “why” the particular emoji is being used.

## 5.3 Limitation

**5.3.1 Confounding Variables.** There are two main factors which may influence the test result, yet not able to be controlled. First, it is the gender difference on emoji perception among different participants. Research suggests that women are more capable of perceiving and responding to positive facial emotions at an automatic processing level, which “[they] showed a significantly stronger positive evaluated shift in the happy prime condition than men” (Uta-Susan, Kersting, & Sulsow, 2012). As the two stimuli, ‘face with tears of joy’ and ‘smiling face with smiling eyes’ in the experiment both belong to the happy prime condition based on their original valence, female participants may be more aware of both the original and the socioculturally constructed meanings of the emoji compared to that of the male participants, so that they might respond differently in the experiment. This idea is further consolidated by Hwang’s (2014) article, indicating that “females used emoticons more for expressing emotion/intimacy and managing message meaning than males” (p.2). It is suggested that females are more experienced with the emoji practice and are effective in managing the meanings of those nonverbal cues in mediated communication. This familiarity, moreover, echoed directly with the logogen model,

in which the activation of an individual logogen depends solely on “the frequency with which they are associated” (Rosenbaum, 1983, p.837). The more familiar they are with the usage of emojis, the more capable females are to perceive the intended meaning of them. Thus, there is gender difference in sensitivity of different emoji perception, including the two stimuli.

Second, there is individual difference in perceiving different emoji based on the past experience of the participants. In spite of frequency, Rosenbaum (1983) also points out that “the recency with which they were last used” is significant for the activation of logogens. Their personal experience of using the emoji and similar experience with the given context in the experiment may contribute to different result. And thus, generate variation in perception within a single set of experiment.

**5.3.2 Limitation of Experiment Design.** This study has several limitations observed. First, the experiment was not carried out in an isolated and quiet environment, in which some participants got distracted in the middle of the test by the surroundings, including their classmates and noise outside the classroom. The environmental distractions might have created a pause and influenced the valence of the participants. And thus, hindered the perception of the stimuli.

In addition, there are limited resources, such as limited time and network for the experiment, which makes only five sets of tested material in the experiment within a short period of time.

**5.3.3 Recommendation.** Noise from the surrounding, participants not focusing, and the limited resources are the main distractions in the experiments. It is suggested to conduct similar experiments in a private space such as non-occupied classrooms or language laboratory in the research complex, so that the participants can stay focus on the experiment without getting distracted.

Furthermore, restricting the use of personal cell phones is recommended, so that the participants could focus themselves solely on the experiment and reduce the possibilities of getting distracted.

### 5.3.4 Conclusion

The results of this study support the hypothesis and report that positive emojis will enhance positivity of the non-verbal statements. However, not all the positive emojis have such an influence. The results suggest that they might be affected by the sociocultural and contextual understandings, which they are also stored in the logogen system and they interact constantly with the context system to generate ‘appropriate’ representations, just like the ‘face with tears of joy’ and ‘smiling face with smiling eyes’ emojis. The current study primarily investigates the influences of particular emojis on Cantonese perception and rejects part of what Walther and D’Addario (2001) has found. It seems that as a set of uprising paralinguistic elements, the usage and understanding of emojis change day by day, and its influences on languages should be further studied.

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## Appendix

### Full Sets of Material

#### Set 1

**Student E:** 1. 大家想做邊 part [daai6 gaa1 soeng2 zou6 bin1 pa:t]  
(Which part would u guys select)  
2. Intro, lit review, experiment, analysis, conclusion  
(Introduction, literature, experiment, analysis and conclusion)

**Student A:** Lit Re  
(Literature Review)

**Student B:** Conclusion

**Student C:** Analysis

**Student E:** 咁 D 做 Experiment? [gam5 D zou6 ɪks'pɛrɪmənt?]  
(Student D will choose experiment then?)

**Student D:** 我有得揀咩 [ngo2 yau2 dak1 gaan2 me1 (face with tears of joy stimulus) or  
(smiling face with smiling eyes stimulus)]  
(What choice do I have)



#### Set 2

**A:** 1. Bb 一陣食咩呀 [bi: bi: jat1 zan6 sik6 me1 aa3]  
(Babe, what're we gonna eat)  
2. 好肚餓呀 [hou2 tou5 ngo6 aa1]  
(I am so hungry)  
3. 好多野想食 [hou2 do1 je5 soeng2 sik6]  
(There are many things that I want to eat)

**B:** 你話是啦 BB [nei5 waa6 si6 laa1 bi: bi:]  
(up to you to decide, babe)

**A:** 無所謂 食咩都得 不過唔好日本野同泰國野 [mo4 so2 wai6 sik6 me1 dou1 dak1 bat1 gwo3 ng4 hou2 jat6 bun2 je5 tung4 taai3 gwok3 je5]  
(I am okay with everything... except Japanese and Thai cuisines)

**B:** 咁你揀啦 [gam2 nei2 gaan2 laa1 (face with tears of joy stimulus) or (smiling face with smiling eyes stimulus)]  
(You choose then)



### Set 3

**A:** 我岩岩係 Fanfare 買左機票去日本 [ngo5 ngaam1 hai5 'fæ nfeə maai5 zo2 gei1 piu3 heoi3 jat6 bun2]  
(I just bought a ticket to Japan in Fanfare)

**B:** 又去? 你唔係上個月先去完咩? [jau6 heoi3? nei2 ng4 hai6 soeng6 go3 jyut6 sin1 heoi3 jyun4 zaa3 me1??]  
(Again? You just went there last month)

**A:** 今次真係好抵!!! [gam1 ci3 zan1 hai6 hou2 dai2!!!]  
(It's really worth it this time)

**B:** 幾錢呀 [gei2 cin2 aa6]  
(how much)

**A:** 3000 咋 [3000 zaa3]  
(3000 only)

**B:** 咁你差我個 500 幾時先還 [gam2 nei2 caa1 ngo2 go5 500 gei2 si4 waan4 (face with tears of joy stimulus) or (smiling face with smiling eyes stimulus)]  
(When will you return the 500 dollars that you owed me?)



#### Set 4

**A:** Bb 唔好嬲啦 我知道錯架啦 [bi: bi: ng4 hou2 nau1 laa1 ngo2 zi1 dou3 co3 gaa3 laa3 ]  
(Babe, don't be angry any more. I know what I did wrong)

**B:** 無嬲啦 [mo4 nau1 laa1]  
(I am not angry any more)

**A:** 1. 原諒我啦 無下次架啦 [jyun4 loeng6 ngo2 laa1 mo4 haa6 ci3 gaa3 laa3]  
(Forgive me please, I won't do it again)  
2. 係咪仲嬲緊我呀 [hai6 mai3 zung6 nau1 gan2 ngo2 aa3]  
(Are you still mad at me)

**B:** 都話無嬲 [dou1 waa6 mo4 nau1 (face with tears of joy stimulus) or (smiling face with smiling eyes stimulus)]  
(I said no)



#### Set 5

**A:** 1. 喂 [wai3]

(Hey)

2. 咩係 Universal Grammar [me1 hai6 ˌjuːnɪˈvɜːsəl ˈgræmə]  
(What is Universal Grammar)

**B:** 即係 a certain set of structural rules are innate to humans, independent of sensory experience [zik1 hai6 ə ˈsɜːtn sɛt ɒv ˈstrʌktʃərəl ruːlz ɑːr ɪˈneɪt tuː ˈhjuːmənz, ˌɪndɪˈpɛndənt ɒv ˈsensəri ɪksˈpiəriəns]

(It is a certain set of structural rules are innate to humans, independent of sensory experience)

**A:** 咁咩係 innateness? [gam3 me1 hai6 ɪˈneɪtnəs?]  
(What is innateness then?)

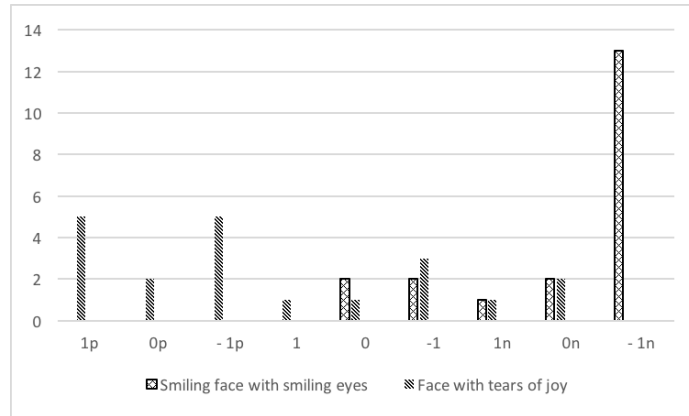
**B:** Pre-existence of knowledge [priː-ɪgˈzɪstəns ɒv ˈnɒlɪdʒ]

**A:** 咁咩係 Hemispherectomy? [gam3 me1 hai6 Hemispherectomy]  
(What is Hemispherectomy then?)

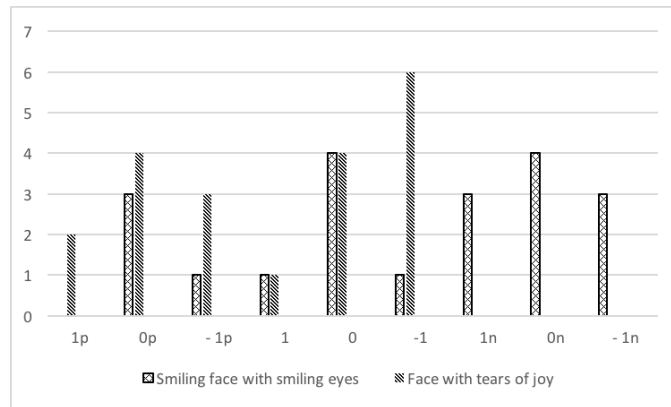
**B:** 你到底有無上過堂 [nei2 dou3 dai2 jau5 mo4 seong5 gwo3 tong4 (face with tears of joy stimulus) or (smiling face with smiling eyes stimulus)]  
(Have you ever attended classes)



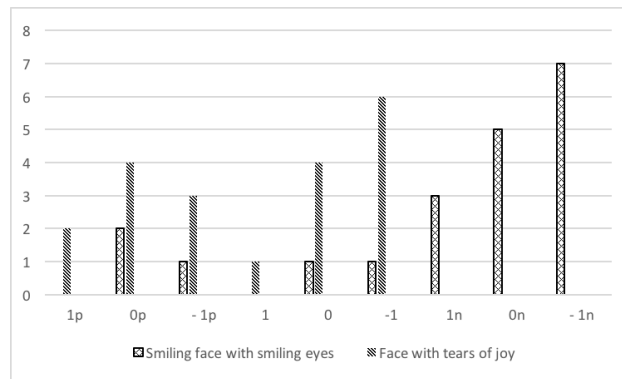
Complete Results for Individual Attitudinal Change in the Younger Group.



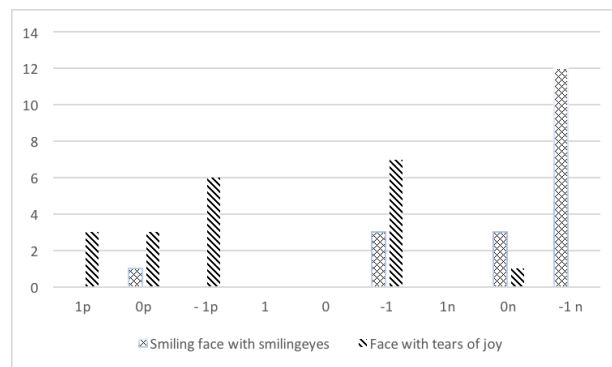
Set 1.



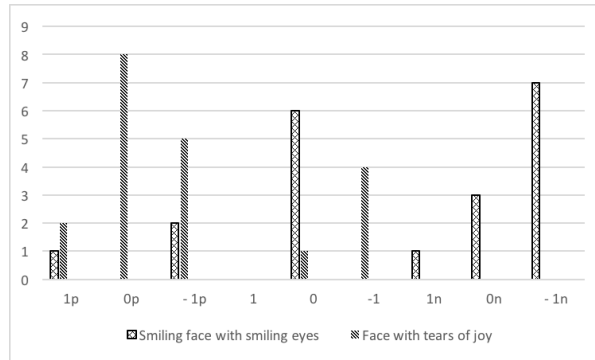
Set 2.



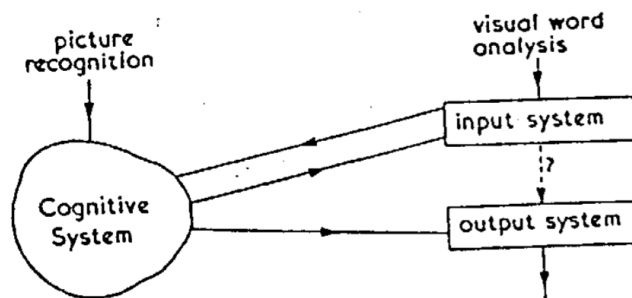
Set 3.



Set 4.



Set 5.



Morton (1979)'s new adaptation for the logogen model of comprehension.

|              |              |             |              |             |             |             |             |             |             |
|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 😂 1912212960 | ❤️ 893663602 | 😄 713280906 | ❤️ 660829865 | 🌱 615635522 | 😬 543796430 | 😬 502585510 | 😬 450426228 | 💖 395412313 | 😬 390142566 |
| 😬 354933750  | 😬 340763798  | 👉 317765819 | 😬 291897417  | 😬 283983454 | 😬 277949057 | 📱 225812444 | 😬 222716347 | 👍 194657839 | 😬 187494914 |

Data retrieved from emojitracker.com, as at December 7

不過咁，世上仲有一種無論用乜嘢emoji，都能夠將真實情感切切實實傳遞去你心靈嘅生物。就係女朋友！

譬如

“

仲塞緊車，可能要遲小小到...  
(笑笑)

”

雖然係笑笑，但你亦感受到一股尖刺般嘅殺氣由手機螢幕度飛射出黎！另外，當我睇親女朋友打嘅文字訊息，唔知點解個腦度會自動轉化成錄音，用佢獨有嘅語氣播返出黎。

所以，面具對於女朋友係不適用的如果你遲到，女朋友send個(笑笑)畀你，代表佢瞞。如果佢send個(𩶛𩶛)畀你，代表you already dead dead...

你遲到，但女朋友會笑住同你講唔緊要，係一件現實無可能發生嘅事黎。

Situation 1 as mentioned by Topick

Article/1412401/不再表錯情 拆解Emoji%20的真正意思

話題 精明消費 健康 親子 休閒 職場 新聞 商業解碼

## 其實係...

**得威 詢問處職員解答問題 頭昏腦脹 頭暈**

一個普通笑臉的Emoji圖案，你會如何解讀呢？近日有高登爸打發文，指當見到女友send用上笑臉的Emoji時，就知道今次大鑊鳥！

該帖一出隨即引起大批網民熱議，不少網民都指自己深有同感，「一見到個心都離一離」、「見到張圖已經嚇到係張凳跌左落地」、「夜媽媽睇呢個post覺得好恐怖」。

甚至有人指，

“最恐怖係話唔緊要再加呢個表情，諗起都心寒...”

女：聽唔得啱得啱？  
 男：約左舊同事出去食飯 😊



女：咁好喇

21/4/2016

Situation 2 as mentioned by Topick

# Acoustic Characteristics of English Word Stress Produced by English and Mandarin speakers: They Said “OBject” or “obJECT”?

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**Abstract.** Mandarin speaking second language (L2) learners of English often experience difficulties producing English stress contrasts. The study investigates whether L2 learners’ native language (L1) influences their use of suprasegmental correlates (duration, Fundamental Frequency – F0, intensity) when producing non-native word stress. Two experiments are included in the study. In the first experiment, it compares the acoustic characteristics (duration, average F0, F0 peak, F0 range, average intensity, intensity peak, and intensity range) of English stress production by six standard Mandarin (SM) and six standard American English (SAE) speakers. The stimuli were disyllabic English noun-verb word pairs and each target word was elicited from a frame sentence. Results showed that both SAE and SM speakers utilized all three suprasegmentally correlates to distinguish stressed and unstressed syllables. However, SM speakers did not successfully manipulate some acoustic variables to approximate native-like stress patterns. Compare with SAE speakers, SM speakers produced stressed syllables with relatively shorter duration and lower intensity peak. They signaled stress using a falling tone with a greater expansion in pitch and intensity range than native speakers. To investigate the effects of L1 on L2 speech production, the study examines the acoustic properties of SM lexical prosody produced by native SM speakers. The stimuli were disyllabic Mandarin words differing in whether the second syllable carries lexical tones. Results indicated that SM demonstrates word-level stress contrasts. Syllables carrying tones were significantly more prominent than toneless syllables in terms of almost all acoustic variables. In non-final positions of utterances, when both syllables carry lexical tones, the first and second syllables receive primary and secondary stress respectively. It is possible that SM speakers transferred the acoustic correlates (e.g., F0 range and intensity range) that are phonological important to L1 lexical identity to L2 stress production.

**Keywords:** English stress production, acoustic correlates, second language acquisition, native language transfer, Mandarin

## 1. Introduction

Word-level stress refers to the relative prominence of a syllable in a word (Roach, 2008). Perceptually, stressed syllables in English are manifested by full vowel quality, longer duration, higher pitch (Fundamental Frequency – F0), and greater loudness than unstressed syllables (Roach, 2008). Difficulties in English stress production by native speakers of Standard Mandarin (SM) have been extensively documented (Altmann, 2006; Bian, 2013; Chen, 2013; Chen et al., 2001; Chen et al., 2008; Deterding, 2010; Hua, 2016; Juffs, 1990; Lai, 2008; Liu, 2017; Zhang, 2010; Zhang et al., 2008). A typical observation is that SM speakers show strong tendency to stress syllables using higher pitch register than native English speakers, which might result in the interference of the native tonal system (Chen et al., 2001; Juffs, 1990; Lai, 2008; Zhang et al., 2008).

Research (Ching & Yi, 2001; Gu et al., 2003; Lin & Yan, 1980; Lin & Yan, 1990; Lin et al., 1984; Shi, 2004; Xu et al., 2000) has shown the existence of lexical stress contrasts in SM, particularly the occurrence of the neutral-toned syllables (Lin & Yan, 1980; Lin & Yan, 1990), which exhibit similar acoustic properties as English unstressed syllables. The present study investigates whether, and to what degree, the suprasegmental properties that correlate with L1 lexical identity affects L2 stress production. Specifically, three acoustic correlates will be investigated: duration, F0, and intensity. The study attempts to examine the following research questions: 1) What are the acoustic characteristics of English word stress produced by SAE and SM speakers? 2) Whether SAE and SM speakers differ with regard to the use of acoustic correlates in stress production? 3) What are the acoustic characteristics of SM word-level tone contrasts produced by native SM speakers? 3) Whether SM speakers’ L1 prosodic properties affect their production of non-native word stress?

## 2. Literature Review

English is a stress language. A disyllabic content word receives stress on the initial or final syllable. Stress location might affect word meanings (e.g., INcrease /'in.kɹɪs/ – ‘growth’; inCREASE /in'kɹɪs/ – ‘to go up’). Previous acoustic examinations of stress perception and production (Fry, 1955; Fry, 1958; Beckman, 1986; Lai, 2008; Saha & Mandal, 2015; Zhang et al., 2008) indicate that stressed syllables are primarily associated with longer duration, higher pitch, greater intensity, and unreduced vowel quality in comparison with unstressed syllables.

SM is a tonal language. In SM, there are four phonemic tones and a non-phonemic tone (neutral tone) (see Figure 1). Tones, the pattern of pitch changes, convey differences in word meanings. Pitch refers to listeners’ perception of F0, which is the primary acoustic correlate of tone (Lin, 2007). Some scholars (Duanmu, 2007; Lin, 2007) argued that SM has stress contrasts. Duanmu (2007) proposed two SM disyllabic patterns: Full-Full and Full-Light (see Table 1). A full syllable has a lexical tone and unreduced vowels. It is manifested by the expansion of time duration, pitch range, and an increase of loudness (Duanmu, 2007; Lin, 2007). A light syllable has a neutral tone. It is weakly and quickly articulated (Chen & Xu, 2006).

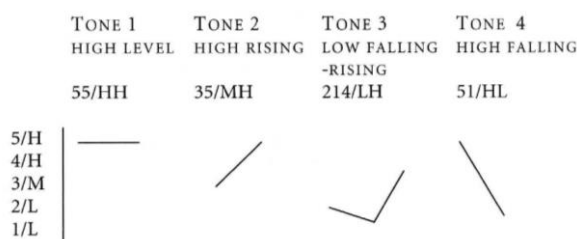


**Fig. 3.** Pitch level and contour of four phonemic tones in SM (Lin, 2007, p.95).

In a Full-Full disyllabic structure, both syllables receive stress, namely primary stress and secondary stress. However, it is unclear which syllable receives more prominence and SM speakers’ judgments often vary (Duanmu, 2007; Lin, 2007). Duanmu (2007) suggested that such difficulty arises from the fact that F0, which is a significant phonetic cue to stress, is used for perceiving tones to distinguish word meanings. Duanmu (2014) proposed that the 2-1 (here, “1” indicates secondary stress, “2” indicates primary stress) stress pattern is used only in final positions. In non-final positions, there are only two stress patterns, namely, 1-2 and 1-0 (here, “0” indicates lack of stress) (2014).

In contrast, the Full-Light disyllabic structure demonstrates the most uncontroversial exhibition of word stress in SM (Duanmu, 2007; Lin, 2007). The occurrence of the neutral tone has been claimed to indicate the most common interaction between tone and stress in SM (Lin, 2007), because neutral-toned syllables are perceptually less prominent than syllables bearing phonemic tones. Lin and Yan (1990) investigated native speakers’ production of minimally contrastive SM word pairs (examples see Table 1) which only differed in whether the second syllable carries a phonemic tone or a neutral tone. Results (1990) suggested that when the second syllable is neutral-toned, the vowel is significantly shortened, compared with that when the syllable has a lexical tone.

**Table 1.** Standard Mandarin Word Contrasts.

| Word | Syllable Pattern | PĪNYĪN       | IPA           | Meaning               |
|------|------------------|--------------|---------------|-----------------------|
| 地道   | Full-Full        | <i>dìdào</i> | /tᵢ₅₁.tau₅₁/  | Noun. Tunnel.         |
|      | Full-Light       | <i>dídao</i> | /tᵢ₅₁.tau/    | Adjective. Authentic. |
|      | Full-Full        | <i>zìhào</i> | /tsᵢ₅₁.xau₅₁/ | Noun. Font size.      |
| 字号   | Full-Light       | <i>zìhao</i> | /tsᵢ₅₁.xau/   | Noun. A famous brand. |

Previous studies (Chen et al., 2001; Juffs, 1990; Lai, 2008; Zhang et al., 2008) suggested that the L1 tonal system heavily influences SM speakers’ L2 stress production. Zhang et al. (2008) found that although SM speakers could successfully produce duration and intensity differences similar to AE speakers, they produced “significantly less native-like stress patterns” (p. 4498) for other correlates. When producing stressed syllables, SM speakers tended to use higher pitch register compared to AE speakers, which echoes the observation by Chen et al. (2001). Chen et al. attributed this difference to the influence of native language experience. In the flow of speech, SM exhibits greater pitch (F0) variations over syllables than English because almost every syllable has a lexical tone, which is signaled by a pitch contour (2001). Lai (2008) noticed that the two high registered tones, Tone 1 and Tone 4, were appropriated by SM learners to signal stress, while native English

speakers' production of F0 contours in stressed syllables were more diverse. This observation replicates the findings in earlier research (Juffs, 1990). Juffs observed that some speakers tended to indicate stress using a falling tone by lowering the overall F0.

### 3. Methodology

#### 3.1 Participants

Two language groups took part in this study: 6 native standard American English (SAE) speakers (3 men; age range: 22-25) and 6 native Standard Mandarin (SM) speakers (3 men; age range: 20-23). All participants were recruited from within Beijing Normal University – Hong Kong Baptist University United International College (UIC) community. The SAE speakers were native residents of the United States. The SM speakers (non-English major) were from the north China and they all had more than 10-year English learning experience. Before the experiment, each speaker signed a consent form and completed an online language background questionnaire. All participants reported that they have normal language, speech, and hearing ability.

#### 3.2 Materials

The study includes two experiments: English stress contrasts production and Mandarin prosodic contrasts production. For the first experiment, ten English disyllables were selected according to these inclusive criteria: 1) no nasals in the onset/coda; 2) no approximants in the onset/coda; 3) each syllable has a monophthong. The stimuli were five contrastive noun-verb word pairs: addict, affix, object, suspect, and upset (see Appendix Table A). Each target word was elicited in a corresponding context sentence and a semantically neutral frame sentence "I said \_\_\_\_ this time." (Zhang et al., 2008). For the second experiment, eight SM disyllables were selected according to these inclusive criteria: 1) no coda in any syllable; 2) no nasals; 3) each syllable has a monophthong; 4) only two tonal contrasts (tone 4 – T4, neutral tone – T0): T4-T4 and T4-T0. The stimuli were four word pairs, each consisting of two words differing only in terms of tones in the second syllable (see Appendix Table B). Each target word was elicited in a corresponding context sentence and a semantically neutral frame sentence "wǒ zài niàn \_\_\_\_ zhè ge cí" (/wə<sub>214</sub>.tsai<sub>51</sub>.njan<sub>51</sub> \_\_\_\_\_ tʂə<sub>51</sub>.gə.ts<sup>h</sup>.ɿ<sub>35</sub>/ I am saying the word \_\_\_\_).

#### 3.3 Procedures

All participants took part in the English stress contrasts production task. Only the SM speakers participated in the SM prosodic contrasts production task. The recordings were made using a digital audio recorder (TASCAM, DR44-WL) with built-in microphones. Each recording was conducted with a sampling frequency of 44100Hz. Every word pair was presented to speakers on individual file cards. Each speaker read the word first, the context sentence twice, and the frame sentence four times. For each word stimulus, only the target word elicited from one frame sentence were analyzed. In total, 168 tokens were collected for subsequent analysis, including 120 English word tokens (10 words \* 12 subjects) from SAE and SM speakers, and 48 SM word tokens (8 words \* 6 subjects) from SM speakers. Around 11.9% of the data (20/168) were excluded (12 tokens for SAE speakers, 8 tokens for SM speakers) due to unidentifiable F0 contours.

#### 3.4 Acoustic Measurements

The present study examined seven acoustic variables: average duration, average F0, F0 peak, F0 range, average intensity, intensity peak, and intensity range. All acoustic parameters of each token were measured within the vowel using Praat acoustic analysis software (Boersma and Weenink, 2011). Syllable and vowel boundaries were segmented by visually examining the waveform and spectrogram, based on the spectrogram cues described by Hagiwara (2009). To ensure the accuracy of the measurements, segmentation were supplemented by listening to the sound portions both outside and inside the trimmed data. For onsetless syllables, the beginning of each vowel were measured at the first upward-going zero crossing at the beginning of the waveform. For other syllables, it was after the friction noise of fricatives and after the burst of oral stops. The end of each vowel was before the friction noise of fricatives and before the silence before oral stops release.

Vowel duration was measured in second increments. As recommended in the Praat manual (2011), when measuring F0, the pitch range was set to 100-500 Hz for female speakers and 75-300 Hz for male speakers,

respectively. In order to control the differences in speech rate, loudness, and pitch differences, the measurements of the duration, F0 peak, average F0, intensity peak, and average intensity were normalized into ratios. For each target vowel, the value of each of the above variable was divided by the corresponding value of the constant vowel, which was taken from the same frame sentence. Table 2 shows the normalizing vowels used in the analyses. The statistical analysis was conducted by performing one-way analysis of variance (ANOVA) with a critical P-value of 0.05. For the normalized variables, the tests were carried out for only the normalization ratios.

**Table 2.** The Normalizing Constant Vowels Used in the Measurements.

| Language          | Frame Sentence                                                                                                     | Normalizing vowel |
|-------------------|--------------------------------------------------------------------------------------------------------------------|-------------------|
| English           | I <u>said</u> _____ this time.                                                                                     | /ɛ/               |
| Standard Mandarin | /wo <sub>214</sub> .tsai <sub>51</sub> .nɿɛn <sub>51</sub> tʂə <sub>51</sub> .gə.ts <sup>h</sup> ɿ <sub>35</sub> / | /ai/              |

## 4. Results

### 4.1 Experiment 1: English Word-level Stress Production

All acoustic variables of stressed and unstressed vowels were measured for both language groups. The results of the measurements are shown in Tables 3 and 4.

Analysis of the duration measurements indicated that duration was a significant acoustic correlate for both SAE and SM speakers (see Table 3). Thus, for both language groups, stressed vowels were considerably longer than unstressed vowels. Results showed significant differences in duration between the native and the L2 speakers (see Table 4). The ratio differences indicate that compared with the normalizing constant vowels, SM speakers produced shorter stressed and unstressed target vowels than SAE speakers.

Analysis of the F0 results showed that average F0 and F0 peak were significant acoustic correlates for both language groups (see Table 3). For both language groups, stressed vowels had higher average F0 and F0 peak than unstressed vowels. SAE and SM speakers' use of these two variables were comparable to contrast stressed and unstressed vowels (see Table 4). F0 range was not a significant variable for SAE speakers, but it was used by SM speakers to contrast stress patterns (see Table 3). Two language groups differ significantly in their use of F0 range to signal stress patterns (see Table 4). In particular, SM speakers tended to use a sharp falling pitch contour to emphasize stressed syllables, whereas their native counterparts produced relatively smaller F0 range in both stress and unstressed syllables. The pitch contours of the word "suspect" /sə'spekt/ produced by a SAE speaker and a SM speaker are shown in Figures 2 and 3.

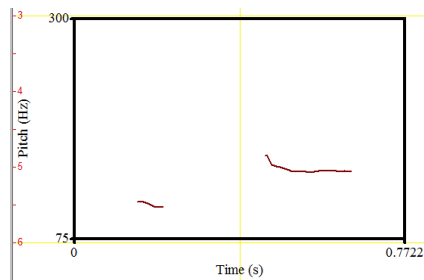


**Fig. 2.** /sə'spekt/ - male SAE speaker

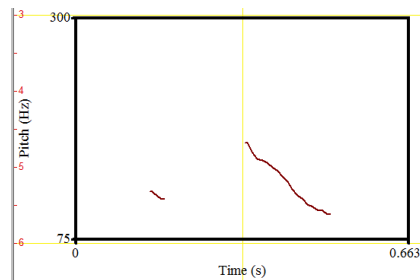


**Fig. 3.** /sə'spekt/ - male SM speaker

Analysis of the intensity measurements showed that average intensity, intensity peak, and intensity range were significant acoustic variables for both native and L2 speakers (see Table 3). However, the acoustic characteristics related to intensity were distinctively different between two language groups (see Table 4). Compared with SAE speakers, SM speakers produced lower average intensity in unstressed syllables. They also produced significantly lower intensity peak in both stressed and unstressed syllables. Additionally, L2 speakers produced considerably larger intensity range than native speakers in both stress patterns.

**Table 3.** Analysis Results of Stressed Vowels (SV) and Unstressed Vowels (UV) by Standard American English (SAE) Speakers and Standard Mandarin (SM) Speakers.

| Acoustic Variable  | SAE Speakers |      |         | SM Speakers |      |         |
|--------------------|--------------|------|---------|-------------|------|---------|
|                    | SV           | UV   | p-value | SV          | UV   | p-value |
| Duration (ratio)   | 1.17         | 0.76 | p<0.01  | 0.92        | 0.56 | p<0.01  |
| Average F0 (ratio) | 1.14         | 0.94 | p<0.01  | 1.10        | 0.94 | p<0.01  |
| F0 Peak (ratio)    | 1.12         | 0.92 | p<0.01  | 1.07        | 0.90 | p<0.01  |

|                           |       |       |        |       |       |        |
|---------------------------|-------|-------|--------|-------|-------|--------|
| F0 Range (Hz)             | 17.67 | 13.05 | p=0.11 | 33.71 | 21.44 | p<0.01 |
| Average intensity (ratio) | 1.03  | 0.96  | p<0.01 | 1.01  | 0.93  | p<0.01 |
| Intensity Peak (ratio)    | 1.04  | 0.96  | p<0.01 | 1.01  | 0.93  | p<0.01 |
| Intensity Range (dB)      | 6.73  | 4.69  | p<0.01 | 8.48  | 6.62  | p<0.01 |

**Table 4.** Analysis Results of Stressed and Unstressed Vowels by Standard American English (SAE) Speakers and Standard Mandarin (SM) Speakers.

| Acoustic Variable         | Stressed Vowels |       |         | Unstressed Vowels |       |         |
|---------------------------|-----------------|-------|---------|-------------------|-------|---------|
|                           | SAE             | SM    | p-value | SAE               | SM    | p-value |
| Duration (ratio)          | 1.17            | 0.92  | p<0.01  | 0.76              | 0.56  | p<0.01  |
| Average F0 (ratio)        | 1.14            | 1.10  | p=0.18  | 0.94              | 0.94  | p=0.85  |
| F0 Peak (ratio)           | 1.12            | 1.07  | p=0.08  | 0.92              | 0.90  | p=0.45  |
| F0 Range (Hz)             | 17.67           | 33.71 | p<0.01  | 13.05             | 21.44 | p<0.01  |
| Average intensity (ratio) | 1.03            | 1.01  | p=0.06  | 0.96              | 0.93  | p<0.01  |
| Intensity Peak (ratio)    | 1.04            | 1.01  | p<0.01  | 0.96              | 0.93  | p<0.01  |
| Intensity Range (dB)      | 6.73            | 8.48  | p<0.01  | 4.69              | 6.62  | p<0.01  |

## 4.2 Experiment 2: Standard Mandarin Word-level Prosody Production

Duanmu (2014) proposed two stress patterns of SM disyllables in non-final positions, namely, primary stress – secondary stress, and primary stress – lack of stress. Previously to the acoustic analysis, twenty tokens were visually analyzed using Praat, and the stress patterns proposed by Duanmu (2014) were observed. The pitch and intensity contours of a word pair produced by a female SM speaker are shown in Figures 4 and 5. Therefore, the present study followed Duanmu’s proposal. All acoustic variables of the primarily stressed, secondary stressed, and unstressed vowels were measured. To determine the significance of the differences between three stress levels, a post hoc test (Bonferroni) were performed after the one-way ANOVA.

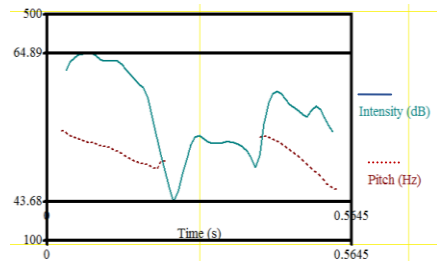


**Fig. 4.** bàqi /pa<sub>51</sub>.tɕhi<sub>51</sub>/

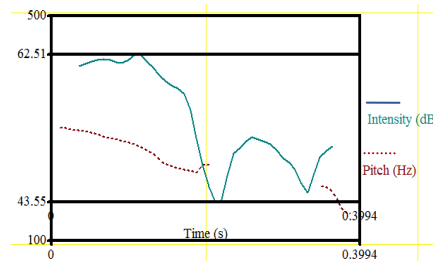


**Fig. 5.** bàqi /pa<sub>51</sub>.tɕhi/

All acoustic variables of primarily stressed, secondarily stressed, and unstressed vowels were measured. The results of the measurements are shown in Table 5.

Analysis of the duration results indicated that duration was a significant acoustic correlate for SM speakers to distinguish SM tonal contrasts (see Table 5). The duration of primarily stressed vowels were considerably longer than that of secondarily stressed and unstressed vowels. The vowels carrying secondary stress were also significantly longer than the unstressed vowels.

Analysis of the F0 measurements showed that average F0, F0 peak, and F0 range were significant acoustic variables for SM speakers (see Table 5). Unstressed vowels had significantly lower average F0, lower F0 peak, and smaller F0 range than those receive primary stress and secondary stress. There were also significant differences in average F0 and F0 peak between primarily stressed vowels and secondarily stressed vowels.

Analysis of the intensity results suggested that average intensity and intensity peak were significant acoustic variables for SM speakers to signal lexical identity (see Table 5). Vowels carrying primary stress and secondary stress had significantly higher average intensity and intensity peak than vowels lack of stress. Primarily stressed vowels had noticeably higher average intensity and peak than secondarily stressed vowels. Intensity range was only found to be a significant acoustic variable to distinguish vowels with primary stress and no stress (see Table 5).

**Table 5.** Analysis Results of Primarily Stressed Vowels (PSV), Secondly Stressed Vowels (SSV), and Unstressed Vowels (US) by Standard Mandarin Speakers.

| Acoustic Variable         | PSV<br>(1) | SSV<br>(2) | UV<br>(0) | p-value |        |        |
|---------------------------|------------|------------|-----------|---------|--------|--------|
|                           |            |            |           | 1 - 2   | 1 - 0  | 2 - 0  |
| Duration (ratio)          | 1.72       | 1.29       | 0.66      | p<0.01  | p<0.01 | p<0.01 |
| Average F0 (ratio)        | 1.12       | 0.99       | 0.78      | p<0.01  | p<0.01 | p<0.01 |
| F0 Peak (ratio)           | 1.25       | 1.11       | 0.80      | p<0.01  | p<0.01 | p<0.01 |
| F0 Range (Hz)             | 64.07      | 60.15      | 20.39     | p=1     | p<0.01 | p<0.01 |
| Average intensity (ratio) | 1.02       | 0.92       | 0.82      | p<0.01  | p<0.01 | p<0.01 |
| Intensity Peak (ratio)    | 1.03       | 0.92       | 0.82      | p<0.01  | p<0.01 | p<0.01 |
| Intensity Range (dB)      | 8.26       | 6.82       | 4.21      | p=0.24  | p<0.01 | p=0.02 |

## 5. Discussion and Conclusion

Results of the first experiment showed that duration, average F0, F0 peak, average intensity, intensity peak, and intensity range were significant variables for both SAE speakers and SM speakers to signal English stress contrasts. F0 range was a significant variable for the L2 speakers, but not for the native group.

SM speakers produced stressed and unstressed vowels with considerably shorter duration compared to SAE speakers. However, the results were obtained from the duration ratios, which refer to the relative time length of the target vowels compared to the corresponding normalizing vowels. Results of the originally measured mean values showed that SM speakers produced longer target vowels than SAE speakers. One possible explanation is that SM is a syllable-timed language and each syllable is of roughly equal length. As a result, SM speakers produced longer constant vowels than SAE speakers, leading to smaller duration ratios.

SM speakers could successfully manipulate average F0 and F0 peak in native-like manners. However, they produced significantly larger F0 range than SAE speakers. The pitch contour of the stressed vowels produced by SM speakers resembles that of the Tone 4 in Mandarin, which demonstrates a falling F0 contour (see Figures 1 and 3). This finding is consistent with Juffs' (1990) observation that SM speakers typically emphasized stressed syllables using a sharply falling tone. It is hypothesized that SM speakers might transfer their native strategies in distinguishing tonal contrasts when producing English stressed syllables. Moreover, each SM lexical tone has its own pitch level and contour. It could be possible that pitch change, which greatly contributes to SM lexical identity, was applied by SM speakers to contrast English stress patterns.

SM speakers produced significantly lower average intensity and intensity peak in unstressed syllables than their native counterparts. One possibility is that SM speakers might know the importance of weakening unstressed vowels and did so by over-decreasing the loudness. Compared with native English speakers, SM speakers produced larger intensity range in both stress patterns, which might be associated with the expansion in F0 range.

Results of the second experiment showed that durational, F0, and intensity correlates contribute significantly to lexical identity in Mandarin. Acoustic analysis of the contrastive SM word pairs showed significant difference between the vowels carrying Tone 4 or a neutral tone. Compared with toneless vowels, vowels with a lexical tone demonstrated longer duration, higher pitch level, greater pitch change, higher loudness level, and greater loudness change. Thus, in SM disyllables, vowels with lexical tones, on average, were significantly more prominent than their toneless counterparts, which resembles the difference between English stressed and unstressed vowels. These observations are accord with previous study by Lin and Yan (1990), who found that the vowels toneless syllables are significantly shortened.

Results also showed that compared with the second syllables carrying Tone 4, the first syllables had comparatively longer duration, higher average pitch, higher pitch peak, greater average intensity, and higher intensity peak. Taken together, these findings seem to support Duanmu's (2014) proposal of the word stress patterns in standard Mandarin. Thus, in non-final positions of utterances, SM disyllables exhibit two stress patterns, 1) primary stress – secondary stress (when both syllables carry lexical tones), and 2) primary stress – lack of stress (when the first syllable carries a lexical tone whereas the second syllable is neutral-toned).

Two experiments revealed similar suprasegmental characteristics between SAE word-level stress and SM lexical prosody. Therefore, it is possible that SM speakers' production of English stress is influenced by the acoustic features of L1 prosody. The transfer of the prosodic correlates that are phonologically important in L1 enables SM speakers to achieve native-like patterns of average F0 and F0 peak in L2 stress production. Additionally, it is natural that SM speakers produced sharply falling pitch contour to signal stressed English syllables, which could be attributed to the interference of their native tonal system. The study suggests that acquiring non-native stress largely depends on how the specific prosodic correlates contributing to L1 lexical identity are weighted when producing L2 stress.

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## Appendix

**Table A.** English Target Words for the Experiment Recordings.

| Word    | IPA         | Context sentence                                      |
|---------|-------------|-------------------------------------------------------|
| Addict  | /ˈæ.dɪkt/   | Bob is a drug <i>addict</i> .                         |
| aDDICT  | /əˈdɪkt/    | The researchers will <i>addict</i> the rats to sugar. |
| Affix   | /ˈæ.fɪks/   | The <i>affix</i> in the word "artist" is "-ist."      |
| aFFIX   | /əˈfɪks/    | Please <i>affix</i> a stamp to the letter.            |
| OBject  | /ˈɒb.dʒekt/ | I can see an object in the distance.                  |
| obJECT  | /əbˈdʒekt/  | They will <i>object</i> to your decision.             |
| SUSpect | /ˈsʌ.spɛkt/ | The police have arrested two suspects.                |
| suSPECT | /səˈspɛkt/  | The police suspected him of murder.                   |
| UPset   | /ˈʌp.set/   | Her victory in the election was a <i>major</i> upset. |
| upSET   | /əpˈset/    | It <i>upsets</i> him that he can do nothing to help.  |

**Table B.** Mandarin Target Words for the Experiment Recordings.

| Word | PINYIN | IPA                                     | Context Sentence                                                                                                                                                                 |
|------|--------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 霸气   | bàqì   | /pa <sub>51</sub> .tɕʰi <sub>51</sub> / | <i>zhè fú duì lián xiě de bà qì shí zú</i>                                                                                                                                       |
|      |        | [pa <sub>53</sub> .tɕʰi <sub>51</sub> ] | /tʂʰə <sub>51</sub> .fu <sub>35</sub> .twei <sub>51</sub> .lɛn <sub>35</sub> .ɕje <sub>214</sub> .tə.pa <sub>51</sub> .tɕʰi <sub>51</sub> .ʂɿ <sub>35</sub> .tsu <sub>35</sub> / |
|      |        |                                         | The language used in this couplet is powerful.                                                                                                                                   |
| 霸气   | bàqì   | /pa <sub>51</sub> .tɕʰi/                | <i>zuò rén zuò shì bù néng tài bà qì</i>                                                                                                                                         |
|      |        | [pa <sub>53</sub> .tɕʰi <sub>1</sub> ]  | /tswə <sub>51</sub> .ɿən <sub>35</sub> .tswə <sub>51</sub> .pu <sub>51</sub> .nəŋ <sub>35</sub> .tʰai <sub>51</sub> .pa <sub>51</sub> .tɕʰi/                                     |
|      |        |                                         | People shouldn't be rude in manners and behaviors.                                                                                                                               |
| 大气   | dàqì   | /ta <sub>51</sub> .tɕʰi <sub>51</sub> / | <i>zuì jìn dà qì wú rǎn hēn yán zhòng</i>                                                                                                                                        |
|      |        | [ta <sub>53</sub> .tɕʰi <sub>51</sub> ] | /tswei <sub>51</sub> .tein <sub>51</sub> .ta <sub>51</sub> .tɕʰi.wu <sub>55</sub> .ɿən <sub>214</sub> .xən <sub>214</sub> .jən <sub>35</sub> .tʂʰuŋ <sub>51</sub> /              |
|      |        |                                         | There has been an increase in air pollution.                                                                                                                                     |
| 大气   | dàqì   | /ta <sub>51</sub> .tɕʰi/                | <i>wáng lǎo ban shì ge hēn dà qì de rén</i>                                                                                                                                      |
|      |        | [ta <sub>53</sub> .tɕʰi <sub>1</sub> ]  | /waŋ <sub>35</sub> .lau <sub>214</sub> .pan <sub>214</sub> .ʂɿ <sub>51</sub> .kə.xən <sub>214</sub> .ta <sub>51</sub> .tɕʰi.tə.ɿən <sub>35</sub> /                               |
|      |        |                                         | Boss Wang is very generous.                                                                                                                                                      |
| 大意   | dàyi   | /ta <sub>51</sub> .ji <sub>51</sub> /   | <i>dú dòng yuán wén dà yì hēn zhòng yào</i>                                                                                                                                      |
|      |        | [ta <sub>53</sub> .ji <sub>51</sub> ]   | /tu <sub>35</sub> .tuŋ <sub>214</sub> .ɣən <sub>35</sub> .wən <sub>35</sub> .ta <sub>51</sub> .ji <sub>51</sub> .xən <sub>214</sub> .tʂʰuŋ <sub>51</sub> .jau <sub>51</sub> /    |
|      |        |                                         | Understanding the main idea is very important.                                                                                                                                   |
| 大意   | dàyi   | /ta <sub>51</sub> .ji/                  | <i>wǒ kǎo shì tài dà yì le</i>                                                                                                                                                   |
|      |        | [ta <sub>53</sub> .ji <sub>1</sub> ]    | /wo <sub>214</sub> .kʰau <sub>214</sub> .ʂɿ <sub>51</sub> .tʰai <sub>51</sub> .ta <sub>51</sub> .ji.lə/                                                                          |
|      |        |                                         | I was too careless when taking the exam.                                                                                                                                         |
| 地下   | dìxià  | /ti <sub>51</sub> .ɕja <sub>51</sub> /  | <i>nà lí yǒu yì jiā dì xià shāng chǎng</i>                                                                                                                                       |
|      |        | [ti <sub>53</sub> .ɕja <sub>51</sub> ]  | /na <sub>51</sub> .li <sub>35</sub> .jou <sub>214</sub> .ji <sub>51</sub> .teja <sub>55</sub> .ti <sub>51</sub> .ɕja <sub>51</sub> .ʂaŋ <sub>55</sub> .tʂʰaŋ <sub>214</sub> /    |
|      |        |                                         | There is an underground mall.                                                                                                                                                    |
| 地下   | dìxia  | /ti <sub>51</sub> .ɕja/                 | <i>nǐ de gāng bǐ zài dì xia</i>                                                                                                                                                  |
|      |        | [ti <sub>53</sub> .ɕja <sub>1</sub> ]   | /ni <sub>214</sub> .tə.kəŋ <sub>55</sub> .pi <sub>214</sub> .tsai <sub>51</sub> .ti <sub>51</sub> .ɕja/                                                                          |
|      |        |                                         | Your pen is on the floor.                                                                                                                                                        |

# A Corpus-based Comparative Study of Amplifiers used by Chinese EFL Learners and Native English Speakers

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**Abstract.** This study examines the use of amplifiers and amplifier-adjective collocations in Chinese upper-intermediate EFL learners' and English native speakers' academic writings by adopting Contrastive Interlanguage Analysis (CIA) approach. It aims to explore similarities and differences in the choices of amplifiers and collocation preferences used across the two corpora, in order to provide useful insights to English language teaching and learning. Two academic writing corpora were employed in this study. One is Chinese learners' corpus, which is composed of 100 academic English papers written by senior undergraduates from United International College (UIC). The other is Native speakers' corpus, which consists of 100 academic writings from Michigan Corpus of Upper-level Student Papers (MICUSP). AntConc software and R software were used as instruments for data collocation and analysis. The results of this study show that Chinese upper-intermediate EFL learners significantly underuse amplifiers in their writings as compared to English native speakers on the whole. In terms of individual amplifiers, Chinese learners tend to overuse *totally*, *really*, *highly*, *deeply* and underuse *entirely*, *fully*, *completely*, *very*, *clearly*, etc. As for amplifier collocations, Chinese learners share similar collocational preferences of most amplifiers with English native speakers, though some discrepancies still exist. The study suggests that the differences on the use of amplifiers and amplifier collocations between two groups attribute to learners' L1 transfer and their limited linguistic knowledge. Based on these findings, pedagogical implications and suggestions are provided for drawing teachers' and learners' attentions on the importance of both explicit and implicit knowledge on lexical learning.

**Keywords:** amplifiers, collocations, Chinese upper-intermediate EFL learners, academic writings

## 1. Introduction

In daily communication, people usually use intensifiers to emphasize their speech and to make their utterances sound more impressive or more hyperbolic. Intensifiers has drawn much attention from many researchers in the fields of language education for a long time. According to Quirk et al. (1985), intensifiers include amplifiers and downtoners. Amplifiers can be used to strengthen the tone of voice, while downtoners can be used to decrease the intensity of tone. For example, '*you are right*', '*you are absolutely right*', and '*you are probably right*' express different degree of certainty. Based on the degree scale, Quirk et al. (1985) divided amplifiers into two subsets, which are maximizers and boosters. Maximizers express the absolute degree of intensification, such as *totally*, *fully* or *completely*. Boosters express the relatively high degree of intensification of words, such as *very*, *highly* or *really*. Generally, maximizers modify non-gradable adjectives while boosters modify gradable adjectives (Quirk et al., 1985). Gradable adjectives refer to words that normally have comparative and superlative forms and they can show things with different degrees such as *big-bigger-biggest*, while non-gradable adjectives do not necessary have comparative and superlative forms, such as *impossible*, *dead*, and *empty*. It is semantically wrong to express ideas such as *very impossible* or *very dead*. However, Biber, Conrad, Finegan, Lecch and Finegan (1999) suggested that amplifiers can co-occur with both gradable and non-gradable adjectives. Since the subclasses of amplifiers differ not only in the degree of intensification, but also in semantic meanings and words collocated with them. It is common that L2 learners of English often misuse, overuse or underuse certain amplifiers, which causes their use of language inaccurate and inappropriate. Understanding collocations of amplifiers can help L2 learners to distinguish the use of different amplifiers, express ideas logically and process information from others better.

Acquiring vocabulary and its lexical collocations is crucial for the foreign language learning processes. Vocabulary as the basic unit of texts is significant in both written and spoken language. Amplifiers as one type of lexical items playing an important role in second language learning. Based on previous studies (Granger, 1998b; Lorenz, 1999; Wang & Chen, 2007; Chen, 2008), it can be found that amplifiers used by L2 learners normally are restricted. They usually substitute any complicated intensifiers into a single booster *very* to express their ideas. Cases of typical amplifiers such as *so*, *very*, *really* which are normally used in colloquial expressions

frequently occur in L2 learners' essays, which makes their writings informal and unpersuasive. Learners are required to master both spoken and written forms of language. Investigating the use of amplifiers in written English not only enables learners to understand how to use amplifiers appropriately, but also helps them distinguish differences between different language registers.

Although there have been several studies on amplifiers, their findings were based upon data from over the past 10 to 20 years. As the English education has made great progress in China in recent years, it is yet unclear whether their results can still represent the current situation of the study of amplifiers in China. Moreover, only few studies have examined the study of amplifier from the upper-intermediated learners' perspective. Focusing on amplifiers and its collocations used in upper-intermediate Chinese learners' academic writings sheds some lights for English teaching and learning in higher education context. In addition, this study is a comparative research which can arouse readers' awareness of similarities and differences of the use of amplifiers in academic writings between native speakers and Chinese EFL learners. Almost all Chinese college English learners will be exposed to English academic writings when they are in college. It is crucial to investigate what challenges students go through in the process of learning in order to improve their academic performance.

Thus, the present research will examine how Chinese upper-intermediate EFL learners and native English speakers use amplifiers and its collocations differently in written English. Specifically, this study will compare the use of selected amplifiers in the two academic writing corpora, aiming at examining any similarities and differences in the use amplifiers and its collocations between Chinese learners and native speakers. The research questions are listed as follows:

- 1) What are the overall frequencies of amplifiers used in Chinese learners' corpus and native English speakers' corpus?
- 2) According to the two corpora, which amplifiers are used the most frequently and the least frequently by both Chinese EFL learners and English native speakers?
- 3) To what extent do Chinese EFL learners underuse or overuse certain amplifiers as compared to English native speakers?
- 4) What are some frequent amplifier-adjective collocations used in Chinese learners' corpus and native English speakers' corpus?

## 2. Literature Review

Kennedy (2003) conducted a study to examine amplifier-adjective collocation preferences of particular degree adverbs. He investigated twenty-four common amplifiers and their collocations in the British National Corpus (BNC). Mutual information measure method was used in order to analyze correlated strength between amplifiers and adjectives that are modified. He suggested that amplifiers tend to collocate with words which share particular grammatical and semantic features. The results also show that some amplifiers tend to have positive, negative or mixed associations with particular adjectives.

Granger (1998b) used Contrastive Interlanguage Analysis (CIA) approach to compared amplifiers ending with '-ly' used in French-speaking English learners' and English native speakers' writings based on a subcorpus of International Corpus of Learner English and a native speaker corpus. The results indicate that French learners tend to underuse amplifiers in terms of numbers in types and tokens. Specifically, the number of maximizers used in two groups is similar. French learners tend to use fewer boosters compared with native speakers except *very*. The study also suggests that the use of few amplifier types by French learners results from their lexical deficiency. Few amplifiers tokens used by French learners reveals that their writings are less hyperbolic than those of native speaker counterparts. Influenced by the first language transfer, French learners tend to use more congruent collocations, which means they prefer to use amplifiers that are similar in meaning with their mother tongue.

Lorenz (1998, 1999) also analyzed intensifier-adjective associations between German learners of English and native English speakers. He found that German learners tend to use more intensifiers than native speakers, which is in contrast to Granger's (1998b) findings. Nevertheless, he also suggested that German learners may overuse certain high frequency intensifiers like *very*, which is in agreement with what Granger (1998b) suggested. His findings also indicate that German learners may misuse or wrongly collocate amplifiers with certain adjectives, which causes semantic inaccuracy and inconsistency of the collocation. Some learners tried to be creative in writing and attract others' attention by using hyperbole and avoiding using frequent amplifiers, which also leads some mistakes in lexical collocations.

With the development and expansions of corpus linguistics, the study on amplifiers has begun to spread to China since twenty-first century. Many Chinese researchers had conducted research on amplifiers from different perspectives. Qi (2006) also used CIA approach to compare Chinese learners' writings in College

English Test brand 4 (CET-4) and College English Test brand 6 (CET-6) with native speakers' writings in ICLE corpus. The findings suggest that Chinese learners have an overall tendency to use more amplifiers, which is in line with Lorenz's (1998, 1999) study. Qi (2006) pointed out that the overuse of amplifiers in Chinese learners' writings may be affected by their desire of gaining attention from readers. He also suggested that Chinese learners tend to overuse boosters and underuse maximizers.

Wang & Chen (2007) and Chen (2008) both used CLEC and BNC as corpora to study the use of intensifiers. Wang & Chen (2007) investigated the developmental features of the use of 20 amplifiers in writings of Chinese high school students, college non-English major students and college English major students, respectively. The results indicate that as learners' language proficiency level develop, they use more amplifiers and collocations. High school students overuse all-round amplifiers such as *very*, *very much*, and *so*. Differences in the use of amplifier collocations' types and tokens were found in groups with different language proficiency. Chen (2008) studied both amplifiers and downtoners in general. She drew the same conclusion as other studies and noted that Chinese learners overuse *very*, while underuse and misuse other amplifiers. They tend to common intensifiers such as *really*, *totally*, and *extremely* because of the influences of mother tongue. The results suggest that Chinese learners have problems in choosing and distinguishing particular amplifiers.

### **3. Methodology**

#### **3.1 Research Design and Approach**

This study employed Contrastive Interlanguage Analysis (CIA) approach, which is the method frequently used by most previous corpus-based comparative studies. According to Granger (1998b), two types of comparison can be made by using CIA approach. The first type is the comparison of certain linguistic features of the same language used between native and non-native speakers. The second type is comparison between two different languages. This study adopted the first type of comparison, which focuses on investigating differences on language use between interlanguage and learners' native language.

#### **3.2 Corpora**

This study is based on two corpora which are termed as Chinese learners' corpus (CLC, hereafter) and Native speakers' corpus (NSC, hereafter). CLC was compiled by collecting 100 English academic papers of Chinese senior undergraduates from United International College (UIC). The corpus consists of 103736 tokens and 8399 types. The papers collected were argumentative essays that were submitted for different courses. The essays were all wrote individually with length ranges from 400 to 3000 words. The titles, figures, references, appendices of collected essays were deleted manually. Thus, only texts were used to analyze.

A native speakers' corpus (NSC) was compiled from Michigan Corpus of Upper-level Students Papers (MICUSP, 2009), which is a corpus contains both undergraduates' and graduates' writings. This corpus includes different types of papers such as reports, proposals, research paper, argumentative essays and so on written by senior undergraduates or graduates from the first year to the third year. In order to be consistent with data collection of CLC, NSC only contains argumentative essays of senior undergraduates selected from MICUSP. There were altogether 101 argumentative essays in MICUSP, only 100 were used in this study. NSC consists of 212973 tokens and 14523 types. The text length of each essay ranges from 800-5000 words. Similarly, titles and references were not used for analyzing in present study.

#### **3.3 Amplifiers**

The amplifiers in this study were chosen based on items that were analyzed in Kennedy's (2003) study. He investigated 24 amplifiers and their collocations. This study adopts most amplifiers that Kennedy used because they are the most frequent intensifiers presented in British National Corpus (BNC), one of the most representative English corpora with a 100-million-word collection of spoken and written texts (Leech, Rayson, & Wilson, 2001). The results in Kennedy's (2003) study found on amplifier collocations can be a reference for present comparative study. The amplifiers selected in this research are listed below in Table 1.

**Table 1.** Amplifiers

| Maximizers | Boosters     |
|------------|--------------|
| entirely   | very         |
| fully      | really       |
| perfectly  | very much    |
| absolutely | extremely    |
| totally    | clearly      |
| completely | particularly |
| dead       | highly       |
| utterly    | deeply       |
|            | heavily      |
|            | badly        |
|            | greatly      |
|            | terribly     |
|            | considerably |
|            | severely     |
|            | enormously   |
|            | incredibly   |

Adapted from Kennedy (2003)

### 3.4 Instruments

Two instruments were employed in this study. AntConc 3.4.4w concordance program (Anthony, 2014) was used to analyze amplifiers in two corpora. The second instrument is R software [version 3.1.1] (R Core Team, 2013). Chi-squared test in R software was used to examine significant difference between the observed frequencies and the expected frequencies. The code of the calculation ‘chisq.test (data, data)’ in R software was applied to the present to calculate the p-value of amplifiers used in two corpora.

### 3.5 Research Procedures

The present study was conducted by following procedures list below:

First, the researcher searched selected amplifiers in two corpora and counted their frequencies by using the concordance function of AntConc 3.4.4w. It is noted that this retrieve tool cannot distinguish the words that have same morphology but with different parts of speech. For example, in the sentence ‘*The plan worked perfectly*’, *perfectly* serves as an adverb of manner which modifies the verb *worked*. It is used to indicate how things are done rather than to intensify the meaning. It is not considered as a degree adverb. However, in the sentence ‘*You can get a perfectly good dress at Macy’s*’, here *perfectly* functions as a maximizer which emphasizes the degree of *good*. It is counted as an amplifier. In order to yield reliable results, the researcher manually scrutinized the concordance and removed any unmatched items. Since the size of two corpora are different, the raw frequency was converted to standardized frequency in order to get comparable data.

Second, p-value of amplifiers were calculated and Chi-square test was conducted by using R statistic software (version 3.1.1.). The p-value is 0.05 ( $p < 0.05$ ) which the researcher determined whether the frequency difference is significant or not.

Third, the collocation function in AntConc 3.4.4w software was applied to generate the list of collocates. This research is interested in how selected amplifiers collocate with certain adjectives. Thus, some amplifier collocates with nouns, verbs, adverbs or prepositions were excluded. Therefore, the researcher manually checked amplifier collocations available from two corpora and excluded irrelevant data.

Fourth, all the data was collected and summarized for analysis and discussion.

## 4. Results and Discussion

### 4.1 Maximizer Frequencies

The overall frequencies of maximizers in two corpora and their p-value are presented in Table 4 below. It is noted that *dead* is excluded from this study because both Chinese EFL learners and English native speakers use

*dead* as an adjective rather than an adverb in their writings in two corpora.

**Table 2.** Frequency of Maximizers in CLC and NSC

|            | CLC |     | NSC          |       | P-value(sig.) |
|------------|-----|-----|--------------|-------|---------------|
| Maximizers | Raw |     | Standardized |       |               |
| entirely   | 2   | 29  | 1.93         | 13.62 | *p < 0.05     |
| fully      | 7   | 50  | 6.75         | 23.48 | *p < 0.05     |
| perfectly  | 0   | 12  | 0.00         | 5.63  | *p < 0.05     |
| absolutely | 3   | 7   | 2.89         | 3.29  | p > 0.05      |
| totally    | 7   | 6   | 6.75         | 2.82  | p > 0.05      |
| completely | 6   | 55  | 5.78         | 25.82 | *p < 0.05     |
| utterly    | 0   | 3   | 0.00         | 1.41  | p > 0.05      |
| Total      | 25  | 162 | 24.10        | 76.06 | *p < 0.05     |

*Note.* Standardized frequency shows the times of amplifiers appeared per 100,000 words in the Chinese Learners Corpus (CLC) and Native Speakers Corpus (NSC). The raw frequencies are used in Chi-square test to calculate p-value. Significant at  $p < 0.05$  level.

It can be seen that eight selected maximizers in the CLC are used 24.10 times per 100,000 words, whereas the times they appear in NSC are about triple, which is 76.06 times per 100,000 words. The most frequent maximizers used by Chinese EFL learners are *fully*, *totally* and *completely*. They accounted for 80% of total maximizers in the CLC. However, *entirely*, *perfectly*, *absolutely* and *utterly* are the least frequent maximizers appeared in the CLC. They occupy only 20% of all maximizers in the CLC. Among them, *perfectly* and *utterly* are not found in the CLC.

In the NSC, the top three frequently used maximizers are *fully*, *completely* and *entirely*, which perfectly matches with Kennedy's (2003) study. The least frequent maximizers in NSC are *utterly*, *totally* and *absolutely*. It is interesting to note that one of the least frequently used maximizers in the CLC becomes the most frequently used one in the NSC (*entirely*) and vice versa (*totally*). It suggests there is a great difference in the use of different maximizers between two groups.

From the Table 2, it can be found there is a significant difference between the total number of maximizers used in the CLC and NSC. Chinese EFL learners use less maximizers than English native speakers in their writings. This finding supports Qi's (2006) study, which he found that Chinese learners tend to underuse maximizers. However, Granger's (1998b) study on French EFL learners and English native speakers indicates that French learners tend to underuse amplifiers as a whole, but they use similar numbers of maximizers with English native speakers. The p-value of individual maximizer shows that Chinese EFL learners significantly underuse *entirely*, *fully*, *perfectly*, and *completely*. However, there exists no significant difference among the use of *absolutely*, *totally* and *utterly* in two corpora, though *totally* tends to be used more by Chinese learners than English speakers. These results are in agreement with Granger's (1998b) findings which showed that French learners overuse *totally*. This result may be explained by the influence of learners' mother tongue. The direct translation of *entirely* and *totally* in Chinese are 'wanzhengde' and 'wanquande'. The equivalent translation of *entirely* 'wanzhengde' has a relatively lower degree of intensity than the equivalent translation of *totally* 'wanquande'. Therefore, Chinese learners tend to use a higher degree of tone to emphasize their speech.

## 4.2 Booster Frequencies

**Table 3.** Frequency of Boosters in CLC and NSC

|              | CLC | NSC | CLC          | NSC    | P-value (sig.) |
|--------------|-----|-----|--------------|--------|----------------|
| Boosters     | Raw |     | Standardized |        |                |
| very         | 43  | 161 | 41.45        | 75.60  | *p < 0.05      |
| very much    | 0   | 4   | 0.00         | 1.88   | *p < 0.05      |
| really       | 18  | 25  | 17.35        | 11.74  | p > 0.05       |
| extremely    | 8   | 13  | 7.71         | 6.10   | p > 0.05       |
| clearly      | 5   | 30  | 4.82         | 14.09  | *p < 0.05      |
| particularly | 2   | 17  | 1.93         | 7.98   | *p < 0.05      |
| highly       | 14  | 21  | 13.50        | 9.86   | p > 0.05       |
| deeply       | 5   | 10  | 4.82         | 4.70   | p > 0.05       |
| heavily      | 1   | 6   | 0.96         | 2.82   | p > 0.05       |
| badly        | 0   | 3   | 0.00         | 1.41   | p > 0.05       |
| greatly      | 4   | 10  | 3.85         | 4.70   | p > 0.05       |
| terribly     | 0   | 3   | 0.00         | 1.41   | p > 0.05       |
| considerably | 4   | 1   | 3.85         | 0.47   | p > 0.05       |
| severely     | 3   | 4   | 2.89         | 1.88   | p > 0.05       |
| enormously   | 1   | 0   | 0.96         | 0.00   | p > 0.05       |
| incredibly   | 0   | 12  | 0.00         | 5.63   | *p < 0.05      |
| total        | 108 | 317 | 104.11       | 148.85 | *p < 0.05      |

*Note.* Standardized frequency shows the times of amplifiers appeared per 100,000 words in the Chinese Learners Corpus (CLC) and Native Speakers Corpus (NSC). The raw frequencies are used in Chi-square test to calculate p-value. Significant at  $p < 0.05$  level.

Table 3 presents the overall frequency of selected boosters and their p-value in two corpora. As it shown, the boosters in the CLC and NSC appear 104.11 times and 148.85 times respectively. There is a significant difference between the total number of boosters used in the CLC and NSC. The top three frequently used boosters in the CLC are *very*, *really* and *highly*. They appear 41.45 times, 17.35 times, and 13.50 times respectively in the corpus. In the NSC, *very*, *clearly* and *really* are used 75.60 times, 14.09 times, and 11.74 times respectively, dominating the top three frequently used boosters. Among all boosters, *very* is the most common degree adverb in two corpora. It occupies 40% and 51% of total boosters in the CLC and NSC. The least frequently used boosters in the CLC are *heavily*, *enormously*, and *particularly*. They are used less than 2 times by Chinese EFL learners. In NSC, *very much*, *considerably*, *badly*, *terribly*, and *severely* also appear less than 2 times. It is noteworthy that almost all selected boosters appear at least 0.5 times per 100,000 words in the NSC, except for *enormously*. However, there are four boosters (*very much*, *badly*, *terribly*, and *incredibly*) which appear 0 times in the CLC. It can thus be suggested that Chinese EFL learners tend to use a limited number of boosters, whereas English native speakers tend to use various types of boosters.

In general, Chinese learners use fewer boosters than English native speakers in their writings. This finding is consistent with Granger (1998b), who suggested that French learners tend to use fewer boosters than native speakers. This result may be explained by the fact that Chinese learners' lack of adequate lexical knowledge. In terms of individual boosters, Chinese learners significantly underuse *very*, *very much*, *clearly*, *particularly* and *incredibly* in their writings.

Surprisingly, this study did not find a significant difference between *really* used in the CLC and NSC

as most previous research found, though Chinese learners tend to use *really* more frequent than native English speakers in this research. This result is likely to be related to L1 transfer and academic colloquial tendency. In both spoken English and Chinese, *really* is frequently used to intensify the meaning of sentence. Influenced by the L1, Chinese learners unconsciously use *really* when they want to strengthen the tone of their speech, even it is in writing. This L1 interference causes a tendency of academic colloquial style in Chinese students' writings, which suggests that learners have difficulties in distinguishing spoken and written forms.

The influence of L1 can also be given to the explanation of the obvious underuse of *clearly*, *badly*, *terribly*, *particularly* and *incredibly*, because the literal translation equivalents of these boosters are not frequently used in Chinese. For example, *badly* and *terribly* are usually considered as adverbs with negative connotations rather than boosters that intensify the meaning of adjectives in Chinese, so Chinese learners use very few of them in the writings. This result also reflects that Chinese learners lack of adequate lexical knowledge so that they only use limited amplifiers in their writings.

However, the result of the underuse of *very* is contrary to that of Lorenz (1998), Qi (2006), and Wei & Lei (2011) who found that both German learners and Chinese learners tend to overuse all-round booster *very* in their writings than English native speakers. They argue that *very* is considered as 'safe bets' which can be collocated with most of adjectives (Granger, 1998b, p.148). Although *very* is used the most in the CLC, Chinese learners still significantly underuse *very* as compared to native speaker counterparts. A possible explanation for this is that the CLC is composed of academic writings written by upper intermediate Chinese EFL learners. They avoid using *very* too many times in order to make their writings look more academic, less hyperbolic, and less subjective. As Lorenz (1998) suggests that EFL learners' writings gear to focus on readers' attentions and create an impression rather than arguing a case. Since native speakers have good command of English, they focus more on conveying ideas instead of demonstrating language competence. However, further studies which take other variables such as learners' psychology, learners' writing styles or themes of writings into account, will need to be conducted to verify this explanation.

### 4.3 The Most Frequent Amplifier Collocations in the CLC and NSC

This study aims to find the similarities and differences of amplifier-adjectives used by Chinese EFL learners and English native speakers. The output of amplifier's collocation should only be adjectives. Therefore, verbs, adverbs, nouns and prepositions are excluded from this study. There are 253 amplifier-adjective collocations in total, with 66 collocations in the CLC and 187 collocations in the NSC. This study mainly looks at the 20 most frequently used amplifier-adjectives in two corpora. Because this study only focuses on adjectives that collocate with selected amplifiers, the total number of collocate tokens is relevantly small. Considering the fact that CLC is a small corpus with only 103736 word tokens in total, the average time of occurrence of amplifier-adjective collocations is less than 2 times. The criteria of measuring the 20 most frequent amplifier collocations are their frequencies of occurrence and their T-scores. The higher T-score of a collocation has, the more likely it is a high-frequency combination (McEnery, Xiao & Tono, 2006). Table 4 displays 20 most frequent amplifier collocations in the CLC and NSC.

**Table 4.** The 20 Most Frequent Amplifier-Adjective Collocations in CLC and NSC

| CLC                          |                |           | NSC                         |                |           |
|------------------------------|----------------|-----------|-----------------------------|----------------|-----------|
| Collocation                  | Freq & Stat(T) | Type      | Collocation                 | Freq & Stat(T) | Type      |
| <i>severely ill</i>          | 2 (13.07759)   | booster   | <i>very little</i>          | 9 (7.06057)    | booster   |
| <i>highly desirable</i>      | 2 (12.75567)   | booster   | <i>very few</i>             | 8 (7.22129)    | booster   |
| <i>extremely intelligent</i> | 2 (12.49263)   | booster   | <i>very different</i>       | 8 (5.92583)    | booster   |
| <i>very initial</i>          | 2 (9.42894)    | booster   | <i>very least</i>           | 6 (6.968)      | booster   |
| <i>really hard</i>           | 2 (8.0187)     | booster   | <i>very important</i>       | 6 (5.66082)    | booster   |
| <i>totally different</i>     | 2 (7.50647)    | maximizer | <i>very first</i>           | 5 (4.74212)    | booster   |
| <i>very serious</i>          | 2 (7.06637)    | booster   | <i>very similar</i>         | 4 (6.45833)    | booster   |
| <i>very fast</i>             | 2 (6.71273)    | booster   | <i>very good</i>            | 4 (5.25446)    | booster   |
| <i>very effective</i>        | 2 (6.35365)    | booster   | <i>very much</i>            | 4 (4.83942)    | booster   |
| <i>very important</i>        | 2 (5.79335)    | booster   | <i>very well</i>            | 4 (4.69583)    | booster   |
| <i>totally identical</i>     | 1 (13.85520)   | maximizer | <i>completely different</i> | 3 (6.11253)    | maximizer |
| <i>totally dissimilar</i>    | 1 (13.85520)   | maximizer | <i>very specific</i>        | 3 (6.09576)    | booster   |
| <i>extremely evident</i>     | 1 (13.49263)   | booster   | <i>very likely</i>          | 3 (5.64119)    | booster   |
| <i>heavily dependent</i>     | 1 (12.85520)   | booster   | <i>fully integrated</i>     | 2 (11.38743)   | maximizer |
| <i>highly uptight</i>        | 1 (12.75567)   | booster   | <i>perfectly acceptable</i> | 2 (10.99987)   | maximizer |
| <i>really rare</i>           | 1 (12.34063)   | booster   | <i>very pretty</i>          | 2 (9.26568)    | booster   |
| <i>extremely rigid</i>       | 1 (11.49263)   | booster   | <i>deeply personal</i>      | 2 (8.3538)     | booster   |
| <i>really apparent</i>       | 1 (11.34063)   | booster   | <i>fully supranational</i>  | 2 (7.44883)    | maximizer |
| <i>very tricky</i>           | 1 (11.23629)   | booster   | <i>very unlikely</i>        | 2 (6.94375)    | booster   |
| <i>very advantageous</i>     | 1 (11.23629)   | booster   | <i>entirely new</i>         | 2 (6.30157)    | maximizer |

As shown in Table 4, out of the top 20 amplifier-adjective collocations, both Chinese EFL learners and English native speakers tend to use much more booster collocations than maximizer collocations. There are 7 amplifiers that are employed to collocate with adjectives in the CLC, which are *very*, *really*, *totally*, *extremely*, *highly*, *severely* and *heavily*. Whereas there are six amplifiers (*very*, *fully*, *completely*, *deeply*, *perfectly* and *entirely*) employing in the NSC. It shows that Chinese learners and English speakers use equivalent number of types of amplifiers, but Chinese learners use fewer tokens of amplifiers. This result can be explained by the fact of Chinese learners' underuse of amplifiers.

Interestingly, only one amplifier collocation out of the top 20 recurrent collocations is the same (*very important*) in two corpora. But even so, most amplifier-adjective collocations share similar collocational rules. Maximizers generally collocate with non-gradable adjectives such as *dissimilar*, *identical*, and *new*, while boosters tend to collocate with gradable adjectives such as *good*, *much*, *serious*, and *important*.

It is noted that *really* does not appear in the 20 most frequent amplifier collocations used by English native speakers, but its collocations appear 4 times in the CLC, as shown in Table 4 (*really hard*, *really rare*, *really apparent*). It is possible to interpret this result as that Chinese learners' overuse of *really*. It reflects that Chinese learners have difficulties in distinguishing the spoken and written forms of English. Because *really* is frequently used in spoken English and it is considered as an informal adverb of degree, there is no collocations found in the top 20 recurrent combinations in the NSC.

Another important finding is that Chinese EFL learners and English native speakers employ different amplifiers to collocate with a non-gradable adjective '*different*' in the top 20 most frequent amplifier-adjective collocations. Native speakers use boosters to intensify the degree of difference, such as *very different* and

*completely different*, whereas Chinese learners express the same meaning by using a maximizer collocation, *totally different*. This subtle difference is an exception that is inconsistent with above-mentioned collocational rules of amplifiers, but it is worth mentioning because it reveals the influence of L1 on Chinese learners' use of amplifier collocations. In fact, Chinese learners also use *very different* and *completely different* in their writings, but not as frequent as *totally different*. The literal translation equivalents of *completely different* and *totally different* are exactly the same in Chinese, so Chinese learners use them interchangeably. However, *totally* seems to be associated with informal expressions and negative connotations in the NSC, as examples like *totally numb*, *totally fucked* and *totally absent* shown in the NSC. This result is consistent with data obtained in Kennedy's (2003) study, which indicated that *totally* tend to associate with adjectives that have negative meanings. The difference of the use of *totally* and *completely* in the CLC suggests that Chinese learners lack knowledge on positive and negative associations of words, which is reflected by their misuse semantic prosody of these two amplifiers. However, further studies should be conducted in relevant larger corpora to verify this finding.

## 5. Conclusion

The purpose of the current study is to explore how Chinese EFL learners and English native speakers use amplifiers and amplifier collocations in academic writings. In sum, the major findings of this study are yielded as follows:

- 1) The overall number of amplifiers used by Chinese learners and native speakers exist discrepancies. There are significant differences in the overall frequency of maximizers and boosters in two corpora. Chinese learners underuse both of them in this study.
- 2) The top three frequently used maximizers in the NSC are *fully*, *completely* and *entirely*, whereas the least frequent maximizers are *utterly*, *totally* and *absolutely*. The most frequently used maximizers in the CLC are *fully*, *totally* and *completely*. However, Chinese learners significantly underuse *fully*, *perfectly*, *completely* and *entirely*, and overuse *totally*. In terms of boosters, the most frequently used boosters in two corpora are *very*, *really*, *highly* and *clearly*. Chinese learners tend to underuse most boosters (e.g. *very*, *clearly*, *badly*, etc.) and overuse *really*. The underuse of boosters seems to associate with Chinese learners' desires to create an impression of professionalism in academic writings and their limited lexical repertoire. The overuse of boosters also appears to be related to the influence of Chinese learners' mother tongue.
- 3) Similar number of types of amplifiers were found in the 20 most frequent amplifier-adjective collocations in two corpora. In general, Chinese learners and native speakers share similar collocation preferences. They tend to use maximizers to modify non-gradable adjectives, and collocate boosters with gradable adjectives. However, there still exists differences in the use of certain amplifier-adjective collocations. Chinese learners tend to use limited range of amplifiers and congruent amplifier collocations which have literal translation equivalents in their L1 may due to their insufficient knowledge of lexical items and collocational preferences.

### 5.1 Pedagogical Implications

In general, Chinese learners' underuse of amplifiers and limited use of certain types of amplifiers in this present study indicates their small lexical repertoire. It is crucial for teachers and learners to raise awareness of the importance of amplifiers as they play essential roles in helping learners to express ideas clearly no matter in daily conversations or in academic writings. Kennedy (2003) claims that language teacher education highly concentrates on learner-related factors and learning techniques, but pays less attention on language learning content. Teachers are required to know what content should be taught to students, what words are most meaningful to learn, and how much language knowledge should be taught (Kennedy, 2003).

Teachers should provide students with explicit instructions so that they can be exposed to the knowledge of language at large. Students not only need to learn how to use amplifiers, but they are also required to learn how words are collocated with one another, which means they need to understand how to use amplifiers and amplifier collocations appropriately. Lexical items can hardly be taught or learnt in isolation, they are acquired by associating them with other words in the context. Therefore, it is extremely important for learners to learn the rules of how words are combined together and when to use these collocations.

However, implicit knowledge is also important in language learning process because the majority of linguistic knowledge is simply acquired through exposure to the language environment (Kennedy, 2003). In second language learning process, if learners are given chances to experience implicit knowledge, they are highly likely to learn a language well. Thus, an implicit curriculum should be designed that enable learners to get maximizing opportunities to be exposed to language in use (Kennedy, 2003). Collaborative learning activities should be encouraged by designing more group discussions, problem-solving tasks or projects so that

students can interact with peers by using the target language. Teachers should also encourage students' autonomous learning through extensive reading or listening activities. The learning materials should not be restricted to school curriculum, but should be all kinds of information students are interested in as long as they are related to language learning.

As the current study illustrates, Chinese learners lack sufficient experiences on using amplifiers and amplifier collocations so that they only use a limited number of amplifiers. Teachers should design exercises or activities which learners learn how native speakers use the amplifiers and amplifier collocations in the authentic context. Thus, the corpus-based approach can be employed in learning lexical items and collocations. Teachers can show learners how language works in corpus and design some activities that are related language learning. Learners are able to learn whether they use certain expressions appropriately or explore how particular words collocate with others in different registers. Learners are also able to internalize the linguistic knowledge they acquire and make it for their own language use through corpus learning (Kennedy, 2003).

## 5.2 Limitations & Suggestions

This study confirms several previous findings and contribute additional evidences with respect to the study of amplifier and amplifier collocations. However, the scope of this study is limited in terms of the small size of corpus and specific research objects (amplifiers and amplifier-adjective collocations). Due to the lack of specialized corpus of Chinese college students' academic writings, the author compiled Chinese learners' corpus by collecting essays of students at a southern Chinese school. The size of the CLC is relatively small, which may affect the reliability of the results. More studies should be conducted under larger professional corpora so that the results would be more reliable. As for data collection and analysis, the objectivity of the findings may be affected by the authors' manually selection and exclusion of words and qualitative analyses of the data. Due to the limited time, this study only briefly discussed 20 most frequent amplifier-adjective collocations as a whole. The collocational preferences of individual amplifiers need to be further analyzed. Besides, other types of amplifier collocations that involve verbs, adverbs, nouns and prepositions should be taken into considerations in the further studies.

Given the fact that this study only compares amplifiers used in academic writings, and only few studies investigate the use of amplifiers in spoken language due to the lack of spoken corpora, it is strongly recommended that the researchers of further studies could consider to compile their own spoken corpus and carry out experiments. It would also be interesting to compare amplifiers and amplifier collocations used in spoken and written corpus for further research. In addition, some results of this study contrast with previous findings in studies of Ganger (1998b), Lorenz (1998), Qi (2006), and Wei & Lei (2011). It seems possible that this discrepancy could be attributed to learners' different first languages. The previous two studies investigated the use of amplifiers of French English learners and German English learners, whereas the following two studies focused on Chinese learners' use of amplifiers. Additionally, learners' English proficiency may also directly affect their English writing competence. Thus, other possible areas of future research could focus on the use of amplifiers and amplifier collocations among learners with different mother tongues or among learners with a different language proficiency. As for the interpretation of the results, L1 transfer and learners' insufficient linguistic knowledge are the main explanations that discussed in the paper. However, there are many factors such as age, culture, gender, psychology, and registers that may affected learners' use of certain amplifiers and amplifier collocations. Further studies regarding to the use of amplifiers in the perspective of socio-linguistics would be worthwhile.

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# Multiple Case Studies On How Digital Gaming Affects L2 Learners' English Learning

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**Abstract.** English digital gaming gains enormous attention and popularity from the entire world, which provides the learners with an ideal platform for L2 English learning theoretically, so it attracts many researchers to analyze the effectiveness and feasibility of it. However, most research remains on a theoretical level, mainly focusing on confirming the causal relationship between them, but overlooks L2 learners' actual feelings and the detailed changes digital gaming can bring to them. This research used longitudinal multiple case studies on three different types of digital gamers to discover what language aspects were indeed improved or changed by digital gaming by analyzing their real-time gaming video recordings and reflections including feelings and thoughts towards it. The reasons behind were inquired through comparing the qualitative data collected from the participants. The results show that the vocabulary of the three participants were all improved, especially for those whose games included some cooperative and communicative features. Digital gaming also tends to change the learners' attitudes towards English learning, which leads to an interesting pedagogical implication. More evidence was found to support that the motivation in using English is more stimulated by the competitive and collaborative features in the games, and language is able to be learnt both intentionally and unintentionally during the gaming process. However, due to digital gaming's special contexts, the language used tends to be simplified, so the use of digital gaming as a tool to improve one's L2 proficiency is also limited.

**Keywords:** digital gaming, L2, English, communication, vocabulary, motivation

## 1. Introduction

Digital gaming as a new medium of language, occupies increasingly more time of the leisure lives of both teenagers and adults. However, most of those best-selling and popular games are produced and published by American companies in English version usually without the Mandarin ones, or with a Mandarin version but released much later when most game players have already played and became familiar to the English version for a long time (Chik, 2014), so often game players have to be exposed to a whole-English game environment. Under such circumstances, many questions emerge as the interests of many researchers in the field of study, especially for language educators, that whether playing digital games is harmful or beneficial to students' L2 learning, whether they are indeed learning something while playing, and how digital gaming can support students' L2 learning, etc. (Kirriemuir & McFarlane, 2004) Through various experiments and studies, many researchers believe that digital gaming can be significantly beneficial to L2 learning, for those digital games provide an ideal English learning environment outside the classroom. Students are self-motivated to be engaged in a whole-English environment and use English frequently by recognizing gaming items or communicating with the fellows in a community, and therefore learn English autonomously and sometimes unconsciously. (Chik, 2014; Sylvén & Sundqvist, 2012).

However, most of these studies mainly focus on theoretical fields, trying to confirm the correlation or to prove the casual relationship between them rather than focusing on the real detailed improvements and reflections in a learner's L2 caused through the gaming process in terms of attitudes, motivations and even the language use. Little research has focused on how exactly a particular game influences a learner's L2 within a period of time by the comparison of the condition of a learner before and after playing that digital game, but instead trying to elicit information from those who have already played English digital games for a long time. Real and detailed changes of an L2 learner brought by digital games has been paid little emphasis on in this field of study. Thus, this research aims at seeking out the real detailed changes and reflections related to L2 learning caused by digital gaming experience through longitudinal case studies, with a general research question that how digital gaming affects L2 learners' English learning.

## 2. Literature review

### 2.1 Categories of digital games and their features

Sylvén & Sundqvist (2012) divided digital games into two broad categories: offline single-player games, like *Civilization VI*, and massively multiplayer online role-playing games (*MMORPGs*), like *World of Warcraft* (*WoW*). However, in the contemporary digital gaming world, another popular game category is identified, called Multiplayer Online Battle Arena (*MOBA*), like *DOTA2* or *Counter-Strike: Global Offensive* (*CS: GO*).

Both offline single-player games and *MMORPGs* are task-oriented games (Chik, 2014), where the players have to complete different tasks of different difficulty levels in the gaming process. No communication with other real players is needed in offline single-player games where the tasks are all completed alone by dealing with the great amount of information given by the game itself, whereas in *MMORPGs*, tasks are completed by the communication and collaboration with other real players to improve the efficiency. *MOBA* is competition-oriented games where the process of each game is quite repetitive. The different players will form a different squad in each game trying to defeat the opponents, so in each game exactly the same game components are used with different strategies. This feature leads to the limited input a game itself can give to the learners, but the players need to communicate with other players actively, discussing various strategies in order to win the game, so more sophisticated communicating skills, including negotiation, persuading, than *MMORPGs* are emphasized. Briefly, offline single-player games and *MMORPGs* provide more comprehensive input, like more complex syntactic patterns and more various vocabulary than *MOBA*, whereas *MOBA* requires more communication skills.

Each different game in any category will provide game players with the language of different registers and themes. For example, in *CS: GO*, a military related game, some military jargons and phrases are used in the game, and players will also use these jargons to communicate with each other in the game. Piirainen-Marsh and Tainio (2009) found that L2 learners may integrate the game terms into their daily language use by repetition, shedding lights on how L2 learners utilize L2 gaming as learning resources.

### 2.2 Theoretical background for learning L2 through digital gaming

Theoretically, digital gaming provides an ideal environment for L2 learning for the sufficient and comprehensible input, and scaffolding through collaboration and interaction. Different games may have the different effects in different aspects for their unique features.

In Krashen's (1985; 1992) Input hypothesis, he stated that the language acquisition only occurs effectively when one is exposed to comprehensible input that is "i+1" which contains linguistic forms and structures just one step beyond the learners' current language competence, and then comprehension and acquisition will both occur. Crucial to communicative language teaching, this theory focuses on using language to complete tasks and interact with others. (Schütz, 2007) Another theory also stated a similar rationale in SLA: Vygotsky's (1980) Zone of Proximal Development (ZPD) and Scaffolding. Learners can learn the knowledge or skills best in the gap of their actual developmental level that they have already mastered and their potential developmental level that they can achieve with the help of teachers or more advanced peers. The technique is called scaffolding that providing learners with structural support and they will gradual withdraw it until they can be independent learners. (as cited in Sylvén & Sundqvist, 2012) Digital gaming provides every element necessary in the theories. Most games provide sufficient and comprehensible input, as Thorne et al. (2012) stated in his analysis of the in-game texts of *WoW* which constitutes a high level of lexical diversity, sophistication and syntactic complexity, and if the player encounters some problems in the game, he may use some online forums to seek for help from others (Chik, 2014), which is the moment when scaffolding and interaction occur. In *MMORPGs* and *MOBA* games, more collaboration and interaction are needed. Game strategies are discussed by the whole team verbally; various charts and forums are used for communication in writing; new players will need experienced players to help them get more advanced in gaming, etc. (Thorne, 2008). Although all those three types of digital games can affect L2 learning, they have different emphasis due to their different information input level and requirement for communication with other players. Theoretically, *MOBA* games have more impacts on communication skills; offline single-player games have more effects on vocabulary and reading skills (Sylvén & Sundqvist, 2012), and *MMORPGs* are something in the middle, which exert moderate influences on each skill.

Comprehensible input, interaction and scaffolding occur simultaneously to help the learners acquire an L2.

Vocabulary is a crucial factor in judging an L2 learner's proficiency. (Ellis, 2002) Sundqvist (2011) stated that vocabulary can be improved unintentionally by extensive reading and problem-solving tasks, which are the conditions successfully created by digital games. Reinders (2012) also pointed out that digital games associate words with images, objectives, tasks, dialogues, behaviors, rather than abstract symbols, so that

learners comprehend the meaning through context, or by asking other players (Sylvén & Sundqvist, 2012). This interaction process also facilitates the vocabulary learning.

In conclusion, different digital games with different features will help learners to improve different aspects of an L2, so the detailed changes in their L2 language learning must be analyzed accompanied with the features of different games.

### **3. Methodology**

#### **3.1 Research design and participants**

The research method is multiple case studies, 3 cases in particular. The 3 participants were selected for their different background information, preferences for different games, learning environments, etc., so through comparison among their personal profiles and gaming experiences, the effects of different digital games and their limitations can be found. Case studies can provide more enriched details of the effects of digital gaming on L2 learning and discover some unanticipated factors for further research.

Three participants are involved in the research, Zhang, Wang, and Gu, who all have consented to use their real names in the research. They are all university students with different English proficiency, yet all above the intermediate level. The information of their current English proficiency, attitudes and motivations towards L2 learning and digital gaming, learning environment and experience, gaming preferences were collected to constitute a personal profile which will be given together with the data analysis in the results part to illustrate the findings.

#### **3.2 Data collection and analysis**

Self-video recording with a highly flexible content is the primary method of the data collection. They could use their own ways to record the videos to illustrate any idea and finding related to English digital gaming, including the events happening in their gaming experience, their attitudes towards English learning and digital gaming, the anticipated effects and suspected limitations of digital gaming on English learning, etc. Without the constraints and limitations, their real feelings and different influences received were collected and analyzed.

They regularly played their own preferred digital games in English version for about 2 and a half months and were asked to record a video every week, from the beginning of July, 2017 to the mid of September, 2017. Due to their different schedules and talking habits, the 3 participants used 3 different video-record styles, gave different number of videos and discussed different aspects towards their gaming experiences. The first videos each included a brief introduction about his personal profile. The features of the games they played were analyzed critically with their individual differences to see how these digital games influence their English learning.

The common or different thoughts and feelings of the effects digital gaming exerts on L2 learning were analyzed first, including motivations, attitudes, anticipations, etc. Vocabulary is a main focus in the research; whether they can recognize, memorize or even use the vocabulary acquired from the games in their language use were checked throughout the videos. Different influences on different individuals by different games were analyzed separately.

The language expressions in each video of the participants were compared with other videos of him to see whether there was an improvement in his language use, combining with the analysis of the real-time game playing videos to check what features of the game may contribute to this improvement. Their own reflections on their gaming experience and language learning were also analyzed to know their subjective feelings about the changes in their English and their perceptions on the effects digital gaming has on English learning to obtain some valuable implications.

### **4. Results**

#### **4.1 Zhang's case**

Zhang recorded 5 one-hour real-time game playing videos of *Counter-Strike: Global Offence (CS: GO)*, an online first-person shooting game, on 23/28 July, 7/20 August, and 8 September, 2017, respectively. While he was playing the game, he discussed his reflections and feelings towards his own gaming experience. Although

he was a final year undergraduate Chinese student studying and living in Canada with an upper intermediate level overall English proficiency, he was studying Computer Science with friends mainly from China and living alone, so he did not have many opportunities to practice his English speaking and writing skills in his daily life. He reckoned that his English speaking ability was not good enough with poor communication skills due to his introverted personality. He did not intend to use digital gaming as a way to learn English, but just for relaxing. He was an intensive game player of *DOTA2*, but only began to play the game *CS: GO* one month before the data collection period. Although his English language proficiency was already relatively high, there was a change in his communication methods and skills with many valuable reflections.

There were two gaming modes identified in *CS: GO*, the competition mode with two teams competing with each other to win the game and the casual mode with different players playing in the same map to achieve the same goal.

In the competition mode, it was necessary for them to communicate effectively and efficiently, so some short phrases with jargons and abbreviations were often used rather than the full sentences, like “no on site”, meaning “no one is on the bomb site” and “one apps”, meaning “there is one enemy in the apartment”. There were also many jargons in *CS: GO*, which were normally single words having much more complicated connotations, like “rotate” meaning the enemies are in another location and they should change their direction. However, these phrases, if not appropriately clarified within the context, could be very ambiguous and needed to be clarified a second time. In the first video, there were some situations like that he shouted out “Could you watch it!” out of anxiety and then he realized that it was very ambiguous, so he added “I mean the cat (catwork)” to clarify it. In the following video recordings, such ambiguous expressions with a second clarification reduced significantly, probably not only because his familiarity with the game had increased, but also because he tried to make more precise expressions to make his teammates understand him as soon as possible. He also tended to overuse “rotate” in the first video, just saying the single word, but in the following videos, he said the word with some explanations to make it clearer, like “B is clear, rotate!”, so their teammates would go to the A point accordingly. As he pointed out although grammar was entirely deemphasized in digital gaming where only the key words making sense was enough, it was still necessary to clarify the meaning of the words to communicate effectively. During the gaming process, his language kept simple, but the preciseness was improved and emphasized as he stated.

The way he blamed his teammates showed the change in his language most significantly. In the first two videos, when he found his teammates did not contribute to the team, he just complained or said some swear words like “fucking retarded”, “you gotta do something, man!”, but in his last video, he used “can someone don’t be that smart” to show his blame to the teammates, even trying to be sarcastic. He also claimed that he learnt those phrases from other players blaming him. When the game was at a disadvantaged position, he used to blame a lot, or just said nothing in the first two videos, but in the last two videos, he tried to give commands to the teammates, like “down apps”, or tried to calm them down, like “Hey! Chill! man”. It seems his role in his communication strategies changed from a relatively passive replier to an active speaker and he learnt some expressions from communicating with other players.

Generally, he spoke much more in the last two videos than the others, probably due to his improved gaming skills and corresponding language skills in that game, like understanding how to correctly and effectively give orders. Moreover, in the casual gaming mode, players tended to chat a lot, where the main focus was not the game itself, but it established a social communicating platform for them. Zhang also expressed his own opinion towards it in the videos. In fact, gaming facilitated the communication with others. As for Zhang, he was quite shy in real life, but in the gaming environment, which was entirely anonymous and relaxing, he was inclined to and dared to say more without the concerns of being offensive.

Many drawbacks of digital gaming as an English learning platform were also identified by him. His chatting with others was often meaningless nonsense. When a guy was singing American Pie, he said “I am Canadian. This song is way too disrespectful.” This was just a random reply without actually saying anything. One man used, “instant coma” to mean he made a mistake, but this phrase actually makes no sense in real world. He pointed out “Gaming can only teach one some words, but language is more than words, including forming sentences and using the correct grammar. These are also the key elements in making your language make sense in real world. However, digital gaming, this context is quite special, where clusters of simple words can make sense, but in real conversation, many other language factors must also be taken into consideration”.

#### 4.2 Wang’s case

Wang was a final year undergraduate Chinese student studying in a university using English as the medium of instruction located in China, so he only used English for academic purpose without any other opportunity for practicing his daily language. He intended to use digital games to learn English and had a strong belief in its effectiveness, so he played 3 different games in English during the data collection period, *Sid Meier’s*

*Civilization VI*, *Player Unknown's Battlegrounds*, *Room: Ariacon*, and recorded 8 real-time game playing videos of different length varying from 5 minutes to one hour, 4 on *Civilization VI*, 2 on *Player Unknown's Battlegrounds*, and 2 on *Room: Ariacon*. He illustrated his understandings, feelings and attitudes towards digital gaming and English learning throughout the game playing process and even explained how the game worked and helped him to acquire L2 knowledge. In his case, his unique ideas and understandings of English digital gaming and their changes through his gaming experiences were discussed.

*Civilization VI* was the game he recorded for 4 videos, he himself also felt that this game helped with his vocabulary significantly. It is a very language-intensive game, where various vocabularies are involved. In the first video, he felt very confused with the vocabularies encountered and got lost in them, like “delegation”, “mustang”, so he needed to check the dictionary to understand them. However, in the following videos, his gaming operation went much more smoothly, and he claimed that he had already learnt and memorized these vocabularies with their meanings, so that he could quickly comprehend what he needed and reacted accordingly. He thought that for the words like “mustang” and “quarry”, if checked in the dictionary, he might know the meaning of them, but not comprehensively. However, digital gaming presented him pictures of these words and let him know the context to use it, which further helped him understand them. For some abstract words like “delegation”, the definition often did not really help the learners in comprehending the connotation of it, yet in gaming, their duties and jobs were showed to the players directly, further helping them to learn these words.

*Civilization VI* also had an online mode, where the players could play with their friends in building an even bigger world structure. Even though they might discuss the items of this game in Chinese to efficiently solve the problems, their discussion was a kind of explicit learning, where they directly analyzed what this word meant and how this system operated. In the video, they talked with each other on what they needed and what they wanted without any difficulty in using the new vocabularies with their correct meanings. Through this information exchange process, they practiced the vocabularies in that gaming and learnt them.

The second game he played and recorded was *Player Unknown's Battlegrounds (PUBG)*, which sometimes he might meet some random teammates from other countries. Similar to *Civilization VI*, the items must be discussed in English, like “pain takers”, “scope”, etc. However, this cooperative game forced him to communicate with his teammates to win the game, so it was necessary for him to discuss the strategies with his teammates. He has not played this game for too long, but it can be seen from the video that he always endeavored to be the commander and lead the team to carry out certain strategies. An increasing motivation in communication was identified by him.

The last game was a puzzle game, *Room: Ariacon*, where English skills were practiced in a far more interesting way. There was a scenario where one player needed to listen to a voice from a trumpet to get the hints and the other player needed to choose the corresponding words from an inscribed stone to solve a problem. In this process, the listening and speaking skills were trained directly from the digital gaming's content. He mentioned that at the beginning he was just trying to find a double-player digital game to have fun with his friends, but later they surprisingly found this game was very interesting and very helpful in practicing their English, which changed his original idea about English learning. He used to think that doing English listening and reading tasks was very boring and painful, but in this case where these tasks were embedded in digital games, learning and practicing could also be a delightful process.

#### 4.3 Gu's case

Gu was a final year undergraduate Chinese student studying in a Chinese university, so after he entered into the university, there was hardly any chance for him to practice English. He primarily played *The Witcher 3: Wild Hunt*, an offline single-player game, which was full of colloquial expressions, and recorded 9 videos including 2 real-time game playing videos at the beginning and the end of the data collection period respectively, each for approximately one hour, and 7 weekly reflective videos, each for about 5 to 7 minutes, talking mainly about the events happening in his gaming experiences. Thus in his case, his use of colloquial expressions in these videos was recorded to check any improvement in his language.

In the first real-time game playing video, clearly he did not understand the terms used in the game, like “sprint”, but after he pressed the corresponding button, the character did the act, and he understood the meaning of it. Similarly, gaming helped him to connect the visual information with the words to understand and memorize them. In his second reflective video, he also stated that gaming helped him to remember these vocabularies, because he always needed to use them to control the characters. High Frequency of the appearances of the words played an important role here. In each video he tried to describe some events that had happened in the game, but from the language used, it can be told that his English speaking skills have not been improved significantly. Although he claimed that he had learned these new vocabularies, he never actually used them in his recordings. In the game, many colloquial expressions were used, like “better not”, “it'd best to...”,

but in his reflective videos, these colloquial expressions rarely appeared. Generally, his English language proficiency did not improve notably during the digital gaming process.

However, he used to hold a negative attitude towards the painful English learning, but during the gaming process he felt that he did acquire some English knowledge unintentionally which changed his attitude towards it, stating that digital gaming probably could be an interesting way to learn English happily. Therefore, there was definitely a change in his English learning motivations and attitudes.

## 5. Discussion

For all three cases, their vocabularies were all improved, though different from person to person. Although Gu claimed that his vocabulary was also improved based on his own feelings, he did not actually use them in his own language. The reason probably is that in his game, there was no need for him to use the language due to the non-communicative features of it. He did not actually need to say or use these words to fulfill some tasks, but all needed was understanding. In order to improve one's English speaking abilities, real communication with real people seems necessary, which has also been pointed out by Zhang. Zhang and Wang really learnt the terms from the gaming process and in turn used these terms to communicate and complete some tasks, during which they went through a process of practicing. This is probably the reason why they successfully memorized and used these words. However, digital gaming definitely has helped the learners to understand the vocabularies better by presenting the visual information and the functions of them. Zhang's communication skills were improved, in a sense that his language was still simple but more precise for expressing the intended meaning, because of the necessity in the game for effective and efficient communication.

Zhang felt that he tended to speak more in a digital gaming environment, which is quite reasonable, for it is a relaxing and casual environment in digital world, where nobody really cares about what others say. Language is mostly considered as jokes there. Zhang also pointed out that in this politic-right world, many things were not really discussable, like the problems of homosexuality, but if the language related to these topics could not be practiced in real contexts, it was very detrimental for English L2 learners. However, gaming provides a platform where nearly everything can be discussed, so learners may have more opportunities to practice their language in more various, unlimited topics in the digital gaming world. Both Zhang and Wang pointed out that in some competitive digital games, it would be necessary for the players to communicate with others for their desire to defeat the enemies and win the game, so even as shy as Zhang, he would sometimes blame his teammates and try to command others through using English. Therefore, digital gaming has indeed increased the players' motivation in using English to communicate.

Zhang said "Real world is too "fucking" stressful, (and) I just want to turn my head away though", so he did not want to use gaming as a way to improve his English, but he actually learnt something from it unintentionally. However, Wang said, he wished to use these games to practice his English, so he chose the English language as the gaming language, which was a type of intentional learning. As a result, they both improved their language abilities through the gaming process, so digital gaming is probably a great platform for practicing English for both intentional learners and those who just want to relax, but unintentionally have learnt something, which is even better, for it may help some English learners with low motivations to practice.

Wang's video recordings of *Room: Ariacon* and Gu's gaming experience have implied an interesting and important pedagogical implication of digital gaming in English learning. In fact, it provides learners with a great opportunity to practice their English skills directly in a significantly more interesting way, and if the game is designed ingeniously, it can suit the needs of different learners at different levels. Digital gaming is able to change the attitudes of the L2 learners towards English language for the happiness and interests it brings to the learners.

However, the gaming communication is very special, where only the key terms being used and understood is sufficient in achieve effective communication, so what one has learnt from the gaming may have limited use in real world. Both Zhang and Gu said that in order to improve their gaming skills and finish a certain task, they might refer to some *YouTube* videos and some online forums, like *Reddit* for help. Wang also said that he might sometimes watch *YouTube* videos for fun. Gaming also motivated them to be engaged in some other English language related activities to practice their English listening and reading skills. However, Zhang also pointed out that people who streamed on *YouTube* or *Twitch* or wrote something on *Reddit* were often below the well-educated level, so what they wrote in English was understandable, but not academic or grammatically perfect. Digital gaming can help L2 learners to learn and practice their English, but their use is quite limited, for they only function communicatively. Therefore, digital gaming can assist learners' practicing their English communicatively, but it plays a less important role in learning grammar, complex language organization, etc.

The research also has some limitations. Zhang's case was quite special, for his studying and living in Canada, so his improvement on his English communication methods might not be entirely from the English

digital gaming process, whereas his daily life might also contribute to it. For the data collected were primarily qualitative with the subjective reflections from themselves, their improvement in English might not be highly significant and accurate, so some quantitative research is necessary for confirmation.

## 6. Conclusion

In the multiple case studies, three participants were analyzed based on different games played. The results have demonstrated that English digital gaming indeed affected their English learning both intentionally and unintentionally, especially in vocabularies. No matter what kind of games they played, they all met, understood and memorized some new vocabularies by connecting them with the visual information, but it seems that in order to really integrate them into their own language knowledge, some communicative practices were necessary, which might only be provided by those digital games involving an online mode to play with other real people.

More evidence is found by the research to support that digital gaming can also motivate the learners to use English for communication by providing a more free-speech environment and facilitating their desire to win the game, by which their interests in this game have also been stimulated. Thus, they may also use other some game related English sources to collect information. The attitudes towards English learning can also be changed to a positive one for digital gaming being interesting and bringing delights to the players, from which a pedagogical implication is achieved that using digital games as an interesting way to make the learners learn and practice English directly. Nevertheless, due to digital gaming's special contexts, the language used within is not always meaningful and grammatically correct, so the use of it in English learning is quite limited, which cannot be entirely relied on.

However, as case studies, the results of this research are difficult to be generalized with subjective data. Zhang's case was special in his living in an English speaking environment with many other factors involved. The participants were all game lovers, but how would digital gaming affect non-game-lovers remains a question. How their English proficiency were improved exactly will need quantitative data to have a further analysis. Future research should zoom in one point identified in this research and quantitatively analyze the exact transformation and improvement of L2 learners caused by English digital gaming.

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# Word-initial Consonants Acquisition and the Effects of Consonant Frequency in Vietnamese Language: From a Statistical Learning Model

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**Abstract.** For many years, studies have been conducted to examine speech sound development in different languages. These studies have provided useful references regarding the course and time of acquisition of linguistic features across different languages, expanding our knowledge of developmental phonology. However, there has been limited research conducted on Vietnamese phonological acquisition and phonological developmental patterns of Vietnamese-speaking children has yet been fully understood. Also, the relationship between statistical learning and Vietnamese speech sound development is still an area that needs further investigation.

Evidence from previous research acknowledges the important role of statistical learning; however rarely considers how statistical learning influences speech production over time or directly examines a learning mechanism from the statistics of the languages which are studied. The theoretical framework of statistical learning has been applied in only a few studies to expand our knowledge on childhood speech sound accuracy and no research has been done to look into the dependency between frequency effects and phonological acquisition in the Vietnamese language. My proposed study will focus on production of initial consonants of 2-3 years old Vietnamese speaking children and will aim to decide whether the observed effects of consonant frequency in other languages holds true for Vietnamese language.

As part of my Ph.D research project, this paper briefly reviews evidence and general trends in phonological acquisition from cross-linguistic studies, providing information on Vietnamese phonology, discussing how the statistical learning framework will be applied to the study Vietnamese phonological acquisition. Potential features that may influence word-initial consonant developmental trajectories of Vietnamese speaking children, will also be mentioned.

**Keywords:** phonological acquisition, cross-linguistic studies, Vietnamese language, frequency effects, statistical learning

## 1. Introduction

There is a lack of developmental norms to support the speech and language assessment of Vietnamese-speaking children, which has made the job of identifying children with phonological impairments for timely intervention difficult. Studies providing description on Vietnamese-speaking adults' phonology have been conducted in Vietnamese (Cao, 1998; Dinh & Nguyen, 1998; Pham, T. L., 2007; Pham, A. H., 2003) and English (Hwa-Froelich, 2002, 2007; Brunelle, 2009). However, it appears that no research has focused on Vietnamese-speaking children's phonological development. As a result, there is no normative data available against which to assess the phonological skills of Vietnamese children.

Statistical learning could play an important role in learning about phonological acquisition. It could be defined as the discovery of basic speech patterns, including the production of sounds and sound sequences. However, only a few studies have applied the statistical learning framework to child speech accuracy. Thus, there is an empirical gap on how we understand the influence of statistical learning on early childhood expressive speech development and how their relationship works over time. The purpose of my study is to explore the relevance of statistical learning to phonological acquisition.

My proposed study aims to establish a normative database for Vietnamese-speaking children in order to describe the acquisition of phonological skills and provide information regarding typical age-related stages for the acquisition of word-initial consonants of the Vietnamese language. A representative sample of children who speak the southern, northern and central Vietnamese dialects will be recruited. This will support a comprehensive examination of dialectal influences on the development of Vietnamese word-initial consonants. The study will also investigate, based on statistical learning framework, the relationship between consonant frequency and the sequence of word-initial consonants acquisition.

The study aims to answer the following research questions:

- (1) What is the initial consonant acquisition path for Vietnamese-speaking children in three main dialects of the Vietnamese language: Northern, Central and Southern dialects?
- (2) Based on the statistical learning framework, what is the relationship between consonant frequency and the sequence of segment acquisition in Vietnamese language? Do high frequency sound patterns appear to support the acquisition of word form?

## **2. Literature Review**

### **2.1 Cross-linguistics phonological acquisition studies**

Hua and Dodd (1999) described the phonological acquisition of 129 monolingual Putonghua speaking children from 1;6 to 4;6 in term of order of acquisition of tones, consonants and vowels. The results of this study show that by 3;6 years of age, 75% of the children participating in the study acquired the 21 syllable-initial consonants. At 4;6 years of age, syllable-initial consonants were used correctly by the children on two thirds of occasions, excluding four affricates (Hua and Dodd (1999). This is a cross-sectional study; therefore it is important that information about age of segmental acquisition need to be interpreted within this context.

In the study conducted by To, Cheung and McLeod (2013), the effects of age and gender on phoneme acquisition of Cantonese-speaking children were examined. Study results showed that all Cantonese initial consonants were acquired by ninety percent of the participants by the time they were 6 years of age. It was also stated that factors that contributed to the acquisition rate included “functional load, articulatory ease, consonant–vowel interaction as well as vowel context and phonetic variants” (To, Cheung and McLeod (2013).

There has been limited research conducted on the Vietnamese language. Study by (Hwa-Froelich, 2002) provides information on speech sound development in the Vietnamese language. However, in this study, only speech samples of three adult Vietnamese speakers from three main dialects (northern, central and southern) were collected and analysed. Phonological acquisition of Vietnamese speaking children was not investigated. Tang and Barlow (2006) described the phonetics and phonemic inventories of four children whose first language is Vietnamese and present with phonological disorders. The study had a small sample size and there was no information on typical phonological acquisition. More recently, Pham and McLeod (2016) provide a comprehensive overview of Vietnamese consonants, vowels and tones across three main dialects of the language. They highlight the importance of considering dialectal effects of the Vietnamese to distinguish between underlying speech and/or language disorder and language variants. However, there still has been limited research conducted on developmental Vietnamese phonology as well as Vietnamese-speaking children’s phonological acquisition.

### **2.2 Looking at speech sound development from a statistical learning model: The role of phoneme-frequency**

When studying phonological acquisition, statistical learning could be a prominent factor. However, it has not yet been investigated for Vietnamese language. In a statistical learning model, learning is computed “on the basis of some aspect of the statistical structure of elements of the input, including their frequency, variability, distribution, and co-occurrence probability” (Erickson & Thiessen, 2015, p2). Research has documented the link between speech sound accuracy and the statistics of the ambient language. For example, Munson (2001) suggests that for the English language, if a speech sound is highly frequent in the language, that may in turn support the acquisition of form and meaning for words that contain that sound. Storkel (2001) found that children produced novel words which consist of high probability sequences, like /hʌp/ more accurately than words with lower probability sequences, like /gim/. Van Severen et al. (2013) reported on the predictive power of input frequency on the development of word-initial consonants. This implies that statistical learning plays a role in expressive speech sound development. Edwards and Beckman (2008) looked into the frequency effects in children at 2 and 3 years of age who speak Cantonese, English, Greek, and Japanese. More recently, when looking at the phonological acquisition of 2-3 year old children whose first language is Icelandic, Másdóttir and Stokes (2016) noted a strong correlation between frequency effects and speech segments acquisition in early childhood. However, no research has been conducted to explore the relationship of consonant frequency and Vietnamese phonology acquisition in a statistical learning model. While a universal implicational hierarchy proposed by Jakobson’s (1968) which supports the notion of a hierarchy of articulatory complexity in segment development has been demonstrated for a variety of languages including English, Cantonese, Icelandic, there is also evidence to support the influence of phoneme frequency early phonological acquisition. My study aims to look at the relationship between consonant frequency and word-initial consonants acquisition in the Vietnamese language, study results will be expected to provide a clear answer whether the observed affects in other languages hold true for Vietnamese. Vietnamese is a rich language in which to explore the effects of consonant frequency on the sequence of segment acquisition because of the complexity of the fricatives, stops and nasals. Investigating the emergence of the consonants will guide us to decide whether it is true that segments that are frequent in the language are perceived and produced more early and accurately. The study will only look at word-initial consonants as in the Vietnamese language system, a voiced phoneme can not be found in the final position. In fact, the final consonants are sometimes considered as allophones (which are not released) of the corresponding phonemes in the word-initial position. In addition, Vietnamese consonants never occur medially.

In summary, the available literature has documented the relationship between speech sound development and the frequency of sounds in different languages. Even though statistical learning has been applied to study about childhood speech sound accuracy, it seems that no research has been carried out to investigate how this theoretical framework works in the Vietnamese language. According to Stokes et al (2012), children who learn languages which are different in terms of numbers of consonants, vowels, and phonotactic structures may exhibit different learning patterns compared to those of English and French. Gervain and Mehler (2010) suggested that consonants may play a more important role in statistical learning than vowels. Therefore, the current study will focus on the production of initial consonants of 2-3 years old Vietnamese speaking children.

### 2.3 A brief description of Vietnamese phonology

Vietnamese is the official language spoken in Vietnam. According to Vietnam's General Statistics Office (2013), Vietnamese is used as the first or second language by more than 89 million people. Vietnamese is a tonal language like Mandarin and Cantonese, which means that a change in tones is associated with a change in word meaning. Hwa-Froelich et al. (2002) pointed out that the Vietnamese language differs from English in terms of tones, phonemic repertoire, production manners, and syllable stress. Also in Vietnamese, there is a lack of consonant clusters (Hwa-Froelich et al, 2002). This study provided a detailed and comprehensive description of the characteristics of Vietnamese phonology. It was reported that some sounds may be pronounced differently across different dialects (central, northern and southern). However, all the dialects share a common characteristic in that a sound normally corresponds to one same symbol or a combination of symbols. In other words, the grapheme-phoneme relationships in the Vietnamese language are the same among 3 dialects. There are 23 consonants and 12 vowels which constitute these possible combinations: “/V/, /VV//CV/, /CVV/, /CVC/, /CVVC/, /VC/, /VVC/, /wV/, /wVV/, /wVC/, /wVVC/, /CwV/, /CwVV/, /CwVC/, /CwVVC/” where /w/ acts as a semi- vowel following an initial consonant in some occasions (Nguyen, 1987). Voiceless stop or nasal consonants, including /p/, /t/, /k/, /m/, /n/, and /ŋ/ act as final consonants. There is no consonant clusters or consonant blends in Vietnamese (Cheng, 1991; Thompson, 1965). Even though Vietnamese is monosyllabic, Thompson (1965) stated that instead of speaking in monosyllabic utterances, “the Vietnamese speaker insists on a two-syllable expression of some sort—a phrase, compound, pseudo-compound or derivative” (p. 310).

Despite the fact that the three dialects of the Vietnamese language differ in the way consonants, vowels and/or tones are pronounced, Vietnamese speakers can understand someone who speaks a different dialect without difficulty in most cases. Published information on the phonological characteristics of the three main dialects of Vietnamese is still very limited. Pham and McLeod (2016) emphasized the importance of taking into account dialectal differences in distinguishing between underlying speech and/or language disorder and language variants. Dialect should be an important factor to consider when it comes to assessing the speech and language abilities of Vietnamese monolingual children (Nguyen, 2011; Tang & Barlow, 2006) as there are dialects that seem to receive more prestige than others. Also, possible dialectal mismatches between the assessor and the child need to be considered (Pham & McLeod, 2016). Taking this into account, my study will explore and compare developmental word-initial consonant acquisition in Vietnamese speaking children across the three main dialects to address this issue.

Kirby (2011) provides a comprehensive description of Vietnamese initial consonants from northern dialects in the table below. Pham and McLeod (2016) reported that the number of initial consonants in Standard Vietnamese ranges from 21–24 based on different descriptive studies. However, most researchers agree on 16 initial consonants that are shared among the three main dialects

|                     | Labial | Labio- dental | Dental              | Alveolar       | Palatal | Velar | Glottal |
|---------------------|--------|---------------|---------------------|----------------|---------|-------|---------|
| Plosive             | p b    |               | t <sup>h</sup><br>t | d <sup>f</sup> | tɕ      | k     | ʔ       |
| Nasal               | m      |               | n                   |                | ɲ       | ŋ     |         |
| Fricative           |        | f v           |                     | s z            |         | ɣ     | h       |
| Approximant         | w      |               |                     |                |         |       |         |
| Lateral approximant |        |               | l                   |                |         |       |         |

## **2.4 Predicting factors that may affect developmental trajectories in Vietnamese phonological acquisition.**

When studying Vietnamese-speaking children's acquisition of word-initial consonants, two major issues will be taken into account. One is the universal tendencies in children's phonological acquisition; the other is the role that Vietnamese language-specific features play in determining the phonological development of the children participating in the study.

According to Jakobson (1968), the distribution of a sound can indicate if that sound would be acquired early. He suggested that nasals, front consonants and stops would be acquired earlier than their oppositions, orals, back consonants and fricatives respectively. Jakobson's view of phonological acquisition in terms of oppositions or contrasts set the agenda for subsequent studies of child phonology. To and Cheung (2003) suggested that in Cantonese, the order of initial consonant acquisition is that bilabials are acquired first, followed by alveolars and then velars (in terms of place of articulation) and nasals, plosives, and approximants are acquired before fricatives and affricates (in term of manner of articulation). There was a strong relationship between accuracy of production at 2;4 years and the frequency of occurrence of consonants in the conversational speech samples of the participants. However, while the most frequent sounds were acquired first, there were some exceptions (Másdóttir and Stokes (2016). My research will investigate if the acquisition of initial consonants for Vietnamese-speaking children follows this pattern.

## **3. Research Design and Methodology**

The study aims to recruit 300 two-year old Vietnamese-speaking children with 100 participants for each group of dialects (northern, central and southern dialects). This number is targeted to provide adequate statistical power to capture a small group effect (Cohen, 1988). Also, Waters (2013) suggested that in a correlational study, there should be at least 30 or more participants to increase research validity. A random selection of 30 participants (10 from each dialect group) will be assessed using the same tasks over 3-month, 6 month and 9-month periods in order to document developmental patterns. All the selected participants will be assessed for a cross-sectional study at the beginning to see how the profile of word-initial consonants differs across three dialects.

The data will be collected from children attending preschool settings in Ha Noi City (Northern area), Ho Chi Minh City (Southern area) and Hoi An City (Central area). Vietnamese Medical History and a translated version of Parents' Evaluation of Development Status (PEDS) (Glascoe, F. P, 1997) will be used to select eligible participants. Inclusion criteria includes no history of social, emotional, cognitive or physical development difficulties as reported by parents and schools; no observed social communication or speech and/or language difficulties. Consecutive sampling will be used to select the children to participate in the study. The process involves selecting all eligible participants until the target number is achieved. A snowball technique will also be used when a few identified participants can be consulted to look for potential candidates for study, aiming to increase the study sample size.

To identify participants for the study, a selection of government and private nursery schools in Ha Noi City, Ho Chi Minh City and Hoi An City will be invited to participate. Principals and head teachers will be contacted via letters to determine their interest in participating in the study. Schools will also be asked to confirm their participation and that they can forward study information to parents of potential participants. Next step includes sending follow-up letters to interested parents to further explain the purpose and procedures of the study. Interested parents will complete the PEDS and parents of eligible participants will be required to sign consent forms. Besides, when the study participants have been identified, classroom teachers will fill in a questionnaire to help the investigator gain information on the participants' social communication as well as speech and language development.

There has been no published standardized phonological assessment for Vietnamese-speaking children. A picture-naming task will be developed to obtain large and well-controlled speech samples (generally 30-100 words in length.) Tang's phonological probe (2002) and Vietnamese One Word Articulation Test (Giang Pham & Ducotte, 2009) and Vietnamese Speech Assessment which is being developed by Pham, Mcleod and Le (2016) will serve as a guide to develop the assessment stimuli to assess the acquisition of word-initial consonants in the participants. Words will be selected based on, but not limited to, the main following criteria: phonetic inventories and context, word structure, tone and semantic/syntactic classes, age-appropriateness and dialectal differences. Phoneme frequency for Vietnamese word-initial consonants will be calculated based on a Vietnamese corpus developed by Giang Pham (2006) and will be used to establish the link between frequency and the participants' speech development pattern.

The author of this study will assess all children. The author is trained in speech elicitation and phonetic transcription techniques. Participants' responses will be audio-recorded to support transcription and data

reliability checking. Approximately 25% of data will be checked for reliability by having a second trained native speaker transcribe data in IPA and compare with the original transcriptions.

Each participant will be seen individually by the investigator either at school or home for every stage of assessment. All tasks will be administered in a quiet room under the supervision of teachers or parents. Time will be spent on building rapport with the child before assessment. Before assessment, the investigator will identify participants' information using pseudonym and gender, verifying the date of birth to calculate the chronological age then fill in the school details. After the phase 1 assessment, 30 participants will be chosen randomly to be followed up over 3-month, 6-month and 9-month periods to track the developmental patterns of word-initial consonant acquisition.

The examiner will transcribe the participants' speech online using broad transcription. Participants' responses will also be recorded using a digital recorder. All productions will be scored on a point to point basis and the number of children producing the sound accurately will be documented. This will yield interval data for each speech sound. One-way ANOVA test will be conducted to compare speech sound accuracy (dependent variable) among the dialects (independent variable) of the Vietnamese language. PCC will be calculated to identify individual variability in children's phonological acquisition and development. For 30 participants randomly selected to be studied over 3-month, 6-month and 9-month periods, results will be analysed in the same way to document developmental patterns.

Study results will include independent and relational analyses. Each participant's sound system will be analysed individually to look for phonemic inventories, patterns of word-initial consonant acquisition and some common phonological processes. Meanwhile, during relational analysis, participants' phonemic inventories are compared to different age groups and dialect groups based on general linguistic principle, aiming to identify error patterns and dialectal patterns. Participants' performance on picture-naming tasks to assess phonological acquisition and measurement of phoneme frequency will be compared to establish any relationship between these two measurements.

#### **4. Limitations and Future Direction**

Although the investigator is aiming to recruit a sufficient sample, it is still a relatively small sample of the overall population. Selecting eligible participants to participate in the study may take several weeks due to children living in three different cities across the country. Study findings from participants may not represent the whole Vietnamese-speaking child population. The investigator of this study speaks the central dialect. Even though the investigator is aware of dialectal difference as well as being exposed to all different dialects and will make adjustments based on the participant population, this may present as a potential source of bias. The investigator's effort to make comparisons across children and dialects will be limited by the number of participants and the potential effects that participants' social backgrounds have on their performance. Nonetheless, the study will determine the characteristics of Vietnamese speech development, considering dialectal variation, to provide initial normative data on which further assessment instruments will be based. Finding a suitably qualified native speaker to undertake data reliability measures may provide a challenge. To mitigate this risk contact will be made with Vietnamese-speaking speech-language therapists known to work in Vietnam.

The proposed study will provide several opportunities for future research with the Vietnamese-speaking child population, including developing norm-referenced assessment to assess speech acquisition. Little is known about the phonological development of Vietnamese-speaking children and data on ambient frequency are lacking for Vietnamese. This study of segment frequency of the language will provide valuable data on consonant frequency in the speech of the participants of the study. Longitudinal studies using a larger number of children using the three main dialects of the Vietnamese language, beginning with early childhood followed by adequate follow-up years after children go to school will be required to examine the link between phonological acquisition of consonants, vowels and segmental frequency. Also, knowledge of the relationship between these areas will be enhanced by further longitudinal studies.

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# Grammatical Weight and Relative Clause Processing in German and Cantonese

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**Abstract.** Relative clause extraposition in German displaces the sentence-final verb, thereby postponing the relative clause, whereas topicalisation of the sentential object in Cantonese preposes the relative clause, creating another mirroring image of word-order displacement. One motivating factor for such rearrangement, as hypothesised by Hawkins' (1994, 2004) domain minimisation principles, is that the rearranged syntactic structures render higher efficiency in parsing in correlation with clausal complexity: relative clause extraposition in German and topicalisation of Object noun phrase (NP) in Cantonese are similarly predicted to be motivated by grammatical weight (in length and complexity) of the relative clauses. Following Francis (2010), the effect of grammatical weight was tested employing acceptability judgment tasks by recruiting native speakers of the two respective languages to test Hawkins' theory. The mean acceptability ratings of the experiment, however, did not find a significant advantage of the rearranged sentences over their canonical variants in both languages. The rearranged sentences in German were rated only slightly more acceptable than their canonical variants in the 6- and 9-word conditions; whereas the rearranged sentences in Cantonese were rated half as acceptable as their canonical variants. Further studies employing online experiments, such as self-paced reading tasks with more manipulation of discourse-pragmatic factors and information structure, will be employed to further investigate such findings.

**Keywords:** sentence processing, cross-linguistic variation, relative clauses

## 1. Introduction

This paper is an investigation of word-order variations across languages from the processing perspective. It tests the principles of 'Early Immediate Constituents' (EIC, Hawkins, 1994, 2004), focusing on two but equally productive syntactic structures in German and Cantonese that alternative, involving an object-modifying relative clause (henceforth RC).

### 1.1 Background

Relative clause extraposition in German and topicalisation of object noun phrase (NP) are assumed to be similar syntactic phenomena of rearranging word order of a given structure under the domain minimisation principles (Hawkins, 1994, 2004). By minimising the distance between the linguistic forms and their relevant syntactical and semantic properties as predicted by the Early Immediate Constituents principle (EIC, Hawkins, 1994, 2004), such rearrangement of word order creates a greater advantage in parsing than their canonical structure, i.e. basic word order, especially when the relative clauses are composed of greater length, thereby invoking more burden in working memory to integrate the relevant linguistic forms and lowering the efficiency in parsing.

The notion of basic word order revolves around the three constituents in a clause: subject (S), object (O) and verb (V). The languages across the world show different structural patterns to order these three constituents. In relation with the orderings of these constituents, this paper also considered the possible position of relative clauses, which can be generally understood as a 'modifying clause' of the head noun in a matrix clause. Dryer's (2003) sample found out that Cantonese, Mandarin and Hakka (all varieties of Chinese) are the only languages that show a pattern of basic VO-order and prenominal relative clause.

An alternative word-order that is available in a language, thus, offers interesting test cases and questions why another word order is attested.

In German canonical order (1a), the object and the sentence final verb are separated by the RC. In Cantonese canonical order (2a), the object and the verb are separated by the RC. The RCs can undergo rightward extraposition in German. In Cantonese, the object as a whole can undergo leftward topicalisation. As a result of word order rearrangement, the distance between the verb and the head noun (in bold) has been reduced in both languages as in (1b) and (2b).

- (1) German<sup>1</sup>
- a. Sie hat die **These**<sub>RC</sub>[die schrecklich lang und langweilig ist],**geschrieben**.  
 she AUX DET thesis RPRO terribly long and boring is write
- b. Sie hat die **These geschrieben**<sub>RC</sub>[die schrecklich lang und langweilig ist].  
 she AUX DET thesis write RPRO terribly long and boring is  
 ‘she has written the thesis, that is terribly long and boring.’
- (2) Cantonese
- a. keoi **se** zo <sub>RC</sub>[pin jau coeng jau cam-hei ge] **man**  
 s/he write ASP CL also long also boring of thesis
- b. <sub>RC</sub>[pin jau coeng jau cam-hei ge] **man** keoi **se** zo  
 CL also long also boring of thesis s/he write ASP  
 ‘S/he has written the thesis that is terribly long and boring’

Hawkins’ (1994, 2004) principles of ‘Early Immediate Constituents’ (EIC) predicts that rearranging the RC in both languages similarly facilitates efficient parsing due to the minimised distance between the constituents, especially when the RCs are heavy (in length and complexity). If a simple hypothesis of movement is adopted here, it can be observed that the RCs are moved to two different directions: a rightward movement in German, whereas there is a leftward movement (along with the modifying noun) in Cantonese.

It is the aim set out by this study to investigate these two seemingly mirroring syntactic phenomena, i.e. relative clause extraposition in German and topicalisation in Cantonese, by examining them on a parallel basis through uncovering the factors that motivate such rearrangement in word order other than their canonical orders.

## 2. Sentence Processing and Grammatical Weight

According to Hawkins’ (1994, 2004) domain minimisation principles, the grammar of a language should respond to processing, such that the syntactic constituents are ordered in their attested ways because they could then be processed rapidly and efficiently. Grammatical weight (length and complexity) is particularly considered along with the notion of working memory: parsers bear greater burden in working memory if linguistic information separated by a long distance has to be processed. Thereby is the principles of Minimize Domains essential in producing and comprehending linguistic information:

- (3) **Minimize Domains:** The human processor prefers to minimize the connected sequences of linguistic forms and their conventionally associated syntactic and semantic properties in which relations of combination and/or dependency are processed. The degree of this preference is proportional to the number of relations whose domains can be minimized in competing sequences or structures, and to the extent of the minimization difference in each domain. (Hawkins, 2004, p. 104)

Minimize Domains predict that language across the world should employ different strategies to minimise the distance of the connected sequences to a minimum and the most essential domain to analyse such rearrangement is the Phrasal Combination Domain:

- (4) **Phrasal Combination Domain (PCD):** the smallest string of elements required to construct a mother node and its immediate constituents (Hawkins 2004: 107)

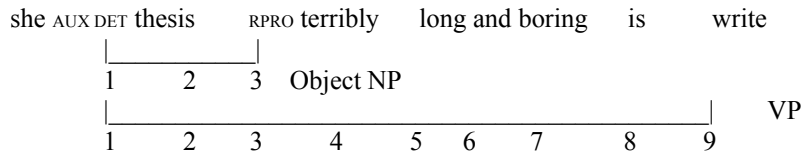
PCD predicts the adjacency of constituents, in a way that it is better for the head word encounters sooner its immediate constituents. The PCD of two alternative structures are compared by calculating the IC-to-word ratios (Hawkins, 1994). A greater percentage is predicted to embody higher efficiency in parsing. (5) is an example to illustrate how the PCDs are calculated using the structure in (1):

<sup>1</sup> The following abbreviations are used in glossing examples: AUX Auxiliary verb; ASP Aspect; CL classifier; DET Determiner; RPRO Relative pronoun.

(5) German

a. PCDs for canonical sentence

Sie hat die **These**<sub>RC</sub>[die schrecklich lang und langweilig ist],**geschrieben**.

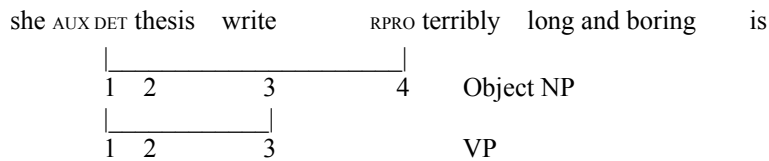


IC-to-word ratios: Object NP = 2/3 (66.7%); VP = 3/9 (33.3%)

Aggreg. = (66.7% + 33.3%) ÷ 2 = 50%

b. PCDs for extraposed sentence

Sie hat die **These geschrieben**<sub>RC</sub>[die schrecklich lang und langweilig ist].



IC-to-word ratios: Object NP = 3/4 (75%); VP = 2/3 (66.7%)

Aggreg. = (75% + 66.7%) ÷ 2 = 70.9%

‘she has written the thesis, that is terribly long and boring.’

In order to predict the overall efficiency of two syntactic variants as shown in (5), the aggregate IC-to-word ratios (i.e. average ratios, and thus, overall minimisation) of the Object NP and VP PCDs have to be calculated. With a higher aggregate IC-to-word ratio at 70.9% [i.e. (75% + 66.7%) ÷ 2], the extraposed sentence (5b) is assumed to be more efficient in parsing than its canonical version (5a: 50%). The PCDs of the topicalised sentence in (2) show similar results: (2a canonical: Aggreg 27.5% vs. 2b topicalised: Aggreg: 62.5%).

Uszkoreit et al. (1998) and Konieczny (2000) have put Hawkins’ predictions into test by examining the relative clause extraposition of similar syntactic structure. Uszkoreit et al. (1998) employed a corpus study and they confirmed that occurrence of extraposition correlates with the complexity of the relative clause, i.e. extraposition occurred more frequently when the relative clause was lengthy (especially for the syntactic structure, in which the object and the relative pronoun are only separated by a one-word main verb). In the acceptability judgement tasks of both studies, Uszkoreit et al. (1998) and Konieczny (2000) found some supporting evidence for Hawkins’ theory: long extraposed relative clauses (9-11 words) were rated the most acceptable by the participants when there is a short distance that separate the verb phrase and the relative clause, i.e. only one main verb. However, neither studies show an overwhelmingly significant preference for extraposed over canonical version: the mean ratings of acceptability of the canonical sentences were overall higher than the one of the extraposed sentences.

Matthews and Yeung (2001) tested Hawkins’ theory examining relative clauses modifying objects in the matrix clauses in Cantonese by conducting a self-paced reading time experiment. They found that a number of relative clauses of heavy weight in topicalised Cantonese sentences were read significantly faster than their canonical versions, while the reading time of sentences with short relative clauses are the nearly the same for canonical and topicalised versions. Matthews and Yeung’s (2001) findings show evidence that shortened distance may play as a role in achieving the enhanced efficiency in parsing. Nonetheless, no existing studies have examined this weight effect by conducting an offline acceptability judgement task in Cantonese.

### 3. Experiment

The experiment using the acceptability judgement tasks carried out in this study is essentially a reduplication of Francis’ (2010) study of relative clause extraposition in English. The aim of the experiment employed in this paper was to test whether grammatical weight played a role in affecting the efficiency in processing sentences with a canonical RC or a rearranged RC modifying the object NP in both German and Cantonese. Google Form, an Internet survey platform, was used to collect acceptability judgements using a 9-point scale. The sentence judgements of the participants should reflect Hawkins’ domain minimisation preferences.

### 3.1 Participants

There were two separate subject pools given the experiment was in two languages. The Cantonese version recruited 20 participants, who were all native speakers of Cantonese born and raised in Hong Kong. Aged between 22 and 30, the participants were half female and half male, who were all university graduates of non-language-related subjects, including linguistics, Chinese, English, translation and language teaching.

The German version recruited 12 participants, who were all native speakers of German currently living in Germany from age 20 to 35. 7 were female and 5 were male, who were all university graduates, but 2 of them had majored in journalism, whose curriculum includes training of German linguistics.

### 3.2 Materials

The sentence materials have two versions, namely in Cantonese and German. So as to compare the results of the experiment in the two languages on a parallel basis, length of the sentences was the same in terms of word count. In the two versions, fifteen sets of six test sentences were employed: each set contains relative clauses of three weight levels (3, 6 and 9 words) and two different structures (canonical and involving word-order rearrangement). Following Francis (2010), the length of the main clause was maintained at five words. Filler sentences were also included in the experiment with different sentence structures, bearing the same sentence length with the test sentences.

The six conditions of the experiment were listed below:

**Table 1.** A stimuli sentence in the German experiment

| Factor: RC Position (adjacent RC <sub>1</sub> vs. extraposed RC <sub>2</sub> ) |        |     |                          |                                         |  |
|--------------------------------------------------------------------------------|--------|-----|--------------------------|-----------------------------------------|--|
| Sie                                                                            | hat    | die | These {RC <sub>1</sub> } | geschrieben {RC <sub>2</sub> }.         |  |
| she                                                                            | has    | DET | thesis                   | write                                   |  |
| Factor: RC length: 3 words (a) vs. 6 words (b) vs. 9 words (c)                 |        |     |                          |                                         |  |
| (a)                                                                            | ...die |     | lang                     | ist,...                                 |  |
|                                                                                | RPRO   |     | long                     | is                                      |  |
| (b)                                                                            | ...die |     | schrecklich lang         | und langweilig ist,...                  |  |
|                                                                                | RPRO   |     | terribly long            | and boring is                           |  |
| (c)                                                                            | ...die | für | ihre Freunde             | schrecklich lang und langweilig ist,... |  |
|                                                                                | RPRO   | for | her friends              | terribly long and boring is             |  |

**Table 2.** A stimuli sentence in the Cantonese experiment

| Factor: RC Position (adjacent RC <sub>1</sub> vs. extraposed RC <sub>2</sub> ) |                                                                                 |       |       |                         |                    |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------|-------|-------------------------|--------------------|
| {pin RC <sub>2</sub>                                                           | man}                                                                            | keoi  | se    | zo {pin RC <sub>1</sub> | man}               |
| CL                                                                             | thesis                                                                          | s/he  | write | ASP CL                  | thesis             |
| Factor: RC length: 3 words (a) vs. 6 words (b) vs. 9 words (c)                 |                                                                                 |       |       |                         |                    |
| (a)                                                                            | ...hou                                                                          | coeng | ge... |                         |                    |
|                                                                                | very                                                                            | long  | of    |                         |                    |
| (b)                                                                            | ...jau                                                                          | coeng | jau   | cam-hei                 | ge...              |
|                                                                                | also                                                                            | long  | also  | boring                  | of                 |
| (c)                                                                            | ...jau                                                                          | coeng | jau   | cam-hei                 | mun sei jan ge...  |
|                                                                                | also                                                                            | long  | also  | boring                  | bore die people of |
|                                                                                | '...(the thesis that is) very long and so boring that bores people to death...' |       |       |                         |                    |

### 3.3 Procedure

Participants read in total 102 sentences presented in Google Form, which were divided into three blocks: each block contained 12 test sentences and 22 fillers. Participants were instructed to rate every sentence on a 9-point scale: 1 stands for 'total unacceptable' and 9 means 'completely acceptable and natural'. Participants were encouraged to make use of every point in the scale.

### 3.4 Predictions

The weight of the RCs was predicted to have effect on sentence acceptability judgement: test sentences with rearranged RCs of the 6- and 9-word conditions should be rated as more acceptable than their canonical variants. As the weight of the RCs increases, a gradual decline in ratings of the canonical sentences was also predicted due to the increasing distance to recognise the constituents.

## 4. Results and Discussion

### 4.1 Results

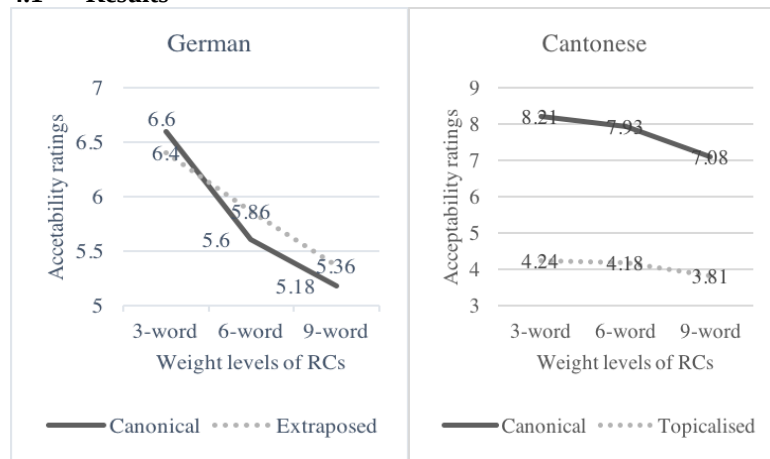


**Fig. 4.** Mean acceptability ratings by weight levels of RCs in the German and Cantonese experiments (Low: 3 words; Intermediate: 6 words; High: 9 words)

Despite the predicted advantages in parsing by Hawkins' principles, the acceptability ratings of the rearranged sentence variants decreased as the weight of the RC increased across the conditions, which was similarly found in both languages as shown in Figure 1. It was, however, as predicted that the acceptability ratings of the canonical sentences in both languages decreased as the weight of the RCs increased.

Apart from this general similarity, different results were found for the languages. Although the extraposed sentences in the German experiment were, as predicted, rated as more acceptable than their canonical variants in the 6- and 9-word conditions, a significant advantage in parsing of the extraposed sentences was not elicited because they were rated only slightly more acceptable than the canonical versions.

In the Cantonese experiment, topicalised sentences were rated nearly half as acceptable as their canonical variants in all the conditions.

Statistically, the experiment in the two languages also showed different findings. As shown in Table 3, effects of grammatical weight were found in the German experiment, resulting in a significant effect of Length: Length 1(3 words vs. 6 words) and Length 2 (6 words vs. 9 words) ( $>1$  respectively: 3.646 and 2.168).

**Table 3.** Linear mixed model for the results in the German experiment

|                     | Est.     | Std. Error | t-value      |
|---------------------|----------|------------|--------------|
| Intercept           | 5.8333   | 0.40149    | 14.529       |
| Structure           | 0.08333  | 0.17264    | 0.483        |
| Length1             | 0.77083  | 0.21144    | <b>3.646</b> |
| Length2             | 0.45833  | 0.21144    | <b>2.168</b> |
| Structure: Length1  | -0.45833 | 0.42288    | -1.084       |
| Structure: Length 2 | 0.08333  | 0.42288    | 0.197        |

In the Cantonese experiment as shown in Table 4, structure (i.e. canonical vs. topicalised) had a major effect (-28.538). Effects of grammatical weight were also found, but only in the level, in which 6-word and 9-word conditions interacted (i.e. Length 2 =  $>1$ : 3.872).

**Table 4.** Linear mixed model for the results in the Cantonese experiment

|                     | Est.    | Std. Error | t-value        |
|---------------------|---------|------------|----------------|
| Intercept           | 5.9083  | 0.2780     | 21.256         |
| Structure           | -3.6611 | 0.1283     | <b>-28.538</b> |
| Length1             | 0.1708  | 0.1571     | 1.087          |
| Length2             | 0.6083  | 0.1571     | <b>3.872</b>   |
| Structure: Length1  | -0.2250 | 0.3142     | -0.716         |
| Structure: Length 2 | -0.4667 | 0.3142     | -1.485         |

## 4.2 Discussion

Different from the strong advantage in parsing suggested, relative clause extraposition in German was not observed to be significantly different from its canonical variants. The t-test did not suggest the two relevant sentential structures were of significant difference, which might explain the similar acceptability ratings across the conditions, when the weight of the RCs increased. However, this result differs from previous studies (e.g. Konieczny, 2000), in which canonical sentences were rated more acceptable than their rearranged variants in nearly all conditions by the German participants in the acceptability judgement tasks.

The Cantonese experiment suggested a seemingly universal preference for the canonical sentences over the topicalised ones; however, such results could be explained by the nature of the experiment, as the acceptability ratings were recorded without time-limit (i.e. offline), which allowed the participants time to ponder on prescriptive rules and stylistic preferences (cf. Francis, 2010). Believing topicalisation to be more prevalent in spoken context (Matthews & Yip, 2011), it might be deemed unnatural, or simply ungrammatical in the written setting of this experiment, although it is believed that topicalisation is also attested in written Cantonese.

Eliciting judgements of sentences within a speech community, acceptability judgement tasks inevitably involve the metalinguistics awareness of the participants: while Cantonese generally lacks a prescriptive grammatical tradition (Matthews & Yip, 1994), the notion of grammaticality in Cantonese might be highly influenced by the prescriptive grammar in English, which leads to the general belief of the participants that Cantonese is a rigid SVO language, thus automatically renders other word-order, OSV in this case, ungrammatical. Extraposition in German, on the other hand, was generally believed to be grammatical and recorded in grammar books.

## 5. Conclusion and Future Studies

The experiment using the acceptability judgement tasks in this study did not find the significant advantages in processing resulting from word-order alternation as suggested by Hawkins' principles, especially not in the Cantonese experiment. These results point to the necessity to consider more factors that motivate word-order alternation across languages. Online experimental tasks, i.e. self-paced reading tasks, will be employed to follow up this study with additional manipulation of discourse-pragmatic factors and information structure. Corpus studies will be utilised as well.

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# Gender and Speech in Two Disney Movies: The Portrayals of Female Characters in *the Princess and the Frog* and *Tangled*

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**Abstract.** Disney Princess Movies have been criticized due to the stereotypical representations of females. Many scholars have examined female characters' portrayals in Disney Princess Movies based on the princesses' images and gestures. However, very few researchers have examined female characters' portrayals according to their language. This study only aims to identify the portrayals of female characters particularly the two female leads Tiana and Rapunzel in the two Disney Princess Movies *the Princess and the Frog* and *Tangled*. Lakoff's (1975) model was applied as foundation of this research. This study examined six linguistic features by using Lakoff's (1975) model, including hedges, "empty" adjectives, intensifiers, "superpolite" forms, tag questions and "hypercorrect" grammar in the female characters' speech of *the Princess and the Frog* and *Tangled*. The results of this study indicates that Rapunzel is much more diffident but better educated than Tiana, and some characters' portrayals identified by their speech do not parallel their image from the plot of the movie. This study may contribute to how language characterizes characters in movies and even speakers in our real life.

**Keywords:** language and gender, Disney Princess Movies, female characters' portrayal

## 1. Introduction

Disney movies are famous around the world. It created a number of animated characters like Snow White, Prince Charming, Belle, Cinderella and so forth. Disney movies were so popular that they have become a part of American popular culture. However, Disney movies have been also heavily criticized due to their gender representations. Azmi, Rashid, Rahman, & Zaid (2016) and Johnson (2015) argue that most of the animated princesses in Disney movies are stereotypical gender role portrayals. They are elegant, gentle, dutiful, beautiful but weak. They believe that the portrayals of those princesses convey the information to children that females are inferior to males and their happiness is based on males. Hence, a number of researchers have examined and explored the women's portrayal roles in Disney movies as well as the influence of Disney Princess Movies having on children.

This paper focuses on two Disney movies, *the Princess and the Frog* and *Tangled*. The main female character in *the Princess and the Frog* is Tiana who is the first African-American princess in Disney Princess Movies. *The Princess and the Frog* describes the story that how Tiana chases her dream. Tiana is a girl who has a great talent in cooking. She never believes in fairy tales, but her biggest dream is that one day she could open her own restaurant. She spares every effort to earn the money for opening her own restaurant. However, she meets a frog who says he was a prince before but was turned into a frog by an evil witch doctor, and Tiana's kiss could help him become a prince again. After Tiana kissed the frog, astonishingly, Tiana became a frog as well. Tiana's progress of opening her own restaurant stalled. Despite the hardships, Tiana never gave up her dream and eventually, she achieved her dream and harvested love.

*Tangled* is a story about Princess Rapunzel. Princess Rapunzel is imprisoned in a tower by the witch Gothel. As Rapunzel grows up, she has been more and more curious about the outside world. One day, a thief named Flynn climbs this tower and meets Rapunzel. With the company of Flynn, Rapunzel goes down the tower and begins her great adventure of life and love.

## 2. Research Questions

- (1) Do Tiana, Rapunzel and other female characters use typical female speech?  
If so, which features are manifested in their speech according to Robin Lakoff's model?
- (2) What is the frequency of the features in females' speech in the two movies *the Princess and the Frog* and *Tangled*?
- (3) What are the female characters' portrayals according to their speech?
- (4) Do the portrayals identified based on their language parallel their portrayals in the movies?
- (5) Are there any differences between Tiana's and Rapunzel's speech? What are the differences?

### 3. Literature Review

Lakoff (1975) pointed out that there were ten special linguistic features in women's speech, including hedges, tag questions, rising intonation on declaratives, "empty" adjectives, precise color terms, intensifier, "hypercorrect" grammar, "superpolite" forms, avoidance of strong swear words, speak in italics (emphatic stress). These linguistic features are illustrated elaborately in the following Table.

**Table 1.** Ten linguistic features of women's speech (Lakoff, 1975)

| Linguistic features                | Examples and Explanations                                                                                                                                                                                        |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hedges                             | Words or phrases like "sort of", "kind of", "perhaps", "well", "you see" showing women's uncertainty.                                                                                                            |
| Tag questions                      | "We have class tomorrow, don't we?"                                                                                                                                                                              |
| Rising intonation on declaratives  | "You looks so beautiful on this dress↗(rising intonation) . "                                                                                                                                                    |
| "Empty" adjectives                 | Exclamations like "oh, dear", "cute", "adorable", etc, that do not have any meaning but show females' politeness and courtesy.                                                                                   |
| Precise color terms                | Women tend to be more sensitive to colors; they can name colors precisely. For example, they can name "violet" , "azure" , "aquamarine" and other colors.                                                        |
| Intensifiers                       | Words or phrases like "so", "super", "really", "just" etc.                                                                                                                                                       |
| "Hypercorrect" grammar             | Women are likely to use standard forms of language. For example, they avoid using double negation or vernacular languages, such as 'ain't' or 'gonna'.                                                           |
| "Superpolite" forms                | Women tend to be polite and they avoid offending others. They are more likely to make indirect requests and frequently use euphemisms.                                                                           |
| Avoidance of strong swear words    | Compared to men, women use less swear words like "damn", "fudge".                                                                                                                                                |
| Speak in italics (Emphatic stress) | Women are more likely to give an emphatic stress on certain words to show their affective feelings. For example, they would say "it is an <i>AWESOME</i> concert" rather than "it is an <i>awesome</i> concert". |

The study of language and gender covers the micro- and macro-level. It mainly has three areas of study including the study of varieties of speech of a certain gender, how social ideology influences gendered language use and how females' and males' languages are constructed and operationalized under a certain context (Attenborough, 2014; Tannen, 2006). This paper focuses on the first area of language and gender study with the intention of finding women's portrayals in two Disney movies *The Princess and the Frog* and *Tangled*.

Numerous studies investigated women's portrayals in Disney movies based on the animated characters' behavior and their images. England, Descartes and Melissa (2011) analyzed the gender role portrayal in Disney Princess Movies based on coded content analysis approach. They coded the behavior of the characters according to the previous research on gender and animated film. They analyzed the main characters' behavior and they found that women's portrayals in Disney Princess Movies have been changing but the men's portrayals remain the same. Kessel and Daalmans (2014) examined the evolution of the female characters in Disney movies. They chose qualitative content analysis that twenty-three features were chosen, transcribed and analyzed by qualitative content analysis. Two levels were involved including the manifest level and the latent level. The results showed that certain features of female characters including braveness, boldness and determination, show

a trend that the Disney Production is trying to break the stereotyped gender norms and create less stereotypical female roles. Do Rozario (2004) identified the female characters in Disney movies based on their behavior and images. She concluded that, generally, women's portrayals in Disney movies are stereotypical, especially the princesses of the first and the second generation. Johnson (2015) explored printed media and electronic media to discover how Disney princesses are portrayed in media. He argued that Disney Princesses increasingly reflect women in the real world who is powerful, adventurous, brave and bold. Gazda (2015) analyzed Disney Princesses' portrayals based on their images. Based on her results, all Disney Princesses show strong femininity, and they have similar appearance. Almost all the princesses have tiny waists, long curly hairs, big eyes, widened faces and small noses. However, very few studies explore females' portrayals in Disney movies based on the characters' speech. People's personalities and characters can be betrayed not only by their behavior but also by the way they talk (Kramer, 1974). A person who always talks in a small voice may be diffident, and, a person who always speaks slowly may be gentle. Although, only a few researchers have examined female's portrayals based on their speech. Hence, there are some research gaps in identifying females' portrayals in Disney movies based on females' speech.

## 4. Methodology

### 4.1 Material

To answer the following research question "what is the frequency of the features in females' speech in the two movies *the Princess and the Frog* and *Tangled*", the transcripts the two movies were downloaded from a subtitle download website (<https://www.opensubtitles.org/en/search/subs>). The downloaded transcripts of the two movies *the Princess and the Frog* and *Tangled* were translated by people whose native language is English. With the purpose of increasing the reliability of the transcripts, the transcripts were checked twice by the researcher. Since this study only aims to examine the features of females' speech, the conversations in the transcripts that only involves men were not included. Besides, the conversations between women and children were also deleted. According to Fromkin, Rodman and Hyams (2011), people generally talk differently to children and adults. Precisely, when people talk to children, they tend to use sing-song intonation, "baby-talk" words like "poo" which is called caretaker speech and simple vocabulary and grammar constructions. Lastly, the conversations between animals were excluded, since they are not humans.

As stated by Bakhtin (1981) that utterance is the smallest units of people's speech with a clear pause at the beginning and the end. In order to determine the number of utterances of females' speech in *the Princess and the Frog* and *Tangled*, the accordingly scenes of the abridged transcripts were cut from the two movies. Finally, 67 scenes were taken out from *the Princess and the Frog*, and 45 scenes were taken out from *Tangled*. The unit of the edited scenes is the second material of this study.

### 4.2 Procedures

In order to increase the reliability, the study involved two consultants. Both of these two consultants major in Teaching English as Second Language in United International College. Hence, they have some background knowledge about linguistics and can understand what about this study is. These two consultants are non-native speakers of English with similar English proficiency level, since both of them were in the same A Level English class. They contributed to determining the number of the utterances of females' speech in the transcripts of *the Princess and the Frog* and *Tangled* in this study.

First, the definition of utterance was given to the two consultants. Subsequently, two examples of utterances were shown to the two consultants. Consultants were required to watch the cut scenes together three times. In the first time, consultants slashed the conversations according to the scenes they watched. With the intention of helping consultants check their results, the scenes were replayed right after consultants finished slashing one conversation. Finally, all the edited scenes were played third time together for the consultants to confirm their results. In this whole process, consultants were not allowed to share their results with each other. The whole process lasted four hours in total.

### 4.3 Data Analysis

The current research applied both the Lakoff's (1975) model and discourse analysis method. The features "rising intonation on declaratives" and "speak in italics (Emphatic stress)" from Lakoff's (1975) model were ignored in this research as intonations are involved. Besides, the occurrences of color terms in women's speech in *the Princess and the Frog* and *Tangled* are too rare, and therefore, the feature "Precise color terms" from Lakoff's (1975) model was abandoned in this research. The present research only involved six features from Lakoff's

(1975) model in total, including “hedges”, “tag questions”, “‘empty’ adjectives”, “intensifiers”, “hypercorrect grammar” and “‘superpolite’ forms”. It is worth mentioning that non-standard forms of English such as double negation and vernacular English were targeted for the feature “hypercorrect grammar” since females in *the Princess and the Frog* and *Tangled* almost use standard forms of language all the time. Thus, looking for non-standard forms of English is more valid.

Discourse analysis involved two steps here. The first step was to identify the six features in the transcripts of the two movies respectively. The features were located firstly, marked with different colors, and then the number of the time that the six features appear in the transcripts of each movie was counted. By applying discourse analysis, looking for features does not simply mean searching words or terms only. The more attention was given to the contextual meaning of the words and terms. For example, only when the word “would” indicates predictions, can it be classified into the feature “hedges”. For another example, “may” can suggest permission, weak possibility and concession, and similarly, only when it suggests weak possibility, it can be classified into the feature “hedges”. The second step was to make sure the researcher did not miss any features by executing again what was conducted in the first step.

With the intention of calculating limits of agreement, a formula which proposed by Krippendorff (1989) was used. That is

$$\text{limits of agreement} = \bar{x} \pm 2s \quad (1)$$

According to Krippendorff (1989), this formula is suitable when there are only two raters and the scale is continuous. Krippendorff’s formula is appropriate for computing the number of the utterances of females’ speech in *the Princess and the Frog* and *Tangled*. The number of utterance will be the median of the computed interval. The frequency of features is the quotient of the number of the time that the feature appears and the median of the computed interval.

## 5 Result and Discussion

After watched all the scenes of two movies *the Princess and the Frog* and *Tangled*, 1306 utterances were determined by consultant 1 with 654 utterances in *the Princess and the Frog* and 652 utterances in *Tangled* respectively; 1309 utterances were determined by Rater 2 with 655 utterances in *the Princess and the Frog* and 654 utterances in *Tangled* respectively. Among those determined utterances, 1341 utterances were determined by either both or one of the raters, and 1274 utterances were commonly determined by two raters. Hence, the inter-rater liability is over 95%, which is relatively high.

### 5.1 The Princess and the Frog

The present study focused on three female characters Tiana, Charlotte and Mama Odie, since they are the only three female characters in *the Princess and the Frog*. Based on the formula that was mentioned before, 400, 134 and 97 are the numbers of the utterances articulated by Tiana, Charlotte and Mama Odie respectively.

In *the Princess and the Frog*, the three female characters use fillers much more frequently than modal verbs. “Well”, “you know” and “oaky” are the three fillers that are used by the three characters most often. Besides, they do not use any tag question, which is a surprising finding. Despite no use of tag questions, the three characters often ask “am I right?” or “right?” after they say something. Hence, although the three characters do not tag questions, they still say something which functions like tag questions. Women use “empty” adjectives to show their tenderness, politeness and empathy (Lakoff, 1975). The three female characters in *the Princess and the Frog* speak “empty” adjectives not so often. In contrast, the intensifier shows high density in their speech. Lakoff (1975) claims that women tend to use standard verb forms in their conversations because they feel unconfident about themselves unconsciously, and therefore, they try to use standard verb forms to strengthen the force of their speech. As it mentioned before, non-standard forms of English such as double negation and vernacular English were targeted for the feature “hypercorrect grammar”, since the three female characters use standard verb forms almost all the time. Mama Odie is the character who speaks non-standard forms most frequently. The most frequent used non-standard form is “y’all” and “ain’t”. Women tend to use indirect requests and euphemisms more frequently than men do, because women are more afraid of offending others, and therefore, when they are asking requests, they would be more polite and euphemistic (Lakoff, 1975). However, the three female characters in *the Princess and the Frog* use “superpolite” form seldom.

#### 5.1.1 Characters Comparison

Holmes (2013) classified the ten features of Lakoff’s (1975) model into two groups, hedging devices and boosting devices. Lexical hedges, tag questions, rising intonations, “superpolite” forms, “empty” adjectives, “hypercorrect” grammar and avoidance of swear words belong to hedging devices. Intensifiers and “speak in

italics” belong to boosting devices. Holmes (2013) insists that hedging devices indicate speakers’ lack of confidence. In contrast, boosting devices suggest speakers’ hope that their hearers would believe themselves, and therefore they emphasize certain words or terms in their speech. In other words, women worry about that their speech or words would not be heard or paid attention to, so they intensify the force of their speech. Hence, substantively, both hedging devices and boosting devices manifest women’s lack of confidence.

Based on the ideas of Holmes (2013), the portrayals of the three female characters can be identified according to their language. The following table illustrates the frequency of all features in the three characters’ speech.

**Table 2.** Frequency of all features in three female characters’ speech in *the Princess and the Frog*

| Characters | Hedges (%) | Tag questions (%) | “Empty” adjective (%) | Intensifiers (%) | Non-standard forms (%) | “Superpolite” forms (%) | Total (%) |
|------------|------------|-------------------|-----------------------|------------------|------------------------|-------------------------|-----------|
| Tiana      | 4.75       | 0                 | 1.25                  | 9                | 2.5                    | 0.75                    | 13.25     |
| Charlotte  | 9.7        | 0                 | 2.24                  | 13.43            | 3.73                   | 0                       | 21.66     |
| Mama Odie  | 4.12       | 0                 | 1.03                  | 5.15             | 15.46                  | 1.03                    | -4.13     |

According to Table 2, it is obvious that Charlotte’s language involves the six features at the highest frequency followed by Tiana’s language. In the light of Holmes’ (2013) idea that all of the linguistic features signal women’s lack of confidence, Charlotte is the character most unconfident. In contrast, Tiana is much more confident than Charlotte. However, considering the identity of Charlotte and Tiana in the movie, the portrayals identified by their language seem not parallel. According to the movie *the Princess and the Frog*, Charlotte is an heir of a rich family, and she is going to marry the Prince of Maldonia, Prince Naveen. In contrast, Tiana is a waitress who makes every effort but fail to achieve her dream that open her own restaurant. Hence, based on the plots of the movie, Tiana should be more diffident than Charlotte, because she does not enjoy a relatively high social status as Charlotte does. On the other hand, if we put Charlotte aside and only focus on Tiana, we find that Tiana’s portrayal identified based on her language parallel her portrayal in the movie to a certain extent. In the movie, Tiana is a determined girl who devotes herself to achieving her dream that open her own restaurant. Thus, it is reasonable that her language do not represent much feminine. In a word, according to the movie *the Princess and the Frog*, Tiana is a determined and tough girl, but she should be less confident than Charlotte. Hence, the Tiana’s and Charlotte’s portrayal identified based on their language do not parallel their portrayal in the movie. The reason behind that which remain unsure, may be that the Disney Company is trying to create a female lead that is not so feminine but show some masculine, power and toughness. Drawing attention to “non-standard forms”, the characters Mama Odie is the one who speaks non-standard forms most frequently. Her language show some features of African American English. For example, instead of saying “you all”, she says “y’all”; instead of speaking “are not”, she speaks “ain’t”. The frequent use of non-standard forms indicates Mama Odie’s ethnicity that she is American Indian. Mama Odie’s portrayal identified based on her language parallel her portrayal in the movie.

## 5.2 Tangled

Based on the formula that was mentioned before, 238 and 415 are the numbers of the utterances articulated by the witch and Rapunzel respectively.

Similar with the three female characters in *the Princess and the Frog*, the two female characters use fillers much frequently than modal verbs. “You know”, “well” and “okay” are three fillers that are used most frequently by the two female character. In addition, the two female characters in *Tangled* do not use tag questions neither, which is the same result of *the Princess and the Frog*. However, different from the three female characters in *the princess and the frog*, the two characters the witch and Rapunzel do not say anything like “am I right?” or “right?” which aims to elicit positive answers from hearers. As for the feature “empty adjectives”, Rapunzel and witch do not speak it often. Parallel to the three female characters in *the Princess and the Frog*, among all the features, intensifier is the feature that is spoken by the two female characters most frequently. It is worth mentioning that the witch usually uses intensifiers to boost a force of her utterances when she is threatening or commanding Rapunzel. In *Tangle*, the witch does not speak non-standard English forms, but Rapunzel speaks non-standard English forms three times. Lastly, both of the witch and Rapunzel use “superpolite” form rarely.

### 5.2.1 Characters Comparison

In the light of Holmes's (2013) ideas that both hedging devices and boosting devices indicate women's lack of confidence, and therefore, the portrayals of Rapunzel and the witch can be identified according to their language. The following table illustrates the frequency of all features in the three characters' speech.

**Table 3.** The frequency of all features in two female characters' speech in *Tangled*

| Characters | Hedges (%) | Tag questions (%) | "Empty" adjective (%) | Intensifiers (%) | Non-standard forms (%) | "Superpolite" forms (%) | Total |
|------------|------------|-------------------|-----------------------|------------------|------------------------|-------------------------|-------|
| Rapunzel   | 9.88       | 0                 | 1.45                  | 10.84            | 0.723                  | 0.723                   | 22.17 |
| Witch      | 4.20       | 0                 | 2.52                  | 13.86            | 0                      | 0.84                    | 21.42 |

According to the Table 3, evidently, the frequency of all the six features in Rapunzel's language is the highest. Applying Holmes's (2013) idea, Rapunzel is more diffident than witch is. Rapunzel speaks hedges and intensifiers frequently, which suggests that Rapunzel may in a relatively low status compared to witch. Using hedges shows Rapunzel's uncertainty, while using intensifiers indicates Rapunzel's expectations that the hearer would listen to and believe her. Hence, Rapunzel speaks hedges and intensifiers frequently, which suggests that Rapunzel may in a relatively low status compared to witch and she is somewhat diffident. That portrayal parallel what Rapunzel represents in the movie *Tangled*. Rapunzel is under the power of witch, and therefore, when Rapunzel talks to witch, she would be more obedient unconsciously. Overall, Rapunzel's portrayal based on her language is diffident and under the power of witch, while witch's portrayal based on her language is relatively confident.

### 5.3 Tiana and Rapunzel

With the purpose of answering the research question "what is the differences between the language of Tiana and Rapunzel", a comparison between Tiana and Rapunzel is made below.

**Table 4.** Frequency of all features in Rapunzel and Tiana's speech

| Characters | Hedges (%) | Tag questions (%) | "Empty" adjective (%) | Intensifiers (%) | Non-standard forms (%) | "Superpolite" forms (%) | Total |
|------------|------------|-------------------|-----------------------|------------------|------------------------|-------------------------|-------|
| Rapunzel   | 9.88       | 0                 | 1.45                  | 10.84            | 0.723                  | 0.723                   | 22.17 |
| Tiana      | 4.75       | 0                 | 1.25                  | 9                | 2.5                    | 0.75                    | 13.25 |

Based on Table 4, the total frequency of the features in Tiana's and Rapunzel's speech shows great margin. Except "superpolite" forms and non-standard forms, Rapunzel's speech involves the features more often especially hedges. According to Holmes (2013), the use of hedges indicates the uncertainty of speaker and the use of intensifiers reveals speakers' worry that no one would listen to or believe her. Thus, Tiana is much more confident than Rapunzel, while Rapunzel is relatively diffident. In addition, Tiana uses non-standard forms much often than Rapunzel, which may suggest that compared to Rapunzel, Tiana is not that well educated. In fact, the *Tangled* conveys some information about Rapunzel that Rapunzel is a princess who like reading. In contrast, Tiana is just a waitress who puts her whole heart to her dream that open her own restaurant. Thus, the portrayals of Tiana and Rapunzel based on their language parallel their portrayals in the movie. In brief, compared to Rapunzel, Tiana is more confident but not that well educated, while Rapunzel is somewhat well educated but relatively diffident.

## 6 Conclusion

Disney Princess movies have been criticized for a long time due to the stereotypical female representations in their movies. Disney Princesses are classified into three eras including classic era, renaissance era and modern era. Many scholars identify the portrayals of Disney Princesses in based on the images and princesses' gestures. However, very few scholar identify the portrayals of princesses based on their language. Hence, there is a knowledge gap.

This research identified the portrayals of female characters particularly Tiana and Rapunzel in two Disney Princess Movies *the Princess and the Frog* and *Tangled*. The present study applied Lakoff's (1975) model and discourse analysis to identify the linguistic features in females' language in *the Princess and the Frog* and *Tangled*. Besides, Krippendorff's (1989) formula was used to compute the number of females' utterances.

The results of this study answers the research questions. Except the feature “tag questions”, almost all of the female characters’ languages involve the other five features. The three female characters in the movie *the Princess and the Frog* represent different portrayals based on their language. Tiana is the most confident character, while Charlotte is diffident, and Mama Odie is American Indian. Based on the language of Rapunzel and the witch, Rapunzel is weak and diffident; in contrast, the witch has the power over Rapunzel. Compared two female leads in *the Princess and the Frog* and *Tangled*, Rapunzel is much more diffident and weaker than Tiana, while Tiana is not as well educated as Rapunzel.

This study may inspire some researchers that female characters’ portrayals can be identified by their language and attract researchers’ attention to how language characterizes characters in movies and even speakers in our real life. However, the limitation of this study is visible. The present study only examined two Disney Princess Movies, and therefore, the changes of female characters’ portrayals in Disney Princess Movies cannot be determined. Examining more Disney Princess Movies and identifying the changes of the female characters’ portrayals can be the future direction of research.

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# The ‘chef’ and ‘guests’ ‘new’ ‘tea’ ‘experience’ – A Closer Look into the Corpus of Hotel Press Release (CorHPR) (2014-present)

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**Abstract.** Press release is arguably the most widely adopted method of generating publicity in the hotel industry, but researchers have rarely tapped into such form of official hotel publication to study the language use. In order to facilitate corpus-driven language study in the hotel industry, this current project presents the Corpus of Hotel Press Release (CorHPR). This ESP corpus is currently constructed using official hotel press releases (HPRs) from the Hong Kong hotels listed in TripAdvisor’s Top 25 – China between from 2014 to 2017, with an aim to expand and include press releases from other regions of China in the near future. A discussion on the corpus design is followed by a series of fundamental questions of which the CorHPR can be used to answer, including how many HPRs were published by the hotels per year, what do the HPRs promote, whether there is a correlation between the number of HPRs published and the hotels’ ranking on TripAdvisor, and what linguistic features appear to be the most common in the HPRs (‘chef’, ‘guests’, ‘tea’, ‘new’ and ‘experience’).

**Keywords:** corpus, press release, ESP, hotel, hospitality, tourism, PR

## 1. Introduction

Driven by various trends and demand, researchers have placed much emphasis on internet marketing and public relations (IMPR) in recent years, including the social media, video, emails, newsletters and websites. In the field of hotel and tourism management, the research of IMPR often extends into travel sites reviews (Sparks & Browning, 2011; Zhao, Wang, Guo, & Law, 2015; Gavilan, Avello, & Martinez-Navarroc, 2018), hotel website design (Suen, 2010; Cheng & Suen, 2014) and indexing (Leung & Law, 2008; Leung & Law, 2012), e-booking systems, and in some innovative cases, artificial intelligence (Goh, Mok, & Law, 2009) and robotics (Qureshi & Sajjad, 2017; Tung & Law, 2017). While I genuinely agree on the importance of up-to-date research on the latest technology, and using making use of this knowledge in transforming tourism education (Hsu, 2018), we should not overlook one of the most basic forms of communication that has been adopted even before the birth of the internet (Jacobs, 1999), and is still widely used in the hospitality industry today -- the hotel press release (HPR).

This paper aims to investigate the HPRs which are published on the websites of the top-rated hotels in Hong Kong, based on the TripAdvisor’s Top 25 in China ranking between 2014-2017. These HPRs are compiled into the Corpus of Hotel Press Release (CorHPR) (Law, 2018) and the corpus is analysed using a phraseological search engine called ConcGram v1.0 (Greaves, 2009).

In section 2, we will review the background of press releases in general before discussing HPRs and their purposes. This is followed by a brief review of related corpora. Section 3 discusses the composition of the CorHPR and the reason for choosing TripAdvisor’s Top 25 as the basis for sourcing HPRs. Section 4 provides a number of examples on how the CorHPR can be used to answer questions on statistics, functions and language use. Section 5 concludes this paper by addressing some the limitations of the CorHPR and providing a brief summary of the findings.

## 2. Press releases, HPRs and related corpora

### 2.1 Background of general press release

A press release is perhaps “the most used method of generating media coverage” (Carvell, 1996, p. 81), yet it is also “one of the most misused tools of the trade” in the hotel industry (Miller, 1993, p. 49). It belongs to a mode of communication that even linguists have divergent views on its definition. Some consider it as a unique genre in its own right, while others see it “as a vehicle for a number of different genres with different objectives”, differing in contents and communicative purposes (Lassen, 2006, p. 527). While several researchers have looked into press releases in general, and found that the press releases are mostly written with a style that facilitate the

journalists editing and publication requirements (Morton, 1988; Johnson & Haythornthwaite, 1989; Jacobs, 1999; Walters, Walters, & Starr, 1994; Lassen, 2006; Maat, 2007), few researchers have focused specifically on HPRs to study the language use.

The paucity of educational resources on how to write an HPR may cause trouble for students of hotel management or even working professionals in marketing and public relations. While it is believed that there will be templates available to the HPR author when necessary, either inherited from previous generations of HPR authors or obtained from the Internet (Springnest Team, 2013), ‘getting the job done’ is not the equivalence of true understanding of this sophisticated text type. With an open database of HPRs and in-depth investigations, we can be one step closer to establishing a convincing argument on – to say the least – the language patterns, the format, and perhaps even the frequency of publishing an HPR on a specific topic or function. The CorHPR, a raw data corpus freely available online, offers ESP researchers, English learners, teachers and working professionals in the hospitality industry the resource to study HPRs from an objective view – a metaphorical outsider’s perspective.

In order to understand the functions, the production and the distribution channels of HPRs from an insider’s perspective, I have conducted two interviews with the management from two hotels in Hong Kong. The interviewees are Ms. Michelle Lai, Director of Communications and Public Relations of Hotel ICON; and Ms. Catherine Yuen, former communication manager of L’hotel and current account director of integrated PR agency GHCAAsia.

## **2.2 What is a HPR and what does it do?**

A HPR is a text issued by the hotel targeting the media for news reporting. According to Lai (2017), HPRs generally fall under six categories: news, launch, expert, appointment, product and event. News HPRs are “statements informing of general news about the hotel. For example, Hotel ICON’s policy of extending medical benefit to spouses of same-sex marriage, [and] hotel receiving awards.” Launch HPRs are “promotional press releases updating on upcoming food and beverages (F&B) promotions, [and] newly launched rooms packages.” Expert HPRs are “press release on Hotel ICON testing Robots in human environments” such as “press release on hotel using advanced food waste management system.” Appointment HPRs provide “update[es] on new appointments of key management positions such as new hotel managers, etc.” Product HPRs provide “update[es] on hotel renovation.” Lastly, event HPRs are “press releases on conferences or forums organized by the hotel.”

Different hotels have different approach towards the production of HPRs. According to Yuen (2017), “[L’hotel’s] communications team wrote our own [hotel press] releases, but some [hotels] did hire agencies to do [that] for them.” Lai (2017) echoes Yuen (2017), revealing that while Hotel ICON hires a PR agency to prepare a “media kit containing hotel backgrounder, general Q&A, [and] fact sheet”, all HPRs are then produced in-house.

The distribution channels of HPRs depends on the scale. For Hotel ICON, Lai (2017) reports that the marketing communications team maintains a media database of which the HPR distribution is free. On the other hand, news clipping or coverage monitoring service is usually performed through a paid third-party service. These service providers include Meltwater, Revinat, and Lexis-Nexis. For L’hotel, Yuen (2017) says the HPRs are usually distributed through local media, which includes Tatler Dining, U Mag and Weekend Weekly. The advantage of HPRs over other media of communication, as Lai (2017) argues, lies on the fact that the press “adds news credibility when informing the public about a story or event.” One disadvantage, according to Carvell (1996, p. 86), is that “a publication knows that it is getting the same information as many other publications, no doubt including their major competitors.”

To increase visibility of HPRs on certain topics, hotels often publish a selection of their HPRs on their official websites. In this way, website visitors who are not the media’s audience will get to read the HPRs. This offers an opportunity for the collection of authentic HPRs for linguistic research.

## **2.3 Related Corpora**

While researchers such as Lassen (2006) and Maat (2007) have created their separate corpora of press releases for their own investigations, these corpora are not made accessible to the general public and do not include texts of HPRs. The PolyU Corpus of Travel and Tourism Texts (TnT) is possibly the only one that comes close to the CorHPR. It is a 1,083,929-word collection of English texts on travel and tourism from the Internet, consisting of legal documents (246,342 words), academic papers (207,941 words), promotional literature (209,261 words), travelogues (218,993 words), and online discussions (201,392 words). It is an online corpus listed under CQP Web for Language Corpora page, developed by the Language and Multimodal Analysis Lab (LAMAL) of the

Department of English, The Hong Kong Polytechnic University (Department of English, PolyU, 2013). The query search is made available online to the general public through the PolyU Language Bank corpus search system (Department of English, PolyU, 2016), but the access to raw corpus data is restricted to the department staff. This narrows the types of the research questions asked, possibly leaving those related to lexical analysis.

With the CorHPR, because it is a raw data corpus available for free download, researchers are free to explore it with their preferred analysis tools.

### **3. The CorHPR**

#### **3.1 Composition**

Currently, the CorHPR is constructed using official HPRs from the Hong Kong hotels listed in TripAdvisor's Top 25 – China between from 2014 to 2017, with an aim to expand and include HPRs from other regions of China in the near future. A total of eleven hotels make the list on the TripAdvisor's award during this period, namely The Peninsula Hong Kong, The Ritz Carlton, Hotel ICON, Island Shangri-La Hong Kong, The Upper House, Four Seasons Hotel Hong Kong, The T Hotel, The Landmark Mandarin Oriental Hong Kong, Mandarin Oriental, W Hong Kong and Ovolo Central.

The 187,661-word corpus organises the HPRs into the following categories: Hotel name, Region, TripAdvisor's Top 25 – China ranking, Purpose / Subject, Year, Heading, Subheading and Body. For the purpose or subject of the HPRs, they are classified into nine main categories, consisting of award, charity, co-branding, food promotion, gift promotion, spa promotion, room promotion, event – such as traditional festivals and art exhibitions, and lastly, people – which describes the people involved in certain hotel activities.

#### **3.2 Why TripAdvisor's Top 25?**

TripAdvisor is arguably the most influential travel website in the hotel and tourism industry. It is the world's largest travel site with currently “over 600 million reviews and opinions ... covering approximately 7.5 million accommodations, airlines, attractions, and restaurants”. The site compares prices from “more than 200 hotel booking sites”, has “TripAdvisor-branded sites ... in 49 markets” and “455 million average monthly unique visitors” (TripAdvisor, 2017). Bjorn Hanson, a professor at New York University's Tisch Center for Hospitality and Tourism, describes how TripAdvisor is superior to other big travel sites, “While the big booking companies like Expedia and Booking.com also let users post reviews, no one matches the volume or weight of TripAdvisor ... If it were retail, we'd be calling it the category killer.” (Vanderbilt, 2015)

TripAdvisor presents its Travelers' Choice awards annually to hotels, restaurants, museums, airlines as well as destinations, landmarks, beaches and attractions. According to TripAdvisor (2018), “[the] Travelers' Choice award winners were determined based on the millions of reviews and opinions collected in a single year from TripAdvisor travelers worldwide.” The method for determining the award winners is believed to be related to the ‘Popularity Ranking Algorithm’, involving three main numericalised criteria: quality, recency and quantity (TripAdvisor, 2016). The Top 25 Awards for the hotels category includes World and Regions, where Regions are divided into seven subcategories. The seven subcategories are Africa, Asia, Europe, Middle East, North America, South America and South Pacific. Top 25 – China is one of the awards under Asia. The hotels in Hong Kong which are listed in Top 25 – China between 2014-2017 is starting point for the construction of the CorHPR.

As the CorHPR is freely available online, researchers are free to explore the corpus as they wish. In the next section, I will ask a number of fundamental questions about the HPRs published by the aforementioned hotels and demonstrate how to use the CorHPR to answer them, using ConcGram v1.0 for the corpus analysis.

### **4. The CorHPR and how to use it**

#### **4.1 How many HPRs do different hotels publish on their websites per year?**

Among the eleven hotels that made the list on the TripAdvisor's Top 25 -- China between 2014 and 2017, nine of them publish HPRs on their websites. Table 5 shows the breakdown of the number of HPRs each of these hotels published on their hotel websites during this period.

**Table 5.** The number of HPRs published on hotel websites 2014-2017.

| Hotel names                               | 2014 | 2015 | 2016 | 2017 | Grand Total |
|-------------------------------------------|------|------|------|------|-------------|
| The Peninsula Hong Kong                   | 19   | 20   | 28   | 25   | 92          |
| The Ritz Carlton                          |      | 6    | 35   | 30   | 71          |
| Hotel ICON                                | 16   | 10   | 10   | 2    | 38          |
| Island Shangri-La Hong Kong               |      | 14   | 13   | 5    | 32          |
| The Upper House                           | 3    | 7    | 8    | 8    | 26          |
| Four Seasons Hotel Hong Kong              |      |      | 4    | 17   | 21          |
| The T Hotel                               | 1    | 1    | 2    | 1    | 5           |
| The Landmark Mandarin Oriental, Hong Kong |      |      | 1    | 4    | 5           |
| Mandarin Oriental                         |      |      |      | 3    | 3           |
| W Hong Kong                               |      |      |      |      | 0           |
| Ovolo Central                             |      |      |      |      | 0           |
| Grand Total                               | 39   | 58   | 101  | 93   | 293         |

In general, for the nine hotels which publish HPRs on their websites, there is an uptrend in the number of HPRs published by these hotels between 2014 and 2016. However, in 2017, five of the nine hotels have posted fewer HPRs on their websites, one remained constant, and three posted more.

There are many reasons affecting the number of HPRs published on a hotel website. This may be due to limitations such as website design, or a change in advertising strategy, such as increasing the use of social networks. As Lai (2017) suggests that, “while the media remains important, there are so many other channels of communication such as the hotel associates, hotel guests, internal collaterals (in-hotel electronic signage), print collaterals, e-newsletters, email marketing, social media, and other paid channels. Some hotels believe that their social media pages act as their main communication channels and no longer distribute press releases. In other words, their social media page has become their official media channel. For Hotel ICON, press releases nowadays must include the hotel’s social media handles/hash tags as part of the template.”

Lanz (2010) also points out that one key advantage of the social media over HPRs is that the message embedded in a HPR can be “pieced apart and used to engage with a variety of social groups” to create “a two-way dialogue or conversation”.

#### 4.2 What do these HPRs promote?

Table 6 shows the percentages of HPRs in CorHPR by purpose / subject. As there can be multiple purposes in one HPR, the percentages do not add up to 100%.

**Table 6.** The purpose / subject of HPRs in CorHPR in percentage.

| Purpose / Subject of HPR |     |   |     |         |
|--------------------------|-----|---|-----|---------|
| Food Promotion           | 197 | / | 293 | = 67.2% |
| People                   | 150 | / | 293 | = 51.2% |
| Event                    | 85  | / | 293 | = 29.0% |
| Co-branding              | 59  | / | 293 | = 20.1% |
| Gift Promotion           | 58  | / | 293 | = 19.8% |
| Spa Promotion            | 33  | / | 293 | = 11.3% |
| Room Promotion           | 30  | / | 293 | = 10.2% |
| Award                    | 23  | / | 293 | = 8.2%  |
| Charity                  | 13  | / | 293 | = 5.8%  |

From the above table, we can see that food promotion and people-oriented HPRs cover more than 50% of all 293 HPRs. Event is third at nearly 30%. This is followed by co-branding and gift promotion which is around 20%, and finally, spa promotion, room promotion, award and charity at around 10%. These percentages indicate that these hotels in Hong Kong place a significant amount of focus on promoting their food and beverage (F&B).

The importance of food and beverages is understood by global hospitality companies. For instance, the Mandarin Oriental International Limited, which “operates 29 hotels and eight residences in 19 countries and territories” in 2016 (Mandarin Oriental Hotel Group, 2017, p. 5), has a total revenue of US\$1,323.7m. Of these, US\$700.0m were from rooms (52.9%) while 501.5m were from F&B (37.9%), giving a ratio of revenue from rooms to F&B of 1.4: 1. The Hong Kong Shanghai Hotels, Limited (HSH), which operates 10 hotels worldwide under the brand ‘The Peninsula’, has a 2017 interim revenue of HK\$1,926m, of which HK\$874m were from

rooms (45.4%) and HK\$562m were from F&B (29.2%) (The Hongkong and Shanghai Hotels, 2017). This give a ratio of revenue from rooms to F&B of 1.6: 1, a ratio close to that of the Mandarin Oriental Group.

On a local scale, Sino Hotels (Holdings) Limited can offer us some insights into the proportion of venue from rooms versus F&B. For the financial year 2016/17, the ratios of revenue from rooms to F&B City Garden Hotel and Conrad Hong Kong are 2.1: 1 and 1.3: 1 respectively. The figures indicate that F&B revenue plays a significant role in the hotel industry both globally and in Hong Kong. Moreover, according to a 2011 Hong Kong catering industry overview report by Frost & Sullivan (HKEX, 2012), the fine dining segment accounts for 34.9% of Hong Kong's catering market, and was expected to increase to 49.0% in 2016. The above statistics shows a positive correlation between the percentage of HPRs devoted in food-promotion and the hotel revenue from F&B.

As a side note, the above statistics also show an apparent negative correlation between the percentage of HPRs devoted in room promotion and the hotel revenue from rooms. This phenomenon may be related to the average occupancy of the hotel rooms. If the hotels consider the average occupancy of the rooms to be adequate, they may not promote their rooms through HPRs as often. However, it is worth noting that the number of HPRs published on the hotel websites may be an active choice made by the webmasters or the hotels' marketing department. As Lai (2017) points out, "It's always aesthetic of the website versus abundant content." This means that the actual number of room-promotion HPRs may be higher. Therefore, the percentages presented in Table 6 can only be treated as the estimations of relative importance of certain purposes / subjects to the hotels, but not as absolute frequencies of the choices made.

#### 4.3 Is there any correlation between the number of HPRs and TripAdvisor's Top 25 in China ranking?

Pearson's correlation coefficient is used to measure the strength and direction of a linear relationship between two variables: X, the number of HPRs published on the hotel websites in a particular year (2014-2017), and Y, the corresponding rank on the TripAdvisor's Top 25 – China award list that year. A hotel that did not make the award list in a particular year will be given a rank value of '0' as we cannot provide an exact number higher than '25'.

Figure 1 shows the scatter plot of X against Y and Figure 2 shows the result details and calculation.

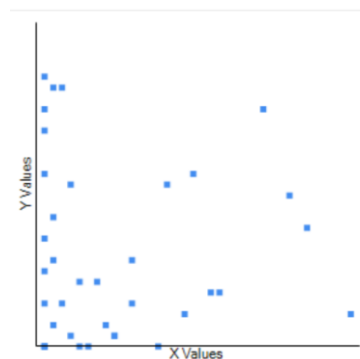


**Figure 1** The number of HPRs published on the hotel websites in a particular year (2014-2017), and Y, the corresponding rank on the TripAdvisor's Top 25 – China award list that year.

| <u>Result Details &amp; Calculation</u>                                                                                                     | <u>Key</u>                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>X Values</b><br>$\Sigma = 293$<br>Mean = 7.919<br>$\Sigma(X - M_x)^2 = SS_x = 3384.757$                                                  | X: X Values<br>Y: Y Values<br>$M_x$ : Mean of X Values<br>$M_y$ : Mean of Y Values<br>X - $M_x$ & Y - $M_y$ : Deviation scores<br>$(X - M_x)^2$ & $(Y - M_y)^2$ : Deviation Squared<br>$(X - M_x)(Y - M_y)$ : Product of Deviation Scores |
| <b>Y Values</b><br>$\Sigma = 316$<br>Mean = 8.541<br>$\Sigma(Y - M_y)^2 = SS_y = 2345.189$                                                  |                                                                                                                                                                                                                                           |
| <b>X and Y Combined</b><br>N = 37<br>$\Sigma(X - M_x)(Y - M_y) = -40.378$                                                                   |                                                                                                                                                                                                                                           |
| <b>R Calculation</b><br>$r = \Sigma((X - M_x)(Y - M_y)) / \sqrt{((SS_x)(SS_y))}$<br>$r = -40.378 / \sqrt{((3384.757)(2345.189))} = -0.0143$ |                                                                                                                                                                                                                                           |
| <b>Meta Numerics (cross-check)</b><br>r = -0.0143                                                                                           |                                                                                                                                                                                                                                           |

**Figure 2** Result details and Calculation of X and Y values

The R value is -0.0143. The negative value means that this is a negative correlation, but the value is close to 0, meaning that the relationship between X and Y are weak. The coefficient of determination R<sup>2</sup> is 0.0002, meaning that the goodness of fit of the regression line with the real data points is poor. We can conclude that there is insufficient evidence to support the claim that the number of HPRs published on the hotel websites in a particular year (2014-2017) is negatively correlated to the corresponding rank on the TripAdvisor's Top 25 – China award list that year.

#### 4.4 What linguistic features appear to be most common in HPRs?

In order to study the linguistic features of the CorHPR, I begin by looking at the top 100 most frequent words in the CorHPR, using software ConcGram 1.0 to create a unique wordlist. Figure 3 shows the list of these 100 most frequent words.

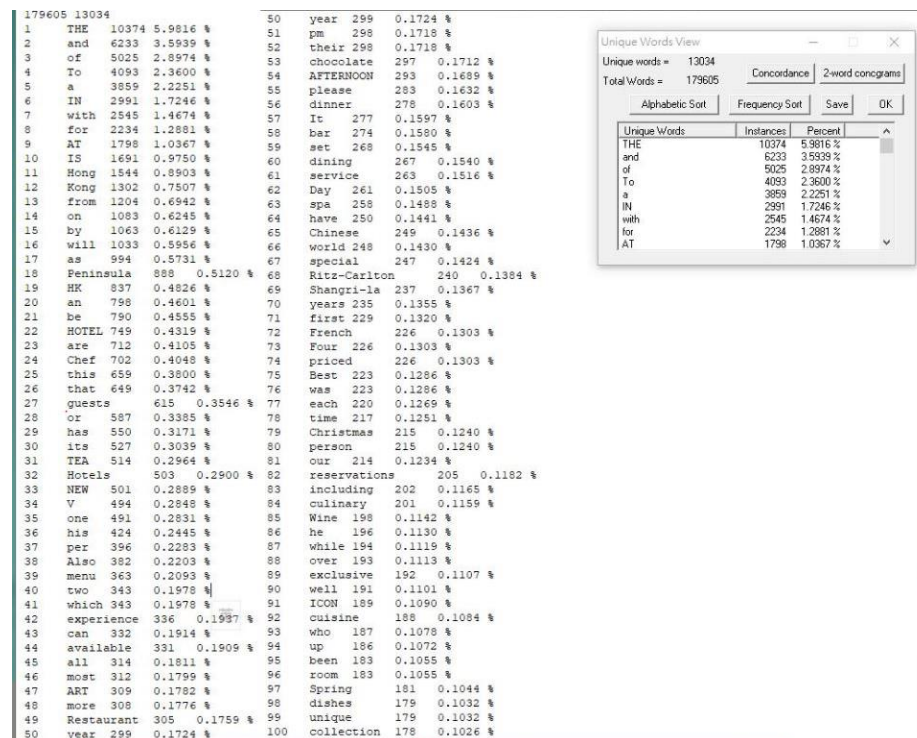


Figure 3 Top 100 most frequent words in CorHPR

From Figure 3, a screenshot of the unique wordlist, a number of meaningful lexical words are selected for further analysis. They are 'chef', 'guests', 'tea', 'new', and 'experience'. The concgrams of these words are created and the patterns observed are presented below:

##### 4.4.1 'chef'

The word 'chef', as shown in the screenshot in Figure 4, is ranked 24th in the list of top 100 most frequent words in CorHPR and it is the first lexical word without any specificity in location and hotel brand. I shall call these words 'non-geo-branding lexical words' hereafter. The fact that a chef plays a key role in the production of food and his fame draws customers to the hotel, this result correlates with the finding in section 4.2 that food and people are the two most popular focuses or subjects of HPR promotion.

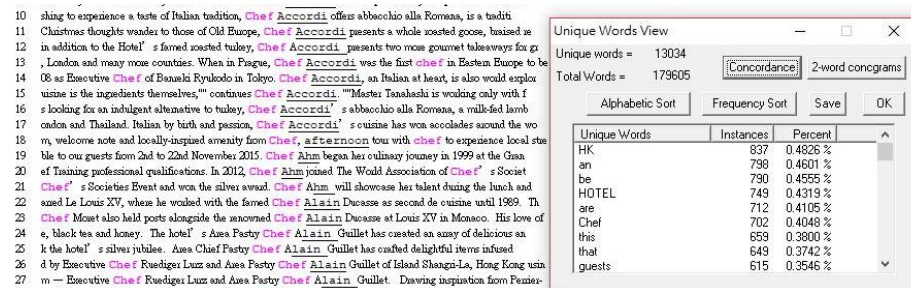


Figure 4 Concordances of ‘chef’

#### 4.4.2 'guests'

The word ‘guests’ is ranked 27<sup>th</sup> in the list of top 100 most frequent words in CorHPR and it is the second non-geo-branding lexical word in the list. One interesting aspect of looking at the word ‘guests’ is what level of freedom have they been granted in the hotel area. This means what the guests are allowed to do and have the right or privilege to do that they normally will not be able to enjoy when they are not at hotels.

By looking at the concordances of 3-word concgrams of ‘guests’ with modal auxiliary ‘can’ as shown in Figure 5, we can see what the ‘guests can’ do at hotels. In descending order of frequency, they are ‘enjoy’ (38 co-occurring word instances, or CWIs hereafter), ‘stay’ (9 CWIs), ‘make’ (6 CWIs), ‘choose’ (5 CWIs) and ‘take’ (5 CWIs), words that convey a sense of relaxation and the freedom to make choices.

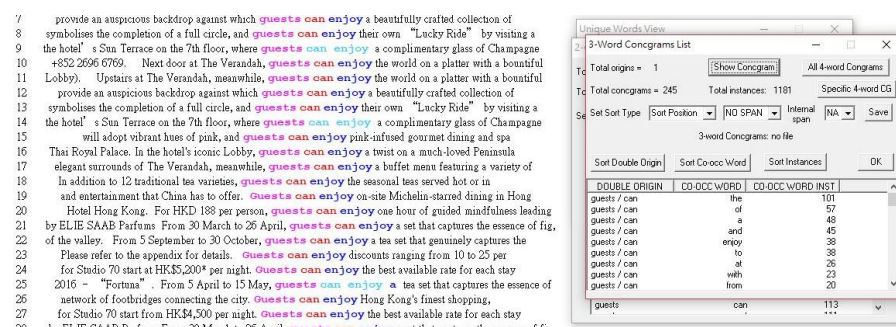


Figure 5 Concordances of 3-word concgrams of ‘guests / can’

#### 4.4.3 'tea'

The word ‘tea’ is ranked 31<sup>st</sup> in the list of top 100 most frequent words in CorHPR and it is the first F&B-related word to appear on the list. The word ‘tea’ collocating with ‘afternoon’ forming the 2-word concgram ‘afternoon tea’ is a particularly interesting phenomenon. The 285 instances of the 2-word concgram shown in Figure 6 reveals the cruciality of afternoon tea promotion for these top hotels in Hong Kong. It shows that these hotels place afternoon tea on the highest position in the list of F&B promotion, which is in line with the finding in section 4.2.

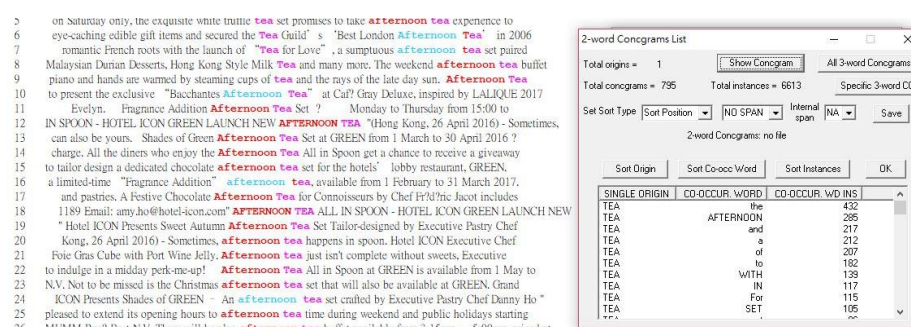


Figure 6 Concordances of 2-word concgrams of ‘tea’

#### 4.4.4 'new'

The word 'new' is ranked 33<sup>rd</sup> in the list of top 100 most frequent words in CorHPR and it is the first adjective, or Epithet / Classifier in systemic functional grammar (Halliday & Matthiessen, [1985] 2014), in the unique wordlist. **Figure 7** shows a screenshot of the 2-word concgram of 'new' with 'the'. It is found that apart from a large number of 'New' as Classifier of 'New York' (39 of 497 CWIs), 'Chinese New Year' (27 of 497 CWIs), 'Lunar New Year' (26 of 497 CWIs) and 'New Territories' (10 of 497 CWIs), the 'new' as Epithets collocates with a range of noun phrases. These include the F&B-related 'chef', 'collection', 'creation', 'delight(s)', 'dimension(s)', 'fragrance', 'menu', 'premium dim sum', 'restaurant', 'series of menus' and 'surprises'; gift and spa-related 'model', 'luxury find', 'leather colour', 'spa', 'treatment'; people-related 'chef', 'talents' and 'team'; status and award-related 'heights', 'partnership', 'ways' and 'world'. Each collocate is a clear indication of the topic that is promoted.

We must also note that the word 'new', being the first adjective in the unique wordlist, reflects the hotel experience which the HPR authors want their readers to perceive. This brings us to the last word of interest of this paper, 'experience'.

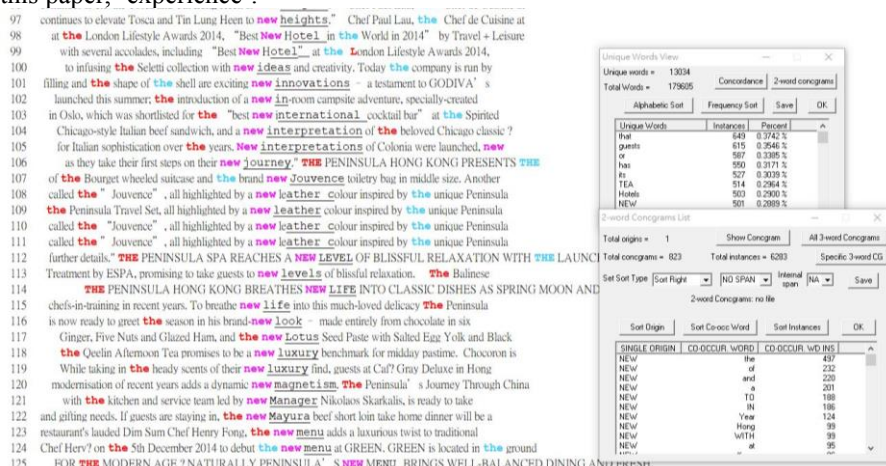


Figure 7 Concordances of 3-word concgrams of 'new'

#### 4.4.5 'experience'

The word 'experience' is ranked 42<sup>nd</sup> in the list of top 100 most frequent words in CorHPR and it is the immediate non-geo-branding lexical word after 'new' and 'menu'. **Figure 8** shows a screenshot of the concordances of the 2-word concgram of 'experience' with 'guests' (top) and 'years' (bottom). Through careful investigation of the 2-word concgram list, we can understand how these selected Hong Kong hotels position and prioritise the types of experience through the publishing of HPRs. For example, 'guests'-'experience' has 48 CWIs, 'dining'-'experience' has 44 CWIs, 'unique'-'experience' has 20 CWIs, '(afternoon) tea'-'experience' has 19 CWIs, and 'years (of)'-'experience' has 19 CWIs. One way to interpret this is that these hotels prioritise the gastronomical experiences from the guests' perspective by providing reassurance through specifying the number of years of experience that a seasoned hotel staff has.

Apparently, one limitation of quoting the CWIs in the above examples is that the CWIs cannot be used for direct calculations. This is because the CWIs may in fact overlap with one another. For example, if we look at line 3 of the 2-word concgram of 'experience' with 'guests' (top) in **Figure 8**, we can see the expression 'a unique dining experience', indicating a possible overlapping in one of the 48 CWIs in the 'guests'-'experience' and the 44 CWIs in 'dining'-'experience'. However, given enough time to handle these overlapping or duplicating cases, we can still carry out direct comparisons of CWIs.



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# Case Study: Analyzing Speech Acts of a Spousal Caregiver When Responding to a Patient with Auditory Hallucination

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**Abstract.** This is a two-year longitude and qualitative study in Hong Kong, from September 2015 to September 2017, investigating types of speech acts (Austin 1962; Searle 1969, 1976, 1999, 2002) of a spousal caregiver when responding to his wife aged 80 (hereafter referred to as the care-receiver or the patient) with auditory hallucination. The objectives of this study are two-folded: (1) to firstly report a spousal caregiver's utterances when responding to the patient's "untrue story" which was medically diagnosed as auditory hallucination, and (2) to further analyze, using Searle's taxonomy of speech acts, the types of speech acts the caregiver employed in his responses across different points of this study. During this research period, five 30-min semi-structured qualitative interviews with the caregiver were conducted, aiming to collect spoken data of his responses and to elicit his underlying reasons producing those responses. In this study, the analytical framework of spoken discourse is based on *initial-response-follow-up* (Stubbs 1983) and the taxonomy of speech acts (Searle 1976). The results show that the caregiver employed a mix types of speech acts except the declaratives, and also in a "pattern" with underlying reasons across different points of study, mostly starting from *representatives* with negation, to *directives*, *expressives*, and to *commissives*. The results also reveal that the caregiver adopted another communicative tactics: *silence*. He also elaborated his rationale when giving "negation" to the "untrue story - auditory hallucination" told by his wife, arguing this speech act type was not merely about telling the truth. Instead, this can be analyzed from the semantics perspective in terms of language, logic and truth. Admittedly, this study is a single case and this is difficult to estimate its generalizability. However, the above findings can shed some light on understanding speech acts a caregiver would employ when responding to a patient medically diagnosed with auditory hallucination.

**Keywords:** auditory hallucination, caregiver, health communication, Searle's taxonomy of speech acts, semantics

## 1. Introduction

Auditory hallucination is a subjective experience of hearing sounds despite the absence of an actual stimulus to account for the phenomenon, and this phenomenon among the elderly is prevalent. This current study is a two-year longitude study, from Sep 2015 to Sep 2017, investigating the case of an informal family caregiver who was responding to "untrue stories of hearing a crying boy every night" told by his spouse (hereafter referred to as the care-receiver or the patient) with auditory hallucination. This case study is, from spoken discourse perspective, to investigate what speech act types employed in target themed-conversations related to the auditory hallucination issue between an informal spousal caregiver and a patient.

## 2. Background-Auditory Hallucination: "Untrue Stories" of Hearing a Crying Boy

This case study focuses on collecting and analyzing utterances from a family caregiver to his spouse with the auditory hallucination issue of *hearing a crying boy every night*. The care-receiver is a woman aged 80 living with her husband aged 83. They both live together in a government-subsided flat in Hong Kong, and they are both independent managing their daily chores. There is one neighbor of a young couple with a boy aged 8, living right next to the target old couple.

In early Sep 2015, the care-receiver started complaining that she heard the neighbor boy crying the whole night for days. The "crying" was said to lead to her insomnia, and she claimed that she could sleep for only one or two hours per night. Though the care-receiver claimed there was non-stop crying from the neighbor boy when she tried to sleep, the caregiver in the same flat did not hear that at all. As such, there were quarrels over this issue between the old couple. To resolve this conflicting issue, one family member slept over there and also made some sound-recordings, and the results showed no crying. However, the care-receiver still kept telling her "untrue story" and she felt very anxious and highly emotional. In late April 2016, the family took her to see a psychiatrist, and the patient was medically diagnosed as with auditory hallucination. Then, she was given pills

to ease her when sleeping. After treatment for months, the patient stopped seeing the psychiatrist and the pills even though she still has this auditory hallucination issue when sleeping.

### 3. Research Objectives

This is a two-year longitude research study with the following two objectives:

- (1) To firstly report a family caregiver's spoken utterances when responding to the patient's "untrue stories of hearing a crying boy" which was medically diagnosed as auditory hallucination, and
- (2) To further analyze the types of speech acts the caregiver employed in his responses across different points of this study.

### 4. Literature Review

This research study basically draws from research on the field of spoken discourse analysis, particularly on *Initial-Response-Follow-up* as an analytical framework and on speech acts as the smallest unit of measurement of spoken discourse.

#### 4.1 Analytical Framework of Spoken Discourse: *Initial-Responses-Follow-up (IRF)*

To begin with, Sinclair and Coulthard (1975) firstly proposed the *Initiation, Response, Feedback or Follow-up (IRF)* as a system of discourse particularly unique to the classroom. In their classroom research, they found that teachers, after starting a question for a student, receive a response and then often give a follow-up response. This was typically in the form of a negative or positive feedback on the student's performance. Later on, this system of discourse can also be applied outside the classroom context (Coulthard: 1985; 1992, Stubbs: 1983; Francis and Hunston in Coulthard: 1992). Specifically, Stubbs (1983: 136) describes four "minimal interactional categories" within an exchange of conversation: *initiate (I)*, *respond (R)*, *respond-initiate (R/I)*, and *follow-up (F)*. Stubbs (1983) points out that these elements are distinguished by their ability to be *predicted* or *predicting*. For instance, an initiation is predicting in that its appearance will need a response to establish a complete exchange, hence a response is predicted. However, a follow-up is said not to be obligatory. When a follow-up does exist, it may predict another move, that is, another follow-up or another initiation. Francis and Hunston (1992: 136) further state that, "R/I, although optional, is both predicted and predicting as it can be predicted by I, and is always followed by R". Thus all conversational exchanges have the following structure:

#### **I (R/I) R (F)**

The parentheses are used to indicate that R/I and F are optional.

In the structure of "Analysis of Everyday Conversation", Francis and Hunston (1992) further point out that the smallest unit of measurement in spoken discourse is the speech act. Hence, the following is to review basic types of speech acts, particularly with reference to Searle (1976) for he has been investigating the speech acts, language and minds (1969, 1976, 1999, 2002). Searle (1976) published his classic scholarly work on taxonomy of speech acts, a refined framework based on his teacher J. Austin (1962) who was the first proposing types of speech acts.

#### 4.2 Smallest Unit of Measurement in Spoken Discourse: Searle's Classifications of Speech Acts

In addition to the first and classic analysis of speech acts (Austin 1962), Searle (1976) further refined different speech acts into five basic types as each can perform in speaking. This classification of speech acts is well-studied and those five types are being reviewed as follows:

To start, "**Representatives**" means that the speaker is committed, in varying degrees, to the truth of proposition (e.g. believe, affirm, report, conclude and deny). Specifically, the following examples can illustrate the point.

- *The earth is flat.*
- *Steven Hawkins didn't write about fine arts.*
- *It was a warm sunny day yesterday.*

In all the above examples, the speaker represents the world as he or she believes it is.

Second, “**Directives**” means that the speaker tries to get the hearer to do something (e.g. asking, request, command, suggest and advise). Specific examples are listed as follows:

- *I suggest that you should take a taxi.*
- *Could you open the window, please?*
- *Don't hide yourself.*

The above-mentioned examples illustrate that the speaker tries to make the world fit into the words through the hearer, such as in the first example above, taking a taxi is something the hearer is suggested to do.

Third, “**Commissives**” means that the speaker is committed, in varying degrees, to a certain course of action (e.g. swear, vow, guarantee, pledge, promise, oath and refuse). The examples listed below point out that the speaker undertakes to make the world adapt the words through the speaker himself or herself.

- *I will be back in two minutes.*
- *We will not do that again.*
- *I will return home by six tonight.*

Fourth, “**Expressives**” means that the speaker expresses an attitude about a state of affairs (e.g. thank, welcome, congratulate, apologize and excuse). Those sentences show that the speaker makes words fit the world of feelings.

- *Congratulations!*
- *I am really sorry to hear that.*
- *I am so grateful that you can come.*

Finally, “**Declaratives**” means the speaker changes the external condition or status of an object or situation solely by producing the utterance (e.g. appoint, christen, name, resign, sack, sentence (in court), pronouncing the couple as husband and wife).

- *Priest: I now pronounce you husband and wife.*
- *Referee: You are out! (in a football competition)*

## 5. Methodology

### 5.1 Semi-structured Interviews with the Spousal Caregiver

In this two-year longitude study, **five qualitative semi-structured interviews** (around 30 minutes each) with the caregiver were conducted. All interviews were conducted without the presence of the care-receiver, and in Cantonese as the interviewee’s first language. The interviews aim to collect what the caregiver stated when responding to the care-receiver’s auditory hallucination issue.

**Table 1.** Timelines for Conducting Semi-structured Interviews

| Dates            | Incidents                                                                      | Interviews with the spousal caregiver  |
|------------------|--------------------------------------------------------------------------------|----------------------------------------|
| Sep 2015         | Started complaining about “the neighbor boy’s non-stop crying the whole night” |                                        |
| Nov 2015         | Before seeing a psychiatrist                                                   | 1 <sup>st</sup> interview (30 minutes) |
| Early April 2016 | Before seeing a psychiatrist                                                   | 2 <sup>nd</sup> interview (30 minutes) |
| Late April 2016  | Seeing a psychiatrist                                                          |                                        |
| June 2016        | 2 Months after seeing the psychiatrist                                         | 3 <sup>rd</sup> interview (30 minutes) |
| Oct 2016         | 6 Months after seeing the psychiatrist                                         | 4 <sup>th</sup> interview (30 minutes) |
| May 2017         | 12 Months after seeing the psychiatrist                                        | 5 <sup>th</sup> interview (30 minutes) |
| July 2017        | Stop seeing the psychiatrist; still hearing the crying boy at night            |                                        |

### Before seeing the psychiatrist

Interview questions for the first and second semi-structured interviews:

1. *What did you say when your wife mentioned the boy's crying the whole night?*
2. *Do you believe in your wife's story about the boy's crying the whole night?*
3. *Can you also hear the boy who cried non-stop?*
4. *How do you know that is not real?*
5. *After you give the response, how's your wife response? What did she say to your response?*

### After seeing the psychiatrist

Interview questions for the third, the fourth and the final semi-structured interviews:

In addition to the above interview questions, here are extra questions in the last two interviews.

1. *Did you give the same responses for your wife's hallucination incident, ranging from the very beginning stage of her hallucination incident, to seeing her psychiatrist and to the stage onwards of her stopping pill-taking?*
2. *Why would you respond to this hallucination incident differently, from different periods of time?*
3. *Do you believe in your wife's story about the boy crying in the whole night?*

## 5.2 Textual Analysis: Unit of Analysis

After collecting data from the caregiver, **textual analysis** is adopted for analyzing the speech acts according to Searle's (1976) classification of speech acts. The details are listed below.

First, this paper endeavors to include a systematic unit of analysis with reference to the IRF structure (Stubbs 1983) which has been briefly reviewed in the previous literature review section. As for spoken discourse analysis in this study, strings of conversation will be extracted from raw data taken from those "themed-conversations of hearing a crying boy" between the patient and the caregiver. These conversations will then be further broken down into smaller units that comply with the IRF structure. The rationale of producing those speech acts types will be further explored when interviewing the caregiver. Sample data will be shown within the Initial-Response-Follow-up framework. In other words, all target themed-conversations are only about the "untrue-story", and it is the patient who started an initiation, then with a response from the caregiver, and another follow-up. This study will not focus on types of follow-ups which will be further explored in other research study.

### Sample Data Set 1 (Cantonese)

Patient: (Initial)

隔裡的細佬成晚喊！我成晚冇得瞓呀。你聽唔聽到呀？

*The neighbour boy kept crying non-stop the whole night. I can't sleep the entire night! Did you hear that?*

Caregiver: (Response)

聽唔到。應該無喊。那細佬已經那麼大，怎麼會成晚喊！

*I didn't. There's no crying. How could the kid cry the whole night for he has grown up!*

Patient: (Follow-up)

我都唔知你點解聽唔到！

*I don't know why you can't hear that!*

### Sample Data Set 2 (Cantonese)

Patient: (Initial)

個傻仔又成晚喊！佢喊唔停！

*That idiot boy kept crying the whole night! He is crying non-stop!*

Caregiver: (Response)

你帶耳塞瞓啦。

*You use ear-plugs while sleeping.*

Patient: (Follow-up)

無用！那衰仔不停喊！

*It's pointless (using ear-plugs)! That idiot boy's crying non-stop!*

### Sample Data Set 3 (Cantonese)

Patient: \_\_\_\_\_ (Initial)

個白痴仔不停喊。我很煩！

That idiot boy cried the whole night. I feel very irritated!

Caregiver: \_\_\_\_\_ (Response)

我知，我瞓唔到我都會很煩

*I know. I also feel very irritated if I can't sleep.*

Patient: \_\_\_\_\_ (Follow-up)

我就嚟「痴線」啦！

*I'm going to go insane!*

### Sample Data Set 4 (Cantonese)

Patient: \_\_\_\_\_ (Initial)

隔裡的細佬成晚喊！你聽下呀。

*The neighbour boy kept crying non-stop the whole night! You go and hear it.*

Caregiver: \_\_\_\_\_ (Response)

好，我去聽下。

Okay, I am going to check it (sound) out.

Patient: \_\_\_\_\_ (Follow-up)

佢喊嚟呀。

*He (the boy) is crying now.*

## 6. Findings

### 6.1 Mixed Types of Speech Acts but No Declaratives

The results show that the caregiver *employed different types of speech acts*, including representatives, directives, expressives and commissives. Samples extracted for the above-mentioned types are given below. It is noted that, in this case study, the declaratives type is not found, and the plausible rationale for this phenomenon will be studied in section 7 analysis and discussion.

- *Representatives (with negation)*
  - e.g. 琴晚無細佬仔喊。  
*There was no crying last night.*
  - e.g. 我聽唔到。  
*I did not hear (the crying boy).*
- *Directives (with suggestions)*
  - e.g. 你帶耳塞瞓啦。  
*Use ear plugs when sleeping.*
  - e.g. 你眼瞓就去瞓啦。  
*You go to sleep when you feel sleepy.*
- *Expressives (with empathy)*
  - e.g. 我瞓唔到我都會很煩。  
*I also feel very irritated if I can't sleep.*

e.g. 我知你心情唔好。  
*I know you have a bad mood.*

- *Commissive*

e.g. 我去聽下。  
*I am going to check it (sound) out.*

e.g. 我去門窗。  
*I'm going to close the window.*

## 6.2 A “Pattern” of Speech Acts Types

Based on our collected data during those five interviews before- and after-seeing the psychiatrist, it appears to reveal a “pattern” of speech acts types *across different points of this case study*.

Overall, before- and after-seeing the psychiatrist in this case study, there was a mix of representatives, directives, expressives, and commissives, except the declaratives. Second, before-seeing the psychiatrist, two speech acts types of (i) representatives with negation and (ii) directives with suggestions were found to be salient when compared to other two speech acts types of (iii) expressives and (iv) commissives. Third, after-seeing the psychiatrist, the caregiver responded that he was inclined not to use more representatives with negation. Instead, another communicative tactics of being *silent* is found to be common.

## 6.3 Silence

Here are the spousal caregiver’s answers in the interviews, stating that he employed “silence” as responses to the initiation of “hearing a crying boy” from his wife. The caregiver explicitly stated that he gave no answers, that is, silence, aiming to let her wife relieve her negative emotion. Specifically, he elaborated that his wife kept talking about the issue for five or ten minutes, and even for half-an-hour, and his exact responses are as follows:

我唔出聲。  
*I don't say anything.*

唔回應，比佢講。  
*I did not answer. Let her talk.*

## 7. Analysis and Discussion

### 7.1 Representatives with Negation - Denial to the “Untrue Stories”

Utterances from the caregiver, before seeing a psychiatrist, were found to be representatives with negation including, “there’s **no** crying”, “I did **not** [hear any crying]”, etc. The caregiver in the interviews admitted that he would like the care-receiver to realise the truth that there is no crying. Using negation to tell the truth in our “yes-no question” of our daily conversation is not uncommon. In this case study, using representatives with negation before-seeing a psychiatrist can be argued to be in line with a typical communicative tactics when treating “the care-receiver” as only an interlocutor in our daily conversation, but not a patient with auditory hallucination.

### 7.2 Lack of “Declaratives” Speech Acts in a Mixed Communication

Our findings also show that the caregiver continuously adopted mixed types of speech acts except the declaratives, across two stages of before- and after-seeing a psychiatrist. In other words, the “declaratives” produced by the caregiver was absent in this case study. To recap, declaratives type means that the speaker changes the external condition or status of an object or situation solely by producing the utterance, such as pronouncing the couple as husband and wife in court. This may be argued that the caregiver has no authorised “power” to alter the external status in the conversation exchange with the patient, unlike the case in a doctor-patient conversation whereas the role of doctor carries authoritative power over a patient. Instead, the caregiver was inclined to employ “directives with suggestions” as this is believed to be in line with the caring role of an informal family caregiver.

### 7.3 Turning to ‘Silence’ when Giving Responses to the Unreality

The caregiver in the interviews admitted that he turned to use more “silence” particularly after his wife was medically diagnosed as with auditory hallucination, aiming not to counter-argue against the initiation about the “unreal story”. In this case study, this silence response was hence found to be salient after the care-receiver had seen a psychiatrist. It is because the caregiver realised that the care-receiver is now a patient with medical and emotional problems. The caregiver further responded that negative answers to the patient’s initiation would trigger the patient’s emotions, and he turned to be silent for saying nothing would not irritate the patient.

### 7.4 Language, Logic and Truth Value: Not Simply Telling the Truth

In order to explore any reasons for the caregiver who employed the salient speech acts type of representatives with negation when responding to the “untrue story of hearing a crying boy”, particular interview questions for the caregiver were devised (see section 5.1). The caregiver explicitly explained that producing “denials” was mainly for the sake of his wife’s health. He believed that when he did not agree to the claim of hearing a crying boy, then that could lead to his own belief of “helping” his wife to beat insomnia. This phenomenon is argued to be the case about language, logic, truth value and conditions, and they are briefly elaborated below.

To begin, I quote Saeed (2008) who points out that “the study of logic, of course, comes down to us from the Classical Greek Aristotle”. A well-known example is Aristotle’s *modus tollens*, a type of argument in three steps, like the following:

- a. Premise 1: If Chuchu is a dog, then Chuchu has four legs.
- b. Premise 2: Chuchu does not have four legs.
- c. Conclusion: Therefore, Chuchu is not a dog.

Saeed (2008) states that if steps a and b (called the premises) are true then step c (the conclusion) is also guaranteed to be true. In logic, *truth* is a property of statements, i.e. premises and conclusions.

Moreover, semanticists call a sentence’s being true or false its truth value, and call the facts that would have to obtain in reality to make a sentence true or false, its truth conditions. It should be also noted that any truth-functional conditional sentence states both a sufficient condition and a necessary condition as well. Specifically, Copi, Cohen, McMahon (2014: 515) state that “a sufficient condition for the occurrence of an event is a circumstance in whose *presence* the event *must* occur; a necessary condition for the occurrence of a specified event is a circumstance in whose *absence* the event *cannot occur*”. Referring to the following example,

If Chuchu is a dog, then Chuchu has four legs.

Suppose that if Chuchu is a dog, then she has four legs. Being a dog is a sufficient condition of her having four legs. Plus, having four legs in turn is a necessary condition of Chuchu’s being a dog.

After understanding the above notions, I now turn to recap what the patient said about hearing a crying boy, and the representative with negation was produced by the caregiver:

#### Patient:

(A) 隔裡的細佬成晚喊 ! (B) 我成晚冇得瞓呀。

(A) *The neighbour boy kept crying non-stop the whole night!* (B) *I can’t sleep the entire night.*

The patient’s utterance is then broken down into the following two parts:

- A. 隔裡的細佬成晚喊 !  
*The neighbour boy kept crying non-stop the whole night.*
- B. 我成晚冇得瞓呀。  
*I [the patient] can’t sleep the entire night!*

In this case study, when responding to the patient’s “untrue story of hearing a crying boy”, the caregiver responded that he purposefully added negation (i.e. conveying the explicit meaning of no crying), and this can be analyzed to reverse the truth value of the “Sentence A: The neighbour boy kept crying...”. He admitted that using representatives with negation is hopefully to help his wife to beat insomnia; his rationale of using this particular speech act type before he realised his wife was medically diagnosed as a patient (i.e. before-seeing a

psychiatrist) is not merely simply telling the truth. This should be however argued that, from the language, logic and truth perspectives, the caregiver “miscounted” this necessary condition as a sufficient condition, hoping to reach the expected conclusion of helping his wife to beat insomnia. As known, even though there is no crying, the patient still cannot sleep in this case study because there are other conditions leading to the patient’s insomnia, including health issues related to auditory hallucination.

## 8. Conclusion

The above findings can shed some light on understanding types of speech acts, in what pattern before- and after-seeing a psychiatrist, a caregiver would employ when responding to a patient with auditory hallucination. In particular, the underlying reason for using representatives with negation can be further analyzed in terms of language, logic and truth that this is not merely about telling the truth to the patient. Admittedly, this study is not for generalizing beyond the case, but for understanding the complexity of the case.

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# Peer-Assessment's Impact on Self-Regulation: Pairs Vs. Groups

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**Abstract.** This work explores the benefits and gains of peer-assessment and looks to establish whether pair orientated peer-assessment or group orientated peer-assessment is more effective in aiding learners. To examine this idea the study implements a comparison design-based experiment model. Two classes of 2nd language first year students in a post-secondary degree program, general education English class are analysed, one using pair peer-assessment and the other group (three students per group) peer-assessment; the work was carried out over a three-week period. The structure involved a pre-test in week one with a peer-assessment task implemented in week two, subsequently followed by a post-test in week three; both classes were given the same materials and only varied on the structure of their peer-assessment task (Groups/Pairs). Each task, each week was between 20-30 minutes. This research measured three key areas, to help demonstrate the associated benefits of peer-assessment, discussed in the literature, as well as provide data that can potentially determine the relative effectiveness of pair/group peer-assessment. These areas are: 1. The amount of peer-feedback given 2. The amount which was acted upon. 3. The students prior experience with peer-assessment. 4. The students' perceptions of peer-assessment prior to and after the process. This last area used qualitative questionnaires ('Likert' scale) to ascertain student opinion before and after the intervention; helping to demonstrate which method was preferred, or deemed more effective, by the students themselves. A short self-reflection also provided qualitative information as to the students views and opinions on the overall peer-assessment process.

**Keywords:** peer-assessment, formative assessment, self-regulation

## 1. Introduction

The problem this research is trying to address pertains to the field of assessment, more specifically the feedback aspect of assessment. Feedback is an important element in helping a learner reach their 'zone of proximal development' (ZPD) (Vygotsky, 1978). ZPD is used to describe tasks and achievements which would normally be beyond the individual capabilities of the learner, but that can be reached with assistance. A large problem in education around the world is that students do not fully make use of feedback to improve their future work. This has been seen in many contexts throughout education and has consistently been a major issue (Black et al., 2003). This creates a scenario where learners are not fully aware of the reasoning behind their assessments or, perhaps more importantly, how and what they are to improve post-assessment. This is clearly a problem for education, as one of the fundamental purposes of assessment is to ascertain a student's current ability as well as their potential knowledge gaps. If feedback is not truly understood and acted upon by the learner, then assessment becomes a mere memory recitation test, with little to no practical value for the student. This in turn can lead to decreased motivation, interest, and engagement in a topic. Therefore, to avoid this it is vital educators and students view assessment as a way to assist learning and not simply a measure of learning. Järvelä and Renninger (2014) point out, that many educators have made the link between interactions which are personalised, or respond to a learner's specific needs and strengths, and an enhanced possibility for learning. This connection helps to emphasise the importance of individual constructive feedback, however if students do not comprehend or value their feedback they cannot as effectively enhance their possibilities for learning. This lack of potential learning could include addressing a learner's knowledge gaps, identified by the teacher, or procedural errors which could be repeated in future work. If this research can establish that peer-assessment helps student engagement with assessment and feedback, then it may be more possible for local educators to carry out peer-assessment tasks, with the aim of fostering a classroom culture where learners will constructively utilise their feedback.

Peer-assessment is an often discussed, if somewhat underutilised, tool for learning. In the Hong Kong context, Mok (2011), in her work on student perceptions towards peer-assessment, has shown that peer-assessment is an often-unused instrument in Hong Kong classrooms. She further points out that the learning and teaching approaches in Hong Kong have been widely criticised, particularly for the teacher-led and exam orientated class structure. The literature reviewed in the later section of this paper has shown that peer-assessment can benefit students in many ways. The literature also shows how peer-assessment can help create

self-regulated and independent learners, with a plethora of additional assets for the learners. It does, however warn of the potential difficulties and considerations which must be addressed when implementing the peer-assessment processes. Peer-assessment has been described as a type of, and best used as, form of formative assessment. Through peer-assessment, students have been shown to develop habits of self-revision, evaluation and an enhanced ability with process writing; often subsequently improving their summative assessment scores. It has, however also been seen, that in many instances students are initially reluctant to engage in peer-assessment; careful planning and scaffolding are needed for effective peer-assessment. Furthermore, little literature addresses the potential differences between pair/group peer-assessment. This area could be instrumental for educators when they wish to establish initial peer-assessment practices in their class or school. The potential challenges or drawbacks will be discussed in more detail in the literature review.

### **1.1 Key Research Areas and Considerations**

This work aimed to produce data in four key areas:

1. The amount of peer-feedback given
2. The amount of given peer-feedback which was subsequently acted upon
3. The students prior experience with peer-assessment
4. Students' perception of peer-assessment, prior to and after the process

### **1.2 Research Considerations**

For the key areas certain considerations were needed to maintain a focus on the research objective/question. For point (1) only feedback which pertained to the guide given in week two was counted. Regarding point (2) feedback was deemed to have been acted upon if the previous comment no longer applied in the new work. For example, if the comment was "need a topic sentence" and in the task on week three the student had subsequently used a topic sentence this was deemed to be a comment which was acted upon. The third (3) point is simply a yes/no answer determining if students have been exposed to peer-assessment practices before. Point (4) utilises a 'Likert' scale and as such has no real special considerations - the self-reflection provides qualitative data on the student's own perceptions and is therefore largely self-explanatory. Due to the potential amount of data from these self-reflections, only a few representative examples will be analysed. The data from each class only uses that of students who completed all three tasks and as such does not match the initial desired pairings and groupings.

### **1.3 Research Question**

The overall question this research aimed to address was:

Does peer-assessment orientated in groups increase self-regulation more than peer-assessment orientated in pairs; students learning from their previous mistakes/misconceptions and subsequently acting to correct them?

## **2. Literature Review**

### **2.1 Peer-Assessment as Formative Assessment**

According to Black & William (1998) the idea of 'formative assessment' or 'assessment for learning', detailed feedback with support for learning, has been strong in education for many years now. Scriven, (1967) in his work on the methodology of evaluation, is widely credited with bringing forward the concept of 'formative evaluation'; he argued that providing data which would permit successive adaptations of work during the development of projects was key to the idea of formative evaluation/assessment. Dochy et al. (1999) discussed how, generally, peer-assessment is commonly used as a type of formative assessment/evaluation rather than as summative. Falchikov (as cited in Dochy et al., 2009) believed that there has been renewed interest over recent years in the use of peer-assessment as a tool for learning. Furthermore, within the learning sciences field, Krajcik and Shin (2014) have argued that collaboration helps students build shared understandings of ideas and discipline. Peer-assessment can be a strong form of collaboration. To begin exploring this idea it is essential to briefly define the philosophy behind peer-assessment. Falchikov and Goldfinch (2000), in their meta-analysis of student peer-assessment, discussed the theories underpinning peer-assessment. They stated that peer-assessment

is grounded in the philosophies of active learning, (Piaget, 1971, as cited in Falchikov and Goldfinch, 2000) and builds upon the ideas of social constructionism, where knowledge is often jointly constructed through discourse (Frawley, 1989). Brown and Campione (1994) continued this thought in their work on classroom practice, arguing that the classroom should be a community of learners.

## **2.2 Peer-Assessment: Brief Background**

As previously mentioned, peer-assessment or peer-review is not a new concept in education. Luxton-Reilly (2009), in his systematic review of peer-assessment tools, pointed to the work carried out by previous researchers (Sluijsmans, Brand-Gruwel and van Merrinboer, 2002) as evidence that this process has been present in higher education for over 50 years. Luxton-Reilly (2009) further stated that peer-assessment has been employed in various academic subjects including writing, science, engineering, business and medicine as well as being used for 30 years as a learning process to improve computer programs. It is clear that this is not a new idea in education, but it is still an area which requires further study and experimentation to better understand the benefits and drawbacks of peer-assessment. The following paragraphs lay out some of the commonly discussed advantages and disadvantages identified in the literature on this subject, as well as potential considerations when designing peer-assessment tasks.

## **2.3 Peer-Assessment's Associated Benefits**

Topping (1998) provided key foundational research on the field of peer-assessment, he concluded that peer-assessment is a process which has been used in a vast array of contexts and entails benefits to various cognitive, social, affective, transferable skills and systemic areas. Dochy, Segers and Sluijsmans (1999) went further to conclude that self- and peer-assessment are combined when students assess their peers, as the process forces self-reflection of their learning processes and activities compared to others in their class. This dual effect from peer-assessment, whereby students gain some of the associated benefits of self-assessment is expanded further in recent literature too. Dixon and Hawe (2017), in their project on Assessment for Learning (AfL), found that AfL strategies used in peer-review contribute to meta-cognitive self-monitoring and self-regulation. They argued that this is possible as peer-review provides an authentic context for the evaluation and monitoring of works in progress; a skill needed to maintain motivation. Mostert and Snowball (2013), in their study of online peer-assessment, revealed that peer-assessment could help develop active and independent learners. They attributed this to the evaluation and critical thinking taking place within peer-assessment, which in turn promotes students' high-order cognitive skills, such as reflection and self-management. Similar studies and research from Lee and Liu (2013) found that peer-feedback helps students evaluate themselves and identify important methods for revising assignments; important for self-regulated learners.

## **2.4 Peer-Assessment's Potential Drawbacks**

While many of the benefits of peer-assessment are discussed in the relevant literature, much of the research also warns of potential drawbacks or challenges which could often be encountered. In Dixon & Hawe's (2017) recent study, they found that students were initially reluctant to engage in peer-discussion or feedback, as in many cases they were more accustomed to passively keeping a low profile in class and had a fear that being wrong would reflect negatively on them. Dixon & Hawe, (2017) however did go on to discover that once the students became aware of the benefits, they were more engaged and proactive in the peer-orientated tasks. Mostert & Snowball's (2013) work found that peer-assessment marks tended to bunch in the middle with very few extremes, however they stated that the true value of peer-assessment may be more of a long-term effect. Lee & Liu (2013) highlighted one major possible downside of peer-assessment; they argued that students may be misled by peer-feedback and subsequently develop misconceptions of their work or abilities. While this is a potentially worrying outcome, other work has pointed out possible solutions which require further research. van den Berg, Admiraal & Pilot (2007) suggested that if feedback is arranged in groups instead of pairs it can prevent the pairing of weak students and allow students to compare peer comments, so they can better ascertain their accuracy and value. More research is needed on the effects of group peer-assessment against pair peer-assessment to truly see if this happens; some literature has suggested difficulties with peer-interactions. Azmitia, (1996) in her work on the issues of peer-interaction, argued that collaboration amongst students is not natural; this could be an additional potential barrier to larger group peer-assessment which is worth further research.

## **2.5 Considerations when Implementing Peer-Assessment**

In the field of the learning sciences some literature has discussed several key considerations to keep in mind when implementing peer-assessment. Krajcik and Shin (2014) argued that teachers will need to help students develop collaboration skills: turn-taking, listening and respect for others' opinions, and that since students are unfamiliar with the processes involved it could take an entire school year to establish and build collaborations. Scardamalia and Bereiter (2014) suggested that prompts are a needed and effective way of encouraging students to collaborate or compare ideas. Recent research has corroborated this where Dixon & Hawe (2017) concluded their study by proposing several ways that prompts, or examples could aid the learner. They stated that exemplars were very useful to help students gain content knowledge and realise multiple ways to success, and that dialogue plus direct evaluative experience leads students to understand and adopt those evaluative standards for themselves. A final point worthy of further research is that of assessing work in progress and how it could encourage more meta-cognitive self-monitoring (van den Berg, Admiraal & Pilot 2007; Dixon & Hawe, 2017; Dochy, Segers and Sluijsmans, 1999).

## **2.6 A Brief point on Self-Regulation**

The importance of self-regulation cannot be underestimated, Zimmerman (2000) in his work on the social cognitive perspective of self-regulation, laid out the key principles behind self-regulation. He concluded his comprehensive and foundational work with the idea that, in terms of the social cognitive view, great importance is placed on the role of socialising agents in the development of self-regulation in humans. These agents can include parents, teachers, coaches, and most importantly for this study, peers.

## **3. Methods**

This work will employ a case study approach. Case studies have been used to demonstrate, analyse, argue and persuade throughout history. Ellet (2007) provides a detailed and extensive guide to the strategies, advantages, disadvantages and uses of case studies.

### **3.1 Context of Study**

This pilot research project was designed to be informative and determinative in nature. As such the research was limited in size and scope; focusing on two general education English classes of first year students, both of which were undertaking the same core discipline subject and of mixed academic ability. The research was conducted over three successive weeks with each week's task lasting 20-30 minutes per class.

### **3.2 Research Procedure**

This research was focused around the peer-assessment of argumentative writing. The peer-assessment task itself did not focus on the accuracy of the content students wrote but the writing structure and organisation of their ideas. The students were given an assessment guide, focused on paragraph and writing structure, to help them formulate their feedback (see appendix B).

In week one both classes were given the same short argumentative writing task which was based on a topic that the students had recently studied in their classes. After completing the task, the students were also asked to fill out a brief questionnaire on their views towards peer-assessment. This questionnaire consisted of two questions using a Likert scale and a third yes/no question. The questions were: 1. "Do you find it useful when classmates help you with your work? Rate on the scale of 1-6: 1 being not very useful and 6 being very useful." 2. "Do you think you can help your classmates with their work? Rate on the scale of 1-6: 1 being definitely not and 6 being definitely yes." 3. "Have you ever had experience marking a classmate's work? Yes/No" (see appendix A).

Week two was the peer-assessment task itself, class A and class B swapped their work from week one; this was done to minimise any potential social bias influencing the process, all work was also completed anonymously. Class A consisted of an average of between 9-14 students (depending on how many attended the lesson) and as such was chosen to carry out the peer-assessment tasks in pairs; students worked in pairs to assess the work given to them from class B. They were encouraged to discuss and justify their reasoning with their partner. Class B contained between 13-15 students (again varied due to attendance) and as such was organised into groups of three. They assessed the work of class A and were also encouraged to discuss and justify their comments with their group mates. Both class A and B were given the same guidance sheet (see appendix B) to help complete the peer-assessment task.

In week three classes A and B were returned their original work, which had now been peer-assessed by the other class. In their groups/pairs they were initially tasked with reviewing and discussing the comments they had received on their previous work. Once this was complete the students were then asked to complete a similar task (argumentative writing but on a different topic, which they had also recently studied) to that of week one. After completing the task, the students were then asked to re-answer the first two questions from the questionnaire they had completed in week one. Finally, the students filled in a short self-reflection of what they felt had been useful from the entire peer-assessment process. The question for this was as follows: “What have you gained from this peer-assessment experience? Write one or two sentences discussing what you have learnt.” (see appendix C). This self-reflection was aimed at providing insights into the usefulness of the overall peer-assessment process. It was also hoped that this self-reflection would help the students maintain any benefits they had gained during the process.

## 4. Findings and Discussion

### 4.1 Amount of Peer-Feedback Given, Acted Upon and Prior Experience

Class A, organised in pairs, averaged 4-5 (4.8) comments on the work they assessed. From the below figure (1) it is clear that nearly all the students in class A received more comments than they subsequently acted upon. Only one student (S1) acted upon all the comments with another (S7) not acting on any of the comments received. The average amount of comments acted on by the students of class A was between 2-3 (2.5), this roughly averages to slightly over half of the average comments received being then acted upon by the students.

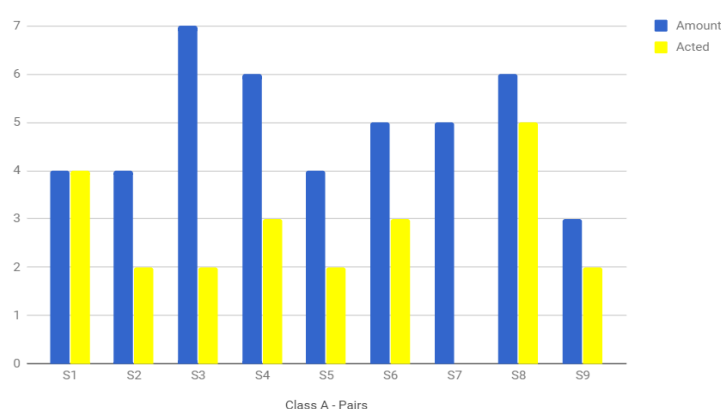


**Figure 1.** Class A amount of feedback received and the amount acted upon.

Class B, organised in groups, averaged 3-4 (3.1) comments on the work they assessed. From the below figure (2) it is clear that class B had a wider variety of results, with almost half (6) of the students acting on all of the feedback they had received, however there were also two students (S6 & S10) who did not act on any of their received feedback. The average number of comments which were acted upon by class B was 2 (2.0). This roughly averages to equal around two thirds of the average comments received being subsequently acted upon by the students.

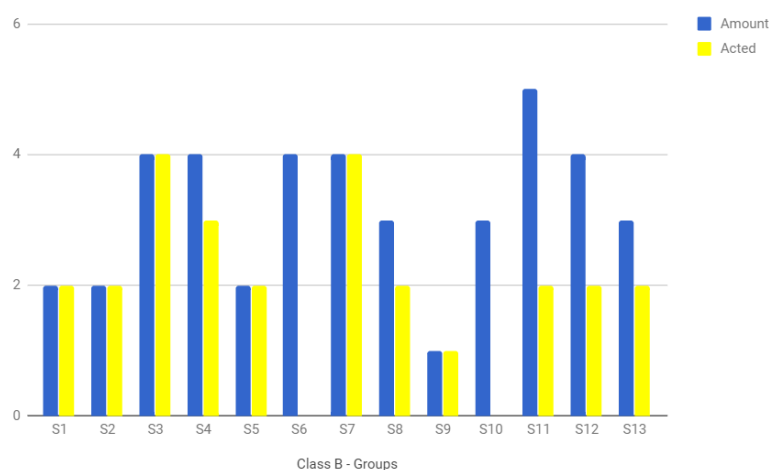


**Figure 2.** Class B amount of feedback received, and the amount acted upon.

#### 4.1.1 Prior Experience

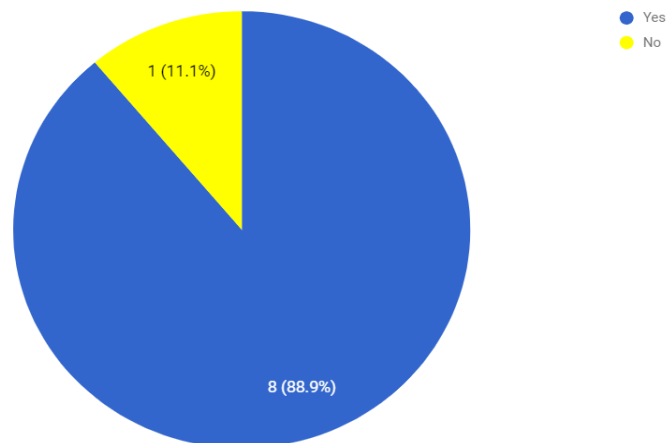


**Figure 3.** Prior experience - class A

From the above chart it is clear to see that the majority of students did have prior experience with peer-assessment. The one student (S7) who did not have any previous experience can be seen in figure 1. to have failed to act upon any of the comments they received.

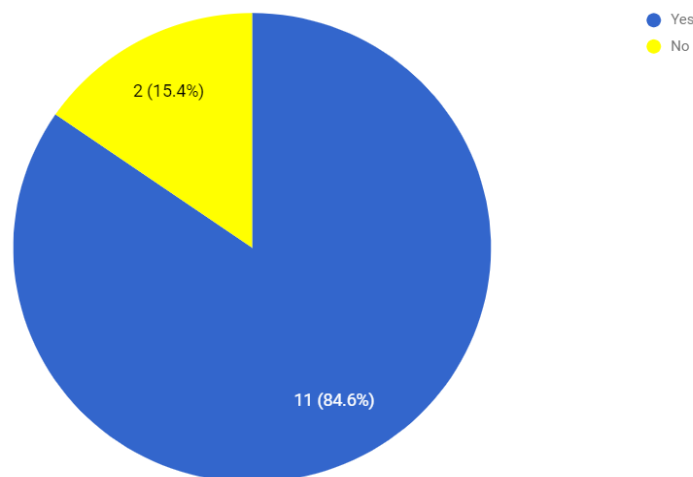


**Figure 4.** Prior experience - class B

This chart indicates that most students in class B had previous experience with peer-assessment processes. Students S3 and S13 indicated they did not have prior experience, however they both acted upon all or the majority of the comments they received.

#### 4.1.2 Summary

While these data are limited in scope they do tentatively indicate that the students which were organised into groups were, on average, more likely to act upon the comments they had received from their peers; thus, having greater self-regulation. In class A only 11% of the students acted upon all the comments received, whereas in class B 46% of the students acted upon all the comments they were given. One thing that is very clear, however is that the above findings indicate the majority of students did not follow all of the comments from their peers and as such repeated many of the same writing mistakes.

The data on prior experience is mixed, as a total of three students did not have prior experience with the peer-assessment process, however all three students acted upon varying amounts of their comments. The student from class A, who lacked prior involvement in peer-assessment, failed to act upon any of the comments they received. Although, the two students in class B without previous participation in peer-assessment did follow up on the majority of the comments they received. The implications of this variance will be discussed in a later section.

## 4.2 Student Perceptions and Self-Reflection on Peer-Assessment

### 4.2.1 Class A

#### Perceptions

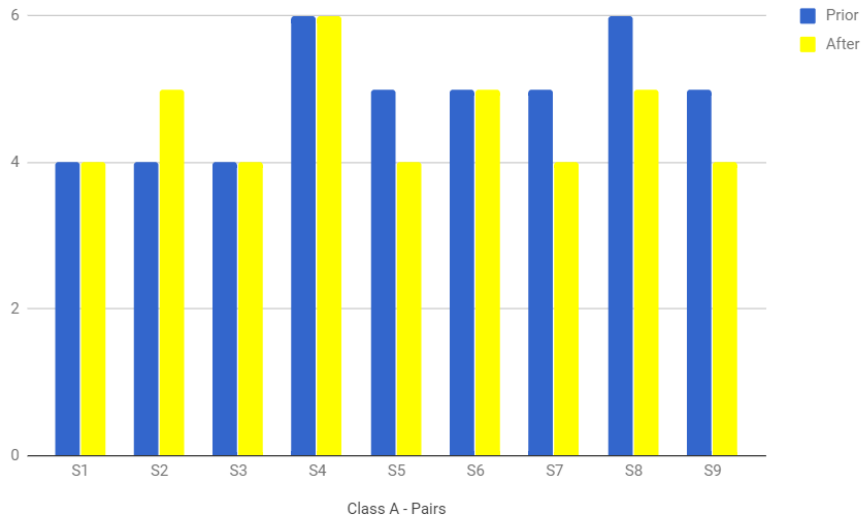


**Figure 5.** Class A perception of classmates' ability.

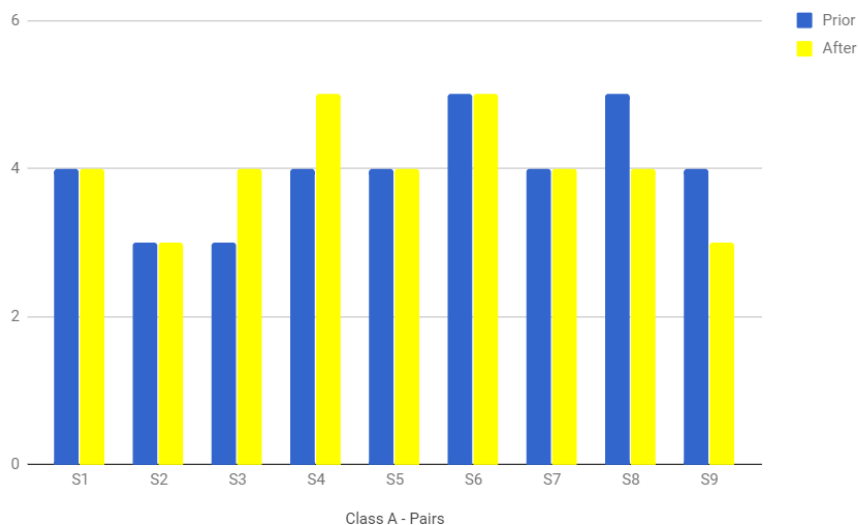


**Figure 6.** Class A perception of own ability.

Class A's perception of their classmates' ability to help them varied only slightly over the course of this work. With over half (5 – 55%) of the students either rating the same or higher before and after the peer-assessment task. The other four students only marginally lowered their score, by one scale-point each. However, there is a slightly higher tendency for students to rate their own ability, after the peer-assessment task, higher or equal to that of before the task, with seven students (77%) giving such scores. Only two students (22%) marginally lowered the rating of their own ability after the task.

#### Self-Reflection

Six of the nine students in class A answered the self-reflection; this section will only look at a couple of representative samples. The aim is to offer further insight on the peer-assessment process from the students' own perspective (see appendix C for task sheet). A typical self-reflection comment was written by student S2: "Topic sentence should be included and evidence should be included also". This indicates that the student had been unclear on these areas before the peer-assessment and that the comments from their classmate had made them aware of these needed areas. In figure 1. it can be seen that student S2 did indeed act upon half of the

comments they received from their peers. This is a possible explanation for the increase in rating on their view for their classmates' ability to help. Student S2 did not change their rating for their own ability over the course of the task. Another student, S9, remarked in their self-reflection "Need data support and lack of background information". While this comment is a little more ambiguous it again indicates that the student was made aware of some lacking areas in their writing. Figure 1. shows that student S9 did act upon two thirds of the comments they received, however the student still lowered their rating for their classmates' ability as well as their own. This can potentially show that the student is not truly aware of the benefits of their peers' comments or that they became aware of the areas, mentioned in the self-reflection, through their own assessment of peers or through the use of the given guide, rather than through the received comments.

## 4.2.2 Class B

### Perceptions

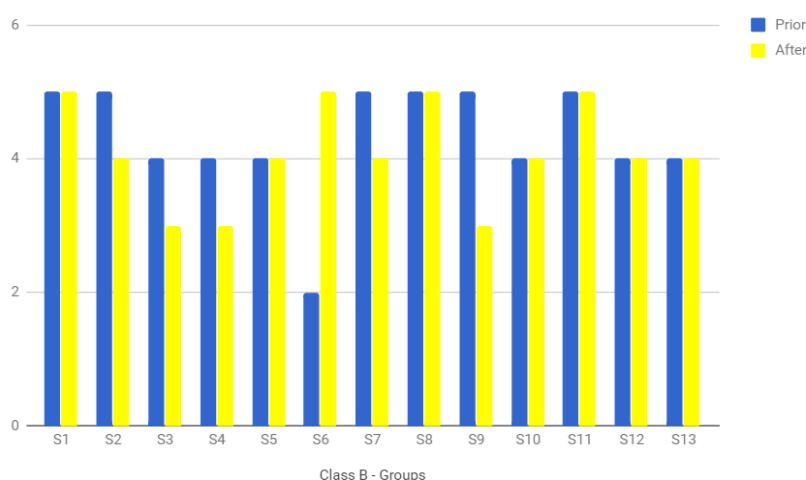


**Figure 7.** Class B perception of classmates' ability.

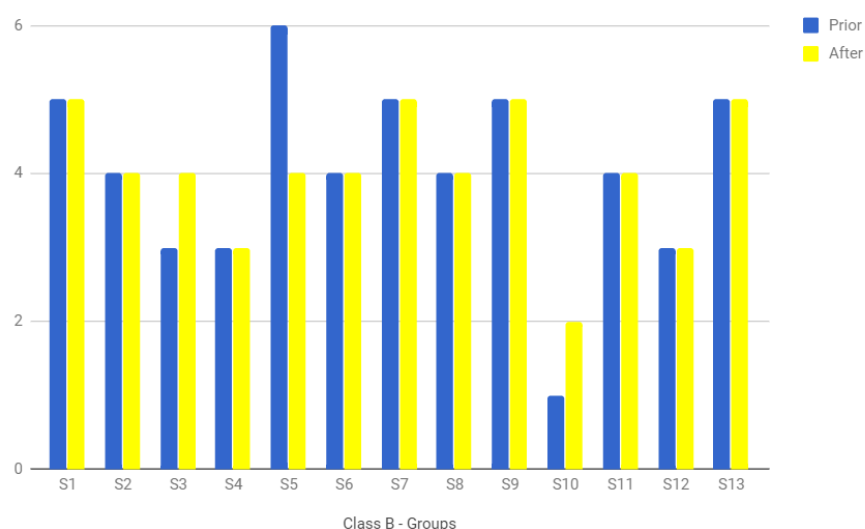


**Figure 8.** Class B perception of own ability.

Class B's perception of their classmates' ability to help showed some variety from the pre- and post-test ratings. Over half (8 – 61%) of the students rated their classmates' ability, after the process, as higher or equal to that of before the process, with one student (S6) raising their rating by three points after the process. With regard to class B's perceptions of their own ability the data shows much less variance with only one student (S5 - 7%) lowering their rating of their own ability and two students (S3 & S10 – 15%) raising their ratings. The rest of the students (76%) did not change their rating of their own ability after the peer-assessment task.

## Self-Reflection

The student self-reflections can offer more information on the student perceptions. 11 of the 13 students in class B completed the self-reflection. This section will select some representative samples to demonstrate the typical comments left by the students. For example, student S5 wrote: “In the first task I just try my best to write the paragraph. But when the second task came I have learnt how to mark others work and absorb knowledge. So, I can use the knowledge to write the paragraph in task 3.” This detailed self-reflection indicates that through the peer-assessment process this student learnt how to self-regulate their own work, by absorbing the knowledge and then implementing it in the subsequent task. In figure 2, it can be seen that student S5 acted upon all of the comments received and in figure 5, they maintained their rating for their classmates’ ability, however they did lower the rating for their own ability in figure 6. Combining these data and the student’s own words we can see that while student S5 may well have gained from their peer comments they possibly feel that it was through the actual process of themselves peer-assessing their classmate’s work that they were able to learn more useful knowledge. Student S7 remarked “I have learnt how to write a good topic and concluding sentence. And also enough evidence is needed for writing.” It can be seen in figure 2, that student S7 did act upon all the comments they received. This data combined with the student’s own comments indicates that through the peer-comments the student was better able to understand the elements needed in their writing. However, interestingly the student lowered their rating of their classmates’ ability while maintaining their rating of their own ability; this could indicate that the student gained more from the peer-assessment process and guide, rather than directly from the comments they received.

## 4.3 Discussion of Findings

From the amount of comments given and acted upon it is apparent that in both classes many students received more comments than they subsequently acted upon. However, the data does seem to suggest that class B, organised in groups, had a greater parity with the amount of comments received and the amount then followed up on by the student. Only 11% of class A acted on all the comments received, whereas 46% of class B followed up on all the comments received. While it is far from certain, it is quite plausible that this greater self-regulation was achieved due to the students being able to discuss their respective received comments with a group rather than just one partner when it came to the tasks in week three. Through this larger potential for differing opinions and greater discussion the students may have been aided in achieving a greater understanding of how to act upon the comments.

A point of interest in this study is that of the impact of prior experience on the amount of comments which were acted upon by the student. The student in class A without any such experience failed to act upon any of the comments they received, this could be due to their lack of knowledge with the process or perhaps their partner did not adequately help them understand the comments they received. Whereas, in class B the two students who did not have previous experience in peer-assessment managed to act on all, or at least the majority, of the comments they received. This would indicate that a lack of knowledge around peer-assessment did not hinder these students, it is further possible to speculate that this greater achievement of self-regulation was accomplished due the students being able to discuss their received comments with a wider group instead of one partner. This possibly helped the students to better understand how to follow up on the comments for the task in week three.

The student perceptions of their classmates’ ability showed similar trends in both classes; class A averaged 55% of students giving an equal or higher score for their classmates’ ability in the post-test when compared to the pre-test. Class B had a similar percentage with an average of 61% of the students giving a higher or equal score in their pre- and post-test scores for their classmates’ ability. There is slightly higher levels in the ratings for the students organised in groups, however as the difference between these percentages is minimal, the data does not provide enough conclusive evidence that the students in groups had a higher perception of their classmates’ ability after the peer-assessment process.

With regard to the student perception of their own ability to help classmates both classes showed similar levels of agreement in their pre- and post-test ratings. Class A had a high percentage of 78% of students who gave themselves higher or equal scores in their ratings. Class B’s perception of their own ability was very high, with 92% of the class rating their own post-test rating as higher or equal to that of the pre-test rating. While there is a difference in the percentages this data is similarly not conclusive enough to suggest that the students in groups maintained or raised their scores because of the group dynamic.

The student self-reflections offered some limited insights into the students’ own thoughts on the peer-assessment process. Since, class A only produced complete self-reflections for six of its nine students (66%), whereas class B produced 11 out of its 13 students (84%). It is possible to speculate that the students of class B were better able to articulate their gains and their improved self-regulatory behaviour. This could be due to the

group organisation, which could have provided the students greater opportunity to verbalise their thinking. Regarding the selection of samples, only a few choice examples of student self-reflections were used in this research for several reasons. Chiefly, many students left similar comments and the samples chosen best represent the comparable points that students made. However, these limited comments do help to highlight the student's perceived benefits from the peer-assessment process. Most students highlighted some of the key areas they had looked at, or received comments on, from the week two peer-assessment task. Since the comments from both classes are relatively similar this information does not show any real difference between the two classes. It does, however show that nearly all students gained something from the peer-assessment process, whether it was from the comments they received or from the undertaking of assessing others work themselves. These gains can be determined to have aided the students' self-regulation.

## **5. Conclusion**

This research has been intended to act as a guide for future research into the relative effectiveness of pair and group orientated peer-assessment, as well as support for the overall benefits which have been shown in the literature to be associated with peer-assessment. As such, it has been limited in nature and scope. However, it has still provided some tentative evidence supporting the use of peer-assessment in education as well as some speculative observations regarding group and pair effectiveness. The amount of peer comments acted on by both classes showed that in both cases the majority of students did not follow all of the comments they had received. As previously discussed, class B, organised into groups, did show a relatively higher percentage of students who followed all the comments 46% compared to only 11% in class A. Since, the only variable between the two classes was that of groups or pairs it is reasonable to assume that this had some level of impact on this difference in results. However, what is unsure is the level of impact the group or pair had on the result, further testing and research would be needed to clarify this.

The students without prior experience in peer-assessment could be presumed to react in a less profitable way to the peer-assessment process as they were unfamiliar with said procedures. While this certainly was the case for student S7 in class A, who failed to act on any of the peer comments they received, it was almost the opposite for the students in class B who acted on all or most of the comments they had been given. Since the only variable between the two classes was that of pair or group organisation, it is again reasonable to assume that the group orientation had some level of impact on this. It may be plausible, as previously mentioned, that the students in class B were able to mitigate their lack of previous knowledge on peer-assessment by sharing ideas and queries with their other group mates. Whereas, while in theory this would also be possible in the pairings of class A, the pairs would naturally provide less opportunity for discussion as there would be fewer members to converse with.

The data on student perceptions of their classmates' ability to assist them does not provide a statistically significant view of the difference between group and pair orientated peer-assessment, as both classes have relatively similar averages. As shown above there is a higher difference between the averages of ratings given for group and pair organised peer-assessment tasks when it comes to student ratings of their own ability to help their classmates. However, since the difference is still relatively small it is inconclusive to whether this difference was influenced by the grouping size or whether it was caused by other factors.

The limited qualitative data from the student's self-reflections tentatively indicates that the students in class B, were better able to articulate their perceived benefits from the peer-assessment process. While this is only a relatively small difference it could be further evidence suggesting that the students who worked in groups were able to learn and retain more from the peer-assessment task.

## **6. Future Research**

This work has been a pilot study intended to act as a guide as well as to inform future research. As such much of the work only offers preliminary data and tentative evidence as to the relative effectiveness of pair and group orientated peer-assessment tasks. The small sample size involved in the study has shown that a much larger sample is needed to attain more indicative results. Further detailed research is needed in all the discussed areas, however one major area of research this paper did not address was that of why the group dynamic may, or may not, be more beneficial to students. Research which could measure the differences in social dynamics between groups and pairs could shed some vital light onto this area. Furthermore, another reason for the variance of comments acted upon could be due to the quality and nature of the comments given during the peer-assessment task. While this work attempted to regulate the quality by providing a guide, it would be worth exploring how differently structured comments resulted in more or less follow up actions.

## Acknowledgement

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## Appendix:

A: Task sheet and questionnaire for week one

### Research Question

Write a short paragraph discussing the major health problems which have faced Hong Kong over the last 5-10 years? *Mention 3-4 problems*

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### Your opinion

**1. Do you find it useful when classmates help you with your work?**

*Rate on the scale of 1-6 : 1 being not very useful and 6 being very useful*

1    2    3    4    5    6

**2. Do you think you can help your classmates with their work?**

*Rate on the scale of 1-6 : 1 being definitely not and 6 being definitely yes*

1    2    3    4    5    6

**3. Have you ever had experience marking a classmate's work?**

Yes / No

### **Peer-assessment Guidelines**

*Please discuss with the author and leave comments on the work for them to see.*

#### **Instructions:**

- Using the below guide to help you, look at the previous work and see if you can identify these key areas with your groupmates/partner on the work.
- If you find the areas are there and fit the description, please leave a note stating so and briefly discuss it with your groupmates/partner.
- If these areas are not there, or you think they are not clear, please follow these three steps:
  1. Identify the problem area
  2. Justify why it is a problem
  3. Suggest a solution

#### **Key Areas:**

1. **Topic sentence** – A topic sentence should introduce the ideas a paragraph is going to discuss or outline.
2. **Background information** – This should give the reader an idea of why the topic being discussed is important to talk about: this can include recent events or more general information.
3. **Evidence for each problem** – This should include at least one reason why the point mentioned by the writer is worth discussing: this can include facts, data, personal memories or logic.
4. **Paragraph organisation** – This is for the overall structure of the work, try to think about the following questions to help you:
  - Are the ideas clearly introduced?
  - Does the writer show which of the ideas are more important than others?
  - Does the writer transition between or connect the ideas? And are the ideas related to each other?
  - Does the writer give a summary sentence?

Please discuss with your groupmates/partner and leave some brief comments, regarding the above points about paragraph organisation.

*Thank you all for your participation. See you next week for the final task!*

**Research Question**

**Write a short paragraph discussing the major environmental problems which have faced Hong Kong over the last 5-10 years? *Mention 3-4 problems***

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**Your opinion/self-reflection**

**1. Do you find it useful when classmates help you with your work?**

*Rate on the scale of 1-6 : 1 being not very useful and 6 being very useful*

1    2    3    4    5    6

**2. Do you think you can help your classmates with their work?**

*Rate on the scale of 1-6 : 1 being definitely not and 6 being definitely yes*

1    2    3    4    5    6

**3. What have you gained from this peer-assessment experience?**

*Write one or two sentences discussing what you have learnt.*

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# An Analysis of Cantonese Aspectual Marker ‘-zo’

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**Abstract.** This paper discusses the time marking system in Cantonese and English. Focusing on the perfective event marking, the discussion would mainly focus on the aspectual marker ‘-zo2’. In dative structure, the indirect object is allowed to precede the direct object with the aspectual marker ‘-zo2’. It carries the function of focus marking and specifying an object as well. Cantonese time marking system is more complex than English, and the aspectual marker ‘-zo2’ is multifunctional in comparing with the inflectional suffix ‘-ed’.

**Keywords:** -zo, aspectual marker, Cantonese, English

## 1. Introduction

This study compares Cantonese and English perfective event marking and highlights the complexity of Cantonese marking system. Most of the scholars (Chan 1996, Sybesma 2004, Lin 2010) agree that Chinese carries the aspectual marking system without a clear indication of tense. As one of the dialects of Chinese, this study focuses on the usage of aspectual marker ‘-zo’ in Cantonese and simple past tense marking in English for a clearer demonstration. Apart from the function of aspect marking, the other four functions of ‘-zo2’ are presented in the following paper.

The study starts with five brief explanations of linguistic theories and concepts. To begin with, there is an illustration of how tense and aspect are perceived in Cantonese and English. I will further explain the reason for choosing ‘-zo2’ as the main theme in this study by reviewing its time marking function in the literature. Then, there is a revisit of Chomsky’s inflectional phrase structure in order to show the similarity of an event marking in Cantonese and English. An introduction to the dative structure would then follow, which gives a brief highlight on the lexical structure of using aspect marker and the lexical information retrieved from the aspect marker in a certain situation.

First, the aspectual marker ‘-zo2’ contributes to the change of position of the direct object and indirect object. The marker ‘-zo’ functions more than just an event marker, and it is responsible for the change of sentence structure and specifying an object as well. Derived from the dative structure, ‘-zo2’ is capable to change the order of direct object and indirect object. And it can further be used as a specifier to define the following object. Second, the aspect marker ‘-zo2’ functions as a focus marker. The aspectual marker ‘-zo2’ can appear in a position following either a verb, an adjective, and a preposition in different contexts. And the study found that in the case of a preposition, ‘-zo2’ creates the duty of highlighting the following entity, which is similar to the function of other focus marking in Cantonese.

## 2. Tense and Aspect

‘Tense’ refers to the relation between the speech time and the event reported time, whereas ‘aspect’ refers to the time frame of the reported event. In English, there is a clear difference of tense and aspect provided by the linear understanding of event and speech by considering the time of speech and time of the event. The tense-aspect markers interact with the verb, and are categorized as inflectional affix in English for most of the regular form, for examples, ‘-s’ marks for the simple present, ‘-ing’ for the progressive state, and ‘-ed’ for past event.

(1)

| Tense         | Past | Present | Future |
|---------------|------|---------|--------|
| -----I-----   |      |         |        |
| [Speech time] |      |         |        |

Aspects: Simple, Progressive, Perfect, Perfect Progressive

There are three tenses and four aspects in English, and each of them functions relatively according to the speech of time. There are twelve combinations of tense-aspect marking in English, and each of them is responsible for different usages. For example, both present perfect and simple past tense function as a perfective event marking with the trace of past. And the difference between these two marking is whether the event has a connection with the present. That we would see there is a high dependency of tense-aspect marking of interpreting the verb in

English. And in the following paper, simple past tense is chosen since there is no other auxiliary verb needed, and it would be the closest assimilation to the aspectual marker ‘-zo2’.

Cantonese, however, does not have a grammaticalized system of tense marking, but a clear system of aspect marking (Cheung, 2004). Matthews and Yip (1994, p.197) explained that instead of a grammaticalized tense form system, there is an aspect-oriented system ‘distinguishing notions such as events, states, and processes’ in Cantonese. Due to the aspectual notions, the aspect markers contribute to the time marking system in Cantonese (Huang, 2004). Explicit time expression and contextual inference are the two main ways to express the idea of tense in Cantonese, which is similar to Mandarin Chinese. Still, the contextual inference is correlated with the aspect marking, and the aspect marking provides the clue for which tense should be perceived in the conversation. Aspects in Cantonese are categorized as follows:

Progressive: -gan2 (on-going activities)

Continuous: -zyu6 (on-going event with time change implication, state)

Perfective: -zo2 (a completed event which situated in the past)

Experiential: -gwo3 (experience, an event that happened at least once in the past)

Delimitative: -haa6 (a short period of time of the action is being carried out)

Habitual: -hoi1 (habitual and customary activities)

(Matthew & Yip 1994, p.198-210)

The identical marker can create more than one tense in its usage, the possible readings are present event and past event as shown in (2a-b). And the speakers in the conversation can only retrieve the intended reading by the contextual inference.

(2a) Present event reading:

A: zou3me1 nei5 ng4 daai3 ngaan5geng3?

Why you not wear glasses

‘Why don’t you wear glasses?’

B: jan1wai6 ngo5 daai3 zo2 Con.

Because I wear PFV contact lens

‘Because I am wearing contact lens.’

(2b) Past event reading:

A: go3 naam4zai2 hai6 bin1?

CL boy be where

‘Where is the boy?’

B: go3 naam4zai2 zau2 zo2.

CL boy leave PFV

‘The boy has just left.’

In addition, these markers are categorized as the function word in Cantonese, and able to interact with the preposition and the adjective as shown in (2c-d).

(2c) Interaction with Preposition

go3 naam4zai2 tung4 zo2 ngo5 gong2 heoi5 ge3 bei3mat6.

CL boy to PFV I tell he ‘s secret

‘The boy told me his secret.’

(2d) Interaction with Adjective

go3 naam4zai2 hoi1sam1 zo2.

CL boy happy PFV

‘The boy is happier than before.’

Although the marking of tense-aspect is more contextual-inference-rooted in Cantonese, the openness of marking system offers a diversity of interpretation that could be an obstacle for its learner.

## 2.1 Aspectual Marker -zo2 and -gwo3 in Cantonese

Aspect is a subjective notion in the sense that it enables the same situation to be viewed and described in different ways. The basic explanation of ‘-zo2’ is a marker for perfective (PFV) event reporting, and mainly functions in three situations (Matthew & Yip, 1994). And the function of ‘-zo2’ is comparable to the function of Mandarin Chinese -le (Xiao & McEnery, 2004). First, ‘-zo2’ carries a resultative meaning and its equivalent in English would be present perfect tense. Second, ‘-zo2’ follows a verb and corresponds to English simple past tense. Third, ‘-zo2’ expresses a period of time up to the present and at the present as in English perfect progressive. On the other hand, ‘-gwo3’ marks for experiential (EXP) aspect, which most likely is translated into present perfect tense in English. Aspects can be seen as ‘viewpoints’ which can be taken on a situation; hence, the same situation may be described using two or more different aspect markers, for example:

Considering the situation of the action of closing the door and the current state of the door:

(3a) Ngo5    saan1    zo2    mun4  
      I        close    PFV   door  
‘I closed the door.’  
(the door is close now.)

(3b) Ngo5    saan1    gwo3    mun4  
      I        close    EXP    door  
‘I have closed the door.’  
(but the door is open now.)

In (3a-b), both markers emphasize that the action of closing the door is done in the point of view of the speaker, but the situation of the door, which is considered as the result of the event, contrasts the usage of these two markers. Matthew and Yip (1994) pointed out that it is acceptable for ‘-zo2’ and ‘-gwo3’ being used as an alternative when there is another time expression constituent like adverbs in the utterance. Since aspect marking highly depends on the viewpoint of the speaker, if there is more time expression clause used in the utterance, the hearer can reference the time frame of the event from the explicit time expression. Therefore, the paper discusses the function of ‘-zo2’ but no other aspectual markers due to its compatibility.

## 2.2 Inflectional Phrase

The inflectional phrase (IP) is a constituent under the structure of functional phrases in Chomsky’s Universal Grammar (UG). Suggesting that the IP carries abstract features such as tense and argument, it gives a basic illustration of how does functional phrase behave in any verb or noun phrase structure in English (Cook & Newson, 1996). On the other hand, there are only a few inflectional suffixes in Modern Chinese (Tie, 1979), for example, number, aspect, and case. However, the affix ‘-ed’ would only interact with a verb, but inflectional affix ‘-zo2’ in Cantonese can also interact with adjectives and prepositions. The inflectional suffix in Cantonese does not attach to a single category like English, the flexibility of attachment creates a flavor of contextual meaning that dominants in the conversation.

## 2.3 Dative structure

Dative structure refers to the sentence which possesses two objects, and there are two types of structures as shown in the following:

(4a) Indirect Object Dative (IOD)  
[ \_ NP PP ]  
I gave a book to Alice

(4b) Double Object Dative (DOD)  
[ \_ NP NP ]  
I gave Alice a book

In the past, the discussions of the dative structure were based on the deep structure, surface structure and verb-raising in the syntactical level. In this study, we would focus on the order of direct object and indirect object in the sentence. In IOD, the indirect object is introduced in a prepositional phrase and follows the direct object. In

DOD, the direct object follows an indirect object in the sentence. Furthermore, a dative structure in the Chinese language is less common than it in English. Wolfe-Quintero (1992) studied how Chinese adult learners of English acquire the lexical structure of dative verbs. Chinese speakers produce less dative structure than native English speaker, and only four dative verbs result from the Wolfe-Quintero's study. And native English speakers are more familiar with producing a dative structure with the use of fourteen dative verbs. It shows that there are fewer dative verbs in the Chinese lexical inventory. The usage of dative structure in Cantonese is limited, as IOD is more preferable in Cantonese.

As mentioned before, the aspectual marker '-zo2' in Cantonese can interact with prepositions, we would like to investigate the effect of aspectual marker '-zo2' in dative structure towards the objects, and how does it effect on the Cantonese speakers' usage of the dative structure.

### 3. Effect on the position of objects in the dative structure

First of all, we discuss the '-zo2' effects on dative structure. The positions of the direct and indirect object are considerably flexible in Cantonese, and suffixation of aspectual marker '-zo2' would help to reduce the oddity in semantic if the indirect object precedes the direct object. And in the second part, a brief idea of '-zo2's function of specifying object will be presented.

Indirect object dative (IOD) structure mostly involves in a preposition 'bei2' (to) sentence. The word 'bei2' is ambiguous in Cantonese since it could be a verb or a preposition. In another word, the preposition 'bei2' can pair up with most of the dative verb, except in the special case when 'bei2' (give) functions as a verb in a sentence. When 'bei2' functions as the preposition and verb at the same time, local Cantonese speakers would tend to delete the prepositional 'bei2' in order to avoid clumsiness as in (5a).

(5a) ngo5 bei2 bun2 syu3 (bei2) Oi3lai6si1.  
 I give CL book (PREP) Alice  
 'I give a book to Alice.' (Incorrect in English if 'to' is omitted.)

Consider (5a) as the basic model, and the prepositional 'bei2' is optional. The use of preposition in English IOD is not optional, where the preposition 'to' allows that the direct object precedes the indirect object. There is a clear distinction between IOD and DOD in English. In Cantonese, when the prepositional 'bei2' is omitted, however, the order of indirect object 'Alice' and direct object 'book' is allowed to swap as in (5b).

(5b) ngo5 bei2 Oi3lai6si1 bun2 syu3.  
 I give Alice CL book  
 'I give Alice a book.'

In (5a), when prepositional 'bei2' stays in the sentence, the position of the objects is the same in English IOD, even without the preposition. Also, the syntactic structure in (5b) is similar to the DOD structure in English, as the translation shows that the indirect object precedes the direct object in both Cantonese and English. In the case of DOD, the position of the direct object and indirect object is more flexible without using the preposition. Considering the case of IOD, where the key of using preposition is to put a direct object in the front and indirect object in the following position.

(5c) ngo5 ling1 bun2 syu3 bei2 Oi3lai6si1  
 I get CL book for Alice  
 'I get a book for Alice'

(5d) ngo5 ling1 bei2 Oi3lai6si1 bun2 syu3  
 I get for Alice CL book  
 'The book I get for Alice...' (possible reading)  
 'I get Alice a book.' (intended reading)

In example (5c), direct object comes first. And when we try to reverse the order of NP and PP, that we try to put indirect object first, there is an oddity in the sentence (5d). It is grammatically correct in (5d) when the speaker adds a pause before 'bun2syu3' (a book), which is called 'right-dislocation' in Cantonese (Matthew & Yip, 1994, p.71), and delivers the intended reading. Considering that there is no pause to indicate right-dislocation when the sentence is uttered, there is another possible reading triggered. The whole sentence will become a topic, that hearer might wait for further information, or treat it as an unfinished utterance. In the following example (5e), the oddity is overcome by adding the aspectual markers '-zo2'.

(5e) ngo5 ling1 zo2 bei2 Oi3lai6si1 bun2 syu3  
 I get PFV for Alice CL book  
 'I got Alice a book.'

The oddity is lessened in (5e), as the aspectual marker '-zo2' is added. The possible reason is that the aspectual marker '-zo2' functions as a focus marker (will be further discussed in next chapter) in the sentence, that 'for Alice' is focus-added, therefore, the ambiguous reading of 'The book I get for Alice' is eliminated.

In addition, '-zo2' specifies the following object, that the object would be specified without using any specifier. In English, however, tense-aspect marker '-ed' does not carry such effect in the same way of '-zo2'. As in the example set (6):

Cantonese:

(6a) ngo5 bei2 bun2 syu3 Oi3lai6si1  
 I give CL book Alice  
 'I give Alice a book' (A random book is given to Alice)  
 (6b) ngo5 bei2 zo2 bun2 syu3 Oi3lai6si1  
 I give PFV CL book Alice  
 'I gave Alice the book' (A specific book is given to Alice)

English:

(6c) I give Alice a book. (A random book is given to Alice)  
 (6e) I gave Alice the book. (A random book is given to Alice)

The interpretation of the object is specified in the perfective case (6b). In Cantonese, the perfective case is marked by '-zo2', and the object is specified in the context as a shared knowledge for the interactants, even there is no specifier marking involved. From (6a), the reading could be any random book is given to Alice. Whereas in (6b), the specification of the object is triggered by the aspectual marker when a perfective event is situated. And in (6c-e), the reading of either a random book or a specific book depends on the use of determiner. In Cantonese, however, the aspectual marker '-zo2' can further indicate that both speakers are aware of the perfective event, that there is no need for the specifier to introduce the object.

(6f) nei5 hai6 ng4 hai6 bei1 zo2 bun2 syu3 Oi3lai6si1?  
 You be not be give PFV CL book Alice?  
 'Did you give the book to Alice?'  
 (But not 'Did you give a book to Alice?')

Tense-aspect marking in English depends on the verb since these markers can only be attached to the verb. Suffixation on the verb, however, has no power to trigger any syntactical change in dative structure. In Cantonese, the aspectual marker '-zo2' interacts with the verbs in order to create the time marking of the event. It also functions as a trigger to change the position of the direct object and indirect object in dative structure. And the specifying and focus-adding function are found in the aspectual marker '-zo2' as well.

#### 4. '-zo2' as a focus marker

In another way, we can use '-zo' as a focus marker in a conversation. Basically, right-dislocation, topicalization, topic particles are commonly used by Cantonese speakers to draw the hearer's attention. In the following examples, '-zo2' signals for the focus in the utterance without the use of focus marker.

(7a) ngo5 wai2 nei5 coeng3 zo2 sau2 go1  
 I for you sing PFV CL song  
 'For you, I sang a song.'  
 (7b) ngo5 wai2 zo2 nei5 coeng3 sau2 go1  
 I for PFV+ you sing CL song  
 'For you, I sing/sang a song.'

In example (7a), the event is marked as perfective when the verb 'coeng3' (sing) precedes the aspectual marker '-zo2'. In example (7b), however, the reading of the event of 'sing a song' varies since the aspectual marker '-

zo2' is not attached to the verb but the preposition 'wai2' (for).

And in this case, the function of highlighting the object by '-zo2' is shown. The main verb phrase 'coeng3 sau2 go1' (sing a song) carries both perfective and imperfective interpretation, even '-zo2' is added to the preposition. Therefore, the event reading is optional to the interactant in this case. A perfective plus (PFV+) refers to the focus added when the aspectual marker '-zo2' is used. From the perspective of discourse, the possible reason of putting an aspectual marker on preposition instead of the verb is that the speaker intentionally addresses the hearer. In another word, the aspectual marker '-zo2' highlights the main information in the sentence based on the speaker. When the marker locates behind the verb, the speaker is highlighting the action. Whereas the addressee is highlighted when the marker follows the preposition. This phenomenon is even more explicit in the representation of question form, let's see example set (8).

(8a) nei5 tung4 **Oi3lai6si1** heoi3 jing1gwok3?  
You and Alice go UK?  
'Are you going to the UK with Alice?'

(8b) nei5 tung4 Oi3lai6si1 heoi3 **jing1gwok3?**  
You and Alice go UK?  
'Are you and Alice going to the UK?'

(8c) nei5 tung4 Oi3lai6si1 heoi3 (zo2) jing1gwok3? (Raising intonation)  
You and Alice go PFV UK  
'Did you and Alice go to the UK?'

(8d) nei5 tung4 (zo2) Oi3lai6si1 heoi3 jing1gwok3? (Raising intonation)  
You and PFV Alice go UK  
'Did you go to the UK with Alice?'

In example (8a-b), the focus is added by using stress in the intonation. 'Alice' and 'UK' are the focus respectively in example (8a-b), and the same effect could be found when the aspectual marker '-zo2' is used. In example set (8c-d), the marker '-zo2' indicates for the perfective event marking, and adds focus to the following entity. When '-zo2' locates in front of 'UK', the question focuses on the location of traveling, whereas '-zo2' locates behind the connective 'tung4' and in front of 'Alice', the question focus turns into a person.

## 5. Conclusion

By discovering the multi-functions of the marker '-zo2', the complexity of time marking system in Cantonese is revealed. The inflectional phrase in English is relatively simple since the inflectional tense marker '-ed' only interacts with a verb and is responsible for limited duties. Syntactically, the use of '-zo2' compensates the oddity in changing the position of the direct object and indirect object. Also, the use of '-zo2' carries the duty of specifying an object, which functions as 'a' and 'the' in English. Furthermore, the use of '-zo2' substitutes as a focus marker to compensate the oddity without using right-dislocation. The extra functions carried by the aspect marker '-zo2' contribute to the complexity of time marking system since the marker offers the information for tense-aspect realization and lexical information at the same time.

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# Translating Requests in Audiovisual Translation

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**Abstract.** My study takes issue with im/politeness in audiovisual dialog and investigates how the speech act of requests is translated from English into Italian dubbed films. Following taxonomies proven successful for the analysis of requests (Blum-Kulka et al. 1989, Aijmer 1996, Leech 2014) and combining them to maximize the validity of the categorization, my research project addresses the following research questions:

- 1) How are requests realized in Italian films dubbed from English films?
- 2) What is the relationship between the request features found in dubbed Italian dialogue and their original English counterparts, on the one hand, and the features of requests found in original Italian film dialogue, on the other hand?

The parameters used as a yardstick for the comparisons are: in/directness of requests (Blum-Kulka 1989) and downgrading/upgrading, internal/external modification (Trosborg 1995, Sifianou 1999, Achiba 2003, Barron 2003).

Using the Pavia Corpus of Film Dialogue (Pavesi, Freddi 2009) I analyzed a sample of six English films, their six Italian dubbed counterparts and a sample of six original Italian films as a tertium comparationis. I will present some revealing results of a pilot study which shed light on the quite unexplored relationship between Translation Studies and Pragmatics/Politeness Research, showing how a special form of translation (Audiovisual Translation) influences the alteration of the illocutionary force of requests. My study uses a corpus-based method, widely used and proven suitable for Descriptive Translation Studies.

Combining quantitative and qualitative analyses, I will establish whether requests are translated under the influence of the pragmatic norms of the original English or, conversely, they follow the Italian norms and adapt to the target language system (Toury 1995).

For its scope and methods, my research analyzes Im/Politeness potential in relation to three other disciplines: Translation Studies, Corpus Linguistics and Multimodality.

**Keywords:** requests, im/politeness, audiovisual translation, corpus linguistics, dubbing

## 1. Introduction

My research project is a pragmatic study of the speech act of requests in English film dialogue and their translation in Italian dubbed dialogue. Italy is in fact a dubbing country, dubbing is the favourite audiovisual translation mode over subtitling (Díaz Cintas, Anderman 2008) and English is the main language from which films are translated (Chiaro, Heiss, Bucaria 2008: 242). The reasons behind a pragmatic study of requests in fictional dialogue and in translation are manifold.

The first one is related to the paucity of research in pragmatics concerning audiovisual translation: a few studies have focused on subtitling (Hatim and Mason 1997, Rose 2001, Bruti 2009, Pinto 2010, Yuan 2012) and a few on dubbing (Gómez Capuz 2001; Bonsignori et al 2011; Mariottini 2012; Pavesi, Formentelli, Ghia 2015). Interest in pragmatics research in the field of audiovisual translation is now growing.

My study is, to my knowledge, the first one which tackles pragmatics in translation from a contrastive and corpus-based perspective, while analysing spoken dialogue not only with a view to the original language (English), but also to original Italian dialogue. My hope is that this methodology, if proven effective, will be used in future studies of pragmatic phenomena and for other speech acts in a translational perspective. As we will see later, this corpus-based method including original texts in the target language allows us to see whether, and to what extent, translated requests are more similar to their English originals or, on the contrary, they follow the patterns found in the original Italian dialogue. This finding in turn sheds light on whether the translation for dubbing exposes translators to “pragmatic calque” or, on the contrary, translators are conscious of what the pragmatic norms in Italian are (in this case norms of politeness) and adapt their translations to them. Previous studies of pragmatics in translation have proved that translated texts may display a “hybrid” form, namely that the presence of certain linguistic phenomena in translation is halfway between the amount found in source texts and original texts of the target language. Kranich (2016), for example, shows that German texts translated from English tend to follow their source texts for some pragmatic features, but for other features they align to German original texts. A quantitative method measuring the amount of some pragmatic parameters taken from House (1997) has been used to arrive at this conclusion.

The choice of requests as the speech act to analyse is motivated by the fact that their linguistic realization has received much interest in pragmatic research, especially in cross-cultural and interlanguage

pragmatics (Trosborg 1995, Achiba 2003, Barron 2003, Flores Salgado 2011, Economidou-Kogetsidis, Woodfield 2012), so efficient taxonomies and models of analysis for their patterns are available.

The second reason for my study has to do with the poor attention, in scholarly research, devoted to how politeness phenomena are handled in translation, in general and not only in audiovisual translation. Only a few, scattered studies have been conducted on the matter (Hatim and Mason 1997, Hickey 1998, Abudib 2004, Shih Pei Chun 2011, Akbari 2014, Krouglov 2014). Future studies on speech acts other than requests involving politeness and following the corpus-based method with source texts, translated texts and original texts of the target language, may yield a more comprehensive picture of how aware translators are of politeness norms in a condition of language contact as translation is (Kok, Meriläinen, Paulasto, Riionheimo 2014).

The third reason concerns the importance that politeness has in fictional dialogue. As has been extensively proved in past research (Piazza, Bednarek, Rossi 2011, Locher & Jucker 2017), politeness is an important resource used by directors and scriptwriters used to characterise their characters. Characterisation is key in defining characters' role within the plot, their relationship with other characters and between character and viewer (Stam et al. 1992). This means that if politeness is altered in translation, Italian viewers of the dubbed version are likely to get an altered perception of that character, with respect to English viewers. To give an example, if the character says in English: "Could you possibly open the door?" and the Italian translation uses a bare imperative: "Apri la porta" ("Open the door"), the same character will be perceived more considerate in the English version and harsher in the Italian version. It is thus interesting to explore politeness in dubbing to determine whether perception of characters may be affected by it.

The fourth reason which makes the study of politeness interesting in film dialogue is its resemblance to real spoken language. As a matter of fact, although film dialogue has been proved to differ in many levels from real spoken language in that it has a scripted, prefabricated nature (Baños Piñero, Chaume 2009), other studies confirm that, at least on the pragmatic level, film dialogue represents a reliable source whose conclusions can be extended to real spoken language (Locher & Jucker 2017: 463). As has been pointed out in the last paragraph, film producers tap into pragmatic conventions from the real language to characterise characters and this is the reason why politeness as used in film dialogue may mirror, in quite a reliable way, how it is used in real conversations.

Analysing requests in English and Italian film dialogue, setting aside translation for a while, may then shed light on the different ways in which English speakers and Italian speakers use politeness when requesting (at least in film dialogue but also in real conversation, for the reasons just mentioned).

The importance of translation for this matter comes to the fore when film dialogue is used as a teaching material in classes of Italian as an L2. Interest in pragmatics in SLA contexts is on the rise (Kasper & Rose 2003; Ross & Kasper 2013; Taguchi & Roever 2017) and film dialogue and audiovisual translation are increasingly used as a source for teaching pragmatics (Vanderplank 1988, Pavesi & Perego 2008, Diaz-Cintaz & Neves 2015). This means that Italian films (original and dubbed from English) may be used as teaching material for learners of Italian.

If my study should reveal that requests are calqued from English rather than adapted to the patterns found in Italian original dialogue, this may suggest future directions for teachers, as to the choice of films. Of course, mine is a first step in this direction which only concerns requests, but if future studies should prove that other speech acts involving politeness are systematically calqued from English and differ from Italian, these discoveries may point towards the choice of only original Italian films for teaching purposes. In the opposite scenario, namely dubbed dialogue is quite similar to original Italian, the choice between Italian or dubbed films may not carry important consequences for teaching.

## 2. Requests and Politeness

Before delving into the model for the analysis of requests, it is worth to first define them from a pragmatic perspective.

Requests are an illocutionary act (Austin, 1962), which scholar Searle later names "directive acts" that represent "an attempt by the speaker to get the hearer to do something" (Searle, 1979: 13). Since the speaker is requesting of the hearer some kind of action which is at the cost of the hearer and at the benefit of the speaker (Leech, 2014: 136), he/she will need to mitigate his/her imposition on the hearer.

According to Brown and Levinson (1978, 1987), requests are negative-face threatening acts. "Face" is a concept that the two politeness scholars take from Goffman (1967) who defines it as "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact. Face is an image of self, delineated in terms of approved social attributes" (1967: 5). Drawing from Goffman, Brown and Levinson develop on the notion of face and divide it into "positive face" and "negative face". Positive face is "the want of every member that his wants be desirable to at least some others [...], in particular, it includes

the desire to be ratified, understood, approved of, liked or admired" (1987: 62). Negative face is defined as "the want of every competent adult member that his actions be unimpeded by others" (1987: 62).

According to the two scholars, some speech acts intrinsically threaten face, either negative or positive. For instance, a request or a piece of advice threaten the hearer's negative face (they invade one's freedom of action), while criticism or reproaches threaten his positive face wants (they undermine their desire of approbation). For this reason, these speech acts are named "face-threatening acts". In order to avoid social conflict, when performing an FTA, the speaker has to choose appropriate linguistic strategies for mitigating the threat. I may then issue a request by saying: "Could you please pass me the pen if you don't mind?", instead of saying: "Pass the pen", thus using three mitigating strategies for the sake of politeness, in this case: by asking for the preparatory condition (Austin 1962) in the conditional mood (could you...?) and with the addition of "please" and of the conditional clause "if you don't mind".

However, if research has long concentrated on politeness (Fraser and Nolan 1981, Brown and Levinson 1987, Eelen 2001, Spencer-Oatey 2008), scholars have soon realised that also intentional impoliteness should be studied in its own right (Culpeper, Bousfield, Wichmann 2003; Mills 2005; Bousfield, Locher 2008; Culpeper 2011). In the case of requests, our speaker may well be intentionally impolite and say: "Pass me that pen *now*, you *moron*".

The Cross-Cultural Study of Speech Act Realization Patterns (CCSARP) project (Blum-Kulka et al. 1989) whose aim was to analyse and compare the realization of requests and apologies cross-culturally and between native speakers and language learners, has brought the scholars involved in the project to set up a taxonomy for the analysis of requests (Blum-Kulka 1989: 200-205). This model of analysis, which both contains strategies for doing politeness and (some) impoliteness, has been systematically used afterwards in other studies of requests for its being comprehensive (Márquez-Reiter 2000, Achiba 2003, Barron 2003, Wang 2011). For this reason, I chose Blum Kulka et al.'s taxonomy and merged it with other taxonomies (Trosborg 1995, Sifianou 1999, Leech 2014, Flöck 2016) to arrive at a fully comprehensive model of analysis which could cover all possible request features.

As we will later see, in some cases I had to create categories of my own, since some request features did not have any corresponding category in the previous taxonomies. Sec. 3 lays out Blum Kulka et al.'s taxonomy (Blum-Kulka et al. 1989).

### 3. Method and Model of Analysis

Before delving into the model, it is worth re-stating the two research questions of this pilot study:

- 1) How are requests realized in Italian films dubbed from English films?
- 2) What is the relationship between the request features found in dubbed Italian dialogue and their original English counterparts, on the one hand, and the features of requests found in original Italian film dialogue, on the other hand?

The aim of my research is to compare the way in which requests are realised in English, dubbed Italian and original Italian dialogue. To do so, I will employ a model of analysis detailed below which is the result of a combination of taxonomies used in the past by different scholars, in order for it to be as comprehensive as possible.

This pilot study is only quantitative and aims to collect and compare request features in the three film sub-corpora (English, dubbed dialogue and Italian) to establish whether, and to what extent, translated requests are more similar to English or to Italian requests in their patterns.

As stated above, my study is a corpus-based study in which requests are collected from three sub-corpora containing film dialogue (English, dubbed Italian and original Italian as a *tertium comparationis*). The use of corpora in Descriptive Translation Studies is widely attested and many studies have followed this methodology in a contrastive perspective (Baker 1996; Laviosa 2002; Kruger, Wallmach, Munday 2011; Oakes, Ji 2012). However, the only pragmatic study employing the corpus-based method with original texts of the target language to date is, as far as I know, Kranich's (2016).

The corpus chosen for the selection of films is the Pavia Corpus of Film Dialogue, a relational database containing the transcription of 24 English films, their 24 dubbed counterpart and 24 Italian films, developed at the University of Pavia (Pavesi, Freddi 2009). This corpus is neatly balanced in terms of the two main varieties of English (British and American), within the English component and is also balanced in terms of film genres. In order to be able to generalize my discoveries from the results, I needed mixed genres to be present in the three sub-corpora. The films whose dialogues were to compose the corpus had to:

- be set in contemporary times, representing contemporary dialogue and avoiding archaic or archaic-sounding language;
- present a prevalence of situations that in real life elicit free and bidirectional spontaneous spoken language;

- have been released at regular intervals within a fixed time span (from 1995 onwards);
- have been successful, both with the critics and the general public.

For its characteristics, the corpus has proved to be useful for several studies (Freddi 2009; Monti 2009; Brincat 2014; Caruana, Ghia, Pavesi 2014; Zago 2015).

My final study involves the analysis of requests from twelve films in each sub-corpus. To be balanced according to genre, four films will be romantic comedies, four dramatic comedies and the remaining four will be crime/thriller films. The pilot study which is the object of this paper has been conducted halfway through the project and so involves the analysis of requests from six films in each of the sub-corpora for a total of 478 requests in English and dubbed Italian and 494 in original Italian. The balance for genre has been the following: two films are romantic comedies, two films are dramatic comedies and two films are crime/thriller films. The English films (and their dubbed version) are: *Dead Man Walking*, *Secrets and Lies*, *Saving Grace*, *Notting Hill*, *My Best Friend's Wedding* and *Autumn in New York*. The Italian films are: *Giulia non esce la sera*, *La terra*, *La giusta distanza*, *Come te nessuno mai*, *La cena* and *Pane e Tulipani*.

My study has an onomasiologic nature, in that I start from the function of the speech act, by detecting requests while watching films and then categorize their linguistic realizations. For this reason, performing a form-to-function query for requests from the corpus would have left out other indirect realizations of requests. I had to watch each film entirely and stop at every request to annotate it according to the model of analysis which will be laid out below. A request can in fact have many realizations and, quite often, its illocutionary force is not coincident with its locutionary form, as in the example of: "It's cold in here", said to prompt the hearer to close the window. For this reason, the Pavia Corpus of Film Dialogue was exclusively used to select films and not to perform manual queries: annotation, as just said, was performed while "manually" watching films. The next paragraph will deal with Blum Kulka et al.'s model mentioned in the last section, which I took as a starting point to build my own model.

The model (Blum-Kulka et al. 1989) conceived for the CCSARP project, breaks down requests into two grammatical parts: the head act (Blum-Kulka 1984: 200), which is the clause containing the verb indicating the illocutionary force of the request, and internal and external modifiers, which the scholar takes from the work by Faerch and Kasper (1989). Internal and external modifiers (later called "pragmatic modifiers" by scholars such as Scoditti 2011, Leech 2014, Skovholt 2014, ZhaoHong Han 2014) are added to the head act, in the former case within or attached to the head act itself, in the latter case outside the head act, through a separate adjunct.

Modifiers serve to downgrade a request (Blum-Kulka et al. 1989), by softening its illocutionary force and decreasing its degree of imposition, or to upgrade it (Blum Kulka et al. 1989, Trosborg 1995, Schauer 2009), by strengthening its illocutionary force. "Downgrading" and "upgrading" modifiers are the terms which I will be using throughout my study to refer to the previously quoted distinction between "polite" requests and intentionally "impolite" requests. The reason why it is more apt to adopt the former terminology is because an upgraded request need not necessarily be "impolite", which means that not always a request having its illocutionary force enhanced is an impolite request. If we take the example of the request: "Listen, can you fill up the bottle for me?", the first verb "listen" opening the request is, in Blum Kulka et al.'s taxonomy (see below) an "attention getter", namely whatever device, be it a vocative, imperative verb or interjection serving to deictically focus the hearer's attention on the upcoming request. For this property, it is considered an upgrading modifier because it increases the illocutionary force of the speech act by summoning the hearer's attention. However, we surely cannot say that a request starting with "Listen" constitutes an impolite request. Other upgrading requests indeed equate with impoliteness, like the category "negative evaluation" (see below) indicating an adjunct with a reproach to the hearer related to the request just issued. An example of downgrading modifier can be: "Can you listen to me *one tiny little moment?*", where the cost of the favour is minimised by specifying the shortness of the time to be devoted.

Blum Kulka et al. (1989) speak about three main strategies through which a request can be issued (I will call them "output strategies" to use Brown and Levinson's terminology in Brown and Levinson 1987). The three strategies, which concern the predication of the utterance and so are obligatory for a request to exist are: "direct", "conventionally indirect" and "non-conventionally indirect". Each of these strategies has several sub-strategies. For Blum-Kulka et al., direct requests are those in which the illocutionary force of the request is inferred by the verb used. Direct requests have the following sub-strategies: mood derivable, explicit performative, hedged performative, obligation statement, want statement.

- 1 Mood derivable: Clean up the kitchen.
- 2 Performative: I'm asking you to move your car.
- 3 Hedged performative: I would like to ask you to move your car.
- 4 Obligation statement: You have to move your car.
- 5 Want statement: I would like you to clean the kitchen.

Conventionally indirect requests are those requests where a “reference to contextual pre-conditions necessary for its [request] performance” (Blum Kulka et al. 1988: 201) is expressed. They are divided into: suggestory formulae and reference to preparatory conditions which concern the hearer’s ability or willingness to grant a favour:

- 1 Suggestory formula: Why don’t you help me? / How about helping me?
- 2 Reference to preparatory conditions: Can you / Will you help me?

Finally, non-conventionally indirect requests are those realised through “either partial reference to object or element needed for the implementation of the act or by reliance on contextual clues” (Blum-Kulka et al. 1989: 201). Blum-Kulka divides non-conventionally indirect requests into “strong hints” and “mild hints” (Blum-Kulka et al. 1989: 202).

- 1 Strong hints: You’ve left this kitchen in a mess.
- 2 Mild hints: I’m a nun (in response to a persistent boy).

Because of the subjectivity of what might constitute a mild or a strong hint, I decided to collapse them and annotate them as simply “non-conventionally indirect” requests.

As for the sub-strategies of the other two strategies (direct and conventionally indirect), I slightly modified Blum Kulka et al.’s model by adding more sub-strategies or naming them differently. The need to do so presented itself after realizing, during annotation, that an ad-hoc sub-strategy should be crated for that kind of request feature. It is worth reminding that Blum-Kulka et al.’s model is not based on real, spoken data but is intended for a discourse completion test. This means that, however comprehensive the scholar’s model may be, it has been devised on intuition and not on observations resulting from requests actually issued by speakers. As my study entails the analysis of spoken film dialogue, I was often faced with requests which did not fit the model and I had to tweak some of its features. I will later go into the details of my modifications. Fig.1 shows how a request is broken down.

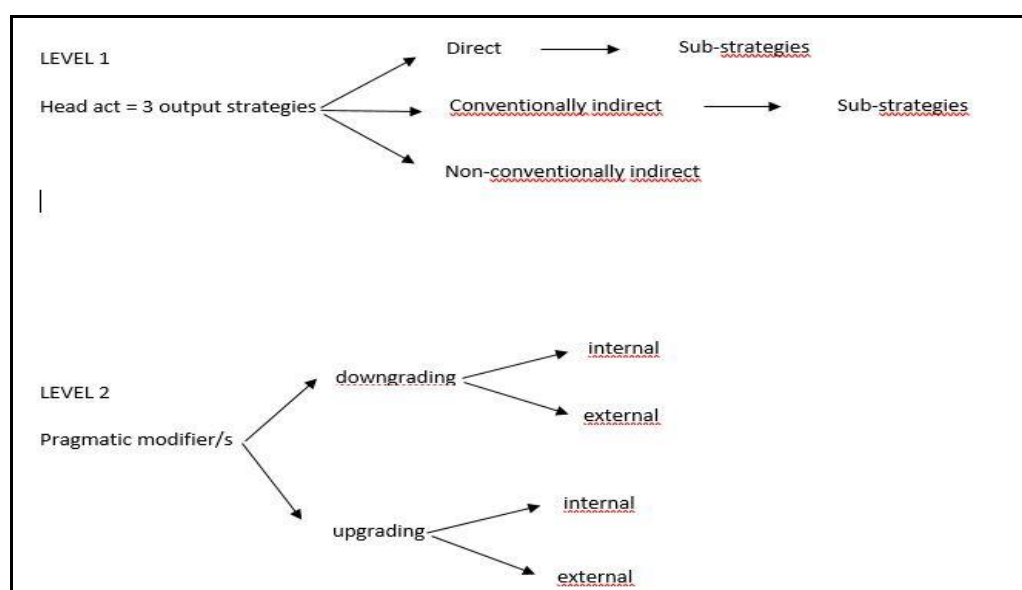


Fig. 1

As can be seen, a request must have a head act to exist, namely a predication, so for each request there must be an output sub-strategy, in turn related to its main strategy. Request modifiers, on the contrary, are not obligatory: a request can simply be issued without any form of downgrading or upgrading of its illocutionary force. That is why there are two separate levels for the analysis of requests: the first level is the level of the output strategies (and sub-strategies). A request can only have one kind of sub-strategy and cannot be, say, both direct and conventionally indirect. The second level groups together pragmatic modifiers, both internal and external and downgrading and upgrading. Contrarily to what happens with strategies, pragmatic modifiers are not obligatory and, by consequence, there can be none, one or several.

As anticipated, some of the sub-strategies present in conventionally indirect requests have been added to Blum-Kulka et al.’s coding scheme or labelled under a different name. We will see which ones they are:

- **Conventionally indirect:**

- 1) “Reference to preparatory conditions” has been split into: “asking for willingness”, “asking for ability” and “asking for availability”. The first one encompasses utterances such as: “*Will you* open the window?/Do you want to do this for me?”. The second is of the type: “*Can you* answer the phone?”, while the third one is of the kind: “Do you have time/are you available to do this?” (taken from Leech 2014: 168).
- 2) The sub-strategy “consultative device” has been added, following Trosborg’s model (1995: 212–213) and encompasses utterances like: “*Do you think* you can close the window?”.
- 3) The sub-strategy “ability statement” has been added (“You *can* go away now”), following Leech’s model (2014: 149).
- 4) The sub-strategy “conditional clause”, not present in any existing taxonomy has been added: “*If you can help me carry this table to the kitchen...*”.

As for the pragmatic modifiers, their categorization has been the result of the conflation between different taxonomies proposed in the past which I drew on: House & Kasper 1981, Blum-Kulka 1989, Faerch and Kasper 1989, Trosborg 1995, Sifianou 1999, Barron 2003, Leech 2014.

- **Internal downgrading modifiers:**

- 1) Conditional mood: “I *would like* you to open the window”.
- 2) Past tense: “I *wondered* if you could lend me some money”.
- 3) Continuous form of verb (aspect): “I *am thinking* that you could open the window”.
- 4) Negative bias: “You *can’t* come with me, right?/Is it a problem if you go there for me?”.
- 5) Deliberative opening: “I *wonder* if you can do that for me?”.
- 6) Appreciative opening: “*Would you be so kind* as to lend me your car?”.
- 7) Subjectivizer: “I *think* you can do me a favour”.
- 8) Impersonal: “It is *better* for you to go”.
- 9) First person plural: “We have to work harder at school” (said by a mother to her child).
- 10) First person singular: “Can *I* have a glass of water?”.
- 11) Hesitation mark: “Could you...*mmm...* drive me there?”.
- 12) Cajoler: “I really need you, *you know*, to do that”.
- 13) Thanks: “Could you pass the salt? *Thank you*”.
- 14) Sweetener: “*Dear*, can you give me a ride?”.
- 15) Please: “Could you *please* pass the salt?”.
- 16) Appealer: “You can close the window, *can’t you?/right?*”.
- 17) Downtoning/hedging device: “Could you *possibly* go to the supermarket?”.

- **External downgrading modifiers:**

- 1) Conditional clause: “Can you pass the salt *if you can reach it?*”.
- 2) Apologies: “*Sorry to disturb*, could you lend me your pen?”.
- 3) Appreciation: “Can you tell me who your hairdresser is? *Your hair is so wonderful!*”.
- 4) Grounder: “Could you cook the dinner for me? *I have nothing left in the fridge*”.
- 5) Preparator: “*I must ask you a favour*: can you possibly leave me your car?”.
- 6) Disarmer: “*I know this is a pain in the neck*, but I would need you to do it”.
- 7) Cost minimizer: “Can you go shopping for me? *I promise you won’t be long*”.
- 8) Promise of reward: “Please, if you fix this now, *I will do whatever you want*”.
- 9) Promise of forbearance: “Please, could you come pick me up only this time? *I won’t disturb you again*”.

As for the upgrading modifiers, I have mainly drawn from Trosborg (1995) and Flöck (2016). In fact, upgrading modifiers have been neglected in the past, since politeness research has always dominated over the more recent strand of impoliteness research (see sec. 2).

### -Internal upgrading modifiers:

- 1) Adverbial intensifier: “You *definitely* must do it”.
- 2) Uptoner: “Shut *the fuck* up!”.
- 3) Pleading: “Set me free, *please!*”.
- 4) Offensive vocative/expletive<sup>1</sup>: “Give me your phone, *you fucker* ” / “Give me your phone, *for God’s sake!*”.
- 5) Persuasive marker<sup>2</sup>: “*Come on*, give it a rest!”.
- 6) Uptake-securing device<sup>3</sup>: “Take your money and get out, *did you hear me?/Understood?*”.
- 7) Time intensifier: “Go to class *immediately!*”.

### -External upgrading modifiers:

- 1) Repetition of request: “Do it, *do it!*”.
- 2) Threat: “Be silent, *otherwise I will shoot at you*”.
- 3) Negative evaluation: “Speak louder, *you can’t think people will hear you at that distance*”.
- 4) Reiteration marker<sup>4</sup>: “*How many times do I have to tell you* can’t eat on the sofa?” / “*I said* get out of my way”

## 4. Discussion of the Results

Following the viewing of the 18 films (6 for English, Italian dubbing and original Italian) and after annotating requests on Excel datasheets according to my model of analysis, I compared the results obtained in the three sub-corpora as to the output strategies and downgrading and upgrading modifiers. Fig. 2 shows the presence of the three output strategies (direct, conventionally indirect and non-conventionally indirect) as well as the internal and external downgrading and upgrading modifiers for the whole pilot study, regardless of the genres.

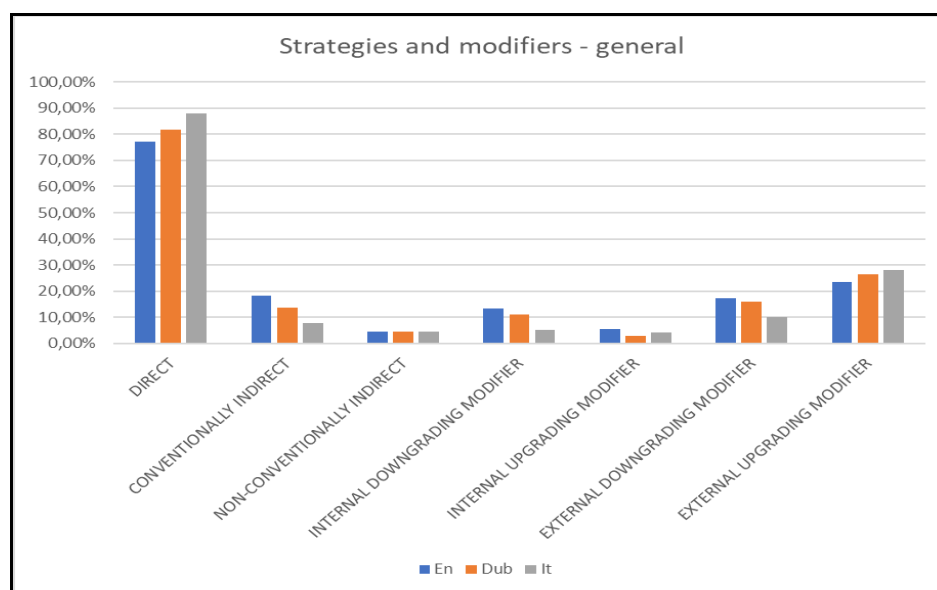


Fig. 2

As can be noticed, the amount of each request feature in dubbed dialogue always stands between the source language (English) and the target language (Italian), except for non-conventionally indirect requests which are the same and internal upgrading modifiers where dubbed dialogue and Italian are both lower than English. The explanation for the latter phenomenon lays in the fact that many of these modifiers are represented by the English adverb “just” used as a pragmatic device to strengthen the illocutionary force of a request, as in

<sup>1</sup> My coinage

<sup>2</sup> My coinage

<sup>3</sup> My coinage

<sup>4</sup> My coinage

“Just do it!”. The adverb, used in this function, does not have any pragmatic equivalent in Italian and this explains the lack of it in dubbed dialogue as well as original Italian. Being this adverb frequent among the internal upgrading modifiers, this entails a slump in the bar for Italian.

This clear “hybrid” nature of translation is in line with Kranich’s study (2016) which proved how pragmatic features in translated texts can stand, in quantitative terms, halfway between the source language and the target language. The scholar analysed written texts of the text types “letters to shareholders” and “popular scientific articles”. My study is a step further in confirming this pattern also in the translation of dubbing.

Another interesting feature which emerges from the graph is that external modifiers in dubbing are closer to English than to Italian and that, on the contrary, for internal modifiers the gap is slightly wider. This finds its explanation in the fact that dubbing is a “constrained translation” (Titford 1982, Mayoral et al. 1988) and lip-sync, in terms of duration of the utterance, must be the priority for translators (Diaz-Cintas 1999, Chaume 2007). The need to stick by the original duration entails the obligation, on the part of the translator, to respect the length of the original utterance when creating the translated script for dubbing actors. As internal modifiers occur within the head act of the head act or are short lexical items/phrases attached before or after it, the translator has more freedom in altering them, when it is deemed necessary for the pragmatic norms of Italian. Conversely, external modifiers represent full adjuncts, so other utterances altogether not belonging to the head act. This obliges translators to leave them in the translation if they are present in the original even if in Italian they would not be used or, by the same reasoning, translators cannot add them to the translation in a context where in Italian it would be natural, even if in the original there is none. In the former case, the actor’s mouth would move without any utterance being pronounced, while in the latter case speech would be heard when the actor is silent or when another actor is already speaking.

I will provide an example with an upgraded request in English, first by means of an internal and then by means of an external modifier. If the character says: “Give me your money, *you stupid child!*”, the offensive vocative in italics, which is an internal modifier because it is short in form, can be more easily left out and replaced by some other lexical or syntactic material by the translator, if he thinks it appropriate. Quite on the contrary, if the character upgrades his request with an external modifier and says: “Give me your money, *otherwise I’ll shoot you dead!*”, the translator will find it more complicated to leave out an entire adjunct (in this case a threat). This finding leads us to the conclusion that the constrained nature of the translation of dubbing, object of many previous studies, also impacts the pragmatic level of language.

Fig. 3 shows the distribution of internal and external modifiers across genres. I decided to insert this graph to prove that, as the whole pilot study in Fig. 5 shows, the gap between English and dubbed Italian is more important in internal modifiers than in external modifiers, also within each genre.

Returning to Fig. 2, the presence of more direct requests in Italian than in English and of more indirect requests in English than in Italian seems to confirm previous studies (Wierzbicka 2003, Ogiermann 2009, Payne 2013) which see Anglo-Saxon cultures as the ones which privilege indirectness and value negative face more, contrarily to Mediterranean cultures. In view of these findings, my study confirms this tendency. The same can be said for modifiers: Italian has more upgrading modifiers than English and English has more downgrading modifiers than Italian. This tallies with the contention that English and Anglo-Saxon cultures value negative face more and speakers are more likely to mitigate request rather than putting more pressure on the hearer by upgrading them.

For both languages, however, downgrading modifiers exceed upgrading modifiers, this suggesting that speakers prefer to engage in politeness than impoliteness to maintain good rapport and preserve social relationships (Ide 1989, Lakoff 1989, Locher & Watts 2005).

Fig. 4 shows how strategies and modifiers are distributed across genres

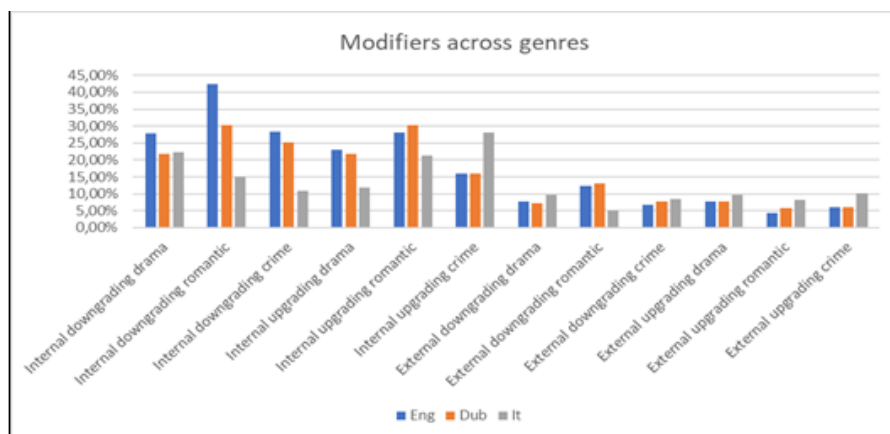


Fig. 3

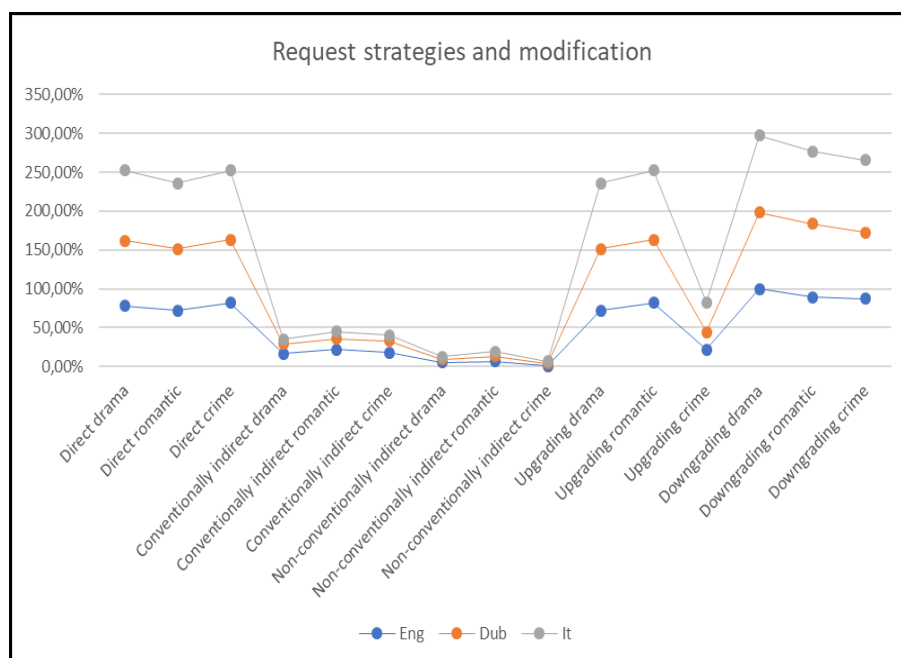


Fig. 4

As can be seen, dubbed dialogue is always between English and Italian for the three genres and for each request feature, thus showing that the “hybrid” nature of translation is kept constant also at a micro level, for each genre.

Another interesting thing which emerges from the graph is that direct requests, both in English and Italian, are better represented in dramatic comedies and in crimes, while they drop in romantic comedies. This could be due to the fact that romantic films contain more scenes where mitigation and indirectness are required, contrarily to dramatic and crime films where drama and action may leave less space for politeness work.

This hypothesis seems to be confirmed by the fact that also conventionally indirect requests are, in a specular manner, better represented in romantic comedies for both languages, if compared to dramatic and crime films. If we look at the portion of the line corresponding to indirect requests, a peak is observed for romantic comedies, downward in direct requests and upward in indirect requests. As for the pragmatic modifiers, we cannot find any correlation between genre and downgrading and upgrading modifiers, in that their distribution seems to be random. However, it should be borne in mind that this pilot study has been conducted halfway through the project and that the addition of more films may well lead to new results and hypotheses.

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# On Danish Bare Nominal Adjuncts - a Reply to Barrie & Yoo (2017)<sup>1</sup>

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**Abstract:** Some nominals are not licensed by Case assignment from either a verb or a preposition, such as *I met him **that evening*** and *John did it **my way***. Barrie & Yoo (2017) analyze a subgroup of nominal adjuncts headed by the noun *place*, contrasting *that*- and *which*-relative clauses (e.g. *I saw the place (that) John lives (in)* vs. *I saw the place which John lives \*(in)* [Barrie & Yoo 2017, p. 504]).

In *that*-relative clauses, the preposition is optional, whereas it is obligatory in *which*-relative clauses. Barrie & Yoo (2017) account for this contrast by adopting a raising analysis of relative clauses. Furthermore, they assume that DPs need Case, but NPs do not. Adopting Bianchi's analysis of relative clauses (1999), the crucial difference between *which*-relative clauses and *that*-relative clauses is that *that*-relative clauses are derived by NP-movement, whereas *which*-relative clauses are derived by DP-movement. It then follows that the NP in *that*-relative clauses does not need Case, but the DP in *which*-relative clauses does. Thus, in the former case, the preposition is optional, whereas it is obligatory in the latter case.

On the basis of Danish data, I show that the DP-NP distinction is inadequate. I argue that what determines the (non-)presence of the preposition can be attributed to various factors pertaining to stylistics, syntax and semantics. The semantic differences between the construction with and without the preposition seem to correlate with a recent proposal for Norwegian nominal adjuncts (Taraldsen 2017).

**Keywords:** bare nominal adjuncts, relative clauses, prepositions, English, Danish.

## 1. Introduction

This paper is a reply to Barrie & Yoo (2017), who provide an analysis of spatial nominal adjuncts<sup>2</sup> which contain the noun *place*. Such nominal adjuncts are exemplified in (1) and (2):

(1) The place that John lives (in) is expensive.

(2) Mary has lived (in) many places.

(Barrie & Yoo 2017, p. 499)

These nominal adjuncts have a number of interesting features. First, the idiosyncrasy of the noun *place* is striking: It is not possible to substitute the noun *place* of such a nominal adjunct with any other semantically related noun:

(3) The apartment/house/cottage that John lives \*(in) is expensive.

(4) Mary has lived \*(in) many apartments/houses/cottages.

(Barrie & Yoo 2017, p. 499)

Second, the nominal adjuncts headed by the noun *place* do not always need to be introduced by a preposition nor subcategorized by a predicate in order to be licensed. I will henceforth, following Barrie & Yoo, refer to these nominal adjuncts as Bare Nominal Adjuncts (BNAs).

<sup>1</sup> I would like to thank Paul Law for much support and many helpful comments, and without whose help this paper would never have seen the light of day. Many of the points made in this paper are due to him. Special thanks to Lilian Bjerremund and Jens Sand Østergaard for helping me conducting an initial survey on Bare Nominal Adjuncts. I would also like to thank Kristoffer Friis Bøegh, Henrik Jørgensen, Cecilie Larsen and Sten Vikner for many helpful comments. Thanks to Hannah Jane, Maia McWilliams, Georgina Preston and George Walkden for their grammatical judgments on the English data and to Morten Auklend for his judgments on the Norwegian data. Any remaining errors or shortcomings are mine.

<sup>2</sup> There are other types of nominal adverbials, but Barrie & Yoo's paper only concerns **spatial** nominal adverbials. For other types of nominal adverbials, see e.g. Egorova (2006), Kobayashi (1999) and Larson (1985).

Third, Barrie & Yoo (2017) note the important fact that *that*-relative clauses and *which*-relative clauses exhibit different behaviors as to whether they allow the presence of the preposition or not. In *that*-relative clauses, the preposition is optional, while it is obligatory in *which*-relative clauses:

(5) I saw the place (that) John lives (in).

(6) I saw the place which John lives \*(in).

(Barrie & Yoo 2017, p. 504)

This paper is organized as follows: In section 2, I sketch out Barrie & Yoo's analysis of *place*-BNAs. In section 3, I point out some theoretical and empirical shortcomings in their analysis, whereby I also critically examine their analysis in the light of Danish BNAs.

## 2. Barrie & Yoo's (2017) Analysis of *Place*-BNAs

The facts reviewed in the introduction raise a number of issues: One is whether Case is assigned to BNAs, and if so how it is assigned. Another issue is how theta-roles are assigned to BNAs since there is no predicate which can plausibly assign theta-roles to BNAs. Thirdly, the distribution of prepositions in (5) and (6) needs to be accounted for.

Barrie & Yoo explain the contrast in (5) and (6) by making four assumptions, tying together all the above-mentioned issues:

**Their first assumption** is that (5) and (6) are derived by raising of the "head" noun (Kayne 1994: ch. 8; Vergnaud 1974): The "head" noun is generated in the relative clause and moves to the front of the relative clause. Note that the determiner *the* and the raised head noun do not form a constituent; rather the determiner takes a CP as its sister:

(7) [DP the [CP [NP **place**]<sub>i</sub> [CP [C that] [TP John [VP lives *t<sub>i</sub>* ]]]]]

(8) [DP the [CP [DP [NP **place**]<sub>j</sub> [DP [D **which**] *t<sub>j</sub>*]<sub>i</sub> [CP [ TP John [VP lives [PP in *t<sub>i</sub>* ]]]]]]]]

**The second assumption** they make is that NPs do not need Case; DPs, on the other hand, do need Case. This assumption is problematic. For one thing, it is shown in section 3.2 that not all DPs need to be licensed by Case.

**Their third assumption**, following Bianchi (1999), is that *that*-relative clauses are derived by NP-movement while *which*-relative clauses are derived by DP-movement. This is, as we will see, a crucial assumption to their analysis.

**The fourth assumption** they make, following Emonds (1987) and, perhaps inadvertently, Kobayashi (1999), is that BNAs can be inherently theta-marked by the head noun. More specifically, locative BNAs are assigned a location theta-role by the head noun. Therefore, locative BNAs do not need any external theta-role assigner. In contrast, non-BNA nouns such as *apartment*, *house* and *cottage* do not, by assumption, have an inherent theta-role, and therefore, they need a theta-role assigner, see (3) and (4).

From these assumptions, the issue of assignment of Case and theta-role in (5)/(7) and (6)/(8) is resolved: In (5)/(7), it is an NP which moves to the front of the relative clause. Because it is an NP that moves, it does not need Case. Furthermore, the issue of theta-role assignment is no longer a problem because BNAs are, by assumption, inherently assigned a theta-role by the head noun. On the other hand, (6)/(8) involves movement of a DP, and DPs need Case. Therefore, the preposition has to be present: It assigns Case to the DP.

Moreover, the grammatical status of (3) follows: It involves the movement of a non-BNA, which means that the theta-role is not inherently assigned. In other words, a theta-role assigner is needed, that is, a preposition is obligatory.

Having now sketched out Barrie & Yoo's analysis of when prepositions may appear or not, I will show how theta-roles are assigned in their analysis. Barrie & Yoo assume that theta-roles are features that must be checked, and that probes and goals are specified for theta-roles. More specifically, a preposition is a probe which values the uninterpretable feature of its goal.

Since the BNA head noun already has an inherent theta-role, it does not need a theta-role from a preposition. Thus if no preposition is present, no probe values the inherent theta-role feature of the BNA (in contrast to (9)/(11)). Instead, presumably the BNA head noun can by itself value its theta-role as <stative> or the like (Barrie & Yoo make no explicit mention of this).

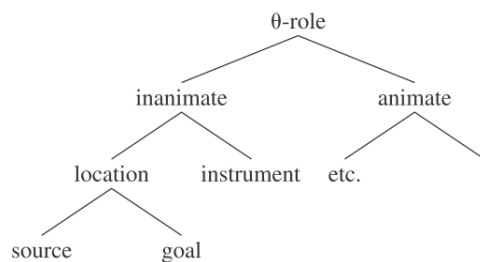
On the other hand, if a preposition is present, a potential theta-role assignment conflict may arise: In the following example *to* assigns the theta-role <goal> to the nominal adjunct containing the BNA noun *place*, which already has an unvalued theta-role:

(9) Mary is walking to that place.

(Barrie & Yoo 2017, p. 509)

Note first that Barrie & Yoo assume the following partial hierarchy of theta-roles:

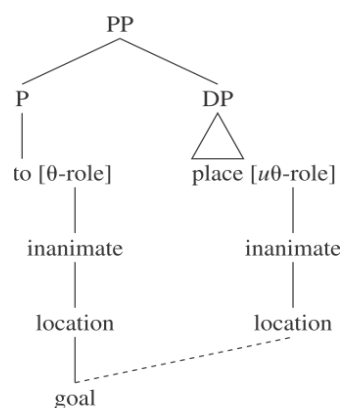
(10)



(Barrie & Yoo 2017, p. 509)

By assumption, the noun *place* (9) has an inherent <location> theta-role just like in BNA contexts, as we have seen. The preposition then values the theta-role of its sister as <goal>:

(11)



(Barrie & Yoo 2017, p. 509)

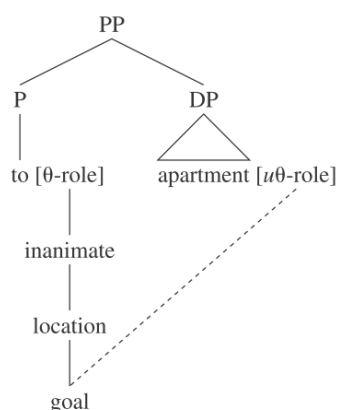
On the other hand, in (12), there is no potential theta-role assignment conflict:

(12) Mary is walking to that apartment.

Since the head noun *apartment* has no inherent theta-role, there will be no theta-role assignment conflict. The preposition can thus value the uninterpretable theta-role feature of its complement as a <goal> without any problems. The fact that *apartment* has no inherent theta-role also means that it cannot function as the head of a BNA: Without a preposition, it would have no theta-role.

For **non**-BNAs, there is no theta-role conflict, because non-BNA nouns do not have an inherent theta-role. This is illustrated in the following representation:

(13)



(Barrie & Yoo 2017, p. 510)

### 3. Problems and issues with Barrie & Yoo's analysis

In this section, I want to point out what I believe are problems in Barrie and Yoo's analysis or issues which they have not covered and which raise questions for future research. I want to raise 3 main issues:

1. The issue of theta-role assignment in Barrie & Yoo's analysis (section 1.1).
2. Problematic aspects of Barrie & Yoo's assumption that DPs need Case, but NPs do not (section 3.2).
3. Stylistic, syntactic and semantic factors influencing the absence/presence of the preposition in Danish, beyond the DP-NP distinction (section 3.3).

#### 3.1 Theta-Role Assignment

First, I would point to the general issue of inherent theta-role assignment of BNAs. It is regrettable that this component in Barrie & Yoo's analysis is idiosyncratic and only relates to theta-role assignment of nominals headed by the noun *place* (in passing, they also mention the noun *spot*).<sup>3</sup> When postulating the existence of such mechanisms, it would be ideal to appeal to similar mechanisms that may well be assumed to exist in other parts of the grammar. On the other hand, it is true that BNA nouns do seem to exhibit idiosyncratic behavior: They constitute a closed class of nouns. I propose no solution to these issues; I simply wish to point out the need to put these nominals into a broader context of a general theory of inherent theta-roles, if possible.

Second, there is a potential theta-role conflict that Barrie & Yoo fail to address. Presumably, *place* always has the inherent <location> theta-role, regardless of whether it is a head of a BNA. If this is the case, it is an open question how theta-roles are assigned to *this place* in examples such as *I like this place* or *You should clean up this place* where *this place* is perhaps rather a theme than a location (the theta-hierarchy in (10) does not address this issue).<sup>4</sup>

Barrie & Yoo do, however, address another potential theta-role assignment conflict that may arise in the following examples:

(14) Mary is walking to that place/store/house

(15) Fred came from that place/store/house.

(16) The place that Mary was walking \*(to)

(17) The place that Fred came \*(from)

(Barrie & Yoo 2017, p. 509)

<sup>3</sup> Barrie & Yoo do not in any greater detail examine other BNAs than locative BNAs. If their analysis is to be applied to e.g. temporal BNAs so that head nouns of temporal BNAs would have an inherent temporal theta-role, it is to be expected that they behave exactly like *place*-BNAs.

<sup>4</sup> Sten Vikner and Henrik Jørgensen (p.c.) pointed this out to me.

There is a potential **theta-role assignment conflict** because *place* has the inherent <location> theta-role, while the prepositions *to* and *from* assign <goal> and <source> respectively. Barrie & Yoo claim that the prepositionless forms of (16)-(17) are ungrammatical on the grounds “that nouns such as *place* bear an inherent <location>  $\theta$ -role, but not a more structured  $\theta$ -role such as <goal> or <source>” (Barrie & Yoo 2017, p. 509).

However, this does not seem to be justified on independent grounds. Furthermore, it is not clear to me what Barrie & Yoo mean by “more structured  $\theta$ -role”. One possible interpretation is that theta-roles like <goal> and <source> are more specified, in the sense that the theta-role <location> is to be valued as <goal> or <source>, and that makes them somehow more “structured” (see (10)). Another interpretation is that <goal> and <source> are not inherent theta-roles for the noun *place*; rather they are to be assigned by an external theta-role assigner. In any case, no matter what Barrie & Yoo mean by “a more structured  $\theta$ -role”, they do not account for why both (18) and (19) are possible, that is with and without a preposition:

- (18)               The place that Mary is going
- (19)               The place that Mary is going to

These examples contrast with (16). Presumably, the nominals headed by *place* in (18) and (19) are inherently marked for <location> but not for <goal>, which is a “structured  $\theta$ -role”. But why is (16) grammatical only in the presence of a preposition, while (18) and (19) are both grammatical, that is with and without a preposition? This is unaccounted for in Barrie & Yoo’s analysis since the <goal> theta-role should be unavailable in (18), parallel to (16).

A key to the above question might lie in the fact that the preposition *to* may optionally appear, independently of whether it appears in a relative clause at all, as in (20) below. The equivalent examples to (20) are not possible with the intended directional interpretations (for (22), only a stative interpretation is available):

- (20)               Where are you going (% to)?
- (21)               Where does Fred come?
- (22)               Where is Mary walking?

Note that *where* seems to be regarded as a special kind of BNA in Larson (1985), but that does not explain these asymmetries. In the present work, I will not attempt provide any solution to these asymmetries, but it seems clear that there is something **special** about the verb *go*, in that it allows the presence of the preposition to be optional in relative clauses as well as in non-relative clauses.<sup>5</sup>

### 3.2 Empirical problems with Barrie & Yoo’s assumption that DPs need Case, but NPs do not

In Barrie & Yoo’s analysis, a crucial assumption is that DPs need Case, whereas NPs do not need Case, but may have Case. This subsection is devoted to problematizing this assumption. On the basis of empirical data, I show that there are numerous ways in which BNAs may be licensed, beyond the DP-NP distinction. One important point is that licensing conditions are to some degree subject to dialectal and speaker variation (see section 3.2.1, but also section 3.3). Another important point is that DPs as BNAs cannot always obtain Case from a preposition (section 3.2.3).

#### 3.2.1 Quantifiers as Licensors of BNAs

In the context of quantified nominal adjuncts, a preposition is not always needed. As opposed to this, a preposition is needed when a determiner is present (according to Barrie & Yoo). This is illustrated in the contrast between (23) and (24):

<sup>5</sup> In Nguyen (2017, ch.4), I suggest that there, at least in some constructions, exists a default preposition, that is, a preposition that can be omitted if it is recoverable from the syntactic, semantic and pragmatic context. This default preposition hypothesis only applies to sentences containing the Danish equivalent of *where*, but it can be extended to other (non-)uses of the preposition. Unfortunately, the hypothesis does not account for the contrast between (20) and (21). However, it can account for the meaning differences between *The place that I live Ø* and *The place that I live beside*.

- (23) John lives \*(in) that place.
- (24) Mary has lived (in) many places.

(Barrie & Yoo 2017, p. 499)

There are two points to be made here. First, there seems to be some dialectal variation: My British informants do not like (24). Only one of them is in doubt about its grammatical status. This informant also points out to me that the preposition is more often dropped in American English and Canadian English. In the corpus *Corpus of Contemporary American English (COCA)*, I found a substantial number of quantified BNAs of the form *many places*, some of which are given below; they may appear preverbally as well as postverbally:

- (25) I've been transferred **many places**, and sometimes I've had an office with a secretary.

- (26) Such a long trip, " he thinks, " and so **many places** I could have stayed along the way. "

On the other hand, I found only two examples of *many places* as BNAs in the corpus *British National Corpus (BNC)*. In both cases, the BNAs are *wh*-phrases (and therefore have to be preverbal):

- (27) And **how many places** in this country are computers actually used in diagnosis?

- (28) [...] it's amazing **how many places** you will have been over the years [...].

It remains to be seen how robust the variation between American English and British English is, that is to which degree *many* and other quantifiers may or may not be licensors of BNAs in the respective varieties of English.<sup>6</sup> Keeping Barrie & Yoo's assumption in mind, if *many places* is a DP in British English, but an NP in American English, we would expect it generally to behave differently in these two dialects. I leave this issue unresolved.

Returning to (23) and (24), the second point is that if a DP is involved in both cases, then a preposition should be obligatory in order to assign Case. In that case, the optionality of the preposition in (24) is unaccounted for. Even though Barrie & Yoo themselves bring up this contrast, using these very examples (2017, p. 499), they leave this contrast unexplained. Instead, they note that "[o]ne environment where BNAs are licit is following quantifiers [as in (24) – MN]", but they "leave analysis to future research" (fn. 4 p. 503). Incidentally, quantifiers also license Danish BNAs:

- (29) Da. Peter bor \*(flere/mange/to) steder.  
Peter lives several/many/two places  
'Peter lives in various/many/two places.'

Furthermore, a quantified BNA may function as a modifier of a nominal or of a verb phrase, e.g:

- (30) [...], and those groups have been known for their brutal tactics, their summary executions. Far in the back of this fight, as in the fight **many places** in Syria, the Free Syrian Army.

- (31) **Many places** in the park you need to be a silviculturist to know you're not in virgin forest.

(COCA)

The evidence reviewed above seem to suggest that quantifiers may be alternative licensors (instead of prepositions), see also Kobayashi (1999, p. 354) and McCawley (1987, p. 588-589). The problem is that if the quantified nominals in (24) and (29) are indeed DPs (it is debatable), it is **evidence against the assumption that all DPs need Case**. Note that the quantified nominals in in (24) and (29) are probably not NPs. Quantified nominals are standardly assumed to be headed by quantifiers and to be extended projections of N, so the nominals in (24) and (29) are most likely bigger than NPs (see e.g. Shlonsky 1991).

<sup>6</sup> It is not implausible to suppose that there is some dialectal variation with regards to *place* nominal adjuncts, since there are also a number of differences in British English and American English in the use/non-use of the preposition in the context of **temporal** nominal adjuncts (Quirk et al. 1985 p. 690-695).

### 3.2.2 Contextual Licensing of BNAs

In the same vein, the following piece of Danish data is interesting in that the BNA does not need a preposition; the noun is only preceded by an indefinite article/numeral (32). Its English counterpart is ungrammatical (33):

(32) Da.           ?           Jeg       bor/sover/sidder et sted.  
                                   I           live/sleep/sit       a place  
                                   ‘I am living/sleeping/sitting in some place.’

(33)               \*           I am living/sleeping/sitting a place.

(32) may sound odd without a context, but given a context, as in (34), it is not so bad. Giving (33) a similar context, however, does not yield better results, see (35):

(34) Da.           Jeg bor/sover/sidder et sted, men jeg siger ikke hvor det er henne  
                           I live/sleep/sit a place but I say not where it is ADV  
                           ‘I am living/sleeping/sitting in some place, but I won’t say where it is.’

(35)               \* I am living/sleeping/sitting a place, but I won’t say where it is.

(34) is only slightly problematic for Barrie & Yoo’s analysis since the indefinite article *et* ‘a’ could be analyzed as appearing in Num, a position lower than D, but higher than NP (Wood & Vikner 2013, p. 530). If only DPs (and not smaller nominals, such as NumPs) require Case, then it is clear why the nominal does not need a preposition in (34). In any case, it is unclear why (32) is degraded and why the context in (34) improves the grammaticality (it could be due to the extra information from the context). In Barrie & Yoo’s analysis, we would expect them to have the same grammatical status, regardless of whether *et sted* ‘a place’ is a DP or an NP. In both cases, *et sted* is presumably of the same category, and therefore both sentences should have the same grammatical status.

This piece of evidence shows that the quantifiers and prepositions are just **some** of the means by which BNAs may be licensed. There may be others. In this case, it is perhaps the extra information from the context that licenses the BNA. Again, this is not touched upon in Barrie & Yoo’s analysis, in which the crucial distinction is DP versus NP.

### 3.2.3 No Licensing from either Quantifier or Context

In the previous subsections, I have suggested that there may be alternative ways in which BNAs may be licensed, that is via quantification and via some sort of contextual embeddedness. In this section, I show that sometimes it is even less clear as to what licenses BNAs. It is neither Case from a preposition nor anything else obvious. First, take a look at the following sentences:

(36) Da.           Erik       bor/sover/sidder \_\_\_\_ [DP det rigtige sted]

(37) Da.       % Erik       bor/sover/sidder på [DP det rigtige sted]  
                           Erik       lives/sleeps/sits on           the right place  
                           ‘Erik is living/sleeping/sitting in the right place.’

The data above show is that the DPs in question either do not need prepositions (36) or are even ungrammatical **with** prepositions to a number of native speakers (37) (for more details, see section 3.3.3). These examples are a problem for Barrie and Yoo’s analysis. Whereas the phrasal category of *many places* is debatable (see section 3.2.1), *det rigtige sted* is a straightforward DP (because it contains a determiner). It is, however, not licensed by Case assignment from a preposition (see also Taraldsen 2017, who argues that there is no covert preposition). There is nothing in Barrie & Yoo’s analysis that explains why the preposition is omissible. Thus, (36) is a counterexample to their analysis.

Furthermore, it is problematic for Barrie & Yoo’s analysis that not all native speakers agree that (37) is grammatical. On their assumptions, DPs have to be assigned Case, and *det rigtige sted* is clearly a DP in (36), but it is not licensed by Case from a preposition.<sup>7</sup> In fact, the construction without a preposition (36) is even better than the one with a preposition (37).

<sup>7</sup> The prenominal string *det rigtige* ensures that it is a DP since using the form *et* ‘a’, which looks like an indefinite article, might actually be a numeral occupying a lower head position inside the DP (Wood & Vikner 2013, p. 530).

Barrie & Yoo's analysis is thus problematic at the clausal level. Their analysis is also problematic at the level of nominals. BNAs may modify other nominals without being licensed by Case (the following example is found in the Danish text corpus *KorpusDK*):

- (38) Da. [Det største **problem** [<sub>DP</sub> disse steder]] har dog været den konkurrence,  
the biggest problem these places has ADV been the competition  
som de fremmede organismer medførte.  
that the alien organisms caused  
'The biggest problem in these places has been the competition that the alien organisms have caused.'

In this context, under standard assumptions, the modifier is not assigned Case by the head noun *problem*. This is related to why *of*-insertion is obligatory in constructions such as *the destruction \*(of) the city* (Chomsky 1970). Since the noun does not assign Case, some other means, such as *of*-insertion, must apply in order for the nominal to get Case. But there is no preposition present in (38). It is crucial to Barrie and Yoo's analysis that since the BNA is a DP (containing the determiner *disse* 'these'), it needs Case. But (38) is grammatical without a preposition. (One of my informants even dislikes the presence of the preposition in (38).)

Another context in which DPs do not need prepositions is in that of *where*-relative clauses and equivalent relative clauses in Danish. They may or may not involve a preposition. Barrie & Yoo (2017) do not make any mention of *where*-relative clauses. They seem in general to follow Bianchi's analysis of relative clauses. If they follow her in analyzing relative pronouns as determiners (Bianchi 1999, p. 74-80), e.g. *who* as a determiner for *man* in [<sub>DP</sub> *who man*] (Bianchi 1999, p. 74-75), and *wh*-relative clauses *in general* as raising of a DP (Bianchi 1999, p. 191ff), it is expected that the preposition is obligatory, contrary to the facts:

- (39) The place where plastic is a dirty word

[://www.theguardian.com/commentisfree/2017/dec/18/plastic-dirty-word-welsh-village-aberporth](http://www.theguardian.com/commentisfree/2017/dec/18/plastic-dirty-word-welsh-village-aberporth)

The same problem is present in Danish. In Nguyen (2017, p. 23ff), I examine the Danish equivalent to *where*-relative clauses. These clauses can occur with and without prepositions in non-*sted* contexts:

- (40) Da. De byggede også to hytter, hvor de kunne opholde sig.  
they built also two cottages where they could stay REFL  
'They also built two cottages in which they could stay.'

(Nguyen 2017, p. 23)

- (41) Da. De byggede også to hytter, hvor de kunne opholde sig i.  
they built also two cottages where they could stay REFL in  
'They also built two cottages in which they could stay.'

(Hansen & Heltoft 2011, p. 1525)<sup>8</sup>

Thus, if Barrie & Yoo adopt the raising analysis for *where*-relative clauses, the raised element has to be of the category NP due to the optionality of the preposition. But if they follow Bianchi in analyzing relative pronouns as determiners (Bianchi 1999, p. 74-80) and *wh*-relative clauses in general as raising of a DP (Bianchi 1999, p. 191ff), it is expected that the preposition is obligatory, contrary to the facts, see (39) and (40). This would be a theory-internal contradiction.

In Danish, there are at least two other contexts in which adjunct-DPs do not need prepositions, that is, in regular questions and in *hvad for*-split constructions (parallel to the German *was für*-split construction):

- (42) Da. Hvilket sted bor han (??/\* på)?  
which place lives he on  
'Which place does he live in?'

<sup>8</sup> This example is authentic and originally stems from a Danish high school essay. Even though the example is given as grammatical in Hansen & Heltoft's (2011, p. 1525) reference grammar, not all native speakers accept it. In my survey (see section 3.3), it is rated with an average of 3.7, whereas (40) has rated an average rating of 6.7. 1 means completely unacceptable while 7 means completely acceptable.

- (43) Da.        Hvad er det for et sted han bor        (? på)?  
               what is it for a place he lives on  
               ‘What kind of place does he live in?’

In these contexts, it is assumed that the *wh*-word is in D. In the case of *hvad for*-split constructions, the *for* part of the *hvad for*-split is not regarded as a Case-assigner, see e.g. Blümel (2012, p.108). Thus, the BNA-DPs above are licensed without Case, contra to Barrie & Yoo’s assumption.

### 3.2.4 Interim Summary

In sum, this subsection has dealt critically with Barrie & Yoo’s assumption that DPs need Case from a preposition, whereas NPs do not. Their assumption is challenged by the empirical evidence that DPs do not always need to (and sometimes cannot) be introduced by a preposition:

- a) Quantifiers might be alternative licensors of BNAs, see (24)-(31). This seems to be subject to dialectal variation (and the same may apply to *place* nominal adjuncts are too in general, with and without prepositions).
- b) The context in which a sentence is embedded may license the BNA; see (33) versus (34).
- c) In Danish (and to some degree English), it is not always clear what licenses the DP-BNA. It is, however, clear, that DP-BNAs need not be licensed by a preposition in a number of contexts. BNAs in simple declaratives do not need, and for some speakers, cannot be licensed by a preposition, see 0 and 0. Furthermore, DP-BNAs may modify nominals without getting Case from a preposition, see 0. Also, if *where*-relative clauses are analyzed as involving the movement of NPs (in order to be compatible with other parts of Barrie & Yoo’s analysis), they are incompatible with Barrie & Yoo’s assumption, see (39)-(42). The same problem arises for regular questions (42) and for *hvad for*-split constructions (43).

## 3.3 Danish BNAs: Beyond the DP-NP Distinction

In the previous section, I provided counterevidence against Barrie & Yoo’s assumption that DPs need Case, whereas NPs do not. In this section, I suggest that in Danish, there are stylistic (= section 3.3.1), syntactic (= section 3.3.2) and semantic (= section 3.3.3) factors which govern the absence/presence of the preposition.

These factors show that the DP-NP distinction is not adequate, in contrast to what Barrie & Yoo suggest. Their distinction cannot adequately predict the distribution of the two constructions in question.

In the following, I base my claims on corpus data and native speaker judgments, some of which stem from a grammaticality judgment survey. With regards to the survey, speakers were asked to judge the acceptability of sentences in Google Form on a 1 to 7 Likert scale, where 1 is *helt uacceptabelt* (‘completely unacceptable’); 7 means *helt acceptabelt* (‘completely acceptable’). 162 subjects participated in the survey, the majority of which has graduated from high school, and some of these have completed a university degree. Careful examination of the results and statistic processing are still pending, but some initial impressions will occasionally be presented in the following. The mean judgment values (MJVs) for a number of examples will also be presented.

A general remark on the grammaticality judgments: Sometimes it is not only a matter of the preposition being obligatory or not. This is witnessed by the fact that some speakers find the same sentences both with and without preposition degraded. For instance, the sentence *Erik bor (på) Viggos sted* ‘Erik lives in Viggo’s place’ is very bad without preposition (MJV = 1.6) and quite degraded with preposition (MJV = 5.2). Furthermore, on average, 11 speakers rate sentences both with and without a preposition lower than 4, that is, both average values are below 4 (these sentences include some of those reviewed in this section and similar sentences).

One possible reason for why sentences with the presence of an obligatory preposition is degraded could be attributed to the inherent underinformativity property of *sted*. For instance, if a speaker A asks a speaker B *Hvor bor du?* ‘Where do you live?’, and Speaker B answers *(på) et sted* ‘in a/some place’, Speaker B would be withholding some relevant information about his place of residence and thereby violate Grice’s maxim of quantity (1975: 45).

### 3.3.1 Stylistic Factors

One difference between the two constructions is that the construction with the preposition is more commonly used in formal or literary registers. In this regard, the construction without a preposition does not have the same formal or literary tone.<sup>9</sup>

- (44) Da. De førte jeres fædre ud af Egypten og lod dem bo **på dette sted**.  
 They lead your fathers out of Egypt and let them live on this place  
 ‘They lead your fathers out of Egypt and let them live in this place.’
- (45) Da. Og der var engang en kvinde, som boede **på et ensomt sted** nær ved hav-et.  
 And there was once a woman that lived on a lonely place near at ocean-the  
 ‘And there was once a woman who lived in a lonely place near the ocean.’
- (46) Da. Her bor slægter, som har boet **på dette sted** i generationer [...]  
 here live lineages that have lived on this place in generations  
 ‘Here live lineages who have lived in this place for generations [...]

(44) is a text passage from a translation of the Bible from 1992. (45) is from a fictional work with a particular literary, poetic style. (46) is from a newspaper article which also has a particularly formal, depictive style to it. The generalization that the use of the construction with the preposition is used in formal/literary style seems to extend to other verbs than *bo* ‘live’. In the following example *ligge* ‘lie, to be located in’ is used in a similarly depictive, literary text (the pronominal adverb *hvor* ‘wherein’ also signals a formal style):

- (47) Da. Det oprindelige hus, hvori digter-en boede, har ligget **på dette sted** i gade-n.  
 the original house wherein poet-the lived has lied on this place in street-the  
 ‘The original house, wherein the poet lived, used to be in this place in this street.’

### 3.3.2 Syntactic Factors

Although the grammaticality judgments are in many cases wavering, there are at least two syntactic contexts in which the judgments seem to be categorical. The preposition is obligatory in the following two contexts:

- (i) when *sted* is suffixed by the definite article *-et* ‘the’, as in (48), and
- (ii) when D is occupied either by the possessive pronoun, as in (49) and (50), or by the genitive-*s*, as in (51).<sup>10</sup> (In fact, (50) and (51) without *på* are the examples that are rated the lowest in my survey, with MJV = 1.4 and MJV = 1.6, respectively. I take this to mean clear ungrammaticality.)

- (48) Da. [...] Sascha har arbejdet otte måneder **på sted-et** [...]  
 Sascha has worked eight months on place-the  
 ‘[...] Sascha has worked for eight months in that place [...]

<sup>9</sup> Quirk et al. (1985, p. 693-694) also note a difference in formality in temporal nominals with and without prepositions. They contrast *We met the following day* and *we met on [my emphasis – MN] the following day* and note that “[...] the sentence without the preposition tends to be more informal and more usual” (Quirk et al. 1985, p. 693).

<sup>10</sup> The following authentic example would seem to be a counterexample to this generalization:

- (i) Da. Tekst-en leder **sin-e steder** tank-en hen på et referat  
 Text-the leads REFL.POSS-PL places thought-the PART on a report  
 fra en generalforsamling.  
 from an AGM  
 ‘In some (of its) passages, the text makes one think about a report from an AGM.’

Since substituting the reflexive possessive with some other possessive pronoun or changing *sine steder* to the singular *sit sted* is not possible, one could possibly attribute the status of *sine steder* as being a fossilized expression.

- (49) Da. Her bor Per for ende-n af en markvej **på** sit lille sted med  
 here lives Per PREP end-the of a trail on REFL.POSS little place with  
 kone og børn- og nogle millioner regnorme.  
 wife and kids and some millions earthworms  
 ‘Here lives Per at the end of a trail in his little place with his wife and his kids – and with  
 some million earthworms.’

((48) and (49) are from *KorpusDK*)

- (50) Da. Erik bor **\*(på)** hendes sted  
 Erik lives on her place  
 ‘Erik lives in her place.’

(with *på*: MJV = 5.1)  
 (without *på*: MJV = 1.4)

- (51) Da. Erik bor **\*(på)** Viggo-s sted.  
 Erik live on Viggo-GEN place  
 ‘Erik lives in Viggo’s place.’

(with *på*: MJV = 5,2)  
 (without *på*: MJV = 1.6)

The contexts in which D is occupied by either a possessive pronoun or the genitive-*S* are unproblematic to Barrie & Yoo’s analysis because the prepositions are obligatory in these contexts.

In the case of definite articles suffixed onto *sted*, one may object to the claim that suffixed *sted* always needs a preposition to be licensed. This objection would be based on the fact that contentful modification may license BNAs, e.g. *he lives in the \*(right) place* (see Kobayashi 1999, p. 354 and McCawley 1987, p. 588-589). In the previous examples, there is no contentful modification to license the BNA, and this is why, according to this objection, the preposition would be obligatory. I want to pre-empt this objection: The requirement for the preposition to be present has nothing to do with the lack of modification of the head noun. *Sted* suffixed with the definite article cannot be licensed as a BNA by means of modification; a preposition is needed. In (52), it is postmodified by a relative clause; in 錯誤! 找不到參照來源。 by a PP:

- (52) Da. Hun mødte ham **\*(på)** sted-et som jeg besøgte i.går.  
 she met him on place-the that I visited yesterday  
 ‘She met him in the place that I visited yesterday.’

- (53) Da. Hun mødte ham **\*(på)** sted-et ved floden-s munding.  
 she met him on place-the at river-GEN estuary  
 ‘She met him in the place at the estuary of the river.’

Interestingly, the obligatory prepositions in the context of suffixed articles contrast with the distribution of prepositions in the context of pronominal determiners, where the preposition is not always obligatory. Why the suffixed nominal requires a preposition is at present unclear.

### 3.3.3 Semantic Factors

In this section, I show that there is at least one vague semantic difference between the two constructions.<sup>11</sup> It is **a tendency rather than a categorical constraint**. The difference is that the construction with a preposition tends to be used with a P-complement that denotes a confined location or non-confined location. On the other hand, the construction without preposition tends to be used for locations that are **either** non-confined **or** unspecified for confinedness. The following figure illustrates the types of spaces that the two constructions are preferably used for:

<sup>11</sup> I am in debt to Kristoffer Friis Bøegh and Cecilie Larsen for helping me clear up the subtle semantic differences between the two uses.

Types of spaces

|                                                                                                                                                          |                                                                                                                                                                                                                                                                          |                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>[+Confined]</p> <p>↓</p> <p>The presence of P is preferred.</p> <p>↓</p> <p><i>Erik bor på et lille sted.</i><br/>'Erik lives in a little place.'</p> | <p>[-Confined]</p> <p>↓</p> <p>(No preference)</p> <p>↓</p> <p><i>Erik er flyttet til [en lille lejlighed i Køge]<sub>1</sub>,<br/>så nu bor han på [et dejligt sted]<sub>2</sub>.</i><br/>'Erik has moved to a house in Køge,<br/>so now he lives in a nice place.'</p> | <p>[±Confined]</p> <p>↓</p> <p>The absence of P is preferred.</p> <p>↓</p> <p><i>Erik bor et dejligt sted.</i><br/>'Erik lives in a nice place.'</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|

[...] at U2 skal spille et stort sted som f.eks. i Parken [...]  
'[...] that U2 is going to play in a big place such as Parken [...]

There seems to be some evidence for this intuition: Speakers rate the construction with preposition and with a clearly confined space more acceptable than the one without a preposition (I assume that *et lille sted* 'a little place' denotes a clearly confined space):

- |      |     |                                   |                           |             |
|------|-----|-----------------------------------|---------------------------|-------------|
| (55) | Da. | Erik bor                          | et lille sted.            | (MJV = 4.6) |
| (56) | Da. | Erik bor                          | <b>på</b> et lille sted.  | (MJV = 5.5) |
|      |     | Erik lives                        | on a little place         |             |
|      |     | 'Erik lives in a little place.'   |                           |             |
| (57) | Da. | Erik bor                          | det lille sted.           | (MJV = 2.9) |
| (58) | Da. | Erik bor                          | <b>på</b> det lille sted. | (MJV = 5.1) |
|      |     | Erik lives                        | on the little place       |             |
|      |     | 'Erik lives in the little place.' |                           |             |

(59) Da. Erik er flyttet til [en lille lejlighed i Køge]<sub>1</sub>, så nu bor han **på** [et dejligt sted]<sub>1</sub>  
 Erik is moved to a little flat in Køge, so now lives he on a nice place  
 'Erik has moved to a little flat in Køge, so now he lives in a nice place.'  
 (MJV = 6.3)

- (60) Da. Erik er flyttet til [Danmark]<sub>1</sub>, så nu bor han **på** [et dejligt sted]<sub>1</sub>  
 Erik is moved to Denmark so now lives he on a nice place  
 ‘Erik has moved to Denmark, so now he lives in a nice place.’  
 (MJV = 3.4)

(61) Da. Erik er flyttet til [en lille lejlighed i Køge]<sub>1</sub>, så nu bor han [et dejligt sted]<sub>1</sub>  
 Erik is moved to a little flat in Køge so now lives he a nice place  
 (MJV = 6.3)

(i) Da. [...] og selv om vi optræder mange **små steder** og giver skolekoncerter [...]

I have no explanation as to why (61) is possible with a confined space and without a preposition. If confined spaces do not require the presence of a preposition, we would be left without an explanation for why (55) and (57) are worse than their prepositional counterparts. One could tentatively suggest that the confined space is compatible with a BNA when it co-refers with an antecedent that is dependent on discourse (61) rather than when the coreferential relationship is established in structural dependencies, as in (55) and (57).

I now examine non-confined spaces, that is, spaces such as *Danmark* ‘Denmark’ and *store steder* ‘big places’. Note first that it would be ideal to compare native speaker judgments on *Erik bor (på) et lille sted* ‘Erik lives in a little place’ and on *Erik bor (på) et stort sted* ‘Erik lives in a big place’. Regrettably, the latter did not feature in my survey. This is, however, an obvious issue to pursue in future research.

In any case, (60) (see above) did feature in my survey, and so did (62):

- (62) Da. Erik er flyttet til [Danmark]<sub>1</sub>, så nu bor han [et dejligt sted]<sub>1</sub>  
 Erik is moved to Denmark so now lives he a nice place  
 (MJV = 6.4)

(60) and (62) indicate that non-confined spaces require the absence the preposition, at least when the antecedent is to be picked up in the discourse.

However, some data from *KorpusDK* suggest that non-confined spaces do not always require the preposition to be absent. 4 examples with the plural were found with a preposition and 2 examples without a preposition; the only example with the singular is without a preposition. Some examples are given below:<sup>13</sup>

- (63) Da. **På store steder** - som for eksempel Københavns Universitet - skal man  
 on big places like for example Copenhagen’s University must you  
 dog have en meget god undskyldning [...].  
 PART have a very good excuse [...].  
 ‘In big places like Copenhagen University, you have to have a very good excuse [...].’
- (64) Da. [...] liftkort, som de **store steder** koster omkring 1000 kr. om ugen.  
 ski.passes that the big places costs around 1000 crowns PREP week  
 ‘[...] ski passes which cost around 1000 Crowns for one week in big places.’
- (65) Da. [...] at U2 skal spille et **stort sted** som f.eks. i Parken [...]  
 that U2 MOD place a big place such for.example in Parken  
 ‘[...] that U2 is going to perform in a big place such as Parken [...].’

Since more quantified native speaker judgments on sentences like *Erik bor på et stort sted* ‘Erik lives in a big place’ are needed, I refrain from drawing any firm conclusions on the preference for the presence or absence of the preposition in the case of non-confined spaces (if there is any preference at all). Instead, on the basis of the limited data above, I tentatively conclude that there might be no clear preference for either.

In the previous examples, the space denoted by the nominal was specified as either confined or non-confined. When the space is unspecified for confinedness, initial investigations suggest that the construction without the preposition is somewhat better than the one with:

- (66) Da. Erik bor et dejligt sted. (MJV = 6.9)
- (67) Da. Erik bor **på** et dejligt sted. (MJV = 4.8)  
 ‘Erik lives in a nice place.’
- (68) Da. Erik bor et varmt sted. (MJV = 6.7)
- (69) Da. Erik bor **på** et varmt sted. (MJV = 5.8)  
 ‘Erik lives in a hot place’
- (70) Da. Erik bor } (MJV = 6.7)  
 (71) Da. ... sover } — [DP det rigtige sted] (MJV = 6.8)  
 (72) Da. ... sidder } (MJV = 6.8)

<sup>13</sup> To me, (63) without *på* is degraded, possibly ungrammatical. Perhaps this is due to the fact that the nominal neither contains a determiner nor a quantifier. I have no space to examine this suggestion.

|      |     |      |        |   |                                 |             |
|------|-----|------|--------|---|---------------------------------|-------------|
| (73) | Da. | Erik | bor    | } | <b>på</b> [DP det rigtige sted] | (MJV = 5.8) |
| (74) | Da. | ...  | sover  |   |                                 | (MJV = 5.6) |
| (75) | Da. | ...  | sidder |   |                                 | (MJV = 5.9) |

‘Erik is living/sleeping/sitting in the right place.’

The overall generalizations seem to be:

- I. If the space is confined, the presence of the preposition is preferred, see (56) and (58), although sometimes the preposition can be absent, see (61).
- II. If the space is non-confined, the absence of the preposition is preferred in the survey data, see (60) versus (62), but in the corpus data, it may or may not appear, see (63)-(65). Quantified native speaker judgments on sentences like *Erik bor (på) et stort sted* ‘Erik lives in a big place’ are needed. Nonetheless, on the basis of the reviewed data, I tentatively suggest that there might be no preference for either.
- III. If the space is unspecified for confinedness, the absence of the preposition is preferred (66)-(75).

Focusing on generalization I and on the construction with preposition, the evidence reviewed suggest that *sted* in this case behaves just like other non-BNA nouns: These nouns **must** be licensed by a preposition, and they are more specific in their meanings than head nouns of BNAs, compare for instance the non-BNA noun *by* ‘city’ to the BNA noun *sted* ‘place’ (see also Kobayashi 1999, p. 364-365).

Parallel to non-BNA nouns, *sted* heading a nominal P-complement expresses a specific meaning, namely that of a confined location, and in order for this nominal to get this unambiguous meaning, it has to be introduced by a preposition. This contrasts with the *sted* that is not introduced by a preposition: Its meaning is vague (it can be interpreted as non-confined or unspecified for confinedness) and does not need a preposition. One way of capturing the difference between two constructions is to propose that *sted* introduced by an **obligatory (or a strongly preferred)** preposition is a non-BNA noun, just like the noun *lokation* ‘location’ or *by* ‘city’. In the cases where the preposition can be absent or is preferred to be absent, *sted* is a BNA noun. We might thus speculate that there are two lexical entries for *sted*, a **non-BNA** *sted* and a BNA *sted*.

In a recent paper, Taraldsen (2017) similarly proposes that there are two types of *sted*-elements (or two uses of one *sted*-element) in Norwegian: There is a nominal *STED* which is covert when positioned in PP-spec of locative PPs; when it moves out of this position, it is overt. The other *sted*-element is a locative modifier and does not need a preposition; it simply “mean[s] ‘place’” (Taraldsen 2017, p. 105).

According to Taraldsen, the difference between the construction with a preposition and the one without is that in the former construction, the P-complement denotes a “thing” (as Taraldsen formulates it) located within some space.<sup>14</sup> The preposition establishes a relation between the space denoted by *STED* and the space denoted by the P-complement. If the P-complement is headed by *sted*, it denotes a space within some other space. On the other hand, in the construction **without** a preposition, the nominal just denotes some space.

But Taraldsen does not spell out what the concrete difference in meaning is between on the one hand a space located in some space and on the other hand a pure space. I believe that my examples illustrating confinedness and non-confinedness correlate with Taraldsen’s distinction: On the one hand, an unambiguously confined space more or less corresponds to a space located in some other space. In both cases, a preposition is used. On the other hand, when the nominal expresses a space that is non-confined or unspecified for confinedness, this might correspond to Taraldsen’s concept of some space that is **not** defined with respect to any other space. In this case, Danish and Norwegian differ: In Danish, the preposition may be present or absent (there is possibly no preference); in Norwegian, it must be absent.

#### 4. Summary

In this paper, I have put forward a criticism of Barrie & Yoo’s analysis of BNAs. The criticism has mainly revolved around their assumption that DPs need Case, whereas NPs do not. The empirical evidence shows that there may be other licensing conditions. The empirical evidence also suggest that in Danish, the presence or the absence of the preposition depends on a number of other factors than the DP-NP distinction. One of these factors concerns semantics: The semantic differences between the construction with and without the preposition in Danish seem to correlate with Taraldsen’s recent proposal for Norwegian nominal adjuncts.

<sup>14</sup> My Norwegian informant disagrees with Taraldsen’s judgments and seems to reject all prepositionless constructions. Clearly, more data and native speaker judgments are needed.

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## Sources of Authentic Data

British National Corpus (BNC): <https://corpus.byu.edu/bnc/>  
 KorpusDK: <http://ordnet.dk/korpusdk>  
 Corpus of Contemporary American English (COCA): <https://corpus.byu.edu/coca/>  
 The Guardian: <https://www.theguardian.com/commentisfree/2017/dec/18/plastic-dirty-word-welsh-village-aberporth> (accessed 15th March 2018).

# Cognitive Theoretical Approach to Understand Hindi Sarcasm: A Corpus Based Pilot Study

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**Abstract.** Cognitive linguists have developed a number of influential theories within the interdisciplinary aspects of cognitive linguistics to investigate the relationship between human language and mind. Two distinct but closely related theories of cognitive linguistics are *conceptual metaphor theory* (Lakoff & Johnson, 1980) and *conceptual blending theory* (Turner & Fauconnier, 2002) which seem to play a crucial role in meaning construction especially in metaphors and other figurative linguistic tools. Metaphors are also pervasively used in everyday language (Tay, 2014) in the form of irony, satire, sarcasm etc. Sarcasm seems to stand out from the rest because of its heavily negative intention (Joshi et. al., 2017). The proposed paper is motivated by the theory of conceptual blending which aims to investigate how a novel concept emerges from two input spaces into a single blended space. The present paper studies the process of conceptualization of sarcasm and its functions and implications with special reference to Hindi language with respect to digital corpus (text) within the framework of conceptual blending theory. The methodology for the present research is both quantitative and qualitative where text and context has been observed through functional approach and later observed data has been validated through statistics facts. An annotated data set of the corpus of one thousand sentences has been procured from the TDIL (Technology Development for Indian Languages) for the present study. The present paper is an attempt to bridge the gap between computational studies of sarcasm and the theories underlying the phenomenon of perception of sarcasm. The finding of the present work aims to provide a theoretical understanding of how Hindi sarcasm is perceived among the native speaker.

**Keywords:** cognitive linguistics, conceptual blending, saarcasm, metaphors, figurative language

## 1. Introduction

Cognitive linguistics is one of the fastest growing and influential fields of study on the nature of mind, language and their relationship with socio-physical experience. It is a broadly discussed theoretical and methodological operation rather than a single closely articulated theory. Its major assumptions are that language is not only an independent cognitive faculty but is also an integral part of human cognition and that linguistic understanding of meaning and form is conceptually structured. The viewpoint in cognitive linguistics is that there are commonalities in the ways humans encounter and perceive the world and in the ways they think and use language. Cognitive linguists have developed a number of prominent theories within interdisciplinary framework of cognitive linguistics to investigate the relationship between human language and mind. There are two unlike but intently related theories of cognitive linguistics such as conceptual metaphor theory [CMT] (Lakoff & Johnson, 1980) and conceptual blending theory [CBT] (Turner and Fauconnier, 2002) which seem to play a crucial role in the construction of meaning.

Theory of conceptual metaphor is concerned with the projection of two mental representations or domains: one being the source domain and other being the target domain. Theory of conceptual blending is concerned with integrative mechanism and network that operate over collection of mental spaces in order to construct an emergent structure of meaning. Despite the differences in framework both the approaches treat metaphor as a conceptual rather than a pure linguistics phenomenon. Metaphorical expression is an inevitable part of human life through which people represent their abstract concept with reference to concrete entities to understand easily (Lakoff and Johnson, 1980; Lakoff, 1993). Metaphorical expression is the cream of language which reflects the relative aspects of language and culture of a particular speech community. Metaphoricity is the specific feature of human language where any form of language cannot exist without metaphorical traits (Goalty, 1997).

According to conventionality argument of conceptual metaphor theory, metaphors are not only limited to being used in figurative writing and speaking but they are also pervasively and routinely used in everyday language (Tay, 2014). Irony, satire, sarcasm, jokes and other such metaphorical expression rampantly occur in our everyday speech. Sarcasm seems to stand out from the rest because of its heavily negative intention. This point has been taken up in (Joshi et.al., 2017) where sarcasm is referred to as

ironic and “being bitter” all the time. From the point of conventionality approach of conceptual metaphor theory sarcasm is a form of figurative language and an integral part of human discourse where literal meaning of words are in direct opposition to the intended meaning (Grice et al., 1975).

Under the developmental approach, sarcasm is described as a culturally salient phenomenon that offers a clear cut case of discrepancy between content and literal meaning (Prokofiev, 2017). Sarcasm uses wit, ridicule and mockery. It is a form of an expression which is identified by the literary scholar as skill of using incongruity to indicate distinction between reality and expectation. Sarcasm is not to be confused with irony which pertains to situation while irony may be a tool of sarcasm. Sarcastic language is defined as ‘irony that is specifically bitter and caustic’ (Gibbs, 1994). The discrepancies between irony and sarcasm are reported to include the disparity of the literal meaning of the utterance (positive vs. negative). In this respect, to understand sarcasm it would be crucial to understand the information that violates the truthfulness (Gibbs & O’Brien, 1991). In the light of the differential description between sarcasm and irony when one comes to the conceptualization of sarcasm and its function, there are a number of paradigms that are generally constructed in order to provide the conceptual framework to understand the mental representation of the metaphorical expression in the process of meaning construction. Therefore, the present paper investigates the abstract notion of sarcasm through the cognitive approach of conceptual blending with special reference to Hindi.

## 2. Theoretical Framework

Basically any metaphorical expression is observed through Lakoff’s leading theory of conceptual metaphor where metaphorical statements are largely perceived through one-to-one mapping but not all such statements can be perceived through the conceptual metaphor theory alone as the meanings do have extensions beyond what appears on the surface level. Therefore, for the extended meaning we should focus on the conceptual framework of integration or blending theory which determines a specific operation in human cognition in the form of novelty construction. In conceptual blending theory, knowledge structure or mental spaces are selectively projected into blending space in which projected conceptual elements are assimilated to create a novel concept with respect to content based emergent structure. Constructing the new meaning through the integration of existing concepts which provides a wide range of conceptual concepts of metaphorical expression from two input spaces into a new mental extent called “blended space”. This is the creativity of cognitive enterprise that frequently display an emergent structure of conceptual relations that are unavailable in input spaces (Fauconnier & Turner, 2008). This approach is an effective mental process of composition, completion and elaboration of blend. At the cognitive stage the conceptually integrated emergent structure comprises neurologically-based semantic meanings, with generative grammar which relates them. In theory of conceptual blending meaning is always an effective mental process, not a word, sentence, or objects themselves.

The instance as mentioned in following figure has been taken from Fauconnier and Turner’s “basic diagram” to represent the cognitive operation of conceptual blending (Fauconnier & Turner, 1998). The diagram gives a visual illustration of cognitive process and how they construct a novel concept that emerges from the blending of two input spaces into a single blended space. The dots indicate separate conceptual structure and circles represent input spaces. Preferably, a mental space is also known as cognitive domain. The border line of these mental spaces where conceptual structures connect with one another within them are intended to recount the notion that meanings are conceptually bounded in frameworks which determine the logical spaces and semantic interactions among concepts. Both the lines (dash and solid) represent conceptual structures that extend across input spaces and their conceptual frameworks. Abstracted from the input domains on the left and the right is a generic sense space containing the structural elements apparently shared by both cognitive domains. The generic similarities enable the cross space mapping of meanings that can be a single aspect of wider concept. They represent similar association between concepts, or a family congruence to human activity in a common form. Whatever the resemblance, the differences among the concepts, conceptual frameworks, and semantic relation within each input spaces generate a newly structured meaning in the blended space, which emerges in the process of conceptual integration.

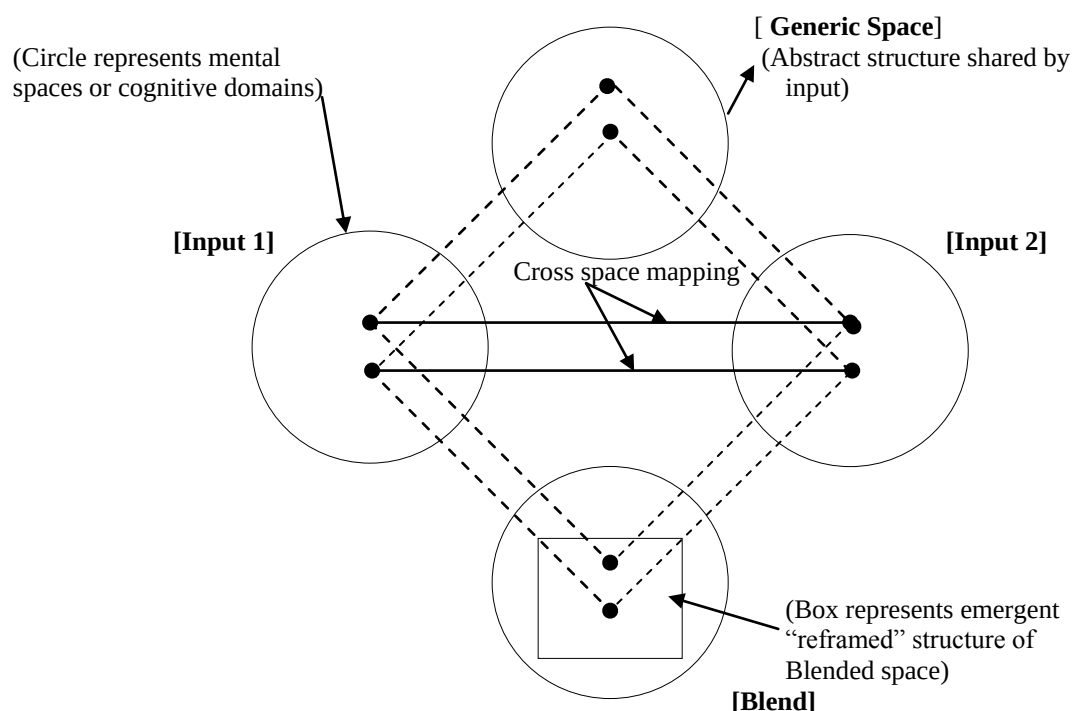


**Fig. 1:** Conceptual Integration 'Basic Diagram' [Fauconnier & Turner, 1998]

### 3. Sarcasm as a Linguistic Element

A landmark article on psycholinguistics of sarcasm (Gibbs, 1994) began with the definition of irony from the Oxford English dictionary as "the use of words to express something other than and especially the opposite of literal meaning." Both irony and sarcasm serve multiple purposes in spoken language and especially in discourse. Speakers and writers have been found to use sarcasm to convey humor and censure and to indicate social norms violations (Brown and Levinson, 1978; Kreuz and Glucksberg, 1989; Shamay et al., 2005). Sarcasm often employs contradiction between literal and intended meaning. Sarcasm is a form of figurative language and an integral part of human discourse where literal meanings of words are in direct opposition to the intended meaning (Grice et al., 1975). Under the developmental approach, sarcasm is described as a culturally salient phenomenon that offers a clear-cut case of discrepancy between content and literal meaning (Prokofiev, 2017). Sarcasm uses wit, ridicule, and mockery. It is a form of metaphorical expression which is identified by the literary scholar as a skill of using incongruity to suggest distinction between reality and expectation. Sarcasm is not to be confused with irony which pertains to situation while irony may be a tool of sarcasm. Sarcastic language is defined as 'irony that is especially bitter and caustic' (Gibbs, 1994). There are two types of irony: verbal and situational. Verbal irony expressed in words in terms of overstatement or understatement while situational irony arises from situation. The discrepancy between irony and sarcasm are reported to include the disparity of the literal meaning of the utterance (positive vs negative). Sarcasm appears as a universal feature of human language. Different speech communities use different visual, prosodic, lexical, and contextual cues to convey sarcastic messages in distinct ways and with different emotions, attitudes, and intentions. Moreover, the function of sarcasm varies across speech communities; consequently, identifying and appropriately interpreting sarcastic utterances in a particular language different from others. Doing so entails both the ability to read an array of potential cues that mark an utterance as sarcastic as well as the capacity to correctly interpret a speaker's motivation for using sarcasm (i.e. ridicule or insult).

Sarcasm is ubiquitous in Hindi language and speakers of Hindi language use various verbal and nonverbal strategies to express sarcasm in oral communication including prosodic cues as vowel lengthening, nasalization, increased articulation rate or even slurred speech. Nonverbal behaviors are also used to signal sarcasm such as raised eyebrows, eye-rolling, and tilted head. The saliency of sarcastic indicators depends on how explicitly a speaker wishes to mark sarcastic utterances, as a speaker may intentionally restrict the number of cues offered in order to obfuscate subversive motives and preserve

deniability. Moreover, contextual cues, including biographical information, physical setting, and even the history of the relationship between interlocutors can figure into sarcasm use (Ramos, 2000).

### 3.1 Characteristics of sarcasm

Sarcasm prevails through various dimensions such as failed prediction, insincerity of pragmatic context, negative intention etc. (Campbell and Katz, 2012). According to Eisterhold et.al., (2006) sarcasm can be comprehended through the response it elicits. It is recognized that the responses to sarcasm can be laughter, no response or the reply of literal aspect into non literal feedback. Sarcasm emerges because of situational discrepancy between textual and contextual information.

### 3.2 Kinds of sarcasm

According to Elisabeth Camp (2012), there are four kinds of sarcasm:

- (I) **Propositional sarcasm:** Propositional sarcasm refers to the statements that appear in a concept including an implied sentiment. In this case if context is not clear then sentence may be evident as non-sarcastic.
- (II) **Embedded sarcasm:** Sarcasm appears with an incongruity in the form of words and phrases themselves.
- (III) **Like-Prefixed sarcasm:** A like phrase provides an implicit denial of the argument being made.
- (IV) **Illocutionary sarcasm:** It refers to the involvement of a non-textual cues to indicate an attitude opposite to a sincere utterance.

### 3.3 Sarcasm as dropped negation

Sarcasm is a form of negation in which an explicit negation marker is absent, means when an individual uses sarcastic expression, a negation is intentional, without negation word like 'not'. It refers to the possibility that many sarcastic sentences could be converted into non-sarcastic sentence with the help of an appropriate negation (Giora, 1995).

### 3.4 Understanding sarcasm

Gibbs and O'Brien (1991), describe that the violation of truthfulness maxim is the key to understand sarcasm. The intended sarcasm cannot be understood until the listener observes the literal meaning of text that violates truthfulness. Grice (1975) formulates the maxim of conversation which express a general cooperative principle in four distinct maxims. The four maxims constituting the cooperative principle are described as bellow:

- I. **Maxim of Quality:** Try to make the contribution as one that is true,
  - Do not say what you believe to be false.
  - Do not say that for what you lack adequate evidence.
- II. **Maxim of Quantity:** Provide the right amount of the information,
  - Make your contribution as informative as required.
  - Do not make your contribution more informative than is required.
- III. **Maxim of Relation:** Be relevant.

#### IV. Maxim of Manner: Be Perspicuous.

- Avoid obscurity of expression
- Avoid ambiguity
- Be brief
- Be orderly

Later Grice (1975) points out the exploitation of maxim which is observed by means of figure of speech as irony, metaphor, hyperbole etc. Clark and Haviland (1977) claim that the deliberate violation is perceived by the hearer while interpreting what the speaker intended to say. Thus, sarcasm comprises of the use of irony and the presence of ridicule. On the basis of theories described here, conceptualization of sarcasm can be divided into (i) identification of shared knowledge, and (ii) identification of what constitute ridicule.

#### 4. Method of Analysis

On the basis of theoretical description provided in the sections above the methodology section outlines the research process from planning to presentation through qualitative and quantitative approach. The data collection is chiefly based on secondary sources where annotated digital corpus (text) has been procured from ongoing and completed projects of government of India in linguistics for technology development in indian languages. For the pilot study of this research one thousand sentences have been extracted from the large chunk of corpus to observe the sarcastic expression and its average rate of occurrence through conceptual integration or blending theory. The data has been procured from Indian Language Technology Proliferation and Deployment Centre. The data belongs to the domain of politics as already distinctly segregated in the corpus. To filter sarcastic language one thousand sentences have been read manually by a native speaker of Hindi. The filtered data set has been analyzed qualitatively within framework of conceptual integration to recognize sarcastic expression. For the understanding of context of the text data set has been analyzed through Grice's maxim of conversation that examines the nature of congruency and incongruency. The observed sarcastic data set has been analyzed quantitatively through statistical tools.

#### 5. Result and Discussion

The mapping domain of conceptual metaphor theory fails to points out the metaphorical interpretation because of its incongruent nature of metaphors. It shows as to how blending theory projects an emergent structure of meaning from two input spaces into a blended space. On the basis of the theoretical description provided above the following results.

1.    chhata        na        hua    Chhatrapati    ka        chhata        ho gaya  
     umbrella    -NEG    be    Chhatrapati    POST.P    umbrella    be MASC. PST PVF

‘As if this is not an ordinary umbrella but the umbrella of Chhatrapati Shivaji.’

**Context:** The expression is perceived as sarcasm because an ordinary object is attributed an extraordinary/unique status.

| Input 1                 | Input 2                  | Generic space | Blend                      |
|-------------------------|--------------------------|---------------|----------------------------|
| Chhatrapati ka chhata   | Chhata                   |               |                            |
| Historical identity     | Non- historical identity | An object     | Historical -Non historical |
| Superior                | Public approach/General  | Concept       | Kingship - Public          |
| Royal use/Extraordinary | Ordinary use             | Purpose       | Royal - Ordinary           |
| Symbol of prestige      | Symbol of need           | Symbol        | Prestige - Need            |

**Sarcastic Blend:** Ordinary things cannot be a royal icon.

2.    aira-gaira    na        kale    angrejon    ka        sartaaj    aa raha tha  
     stranger    -NEG    black    englishmen    POST.P    sartaaj    come MASC. PST. PROG

‘The one who is coming is not a nobody but the king of black Englishmen.’

**Context:** This is perceived as sarcasm in a situation when a brown skinned person behaves like a ruler amongst his/her own people.

| Input 1                  | Input 2                  | Generic space | Blend                          |
|--------------------------|--------------------------|---------------|--------------------------------|
| Aira-Gaira               | Kale angrejon ka sartaaj |               |                                |
| Undistinguished identity | Distinguished identity   | Agent         | Undistinguished- Distinguished |
| Irrelevant attitude      | Relevant attitude        | Position      | Irrelevant- Relevant           |
| Inglorious position      | Glorious position        | Knowledge     | Inglorious- Glorious           |
| Intellectual instability | Intellectual stability   | Behavior      | Instability- Stability         |

**Sarcastic Blend:** One who behave like a Britisher. (Britain had colonized India for around 200 years)

3. protocol me adami nahi rahta kenchua ban jata hai  
 protocol POST.P man -NEG live earthworm become. MASC.PRS

‘A human behaves more like an earthworm when following protocols.’

**Context:** A sarcasm on the government system when sticking to protocols reduces work efficiency.

| Input 1  | Input 2                  | Generic space | Blend                   |
|----------|--------------------------|---------------|-------------------------|
| Adami    | Kenchua                  |               |                         |
| + Human  | - Human                  | Agent         | + Human- -Human         |
| Mobility | Slow mobility (creeping) | Movement      | Mobility- Slow mobility |

**Sarcastic Blend:** Protocols reduces work efficiency of a man.

4. lalu ji to media ke darling hai  
 Lalu HON CONJ media POST.P darling be PRS.

‘Lalu Ji is loved by the media.’

**Context:** Despite so many events of national importance, the media has maximum coverage of Lalu Yadav.

| Input 1               | Input 2              | Generic space | Blend                   |
|-----------------------|----------------------|---------------|-------------------------|
| Lalu                  | Darling              |               |                         |
| Public figure         | Personal image       | Agent         | Public- Personal        |
| Political power       | Non-political power  | Power         | Political-Non political |
| Social representative | Individual supporter | Favor         | Social-Individual       |

**Sarcastic Blend:** Getting publicity without reason.

5. rahul gandhi ko yuva neta ghoshit karne matra  
 Rahul Gandhi POST.P youth leader announce do only  
 se kya yuva kangres ko wot denge  
 POST.P what youth congress POST.P vote give MASC. FUT

‘Will youth vote for Congress only by announcing Rahul Gandhi as a youth leader.’

**Context:** For vote bank of youth, Congress Party announced Rahul Gandhi as a youth leader who has crossed the age of youth.

| Input 1        | Input 2           | Generic space     | Blend                |
|----------------|-------------------|-------------------|----------------------|
| Rahul Gandhi   | Yuva              |                   |                      |
| By age 47 yrs. | By Age 15-29 yrs. | Biological aspect | Age: 47 – 15-29 yrs. |

**Sarcastic Blend:** To be called youth one must possess quality like them

6. bhajpa ne Narendra Modi ko sankatmochan bana ke bheja hai  
 bhajpa NOM narendra modi ACC trouble redeemer make POST.P send MASC.PRS

‘Narendra Modi is sent as trouble redeemer by Bhajpa.’

**Context:** This is expressed sarcastically because bhajpa represents Narendra Modi as the Lord Hanuman who solves the problems of people as per Hindu Mythology.

| Input 1                | Input 2            | Generic space | Blend                       |
|------------------------|--------------------|---------------|-----------------------------|
| Narendra Modi          | Sankat Mochan      |               |                             |
| Charismatic leader     | Charismatic lord   | Ability       | Leader - Lord               |
| Reformation of country | Savior of universe | Conscientious | Reformation - Savior        |
| Circumscribed          | Omnipresent        | Presence      | Circumscribed - Omnipresent |
| Positional act         | Ubiquitously act   | Power         | Positional- Ubiquitously    |

**Sarcastic Blend:** The problems for the party are too huge for Narendra Modi to tackle.

7. tejashwi jaise neta baisakhi ke sahare Rajniti me aate hai  
 tejashwi ADV leader crutches POST.P support politics POST.P come MASC.PRS

‘Leaders like Tejashwi come into politics through crutches.’

**Context:** With background support Tejashwi came into politics as crutches helps miserable to move.

| Input 1              | Input 2              | Generic space | Blend                            |
|----------------------|----------------------|---------------|----------------------------------|
| Tejashwi             | Baisakhi             |               |                                  |
| By support           | For support          | Sustain       | Support: By- for                 |
| Public strength      | Strength of helpless | Power         | Strength: Public- Helpless       |
| Political upliftment | Miserable upliftment | Goal          | Upliftment: Political- Miserable |
| Legacy Support       | Moral support        | Need          |                                  |

**Sarcastic Blend:** One who rises in politics through support.

8. Tejashwi pahle padhai kare fir mange hisaab.  
 tejaswi before study do CONJ ask numeration

‘Let Tejashwi study first then ask for justification.’

**Context:** Tejashwi talks without knowing the context.

| Input 1               | Input 2               | Generic space | Blend                          |
|-----------------------|-----------------------|---------------|--------------------------------|
| Tejashwi              | Hisab                 |               |                                |
| Surface understanding | Deeper understanding  | Comprehension | Understanding: Surface-Deeper  |
| Political discourse   | Educational discourse | Communication | Educational- Political         |
| Discrete knowledge    | Integrate knowledge   | Intelligence  | Knowledge: Discrete- Integrate |

**Sarcastic Blend:** Without education intellectual skills cannot be improved.

9. Daru bina dosti nahi tikti.  
 liquor without friendship -NEG sustain FEM.PRS.IMP

‘Without liquor friendship does not sustain.’

**Context:** Liquor is important in friendship so that it can be sustained longer.

| Input 1<br>Daru     | Input 2<br>Dosti   | Generic space | Blend                 |
|---------------------|--------------------|---------------|-----------------------|
| Loss of reasoning   | Help in decision   | Catalyst      | Loss - Help           |
| Unhealthy habit     | Healthy Behavior   | Effect        | Healthy - Unhealthy   |
| Short term pleasure | Timeless companion | Bond          | Short term - Timeless |
| Loss of confidence  | Boost confidence   | Action        | Loss - Boost          |

**Sarcastic Blend:** For friendship to continue one needs to offer liquor to friends.

10. Hum sab to Hindustan me fail hue, lekin tumne to London  
 We PL ADV Hindustan POST.P fail be.MASC.PST CONJ you ADV landan  
 me fail ho-kar dikha diya.  
 POST.P fail be-CP see give MASC.PST

‘We failed in Hindustan but you showed up being failed in London’

**Context:** It is perceived as sarcasm when someone compares himself failing in native land due to lack of facility to others who study abroad and could not pass despite having all the facilities.

| Input 1<br>Hindustan      | Input 2<br>London        | Generic space | Blend                       |
|---------------------------|--------------------------|---------------|-----------------------------|
| Less infrastructure       | Great infrastructure     | Facility      | Infrastructure: Less- Great |
| Non practical implication | Practical implication    | Uses          | Non practical- Practical    |
| Trend based admission     | Interest based admission | Selection     | Trend based- Interest based |
| Believe in grade          | Believe in skill         | Understanding | Believe: Grade-Skill        |

**Sarcastic Blend:** In spite of all the facilities he could not pass.

11. Dimag me kitabe bharne se jebe nahi bharti hai.  
 Brain POST.P book Fill INST pocket.PL -NEG fill FEM.PRS

‘Just reading the books does not make one rich.’

**Context:** Only reading is not enough to earn money. One also needs to perform.

| Input 1<br>Dimag me kitabe bharnaa | Input 2<br>Jebe bharnaa | Generic space | Blend                            |
|------------------------------------|-------------------------|---------------|----------------------------------|
| Research skill                     | Earning skill           | Ability       | Skill: Research-Earning          |
| Intellectual approach              | Realistic approach      | Perception    | Approach: Intellectual-Realistic |
| Use knowledge                      | Capitalize passion      | Decision      | Use Knowledge-Capitalize passion |
| Creative thinking                  | Business mind           | Comprehension | Creative thinking- Business mind |

**Sarcastic Blend:** To make money, work has to done.

12. Ab yogi bhi bhogi ki tarah bina khaye nahi rah sakte.  
 now saint ADV bhogi like without eat MASC.PST . -NEG live can.

‘Now ascetics too used to eat like common men to survive.’

**Context:** The line of distinction between an ascetic and a common man has blurred with regards to way of life.

| Input 1<br>Yogi | Input 2<br>Bhogi   | Generic space | Blend                      |
|-----------------|--------------------|---------------|----------------------------|
| Devine love     | Worldly love       | Feeling       | Devine-Worldly             |
| Undesirable     | Desirable          | Need          | Undesirable-Desirable      |
| Inner happiness | Physical happiness | Satisfaction  | Happiness: Inner- Physical |
| With equanimity | Without equanimity | Balance       | Equanimity: With-Without   |

**Sarcastic Blend:** Now a day’s Yogi Became Bhogi.

With respect to the results above it is attempted to illustrate the mechanism of analysis through qualitative approach. Analysis was conducted on the basis of annotated digital corpus where one thousand sentences have been read to extract the sarcasm oriented utterances from the large chunk of annotated data set. It was investigated through the functional analysis of conversational maxim that the data set which was extracted violated the principle of conversation. Native speaker's competence yielded the context. After observation of the context the extracted data was analyzed with the framework of conceptual blending or integration to formulate the emergence structure of sarcastic blend to keep an extended meaning from the projection of elements of two input spaces. As explained earlier the domain mapping of conceptual metaphor seemed to lack in explaining all metaphorical expressions as it focuses only on one-to-one mapping of source and target domain. Therefore, to get further meaning of metaphorical expression it was important to go through conceptual blending or integration theory to achieve an integrated mechanism to observe the novel construction. In the results above in the sarcastic sentences have been analyzed through conceptual blending to observe the integrating process of a novel concept. The input spaces contain one or more conceptual elements of a particular metaphor which represents its attached construal aspects. Both input spaces developed across space mapping relation between themselves for the correct perception of their conceptual constituent. These conceptual packets have been observed with reference to generic sense that have a general or abstract structure which seemingly shared by both input spaces to express a common sense for different conceptual constituent. Despite a general nature of abstract structure in both input domains they also have some disparity in their conceptual element. Input spaces project into blended space that represent an emergent structure of novel concept as described in the paragraph below.

As in 10 the two input spaces *Daru* (liquor) and *Dosti* (friendship) have different conceptual elements. The conceptual elements have an abstract generic sense like *catalyst*, *effect*, *bond* and *action*. The cross space mapping between input 1 (loss of reasoning, unhealthy habit, short term pleasure and loss of confidence) and input 2 (helps in decision, healthy behavior, timeless companion and boost confidence) project their conceptual elements into the blended space that created an emergent structure of conceptual meaning in blended space as per the figure below.

#### Generic Sense

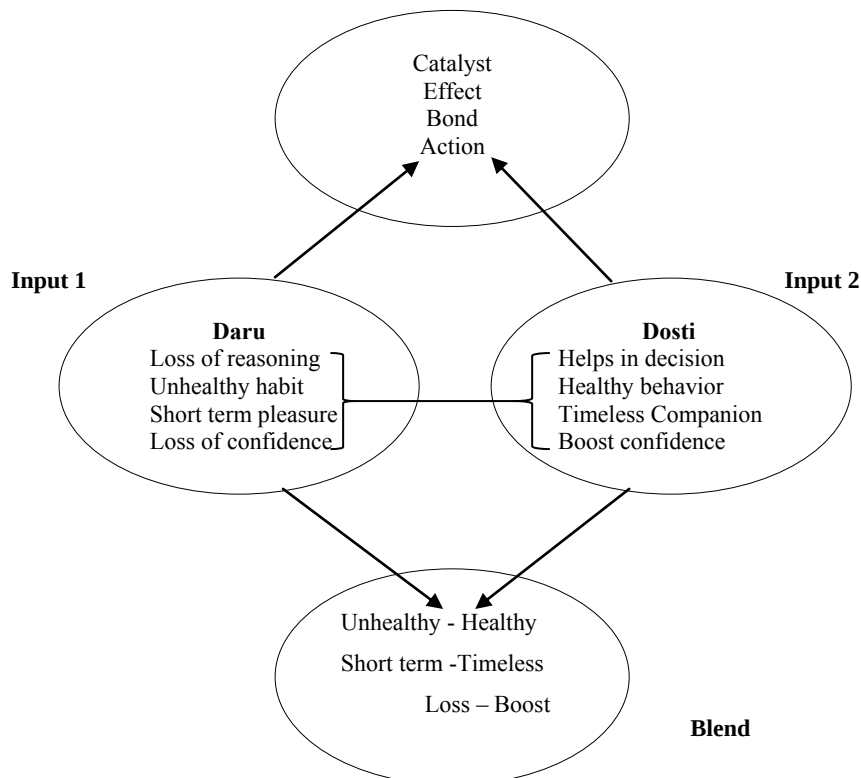


**Fig. 2.** Conceptual Integration: Basic Diagram of sentence (10)

The set of corpus has been analyzed quantitatively where only 15 sarcastic sentences have been filtered out from 1,000 sentences that is only 1.5% of the whole data set as represented bellow.

**Table 1. The statistical facts of the Corpus**

| Data Source | Number of total sentences | Number of total Sarcastic Sentences |
|-------------|---------------------------|-------------------------------------|
| TDIL        | 1000                      | 15                                  |

Three sentences out of 15 could be easily analyzed through CMT. The remaining 12 sentences have been explained through conceptual blending or integration theory. There are 12 sentences recognized by meaning such as affirmative, negative, interrogative and imperative in sarcastic extracted data as described in the following table.

**Table 2. The number of sentence by meaning**

| Sr. No | Sentences by meaning   | Number of sentence |
|--------|------------------------|--------------------|
| 1.     | Affirmative Sentence   | 4                  |
| 2.     | Negative Sentence      | 6                  |
| 3.     | Interrogative Sentence | 1                  |
| 4.     | Imperative Sentence    | 1                  |

With respect to above statistics evidence it is observed that the negative sentences occur not only in the intension of an individual but also reflect literally in sarcastic expressions as a cue. The indicatory cues also help to develop the understanding of sarcastic expression. The other observed sentences in terms of meaning are affirmative, interrogative and imperative that can be an instrument of verbal expression to mock someone.

Sarcasm is an obscure phenomenon. It has several function and uses which is different from other communicative acts. The functional approach of this research enabled to observe the intension of the sarcastic utterance. Sarcasm can be used in speech behavior by human being usually extract the intense emotions. Based on the above results it is observed that sarcasm can be used in positive and negative sense both. The positive use of sarcastic utterance is attached with humorous intent that helps an individual to make a critical comment without rude appearance. Sentence (1), (10) and (4) are positively functioned as mentioned in the table below.

**Table 3. Positively Functioned Sarcastic Sentences**

| Minor Irritating Behavior | Moderate Comment | Spark Interest |
|---------------------------|------------------|----------------|
| Sentence (1)              | Sentence (10)    | Sentence (4)   |

Sarcasm that negatively functioned is realizes in various ways such as ridicule, indirect rebuke, and minor irritation etc. through an individual makes a critical remark. In this respect sentence number (2), (3), (5), (6), (7), (8), (9), (11) and (12) are negatively functioned as illustrated in the table below.

**Table 4. Negatively Functioned Sarcastic Sentences**

| Ridicule                      | Indirect Reprimand | React to Minor Irritation |
|-------------------------------|--------------------|---------------------------|
| Sentence (7), (9), (11), (12) | Sentence (8)       | Sentence (2), (3), (5)    |

In summary, sarcasm has several functions which rampantly occurs in the discourse of human being. The above description suggests that the function of sarcasm mostly negative structured while positive function occurs only to some extent in every day speech.

## 6. Conclusion

Cognitive linguistics is an upcoming area in linguistics with a lot of scope for research. Mental processes have always intrigued mankind. Despite so many researches that have already been done, this area still has a wide gap which needs to be carefully and systematically examined and explained. The field of cognitive linguistics has generated a powerful set of theoretical tool for analyzing the way in which we understand, communicate and create concepts of metaphors. The development of the conceptual theory has brought the ubiquity of metaphorical expression in everyday speech. The conceptualization of metaphor is grounded in wide range of bodily, social and cultural experiences and create an integral aspects of cognitive faculty and play a creative role in meaning construction of knowledge and understanding reality. Metaphorical language is an indispensable aspect of human life through which people use figurative language to represent abstract concepts with reference to concrete entities to understand easily. In this respect, sarcasm is a form of figurative language and integral part of human discourse where literal meaning of words are in direct opposition to the intended meaning which is pervasively used in everyday language to ridicule someone. Hindi sarcastic statements are heavily dependent on the contextual knowledge of the hearer to be effective. Conceptualization of sarcasm in Hindi cannot just be explained by CMT (through a large number of sarcasms can be analyzed through this framework). Major sarcasms or to say more demanding ones are those that can only be analyzed through blending/integration. Therefore, it can be concluded that not all metaphorical expressions be understood through the help of conceptual metaphor theory or one-to-mapping relationship only. To get extended meaning we need to look at the conceptual integration or blending approach of conceptualization. This paper tried to investigate the conceptualization of sarcastic expressions in Hindi language within the framework of conceptual blending. Conceptual blending integrates the conceptual elements into blended space with help of generic sense and gives an emergent structure of meaning to observe its functions and uses.

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# Backward Anaphors

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**Abstract:** This paper specifies anaphors (especially ‘*Backward anaphors*’) in Punjabi on the one hand and in addition presents its resolution on the other hand. By and large, anaphors are local as well as long distance carrying dependent referential (primarily lexical and non-lexical categories). By this nature, its interpretation though begins from syntax however then link up gradually with semantics and pragmatics also. For this purpose, I have used 1,000 sentences from the ILCI project<sup>1</sup> and locate number of backward anaphors (that are lexically pronominal, i.e. (‘*ਉਹੀ*’ ‘he’; ‘*ਉਸੀ*’ ‘she’; ‘*ਤੁਸੀ*’ ‘You’)). In the sentential domain, backward anaphors occupy subject position on the matrix side and take their referents from right side, i.e.

- (1) ó      a:pne              neɽe              səp              nō  
He   RELF              near              snake              DAT  
    ḍ ek<sup>h</sup>   ke              ḍər              geja  
    see   CONJ              scar              go-PST  
ra:m              ne              keha  
Ram              ERG              said-3.SG.M  
‘He scared to see a snake near himself. Ram said.’

In this instance (1) ‘ó’; ‘he’ is co-referred with ‘*ra:m*’; ‘Ram’.

In conversation between two or more persons; anaphors are not realized such as problem or issue among them but at the linguistic level, it is analyzed as issue for natural language, particularly when language data is used computationally purpose. Like any other natural language, in Punjabi, this issue is worked out under java-based algorithmic framework.

**Keywords:** backward anaphors, pronominal, co-reference

## 1. Introduction

For In general, anaphors are considered (*members of the overt and non-overt typology of Chomsky, 1981*). In other words, reflexives and reciprocals and pronominal are lexical categorized while empty categories (*pro as zero anaphors*) are non-lexical. Anaphoric relations between two lexical categories operate under co-reference domain of precede-command or c-command since rules. However pronominalization has wider scope (particular backward pronominalization in contrast of forward) that handles by following subject-object asymmetry suggested by Lakoff (1968) in co-reference domain. In this context, we can see some examples that discussed in Reinhart (1987: 34).

(2a) Near **him**, **Dan** saw a snake

(b) In **her** bed, **Zelda** Spent her sweetest hours.

In these two examples (2a-b), though pronouns occur before than their definite NPs but co-reference is possible between them because pronouns (him and her) both are under PPs domain then they are not c-command definite NPs here. Under precede-command rule, there is no such explanation about it.

In the above examples, backward anaphors (*him, her*) is grammatically or syntactically permitted here but in other cases, similar occurrences of backward anaphors become subject matter to pragmatics rather than syntax according to follow context dependency in the discourse. For example,

(3a) The chairman hit **him** on the head before the **lecturer** had a chance to say anything.

(c) Rosa won’t like **him** any more, with **Ben**’s mother hanging around all the time.

---

<sup>1</sup> See Jha, G.N. (2010)

Wasow (1967) also deals the problem of backward anaphors and suggests ‘*deeply embedded relation*’ between referent and referred in the sentence. For him, (If *A* is part of PPs, *B* is not and *B* c-commands *A*, then *A* is more deeply embedded than *B*). For example,

(4) Near **him**, **Dan** saw a snake.

Unfortunately his principle does not work for (3a-c) examples because here pronoun (*him*) is less embedded than its antecedent.

Thus the co-reference domain of the backward anaphors is not purely limited to syntax or semantics only but at the discourse level, such examples mainly interpreted with pragmatics. Reinhart (1987: 55) clearly focused on this aspect with below example here.

(5) **She** has the whole city at her disposal and **Rosa** just sits at home.

In this example (5) co-reference is possible because first conjunct is pragmatically sub-ordinated than the second one.

## 2. Surrounding Issues

At the linguistic level, anaphors (overt and non-overt) interpreted differently in different languages even though Chomsky’s ‘three types of co-indexing domain system’<sup>2</sup> is useful for presenting universal anaphoric interpretation among languages. At the grammatical level, in Punjabi lexical anaphors (reflexives and reciprocals) follow principle A and also identified as Pro-drop parameter language. The issue of ‘ambiguity’ (referential independent/dependent) arises in case of pronouns because sometimes they interpreted according to principle (b) or sometimes does not. For example,

(6) *kolvir ne a:pñi kṛṭa:b*  
Kulvir ERG REFL book  
*pṛṭi*  
read-PST.3.SG.M  
‘Kulvir read his book’.

(7) *hərbās ne keha ke rəməṇ*  
Harbans ERG say COMP Raman  
*nū ṡḍa pṛṭa nəhi*  
DAT his/her know NEG  
Ke ṡ kīna bema:n hai  
COMP he much dishonest is-PRS.3.SG.M/F  
‘Harbans<sub>1</sub> says that Raman does not know that how much he<sub>1/2</sub> dishonest is’.

In these examples (6-7), REFL (*‘a:pñi:’*; ‘his/her’) by following above principle (A) is bound with its antecedent definite NP (*‘kolvir’*; ‘Kulvir’) whereas in (7) *‘ṡḍa’*; ‘his/her’ third person pronoun is ambiguous in terms of knowing about whether is it co-refer with *‘hərbās’*; ‘Harbans’ or not?

These anaphoric expressions have ambiguous nature but even might be counted for as general property of natural language. At the computational level, such expressions considered as a challenging task of natural language processing.

## 3. Data Information

Around 2,000 sentences (simple or complex/compound) have been selected in ILCI Punjabi Corpora under health and tourism domain. In the first search, we got only 11 examples while second time; the strength was left only with 3 examples. Below, we figure out this information as,

<sup>2</sup> See Reinhart, T. (1987) p.29

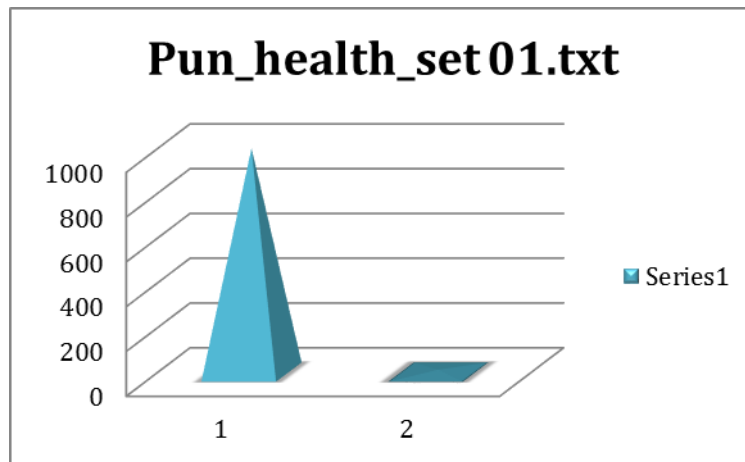


**Fig. 1**

No. 1 shows: Total no. of sentences (1,000)  
 No. 2 shows: Total no. of backward anaphors (11)

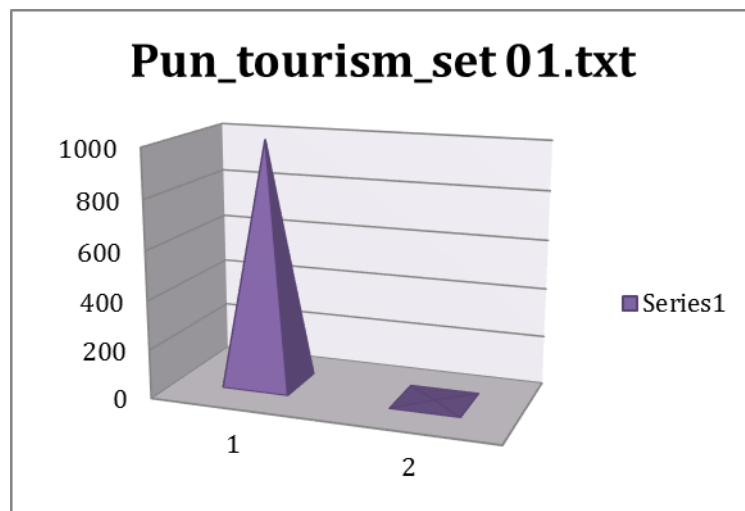


**Fig. 2**

No. 1 shows: Total no. of sentences (1,000)  
 No. 2 shows: Total no. of backward anaphors (03)

It is an important to notice here that both sets of (2,000 sentences) tagged with part-of-speech and chunked information.

#### 4. Resolve Guidelines

To map anaphors with referent categories is a complex task. At textual or written level, there is a need all sort of grammar knowledge that can execute for machine learning purposes. By speculation of resolution proposal here, we may arrange POS tagged knowledge into some algorithm steps, which is not yet implemented at computational level in particularly Punjabi.

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- Tokenize the sentence (S) of the input data
- Find those (S) where PRF tags occur
- Fulfill below two conditions

- ✚ First sequentially and separately check NN, PSP, JJ, RB, RPD, QTC, VM, and V AUX categories, either in single or double forms or after which nominal or pronominal category comes first, selected as antecedent.
- ✚ Checking procedure would be like that,
  - Check NN, PSP and VM and select last one as antecedent
  - Check secondly JJ category but before start, finish the previous cycle again and select last one as antecedent
  - Check RB category with again following both cycles then last one select as antecedent
  - Check similarly RPD and QTC categories and last one select as antecedent

## 5. Discussion and Outcome

As we mainly discussed that total 14 backward anaphors found out of 2,000 sentences in ILCI Punjabi corpus. Without implementation of algorithm proposal, we resist ourselves for showing results here. It is only a kind of proposal, which may suit to the nature of these text sets. In other words, we may say that search of backward anaphors and further resolution proposals both have been done manually for computational purposes, which has not been included here.

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# Observing Oral Input for Second Language Development: A Case Study of English Pronunciation in Hong Kong Kindergarten Education

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**Abstract.** Oral input has been identified as a key factor in children's second language development. In the context of kindergarten education, oral input comes mainly from teachers in the classroom setting. For the investigation of oral input in classrooms, a structured observation scheme is needed for systematic data collection. This paper presents the development of an observation scheme for pronunciation input. The scheme is based on the Input Quality Observation Scheme by Weitz, Pahl, Mattsson, Buyl and Kalbe (2010), which was developed to record the input quality of teachers. It was adapted to observe specifically the pronunciation input in classrooms, including the factors related to the characteristics of a teacher's pronunciation input (e.g. intonation and verbal reinforcement), and the promotion of listening comprehension. It also records children's output, such as the amount of words used in a second language and the output characteristics (e.g. intonation and use of new words for interaction).

The observation scheme was piloted in a Hong Kong kindergarten for examining the English pronunciation of teachers and children in the classroom. Two lesson observations were conducted in a K2 class with eight children and a K3 class with 19 children, both of which were taught by local Chinese teachers. The lessons were conducted fully in English with rich oral input given. Despite the teachers having near-native English proficiency, there were features of pronunciation commonly found in Hong Kong English in the teachers' pronunciation; and similar pronunciation features also occurred in the children's output, suggesting that they were influenced by the teachers' input. Based on the results, further developments of the observation scheme are discussed.

**Keywords:** Oral input observation scheme, second language development, English pronunciation, Hong Kong, kindergarten education

## 1. Introduction

In second language development, oral input — the spoken language input to learners — has long been identified as a major factor. It is defined in Flege (2009) as the “second language (L2) vocal utterances the learner has heard and comprehended, including his own, regardless of whether these utterances have been produced correctly by L2 native speakers, or incorrectly by other non-native speakers of the L2” (p. 175). Its significance was emphasised early in Krashen's (1981) Input Hypothesis which claims that comprehensible input is the crucial factor in acquiring a language, as well as by Long (1981) with a greater emphasis on interactive input. In learning English as an L2, oral input helps children to develop the phonological awareness of English (Chow, McBride-Chang, & Burgess, 2005).

The observation of oral input, particularly in the classroom context — which is one of the main sources of input for children — relies on a scheme to systematically capture the quality and quantity of the input received by children. There have been various systematic observation schemes focusing on different aspects of the classroom to investigate their contributions to language learning. These include Fanselow (1977) on interaction in the classroom; Allen, Fröhlich and Spada (1984) on instructional practices; De Graaff, Koopman, Anikina and Westhoff (2007) on content and language integrated learning; and Smit, van de Grift, de Bot and Jansen (2017) on scaffolding reading comprehension. However, given their own specific foci, the existing observation schemes cannot be directly applied to the observation of oral input in the classroom.

This paper presents the development of an observation scheme for oral input in the classroom. The scheme is based on the Input Quality Observation Scheme by Weitz, Pahl, Mattsson, Buyl and Kalbe (2010), which was developed mainly to record the vocabulary input from teachers. It was adapted to observe specifically the oral input in kindergarten classrooms by including the factors related to the characteristics of a teacher's pronunciation input as well as the children's output. The observation scheme was piloted in a Hong Kong kindergarten for examining the English oral input in the classroom.

## 2. Literature Review

### 2.1 Oral Input in Hong Kong Kindergarten Education

In Hong Kong kindergarten education, English oral input comes mainly from the teachers in the classroom (Kirkpatrick, 2007a). Children receive verbal utterances as well as verbal feedback from teachers, from which they can develop phonological awareness of English and correct errors in their utterances. Against this background, there have been concerns about the language and teaching proficiency of English teachers in Hong Kong kindergartens (Gao & Ma, 2011; Tsang, 2017). For example, Ng and Rao (2013) found that less than 30% of kindergartens in Hong Kong had English teachers with a professional qualification in teaching English as an L2; and about 14% of the kindergartens even had untrained teachers. This situation has possibly led to a preference for having native-speaking teachers for English language teaching in Hong Kong kindergartens (Kirkpatrick, 2007b). The English teachers in local kindergartens have diverse backgrounds, ranging from native English speakers, to non-Chinese speakers with English as an L2, Chinese speakers who have returned from English-speaking countries, and local Chinese speakers with or without an English language teaching qualifications (Ng & Rao, 2013).

The Education Bureau of the Hong Kong government has been working towards the enhancement of kindergarten teachers' English standard as well as children's English language exposure. For English teaching, the Education Bureau (2017a, pp. 42–43) has clearly indicated that:

As models of language learning for children, teachers should possess good proficiency in spoken English, speak with accurate pronunciation and use language correctly.

For children's oral language exposure, the Kindergarten Education Curriculum Guide (Education Bureau, 2017b, p. 131) also emphasised oral input, as follows:

When children are first exposed to English, we should provide them with plentiful and appropriate listening and speaking experiences, rather than reading and writing experiences too early or too much.

To achieve this goal, there is a need to examine the teachers' English oral input to children in kindergartens, but only a few previous studies have focused on this area. Among them, Ling (2003) reported kindergarten teachers' perceptions of the qualities of good teachers. Also, Moon (2005) stressed the importance of quality English language input in order to provide adequate language exposure for children.

### 2.2 Observation Schemes for Language Input

Various observation schemes have been proposed for different kinds of language input. For example, Fanselow (1977) proposed FOCUS (Foci for Observing Communications Used in Settings) which includes categories of variables for describing interaction in classrooms. Allen et al. (1984) developed the well-known COLT (Communicative Orientation of Language Teaching) which focuses more on the effects of instructional practices in L2 classrooms on learning outcomes, covering variables such as learning activity, language use and interactive features. De Graaff et al. (2007) produced an observation tool for analysis of the effects of content and language integrated learning (CLIL). It includes a few indicators (e.g. selection and adaptation of texts, and adaptation and fine-turning of teacher talk) to reveal a teacher's efforts to facilitate students' exposure to language input. Smit et al. (2017) developed the English Reading Comprehension Observation Protocol to help assess effectiveness in teaching English comprehension. Also, in the context of Hong Kong kindergartens, Chau, Li and Lau (2013) developed the Early Childhood Classroom Observation Scale (ECCOS) for the evaluation of classroom learning and teaching quality. It extends the performance indicators released by the Hong Kong government's Education Department and Social Welfare Department (2001) for evaluating the quality of preschool education.

For systematic observation of language input in preschools, Weitz et al. (2010) proposed the Input Quality Observation Scheme (IQOS). Its categories of variables include the quality of input from L2 teachers, input characteristics, teachers' promotion of comprehension, children's output, and children's listening. Weitz et al. has demonstrated its objectivity, reliability and validity in collecting input data in classrooms — but its variables focus mainly on L2 grammar and lexical input.

## 3. The Oral Input Quality Observation Scheme

The purpose of developing the observation scheme in this study is to capture the oral input in kindergarten classrooms, both quantitatively and qualitatively, to enable comparison across different contexts as well as in-depth analysis. Based on the IQOS presented in Weitz et al. (2010), this study proposes the Oral Input Quality

Observation Scheme. It follows the principle for observational research stated in Chaudron (2000), which are “based on ... descriptive categories that have been developed prior to the research”, so that the observations “are made in a planned way, according to an order determined by the design of the research, and with categories that cannot be changed once the research is underway” (p. 7).

Table 1 outlines the Oral Input Quality Observation Scheme. It focuses on the learning activities taking place in the classroom, and incorporates what Weitz et al. (2010) categorise as low-inference and high-inference categories. Low-inference categories comprise general information, such as the number of children, the number of native English teachers, and the focus of a lesson — that is, the form of the L2, such as phonemes, communicative context, or meaning (e.g. conversations on the content — in order to provide a background for the observation. High-inference categories require the observer’s professional judgement and interpretation, covering teachers’ input and children’s output, as follows:

#### *Teachers’ input*

- (a) Quantity
  - L2 amount — the amount of L2 oral input offered in class
  - Direct L1 use — the amount of L1 use in class
- (b) Input characteristics
  - Pronunciation — the characteristics of a teacher’s L2 pronunciation
  - Varied input — the use of various vocabulary and syntactic structures
  - Ritualised phrases — the frequent use of recurring phrases/expressions
  - Verbal reinforcement — the appreciation of children’s attempts at L2 use
  - Focus on form — the attempts at raising children’s L2 phonological awareness
- (c) Promoting pronunciation
  - Fun repetitions — the attempts at arousing children’s interest in practising pronunciation
  - Individual practice — the chances for children to practise pronunciation individually
  - Explanation and comparison — the explanation or rephrasing of the teachers’ own utterances
  - Diagrams — the use of diagrams as visual aids
- (d) Reacting to children’s output
  - Encourage and maintain L2 output — the encouragement and/or maintenance of children’s L2 use
  - Corrective feedback — the implicit or explicit correction of children’s L2 utterances

#### *Children’s output*

- (e) Quantity
  - L2 amount — the amount of L2 oral output by children
  - L1 amount — the amount of L1 oral output by children
- (f) Output characteristics
  - Pronunciation — the characteristics of children’s L2 pronunciation
  - Associated words — the children’s use of associated words in L2 (e.g. words with similar pronunciations) for interaction
  - Interaction with others with the new words — the children’s use of the new words just learned in class for interaction

**Table 7.** The Oral Input Quality Observation Scheme

|                            |                                                                 |
|----------------------------|-----------------------------------------------------------------|
| <b>Observation</b>         | Time                                                            |
|                            | Class                                                           |
|                            | Activity                                                        |
|                            | Duration                                                        |
| <b>General information</b> | No. of children                                                 |
|                            | Age of children                                                 |
|                            | Number of teachers                                              |
|                            | Number of native English teachers                               |
|                            | Focus of lesson (A: form, B: communicative context, C: meaning) |
| <b>Teacher’s input</b>     |                                                                 |
| Quantity                   | L2 amount (poor/average/rich)                                   |
|                            | Direct L1 use (poor/average/rich)                               |
| Input characteristics      | Pronunciation (intonation)                                      |
|                            | Varied input (poor/average/rich)                                |
|                            | Ritualised phrases (e.g. repeating after the teacher)           |

|                               |                                               |
|-------------------------------|-----------------------------------------------|
|                               | Verbal reinforcement                          |
|                               | Focus on form (metalinguistic)                |
| Promoting pronunciation       | Fun repetitions (e.g. choral practice)        |
|                               | Individual practice                           |
|                               | Explanation and comparison                    |
|                               | Diagram (e.g. illustration of mouth movement) |
| Reacting to children's output | Encouragement and maintenance of L2 output    |
|                               | Corrective feedback                           |
| <b>Children's output</b>      |                                               |
| Quantity                      | L2 amount (poor/average/rich)                 |
|                               | L1 amount (poor/average/rich)                 |
| Output characteristics        | Pronunciation (intonation)                    |
|                               | Associated words (poor/average/rich)          |
|                               | Interaction with others with the new words    |

## 4. Pilot Study

### 4.1 Method

The observation scheme was piloted in a Hong Kong kindergarten for examining the teachers' English oral input and children's oral output in the classroom. The pilot study involved two English lesson observations for a K2 class with eight children and a K3 class with 19 children. The lessons were taught by two non-native-speaking local Chinese teachers in English. All the children were local Chinese with Cantonese as their L1.

During the lesson observations, the observer took field notes using the observation scheme. The judgements on high-inference categories (e.g. the amount of the teachers' L2 input) were made with reference to the procedure specified in Weitz et al. (2010). The observer did not have any interaction with the teachers and children.

### 4.2 Results

Table 2 presents the rudimentary results of the lesson observations. The use of the observation scheme supported the collection of oral input data effectively in the classroom. The lesson activities observed for the K2 and K3 classes included the introduction of English phonemes and the sharing of items the children had brought to the class, respectively.

**Table 2.** Preliminary results of the lesson observations

|                                  | <b>K2 class</b>                             | <b>K3 class</b>                                                         |
|----------------------------------|---------------------------------------------|-------------------------------------------------------------------------|
| <b>Activity</b>                  | English phonemes<br>(Focus of lesson: form) | Sharing of items brought<br>(Focus of lesson:<br>communicative context) |
| <b>Teacher's input</b>           |                                             |                                                                         |
| Quantity                         |                                             |                                                                         |
| • L2 amount                      | Only English was used.                      | English was used in teaching.                                           |
| • Direct L1 use                  | No                                          | Cantonese was used for<br>matters of class discipline.                  |
| Input characteristics            |                                             |                                                                         |
| • Pronunciation                  | Near native                                 | Non-native                                                              |
| • Ritualised phrases             | Yes                                         | Yes                                                                     |
| • Verbal reinforcement           | Yes                                         | Yes                                                                     |
| Promoting pronunciation          | Yes                                         | Yes                                                                     |
| Corrective feedback              | Yes                                         | No                                                                      |
| <b>Children's output</b>         |                                             |                                                                         |
| Use of L1                        | Yes                                         | Yes                                                                     |
| Interaction with others using L2 | Average                                     | Little                                                                  |

Based on the preliminary data collected, the teachers' oral input was rich in terms of entirely using English in teaching. Cantonese was used for the K3 class only for class discipline. One of the teachers had near-native English proficiency, while the other one sounded relatively non-native. However, common features of Hong Kong English occurred in the teachers' utterances. For example, the K2 teacher mixed the voiced and voiceless sounds such as /s/ and /z/, and the K3 teacher misused simple and past tenses quite often in her speech.

The children's output showed similar pronunciation features, suggesting that they were influenced by the input from the teachers.

Both teachers demonstrated the use of ritualised phrases and verbal reinforcement, as well as promoting children's L2 use. There were times when the teachers' pedagogical skills appeared to be insufficient to facilitate the children's learning of English pronunciation. For instance, when the K2 teacher introduced the /k/ sound and words with this sound by showing vibrations in the throat, the children were not shown how to understand this, and only mimicked the teacher's pronunciation of the words. The K3 teacher did not give corrective feedback on children's mispronunciation, other than positive feedback (e.g. 'good job' and 'well done').

The children in both classes used their L1 for communication with each other in the lessons. Comparatively, the children in the K3 class produced less English oral output than those in the K2 class.

## 5. Discussion and Conclusion

The results of the pilot study show that the observation scheme can facilitate the data collection and analysis of English oral input in kindergarten classrooms. The preliminary findings suggest that features of Hong Kong English (OED, n.d.) can be found in the local Chinese teachers' oral input, which influences the oral output of the children who tend to mimic their teachers' pronunciation. The teachers can deliver class activities in English with a broad range of strategies to offer oral input in class, but they may face challenges in teaching certain topics, e.g. English phonemes. This suggests that formal training in teaching English as a second language (TESL) — currently not a requirement for kindergarten English language teachers — is likely to be helpful for the teachers, as suggested in relevant studies (e.g. Ling, 2003; Moon, 2005).

Further work needs to be done to examine the quality of the observation scheme. According to Weitz et al. (2010), an observation scheme needs to fulfil quality criteria covering (i) standardisation — specifying what to observe and how to record the data; (ii) objectivity — achieving a high inter-rater reliability; (iii) reliability — the internal consistency of the instrument; and (iv) validity — the content validity of the instrument. The Oral Input Quality Observation Scheme is a standardised instrument which follows the IQOS and incorporates the variables reported in the literature. The instrument was piloted, with the project team members and observers agreeing on the scope of its variables. Future work will involve verifying its objectivity and reliability by having more observations with different observers for conducting relevant statistical analysis.

The use of the observation scheme to collect oral input data relies on trained observers with relevant backgrounds; and certain features of the quality of oral input require observers' own interpretations and judgements, such as determining how native-like a teacher's English pronunciation is and identifying pronunciation errors in teachers' oral input and children's oral output. To facilitate the lesson observations, further work will also focus on video-/audio-recording of the lessons as supplementary data for analysis while addressing the relevant ethics and data privacy issues (De Costa, 2014).

In the preliminary results obtained so far, the proposed observation scheme has been shown to effectively collect the L2 oral input in kindergarten classrooms for analysis. It contributes to addressing the gap in the area due to the lack of relevant research instruments. The future work discussed above will enable the instrument to be used in studies on a larger scale and with more in-depth analysis.

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# The Use of Visual Chunking Strategies in Writing Chinese Characters

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**Abstract.** This study investigates how two primary school children in Hong Kong who have English as their major language use visual chunking strategies (VCS) when writing Chinese characters. The two children were invited to participate in a series of VCS instruction sessions in which 60 radicals were taught over a month. Six Immediate Recall Character Writing Tests were administered in order to track the changes in the accuracy of writing Chinese characters and in the way they used VCS. The test items were controlled so that half of them included the target radicals they had learned. Participants' performances were video-taped and they reported in the stimulated recall what they were thinking when they hesitated or made corrections. Though the participants' performances cannot be generalised to the population, this case study has provided insights into how some children make use of visual chunking as their strategies to learn Chinese characters. Four types of errors made by the participants were categorised and coded, and they may be served as a basis of error analysis regarding Chinese character learning.

**Keywords:** visual chunking strategies, learning Chinese as a second language, Chinese language learning

## 1. Introduction

To many second language learners of Chinese, Chinese characters look like pictures or symbols that do not make much sense, thus they may find learning Chinese characters, especially writing, challenging.

## 2. Relevant Studies

The mental representation of a Chinese character consists of its orthography, phonology and semantics (Perfetti, Liu and Tan, 2005; Perfetti and Tan, 1998, 1999; Tan and Perfetti, 1998). Although the three components are closely interlinked, knowing one of them does not necessarily mean being able to manage the other two, therefore Chinese learners cannot always rely on the pronunciation or meaning of a Chinese character when remembering how to write it. Su (2001:75) points out that 'radical decomposition is an analysis of the external structure [i.e. orthography] of Chinese characters, thus it is unnecessary to consider a character's pronunciation and its meaning when decomposing it'. Clearly, separating the radicals in a Chinese character is a way of breaking apart or decomposing its orthography, and having a good grasp of radicals is the key to writing Chinese characters.

The term 'radical' is commonly used in research on Chinese characters. However, researchers have not reached a perfect consensus regarding its definition. Some researchers (e.g. Shu, 2003) limit the meaning of radical to standard radicals that are used to look up characters in dictionary while some others (e.g. Su, 2001) broadly refer the term to all components in a character. Taft and Zhu (1997:761-762) showed that the number of radicals based on the later interpretation doubles that based on the former one. In addition, some researchers (e.g. Fang and Wu, 1989) use radical to refer to semantic components only while some others (e.g. Wang et al., 2003) use this term to refer to both semantic and phonetic components. The term *radical* in this study refers to all components that form a Chinese character.

'Chunking' is the grouping or organising of the input sequence into units or chunks (Miller, 1956:90). Rosenbloom and Newell (1982) found that the process of chunking improves task performance. Miller (1956) suggests that typical human beings can only hold about seven units in their working memory due to its limited capacity, but grouping bits of information into chunks can increase the total amount of information remembered. Su (2001:67) suggests that the average number of strokes of Chinese characters is 10.75 strokes and that the highest percentages of characters are 10- and 11-stroke characters. Since the average number of strokes (10.75) exceeds human working memory capacity ( $7 \pm 2$ ) that Miller suggested, typical human beings naturally find it difficult to remember an average character stroke by stroke. However, when it comes to character learning, students still copy most characters stroke by stroke without analysing separate chunks embedded in them (Packard et al., 2006; Wu, Li and Anderson, 1999). The current study argues that, in Chinese character learning, remembering chunks of a character requires less working memory capacity than remembering the whole character stroke by stroke, unless the character is so familiar that a character itself becomes a chunk. In other

words, it is hypothesised that chunking strategies ease Chinese learners' working memory load and help learners manage characters with more complicated orthographic structures.

The present study attempts to look in detail into two children's use of VCS, to investigate whether explicit VCS instruction changes their way of remembering Chinese characters when writing them, and whether their accuracy in writing Chinese characters change over a period of instruction in chunking of character radicals.

### 3. Methodology

This study is a case study focusing on two children, ten-year-old Calvin and eight-year-old Yannie. They are brother and sister living together with their parents and two Pilipino maids in Hong Kong. Calvin and Yannie, with English as their major language, were invited to participate in this study because they found reading and writing Chinese characters challenging.

The participants received four weeks' visual chunking strategy (VCS) instruction sessions. Sixty radicals were chosen and participants were taught four to six radicals in each session, depending on the radical groups and the number of strokes in each radical. The target radicals ranged from two to nine strokes. Radicals taught in Week 4 had more strokes, so only four radicals were taught in each session during that week.

**Table 1.** Target radicals presented in the VCS instruction sessions.

| Week/Day | Wednesday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Thursday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Friday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week 1   | <br><br><br><br>                                                                                               | <br><br><br><br><br>        | <br><br><br><br>                                                                                               |
| Week 2   | <br><br><br><br><br> | <br><br><br><br><br> | <br><br><br><br><br> |
| Week 3   | <br><br><br><br>                                                                                        | <br><br><br><br>                                                                                        | <br><br><br><br><br> |
| Week 4   | <br><br><br>                                                                                                                                                                               | <br><br><br>                                                                                                                                                                               | <br><br><br>                                                                                                                                                                               |

Before a session began, each participant received a worksheet, a small whiteboard and a marker. In each session, participants were introduced to the four to six target radicals that they had to learn in that session. The researcher demonstrated on a whiteboard how each radical should be written and told them the pronunciation and meaning, if there was any, of the target radicals. To ensure that they perceived the target radicals correctly, they were asked to write each radical once on their whiteboard. Participants then received a passage in Chinese and had to find all the characters that contained the target radicals. They were told to look at the characters one by one and find any characters in which a target radical was embedded. This activity required them to separate the characters into different components when reading the characters and decide whether they

contained the target radicals. Participants were allowed to read the passage as many times as they needed until they found all the answers. Participants were also told to copy the characters that they found in the passage on their worksheet in the row designated by that radical. This was to provide them with an opportunity to practise writing the target radicals. If there was more than one radical in a character, the participants had to write the character in the row for each radical. For example, when they came to the character ‘體’ in Session 2, they were expected to copy this character next to both ‘亻’ and ‘立’ radicals.

The passage was different from in each of the 12 sessions, but both participants received the same passage in each session. The passages (see all passages in Appendix 8) were stories written by the researcher with a length ranging from 84 to 100 characters. Whether participants understood the stories was not a concern because understanding the stories might require a longer time, but the focus of this study was on orthographic structure (whether they could locate the target radicals in a passage full of characters). The participants were told that, as long as they finished the task, understanding the story was not a must in this activity. The participants should have been able to find seven characters for each radical, but occasionally there were eight. This was because sometimes an extra word with the target radicals was needed in order for the passage to make sense. However, the researcher tried to keep the number of occurrence at seven, so that participants could practise writing each target radical the same number of times.

After doing so, participants received some magnets with the target radicals stuck on them, and participants were asked to use these magnets to form the characters on their whiteboard. If the character contained more than one target radical, they had to use all the corresponding magnets. If there were parts not covered by the target radicals, they had to write the missing parts in the correct position. In addition to the target radicals learned in that session, participants were encouraged to use all magnets they had from previous sessions. They were then asked to move on to the next part, in which they read 4 characters after each target radicals and circled two characters that did not contain the target radicals.

Six Immediate Recall Characters Writing Tests, which were designed to probe participants’ recall of chunks when writing Chinese characters, were administered before, during and after the VCS instruction sessions. The pre-test (T1) was scheduled just before the day that the intervention started. During the four-week intervention, T2 was scheduled on the day after the first week of intervention; T3 was scheduled on the day after the second week of intervention; T4 and T5 were scheduled after the third and fourth week of intervention respectively. These tests aimed to track changes in participants’ use of VCS after one week, two weeks, three weeks and four weeks of VCS instruction. The delayed post-test (T6) was scheduled a month after T5 in order to see whether there was a delayed effect.

The participants were required to answer all 12 questions in each test. One mark was awarded for all correct responses and no mark for incorrect responses. There were another two trial items before each test, but these answers were not marked. An answer sheet, pencils and a rubber were provided to participants so that they could make changes if they wished. Participants’ hand movements in all tests were video-recorded so as to track participants’ corrections and hesitations during the tests.

In each test, participants had three seconds to look at each item; these items were presented one by one on the screen and participants had to remember how the character was written. After three seconds, the character disappeared and participants had ten seconds to recall and write the character on the answer sheet. The next character was then presented after a ten-second blank screen.

In order to prevent participants from copying directly from the screen while they were given time to look at the test items, the researcher held the pencil up during the three seconds when they looked at the target character. The researcher let go the pencil when writing time started. After they had written down an item on the answer sheet, the researcher held the pencil again. The pencil was held from above but was not taken away from the answer sheet so that participants could take the pencil easily when it was time to write and would only be minimally disturbed by this technical process.

All test items in this test were correctly written real characters selected from Fu (2007) and Manser et al. (2003). They ranged from three to eighteen strokes (mean: 9.3; S.D.: 3.67). Half of the target items included at least a target radical (Group 1) and half of them did not (Group 2). The test items were also arranged in ascending order based on the number of strokes and then allocated evenly into T1 to T6. The order of test items within each test was randomly assigned, but each test was the same for both participants. The table below shows all test items according to ascending number of strokes.

**Table 2.** Test items in stroke ascending order

| Group 1        |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
|----------------|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| No. of strokes | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1              |   | 斗 | 仔 | 忤 | 冶 | 協 | 咪 | 悄  | 部  | 晶  | 照  | 慢  | 影  |    |    | 聶  |
| 2              |   | 六 | 叩 | 安 | 杉 | 炎 | 查 | 耿  | 掉  | 裡  | 裸  | 摸  |    | 器  |    |    |
| 3              |   | 少 | 汁 | 吉 | 伯 | 坦 | 首 | 臭  | 涼  | 森  | 楫  | 鼻  |    |    |    |    |
| Group 2        |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
| No. of strokes | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1              | 子 | 乏 | 氐 | 余 | 我 | 承 | 韋 | 召  | 赦  | 琢  | 業  | 齊  | 緣  | 骼  |    |    |
| 2              | 乃 | 內 | 丐 | 舟 | 酉 | 卷 | 鬥 | 候  | 第  | 棗  | 肅  | 孵  |    |    |    |    |
| 3              |   | 屯 | 互 | 缶 | 序 | 禹 | 為 | 兼  | 將  | 黑  | 黽  |    |    |    |    |    |

After each test, participants were invited to do a stimulated recall in which they told the researcher about their thoughts during the test. All stimulated recalls started with the researcher asking participants to look at their own handwriting and see whether there were items that they were not sure about. This was to lead them to recall their mental processes at the moment of testing and start thinking about the problems they had and how they solved them. Participants also gave information on how they wrote each character in detail and what strategies they had adopted.

#### 4. Findings

Yannie reported using 2-part, 3-part and 5-part chunking strategies as well as associating radicals/the character with meanings, shapes, similar radicals and English letters. The detail use of VCS is (short form in brackets):

- 2-part chunking: left and right (L-R)  
top and bottom (T-B)  
3-part chunking: left, top-right and bottom-right (L-TR-BR)  
5-part chunking: top-left, top-right, middle, bottom-left and bottom-right (TL-TR-M-BL-BR)

The table below shows the chunked characters and the detail use of VCS in each test.

**Table 3.** Yannie's reported use of VCS.

|                                           | T1                           | T2                       | T3                       | T4                        | T5                       | T6                                     |
|-------------------------------------------|------------------------------|--------------------------|--------------------------|---------------------------|--------------------------|----------------------------------------|
| 2-part chunking                           | 黑<br>(T-B)<br>裸<br>(L-R)     | 骼<br>(L-R)<br>炎<br>(T-B) | 緣<br>(L-R)<br>召<br>(T-B) | 裡<br>(L-R)                | 黽<br>(L-R)<br>阜<br>(T-B) | 齊<br>(T-B)<br>影<br>(L-R)<br>協<br>(L-R) |
| 3-part chunking                           | 掉<br>(L-TR-BR)               | -                        | -                        | 摸(L-<br>TR-BR)            | -                        | -                                      |
| 5-part chunking                           | -                            | -                        | -                        | 器 (TL-<br>TR-M-<br>BL-BR) | -                        | -                                      |
| Remembering a similar character           | 鬥<br>酉                       | -                        | -                        | -                         | -                        | -                                      |
| Associating radicals with meaning         | 掉                            | 炎                        | -                        | -                         | -                        | -                                      |
| Associating radicals with English letters | 肅 (a 'T' at<br>BL and<br>BR) | -                        | -                        | -                         | -                        | -                                      |

|                                  | T1 | T2 | T3 | T4                         | T5 | T6 |
|----------------------------------|----|----|----|----------------------------|----|----|
| Associating radicals with shapes | -  | -  | -  | 器 (4 squares at 4 corners) | -  | -  |
| Total no. of chunked items       | 6  | 2  | 2  | 3                          | 2  | 3  |

Yannie reported a decreased use of VCS when she had to write the characters after viewing a prompt. She reported six times of VCS used in T1 but only two to three times in T2 to T6. This may be because Yannie found later tests easier to handle after she was taught to separate characters into chunks. When she was asked how she decided whether to divide a character into parts or to remember it as a whole, she replied,

*Y: The word I don't know, I divide it. The word I know, I remember it as a whole.*

*R: This one (Item 12), did you know it?*

*Y: No.*

*R: So why didn't you divide it into parts?*

*Y: Because this word is easy to remember, so I remembered as a whole.*

*R: Okay. So although you didn't know it, it's easy to remember, so you didn't divide it into parts?*

*Y: (nodding)*

(T5)

Yannie reported that she tried to break unfamiliar and difficult characters into chunks so as to help herself remember more easily, thus the decreased used of VCS might be a sign showing that she found the characters in later tests more manageable or that the recall of the target radicals had become proceduralised, so that she was unconsciously chunking.

Among the six types of VCS Yannie reported using, only 2-part chunking was reported as used in all 6 tests. Others were only reported as used in one or two tests. Yannie reported using only two types of 2-part chunking strategy (L-R and T-B) and one type of 3-part chunking strategy (L-TR-BR). No test item was divided into outer-inner, left-middle-right or top-middle-bottom parts.

Yannie remembered some characters by associating them with similar characters that she already knew. In T1, for example, she remembered 鬥 by remembering 鬥 and then moved the two vertical lines in the middle inside. Similarly, she remembered 西 by remembering a more familiar word 西 and then added a horizontal line in the middle part. These examples show that Yannie tends to remember a similar character that she is familiar with, if there is one, instead of remembering an unfamiliar character stroke by stroke.

For some other characters, Yannie reported dividing them into parts and then remembering individual radicals by their meaning. For example, after dividing 掉 into 3 parts (扌, 卜 and 早), she remembered 卜 and 早 as a *ten* on top and a *morning* at the bottom, although the Chinese characters of *ten* should actually be written as 十. The fact that she wrote 十 in the answer sheet shows that she was retrieving the meaning *ten* (十) instead of a vertical then horizontal strokes (扌) as in the prompt. For the Chinese character *hot* 炎, she reported remembering two *fires* (火) when she had to write the character on the answer sheet.

Yannie reported associating the bottom corners in 肅 with two Ts and the four □s in 器 with four squares. This shows that Yannie attempted to chunk a number of strokes into something that she was familiar with, either shapes or English letters.

Calvin reported using eight types of VCS when he wrote prompted characters: 2-part, 3-part, 4-part and 5-part chunking as well as associating a radical/character with meaning, shapes, English letters and similar radical/character. The detail use of VCS are (short form in brackets):

- 2-part chunking: left and right (L-R)  
top and bottom (T-B)
- 3-part chunking: top-left and bottom-right (TL-BR)  
left, top-right and bottom-right (L-TR-BR)  
top, bottom-left and bottom-right (T-BL-BR)  
top, middle and bottom (T-M-B)
- 4-part chunking: top, bottom-left, bottom-middle and bottom-right (T-BL-BM-BR)  
left, top-right, bottom-left on the right and bottom-right on the right (L-TR-BLR-BRR)

5-part chunking: top-left, top-right, middle, bottom-left and bottom-right (TL-TR-M-BL-BR)  
Remembering a similar radical/character: similar radical (R)  
similar character (C)  
Associating radicals/the character with meaning: radical (R)  
character (C)  
collocating character (CC)

**Table 4.** Calvin's reported use of VCS.

|                                                  | T1                                                                             | T2                                               | T3                | T4                                                                 | T5                         | T6                                                   |
|--------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------|-------------------|--------------------------------------------------------------------|----------------------------|------------------------------------------------------|
| 2-part chunking                                  | 鬥(L-R)<br>忤(L-R)<br>肅(T-B)<br>掉(L-R)<br>首(T-B)<br>裸(L-R)<br>臭(T-B)<br>少(TL-BR) | 將<br>(L-R)<br>骼<br>(L-R)<br>序<br>(TL-BR)         | 余(T-B)            | 冶<br>(L-R)<br>孵<br>(L-R)<br>琢<br>(L-R)<br>叩<br>(L-R)<br>裡<br>(L-R) | 仔(L-R)<br>杉(L-R)<br>涼(L-R) | 齊<br>(T-B)<br>棗<br>(T-B)<br>影<br>(L-R)<br>赦<br>(L-R) |
| 3-part chunking                                  | -                                                                              | 晶<br>(T-BL-BR)<br>查<br>(T-M-B)<br>楫<br>(L-TR-BR) | 冫<br>(T-M-B)      | 莫<br>(T-M-B)                                                       | 聶<br>(T-BL-BR)             | -                                                    |
| 4-part chunking                                  | -                                                                              | -                                                | 承(T-BL-BM-BR)     | -                                                                  | -                          | 協<br>(L-TR-BLR-BRR)                                  |
| 5-part chunking                                  | -                                                                              | -                                                | -                 | 器(TL-TR-M-BL-BR)                                                   | -                          | -                                                    |
|                                                  | T1                                                                             | T2                                               | T3                | T4                                                                 | T5                         | T6                                                   |
| Remembering a similar radical / character        | 乃(C)                                                                           | 序(R)<br>丐(R)                                     | 氐(C)<br>冫(R)      | 舟(C)                                                               | 缶(C)<br>坦(R)<br>內(C)       | -                                                    |
| Associating radicals/ the character with meaning | 肅(R)                                                                           | (因)為(CC)                                         | 六(C)<br>業(C)      | 琢(R)<br>叩(R)<br>莫(R)<br>器(R)                                       | 甬(C)<br>涼(R)<br>鼻(C)       | 我(C)<br>協(R)<br>照(C)<br>伯(C)<br>影(C)                 |
| Associating radicals with English letters        | -                                                                              | 乏(bottom: Z)                                     | -                 | 叩(O+P)                                                             | -                          | -                                                    |
| Associating radicals with shapes                 | 肅(bottom part: a square with 4 corners)                                        | 序(BR: arrows)<br>乏(top: arrow)<br>斗(TL: arrow)   | 余 (top: umbrella) | -                                                                  | -                          | -                                                    |
| Total no. of chunked items                       | 9                                                                              | 9                                                | 6                 | 8                                                                  | 9                          | 9                                                    |

Calvin reported using VCS in many test items, especially in T1, T2, T5 and T6. He said in the stimulated recall of the delayed posttest that dividing characters into parts made it easier for him to remember them and that the most frequently used VCS were associating radicals/the character with meaning and 2-part chunking strategies. In addition to the L-R and T-B 2-part chunking strategies that Yannie reported using, Calvin reported that he also divided characters diagonally. For example, he divided 少 (in T1) into 小 and 丿. This indicates that Calvin may be developing his own ways of chunking and thus using various types of VCS more widely than Yannie.

For characters that were formed by two identical parts, Calvin said that he divided some of them into two parts (e.g. 棗 in T6) and remembered some of them as a whole (e.g. 炎 in T2). It may be that if he is unfamiliar with one of the radicals in this type of character, he is more likely to divide the character into two chunks and try to remember only one of them. Similarly, for characters that were formed by three identical parts, Calvin reported dividing some into three chunks (e.g. 轟 in T5) and remembered some as a whole (e.g. 森 in T3). This reinforces the indication in the 2-part chunking that he tends to divide a character into three chunks and remember only one of the three chunks if he finds the radical in this type of character challenging. Both participants reported that they applied VCS only on difficult items.

The strategy of associating radicals/the character with meaning was reported to be used in almost all tests and its use increased from earlier (T1 to T3) to later tests (T4 to T6). Apart from the L-TR-BR 3-part chunking that Yannie reported, Calvin also reported using the T-M-B and T-BL-BR chunking.

Calvin reported using 4-part chunking strategy for 承 and 協, and 5-part chunking strategy for 器. He said that he associated a radical in 序, 丐, 畀 and 坦 with a similar radical, and associated the character 乃, 氐, 舟, 缶 and 內 with a similar character. Calvin reported that he remembered these characters by remembering another radical/character that he knows very well.

Since Calvin likes English very much and he finds English easier to manage than Chinese, he reported that using an English letter to remember a Chinese radical that looked similar was easier for him than remembering a Chinese character stroke by stroke. For instance, he remembered 叩 as an “O” on the left of a “P”, and the bottom part of 乏 as a “Z”. Similarly, he found that remembering shapes and images were also easier, thus he remembered the bottom part of 肅 as a square with four corners, the 丿 and 一 in 序 as two arrows, the top part of 乏 and the two dots in 斗 as an arrow, and the top part of 傘 as an umbrella.

Both Calvin and Yannie reported using VCS in all the tests. Both of them reported using VCS in order to make it easier for them to remember unfamiliar and difficult characters. Before the instruction sessions in T1, both of them made 4 mistakes among the test items they had used VCS. After the start of the instruction sessions, however, the number of mistakes remained three or less from T2 to T6.

Calvin reported using more types of VCS than Yannie, but it is important to note that the analysis above relies only on subjective reports in the stimulated recalls with the participants. Nevertheless, various reasons are possible if Calvin truly used more VCS than Yannie. Firstly, since Calvin is older than Yannie, he may have had more experience to practise various ways of dividing a character into chunks, and thus have become more familiar with the use of VCS, although the use of VCS does not guarantee accuracy. Secondly, since Calvin is older, he may be more independent to think of more ways to help himself remember characters, such as remembering 叩 as a combination of “O” and “P”. Finally, it is possible that the difficulties Calvin is facing (the pressure he has from school) have pushed him to use more ways to remember different Chinese characters.

The 23 errors made by Yannie are categorised into three types: (a) Yannie’s answer has missed one or more stroke(s) when compared to the prompted target item. For example, Yannie wrote  in stead of 肅 (T1 Item 3), thus the horizontal line in the middle of the bottom part was missed. (b) Yannie’s answer has positional or directional errors. Positional errors are errors caused by one or more stroke(s) being placed in a different position from stroke(s) in the prompted target item. For example, Yannie wrote  for 孵 (T4 Item 2), in which she thought that the vertical line in the middle part was a line slanted to the right (i.e. from | to \). Directional errors are those caused by one or more stroke(s) being placed in an inappropriate direction. For example, Yannie wrote  for 伯 (T6 Item 9), in which she misplaced the top-right to bottom-left stroke in the right part as a top-left to bottom-right stroke. (c) One or more radical(s) in the prompted test items was/were replaced by another/other radical(s) in Yannie’s answer. For example, the 衤 in 裸 (T1 Item 9) was replaced by 衤 while the 各 in 骼 (T2 Item 7) was replaced by 𠂔. If an erroneous radical looks the same as another legitimate radical, it is categorised into this type of error because regardless of the reasons behind, the product of the original radical is replaced by another radical. In fact, many radicals only have slight differences with each other. For example, 日 and 田 (extra/missing stroke); 入 and 人 (in opposite direction). This type of errors contributes half of Yannie’s errors in this writing task.

The researcher analysed the video of the children’s performance while writing and coded three types of

fluency disturbances: (a) *hesitation*, (b) *correction* and (c) *give up*. *Hesitation* means that participants paused at certain points during the writing time. Whether they paused in the beginning, middle or end of writing a character is also indicated in brackets. *Correction* means that participants used rubber to rub out part of a radical and rewrote it. *Give up* means that participants knew that they could not remember a character or part of a character and thus put a cross on the answer sheet. This table shows all Yannie's errors in categories.

**Table 5.** Yannie's errors in each test.

| Type of error                             | Prompt | Yannie's answer                                                                     | Chunking used                  | Fluency                                  | Test item  |
|-------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------------------------|------------------------------------------|------------|
| Missing stroke(s)                         | 肅      |    | associate with English letters | hesitation (end)                         | T1 Item 3  |
|                                           | 首      |    | -                              | -                                        | T1 Item 5  |
|                                           | 黑      |    | 2-part                         | correction (top part)                    | T1 Item 7  |
|                                           | 孵      |    | -                              | hesitation (middle)+give up (right part) | T4 Item 2  |
|                                           | 電      |    | 2-part                         | hesitation (middle)                      | T5 Item 1  |
|                                           | 影      |    | 2-part                         | -                                        | T6 Item 10 |
| Positional/directional errors             | 肅      |    | associate with English letters | hesitation (end)                         | T1 Item 3  |
|                                           | 孵      |   | -                              | hesitation (middle)+give up (right part) | T4 Item 2  |
|                                           | 琢      |  | -                              | -                                        | T4 Item 3  |
|                                           | 第      |  | -                              | hesitation (middle)                      | T5 Item 6  |
|                                           | 杉      |  | -                              | hesitation (middle)                      | T5 Item 8  |
|                                           | 伯      |  | -                              | hesitation (middle)                      | T6 Item 9  |
| Replaced with another or other radical(s) | 掉      |  | 3-part, asso. with meaning     | -                                        | T1 Item 4  |
|                                           | 裸      |  | 2-part                         | -                                        | T1 Item 9  |
|                                           | 骼      |  | 2-part                         | hesitation (middle)                      | T2 Item 7  |
|                                           | 序      |  | -                              | -                                        | T2 Item 8  |
|                                           | 吉      |  | -                              | -                                        | T3 Item 6  |
|                                           | 緣      |  | 2-part                         | hesitation (middle+end)                  | T3 Item 10 |
|                                           | 余      |  | -                              | -                                        | T3 Item 11 |
|                                           | 電      |  | 2-part                         | hesitation (middle)                      | T5 Item 1  |
|                                           | 第      |  | -                              | hesitation (middle)                      | T5 Item 6  |
|                                           | 齊      |  | 2-part                         | -                                        | T6 Item 3  |
|                                           | 協      |  | 2-part                         | -                                        | T6 Item 6  |

Among Yannie's errors, almost half of them belonged to the last type (replaced with another or other radical(s)). For the first (missing strokes) and third (replaced by other radicals) types of errors, there was a decrease in the number errors made by Yannie overtime. This means that the total number of errors made in T4, T5 and T6 were less than that of T1, T2 and T3. However, the opposite occurred to the second type of errors. Yannie made more positional/directional errors in T4 to T6. Yannie's errors seemed to have shifted from the first and third types of errors in earlier tests to the second type of error in later tests. It is unclear why there was an increase in positional/directional errors, but the decrease in the other two types of errors supports the hypothesis that VCS ease learners' memory load so that they can pay more attention on radical details.

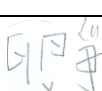
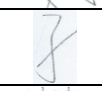
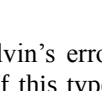
Over half of the errors involved fluency disturbances. Yannie gave up the right part of 孵 and she corrected the top part of 黑. All fluency disturbances except these two were hesitations, in which Yannie hesitated in the middle of most items, except 肅 (at the end) and 緣 (both in the middle and at the end).

Half of Yannie's errors were reported as involving VCS use, though it is interesting to note that only one item (肅) in the second type of error (positional/directional errors) did. Yannie only reported remembering a radical in 肅 by associating it with an English letter, thus no item with positional/ directional errors was consciously divided into parts when Yannie remembered them.

In contrast, Calvin made four types of errors: (a) extra strokes were added to the prompts; (b) one or more strokes were missing in Calvin's answers. (c) positional/directional errors occurred in Calvin's answers; and (d) one or more radicals were replaced with another/other radical(s). This table shows Calvin's 27 errors in categories, the corresponding fluency disturbances and the use of VCS involved.

**Table 6.** Calvin's errors in each test.

| Types of error    | Target items | Calvin's answer                                                                     | Chunking used          | Fluency                 | Test items |
|-------------------|--------------|-------------------------------------------------------------------------------------|------------------------|-------------------------|------------|
| Extra stroke(s)   | 互            |    | -                      | hesitation (middle)     | T1 Item 8  |
|                   | 琢            |  | 2-parts                | -                       | T4 Item 3  |
|                   | 黽            |  | associate with meaning | hesitation (middle+end) | T5 Item 1  |
|                   | 兼            |  | -                      | hesitation (middle)     | T5 Item 4  |
|                   | 禹            |  | -                      | -                       | T5 Item 12 |
|                   | 齊            |  | 2-parts                | hesitation (middle)     | T6 Item 3  |
| Missing stroke(s) | 鬥            |  | 2-parts                | -                       | T1 Item 1  |
|                   | 肅            |  | 2-parts                | hesitation (middle)     | T1 Item 3  |
|                   | 承            |  | 4-parts                | -                       | T3 Item 9  |
|                   | 第            |  | -                      | hesitation (middle)     | T5 Item 6  |
|                   | 齊            |  | 2-parts                | hesitation (middle)     | T6 Item 3  |

| Types of error                  | Target items | Calvin's answer                                                                     | Chunking used                   | Fluency                 | Test items |
|---------------------------------|--------------|-------------------------------------------------------------------------------------|---------------------------------|-------------------------|------------|
| Positional / directional errors | 琢            |    | 2-parts, associate with meaning | hesitation (end)        | T4 Item 3  |
|                                 | 內            |    | associate with other radical    | -                       | T5 Item 10 |
| Replaced with another radical   | 掉            |    | 2-parts                         | -                       | T1 Item 4  |
|                                 | 裸            |    | 2-parts                         | hesitation (middle)     | T1 Item 9  |
|                                 | 骼            |    | 2-parts                         | give up                 | T2 Item 7  |
|                                 | 乏            |    | -                               | -                       | T2 Item 11 |
|                                 | 斗            |    | -                               | hesitation (end)        | T2 Item 12 |
|                                 | 業            |   | associate with meaning          | -                       | T3 Item 2  |
|                                 | 緣            |  | -                               | hesitation (middle)     | T3 Item 10 |
|                                 | 余            |  | 2-parts, associate with shapes  | -                       | T3 Item 11 |
|                                 | 孵            |  | 2-parts                         | hesitation (middle)     | T4 Item 2  |
|                                 | 孑            |  | -                               | hesitation (middle)     | T4 Item 6  |
|                                 | 莫            |  | 3-parts                         | hesitation (middle)     | T4 Item 9  |
|                                 | 鼻            |  | associate with meaning          | hesitation (middle)     | T5 Item 11 |
|                                 | 齊            |  | 2-parts                         | hesitation (middle)     | T6 Item 3  |
|                                 | 影            |  | associate with meaning          | hesitation (middle+end) | T6 Item 10 |

Over half of Calvin's errors (14 out of 27) belong to the last type (replaced with another or other radical(s)). The number of this type of errors decreased overtime, but there was an increase in the number of errors for other types of errors (extra and missing strokes and positional/directional errors).

Two-third of the errors were associated with fluency disturbances. In earlier tests (T1 to T3), six of the errors (50%) involved *hesitation* and *give up*; in later tests (T4 to T6), nine of them (75%) involved *hesitation*. This shows that Calvin became more aware of his own errors, which is a positive sign of paying more attention on the accuracy of writing characters. If he becomes more and more aware of the correct way of writing a character, he is likely to pay more attention on the details of future characters.

Over two-third of Calvin's errors were reported associating with VCS use. However, no observable relations are found between the VCS used, the order of test items, the types of errors and fluency disturbances.

It is interesting to note that all Calvin's errors in the first three types of errors (extra and missing strokes

and positional/directional errors) were Group-2 test items—characters containing radicals that were not taught in the VCS instruction sessions. In other words, for Group-1 test items—items that were formed by radicals taught in the VCS instruction sessions, Calvin did not make a single error in creating an illegal radical. This indicates that when it came to writing, Calvin could remember each of the taught radicals very well and thus VCS instruction is believed to benefit Calvin's writing of Chinese characters.

From the errors both participants made, the last type of error (replaced with another or other radical(s)) were the most frequently made error. Due to the large number of radicals in Chinese, participants found many of them confusing, especially for those that look similar. Calvin seemed to be aware that he was confused because he hesitated in most of this type of errors while Yannie did not seem to realise it because she did not hesitate in most of this type of errors. Since both participants reported using VCS in many of the erroneous test items, the use of VCS did not seem to prevent participants from making errors.

Although Calvin reported more and wider use of VCS, he did no better than Yannie in the tests. There may be various reasons behind this: a) Yannie's recall of target radicals had become proceduralised and she was unconsciously chunking. If this is the case, her actual VCS use will have been underestimated. b) Young participants (under nine years old) in both the pilot tests and the main study gave less information to the researcher on their cognitive process (i.e. what they were thinking at a certain point). This may also lead to an underestimation of young children's (i.e. Yannie's) actual VCS use. c) Even if Calvin used more VCS, he might still make errors because the use of VCS only reduces participants' memory load but does not guarantee accuracy. The use of VCS might have helped him make fewer errors than no use of VCS, but it is not enough to help him clear all their errors.

## 5. Conclusion

This preliminary study on two children's use of VCS may not be generalisable to all second language learners of Chinese, yet they have given researchers a lot of information about what and how they decide the chunks when remembering Chinese characters, what types of errors they make and what they were thinking at the time they were writing. The valuable information is believed to serve as a reference point for future researchers to further investigate into visual chunking strategies as well as Chinese character learning.

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# Music as a Mnemonic Cue: The Effects of Songs on EFL Children's Vocabulary Acquisition

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**Abstract:** A number of previous studies have examined that music is a facilitator in vocabulary acquisition (Kohler, 2000; Legg, 2009; Mori, 2011). This study aims at examining the effectiveness of music as a mnemonic cue on children's vocabulary acquisition as well as their attitudes towards music-based language learning. Two groups of Grade 6 students from a Chinese primary school participated in the study, with 46 participants in the music group and 45 in the non-music group. 16 words and 8 phrases were selected as the target vocabulary. Participants took pretest, immediate posttest and delayed posttest. The experimental group also completed a questionnaire about their perceptions of the session content. During the treatment session, the music group practiced the target vocabulary through singing. The control group practiced the target vocabulary through traditional classroom activities. In the first posttest, both groups scored significantly higher compared to the pretest. However, the results revealed no significant differences between the experimental group and the control group, indicating that music is not a mnemonic cue on children's vocabulary acquisition. The music group revealed a sharp decline in the delayed posttest compared with the immediate posttest. Nevertheless, the majority of the participants in the music-group showed positive attitudes towards music-based language class. Reasons for the results, limitations, and implications are discussed. This study provides contribution to the understanding of music-based language teaching.

**Keywords:** music-based language teaching, songs, memory, vocabulary acquisition strategy

## 1. Introduction

There is a connection between music and language. Sacks (2007) indicated that music and language share a common origin. Lyrics memorized with melody are less forgettable than the lyrics alone. People seem to be able to recall the lyrics decades ago when catchy melody reappears in their mind. Besides, research on brain lateralization revealed an interesting phenomenon. Although music and language work in separate cerebral hemispheres, there is not much distinction in cerebral lateralization. The function of music is processed by the speech hemisphere as well, and an ideal learning environment is the combination of both simultaneously engaged hemispheres (Anton, 1990). Magnetic Resonance Imaging (MRI) also reveals that people who have received years of musical training have a larger left planum temporale region, which is one of the most important functioning areas for language processing (Chan, Ho & Cheung, 1998).

Given the intimate connections between language and music, researchers also went a step further and investigated how music could help language learning. To help Chinese EFL children with their language learning, teachers and students should equip with better strategies and skills.

### 1.1 Research Questions

1. To what extent does music-based language teaching method affect children's accuracy of vocabulary acquisition?
2. What are children's attitudes towards the music-based language learning?

### 1.2 Predictions and the Significance of the Study

It is predicted that music may serve as a mnemonic cue in children's vocabulary acquisition. It is also predicted that children might get more motivated in music-based language classes. This study accounts for language teaching and learning from psychological and musical perspectives, which could lead to new research trends in

overlapping areas. This study can also give insights on new teaching methodologies as well as the music-based curriculum design.

## 2 Relevant Studies

As the paper focuses on how music helps children memorize vocabulary, this section briefly explores theoretical framework of music and memory, as well as previous studies relevant to the paper.

### 2.1 Music and Memory

Memory is controlled by hippocampus in the temporal lobe of the brain stores, which processes information through chemical materials among neurons. The process of memorization is best described in Atkinson-Shiffrin's Information-Processing Theory of Memory (IP Model). Memorization starts with stimuli from the outside environment. Information entering into the nervous system through various senses is stored in Sensory Register. Senses in focus then enter into Short-Term Memory (STM), which stores five to nine digits at a time. Information that goes through a process of elaborate rehearsal<sup>1</sup> successfully passes into Long-Term Memory (LTM), which stores unlimited content permanently (Slavin, 2012). There are also three phases of memorization (Trawiński, 2005). Encoding involves forming a code from sensory information to semantic information. It passes the information from STM to LTM. Storage involves maintaining encoded information in memory over time and it is essential for future retrieval process. Retrieval is an opposite process to encoding. It returns the information from LTM to STM. Below is the diagram of the information-processing model.

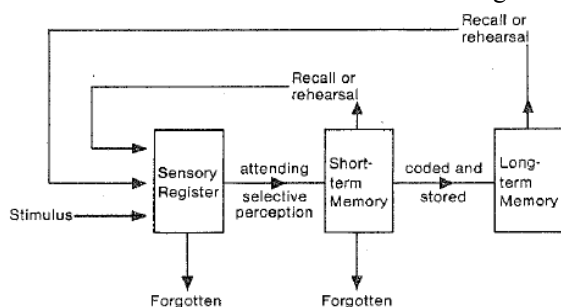


Fig. 5. Information-processing model of memory (Slavin, 2012)

A large and growing body of literature has investigated the music as a mnemonic tool (Wallace, 1994; McElhinney & Annett, 1996; Salcedo, 2010). Wallace conducted an experimental study on the effects of melody on text recall (1994). The results showed that verbatim recall percentage was significantly higher when the text and melody were integrated. Music acts as a recall cue in both encoding and retrieving phases. At the encoding phase, the melody connects the lines and stanzas as an integrated part and facilitates understanding. At the retrieval phase, it provides a framework, indicating how many information should be recalled (Wallace, 1994). McElhinney and Annett demonstrated that musical accompaniment aids word recall (1996). Participants were required to memorize the lyrics either in a song format or a read-aloud format. Results showed higher recall percentage when the to-be-remembered lyrics were sung rather than spoken (McElhinney & Annett, 1996).

Despite the positive effects music associated with memory, there is still evidence showing little connection between the two variables (Rainey & Larsen, 2002; Sims, 2008). Rainey and Larsen tested how the familiarity of melody influences text recall (2002). The initial experiment revealed no group differences when the text was accompanied by an unfamiliar melody. In the second experiment, the recall percentage was higher in the "music group" when participants learned the text with a familiar melody. Participants exposed to a new song must accomplish the dual task of learning a new melody and a new text at the same time. In this case, music may be a distractor rather than a motivator for recall. In another study, Sims compared the impact song/spoken format on word recall (2008). When the target sentences were spoken, the recall percentage was higher than that in the song condition. Wallace explained that music may be a cognitive burden for the memory capacity. It may distract learners from the task recall. In the encoding phase, music may compete with the information in the sensory register and impede the storage process (Wallace, 1994).

<sup>1</sup> Elaborate rehearsal: A kind of rehearsal that relates new information to knowledge already stored in long-term memory.

## 2.2 Music and Language Learning

Children can acquire their L1 subconsciously at a staggering rate; however, learning a second language requires extra brain activities. Putamen, part of the basal ganglia in the brain, is activated when learners speak a second language around seven years old, while it does not happen in the native language (Mori, 2011). The relationship between music and different language aspects were investigated.

### 2.2.1 Music and Vocabulary Learning

A considerable amount of literature has shown that music helps vocabulary learning (Kohler, 2000; Legg, 2009; Mori, 2011). Kohler put a modified Suggestopedia into practice (2000). Three types of vocabulary were read aloud either with or without music. After three days' training, the music group scored much higher than the non-music group in the vocabulary test (Kohler, 2000). Music can be a motivating tool. It improves independent learning and encourages learning responsibility. Logical and repeated rhythm also raises the familiarity of words (Shtakser, 2001). In another study, Legg compared the traditional audiolingual method and the singing-engaged method in two groups to teach L2 French vocabulary (2009). He concluded that music is an effective teaching tool in vocabulary learning. Learning vocabulary through singing can improve L2 French vocabulary retention. The positive outcome may be due to the catchy melody (Legg, 2009). Also, Mori investigated how L2 Japanese college students learned transitive and intransitive verbs through the medium of song (2011). "Singing group" engaged in singing the song, whereas "text group" repeated the lyrics verbally. The music group scored statistically higher than the non-music group in the delayed posttest, which shows that music has a long-term effect on L2 vocabulary acquisition (Mori, 2011).

Besides positive examples, there is still evidence against this view. Ayotte's study examined the accuracy of verb forms on two groups of L2 French learners (2004). Both immediate and delayed post-tests showed no significant differences in the grammatical accuracy of any verb forms between two groups. Listening to the songs in FL classrooms may not be helpful in students' acquisition of verb forms (2004).

### 2.2.2 Music and other Language Skills

Studies also investigated music and other aspects of language learning. Contemporary Music Approach (CMA) is a way of learning grammar knowledge through music. Results showed that 93% students enjoyed learning by CMA; 98% felt CMA helped them learn the grammar (Anton, 1990). Music can also be a facilitating tool in improving reading skills. Based on Zoltán Kodály's theories<sup>2</sup> of musical training, Hurwitz found out that "Music group", who were taught pitch/rhythmic notation, clapping activities and singing games had higher reading test scores than the "non-music group" (Hurwitz, 1975). Karimer went on investigating whether using music in classrooms could develop students' STM for phonological learning (1984). EFL participants listened to a series of English phonemes and were required to distinguish between similar and dissimilar initial and final phonemes in English. Results showed that "music group" scored significantly higher than "non-music" group in distinguishing English phonemes (Karimer, 1984).

## 3 Methodology

A two-group experiment was administered. The independent variable for this study is the condition: music group and non-music group. The dependent variable is the mean score of two groups' tests.

### 3.1 Participants

Participants were from Xiangzhou No.2 Primary School. Since memory ability increases as the brain gets mature, the optimal age is around adolescence (Koelsch, 2012). Grade 6 students with an average age of 12 have been selected for this study. There are 91 participants in total, with 46 in the music group and 45 in the non-music group. Two groups of students were categorized regarding their final exam score last semester. Finally, class 2 and 4 have been selected with the approximately same English proficiency.

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<sup>2</sup> Kodály method: It is an approach to musical education developed in Hungary. It contains a series of principles of educating young children through singing.

## 3.2 Instruments

Target vocabulary contains both words and phrases, which were all chosen from a song “*Everything at once*”. Instruments consist of three tests and one questionnaire.

### 3.2.1 Tests

The pretest (Appendix A) is designed to choose the target vocabulary that the participants are not familiar with. It was given to the participants one week before the experiment. 75 words were displayed with 2 words as a pair in a row. They were required to write corresponding Chinese meaning. One mark was given only when paired word (two words) were correct. Finally, 16 words were chosen as the target words. These 16 words can be divided into 8 phrases.

Immediate post-test was given to the participants right after the treatment session. There are two sections in the test. The first section aims at words. The second section aims at phrases. Participants should choose two words to form a proper *as...as* phrase. Delayed post-test was the same as the immediate post-test. It was given to the participants two weeks after the treatment session. Delayed post-test aims at measuring the long-term memory effect of the vocabulary retention.

### 3.2.2 Questionnaire

Participants in the music group were also asked to fill in a questionnaire after the delayed post-test. The questionnaire contains twelve questions in total, which includes participants’ musical experience and their attitudes towards music-based language learning (Appendix B).

## 3.3 Research Design

All the tests were coded with participants’ ID number. During the class, for the music group, the researcher first introduced all the target vocabulary and the sentence pattern *as...as* to the participants. In the “Practice” stage, the researcher played the song several times. A singing game was then used to strengthen their understanding towards the phrases. After that, students sang with the song.

For the non-music group, all the stages were the same as the music group except the “Practice” stage. Instead of playing the song, the researcher read the lyrics aloud. A picture dictionary game was then chosen to strengthen their understanding as well. Students then practiced the vocabulary through choral repetition.

## 3.4 Data Collection and Data Analysis

Data for the study consist of test scores, value of Likert-scaled questions and open-ended questions. Test scores was collected through the pre/posttests in the experiment. The score was measured through SPSS. Participants’ attitudes were reflected on a 0-4 Likert scale. Open-ended answers were displayed in a table form and they were categorized into positive and negative sides.

## 4 Results

The study answers the following two research questions: (1) To what extent does music-based language teaching method affect the accuracy of vocabulary retention? (2) What are learners’ attitudes towards music-based language learning? The answer of the first research question is reflected in the tests. The answer of the second research question is reflected in the questionnaire.

### 4.1 Tests

The full mark for the pretest and the posttest was 38 and 24, one mark for each question. Scores were analyzed through SPSS. An alpha level of  $p = .05$  was chosen.

#### 4.1.1 Pre-test

There was no statistically significant difference between two groups on the pre-test ( $p > .05$ ). The mean score ( $M$ ) for the music and non-music groups was .85 and .31, with a standard deviation ( $SD$ ) of 1.247 and .794 respectively (See Table 1 and 2). The pre-test ensures equal unfamiliarity of the target vocabulary to both groups.

#### 4.1.2 Immediate post-test

In the first posttest, independent  $t$ -test analysis was used to examine the score difference between groups horizontally. There was no statistically significant difference between two groups on the immediate post-test ( $Sig. = 0.174$ ,  $p > .05$ ) (See Table 3). The mean score ( $M$ ) of the music group was 13.61, with a standard deviation ( $SD$ ) of 6.472. The mean score ( $M$ ) of the non-music group was 11.80, with a standard deviation ( $SD$ ) of 6.100 (See Table. 2 and 3). The hypothesis that music group may score much higher right after the treatment session was not supported. Music did not help with children's vocabulary retention right after the learning.

#### 4.1.3 Delayed post-test

Independent  $t$ -test analysis showed no statistically significant difference between two groups on the delayed posttest ( $Sig. = 0.876$ ,  $p > .05$ ) (See Table 3). The mean score ( $M$ ) of the music group was 10.89, with a standard deviation ( $SD$ ) of 6.570. The mean score ( $M$ ) of the non-music group was 11.09, with a standard deviation ( $SD$ ) of 5.426. The prediction that music group may retain the target vocabulary into the LTM was not supported. Music did not help vocabulary retention in the long-term.

Paired sample  $t$ -test was used to examine the score difference within groups vertically. The results could reflect long-term memory effects of the target vocabulary. There was a sharp score decline within the music group between two posttests ( $Sig. = .000$ ,  $p < .05$ ) (See Table 4). Music group participants forgot the target vocabulary quickly after two weeks' interval. There was no statistically significant difference within the non-music group between two posttests ( $Sig. = .246$ ,  $p > .05$ ). Non-music group participants did not forget the target vocabulary that quickly than the music group.

**Table 1.** Means and Standard Deviations for Post-Test Scores

|                 | Pretest $M$ ( $SD$ ) | Posttest 1 $M$ ( $SD$ ) | Posttest 2 $M$ ( $SD$ ) |
|-----------------|----------------------|-------------------------|-------------------------|
| Music group     | .85 (1.247)          | 13.61 (6.472)           | 10.89 (6.570)           |
| Non-music group | .31 (.793)           | 11.80 (6.100)           | 11.09 (5.426)           |

**Table 2.** Mean Score Comparison

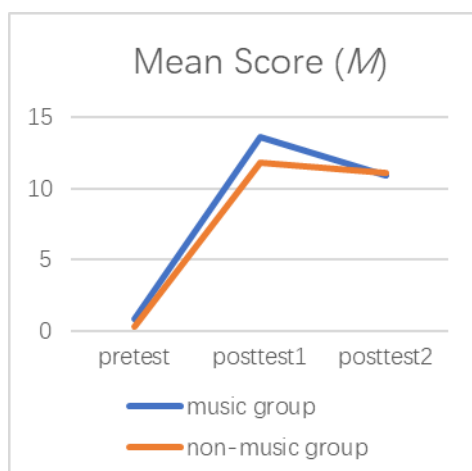


**Table 3.** Independent Samples T-test Analysis (between groups on two post-tests)

| t-test for Equality of Means |                    |                                           |       |
|------------------------------|--------------------|-------------------------------------------|-------|
| Test                         | Sig.<br>(2-tailed) | 95% Confidence Interval of the Difference |       |
| Post-test1                   | .174               | -.812                                     | 4.430 |
| Post-test2                   | .876               | -2.706                                    | 2.311 |

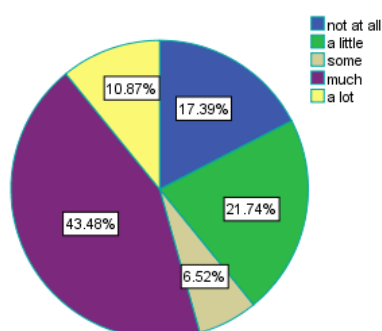
**Table 4.** Paired Samples T-test Analysis (within groups on two post-tests)

| Group     | Paired difference |                                           |       | Sig.(2-tailed) |
|-----------|-------------------|-------------------------------------------|-------|----------------|
|           | Mean difference   | 95% Confidence Interval of the Difference |       |                |
|           |                   | Lower                                     | Upper |                |
| Music     | 2.717             | 1.341                                     | 4.094 | .000           |
| Non-music | .711              | -.509                                     | 1.931 | .246           |

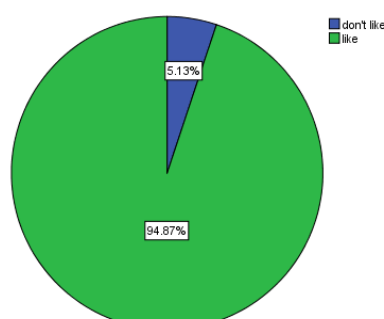
## 4.2 Questionnaire

The questionnaire asked their perceptions about the class content (See Appendix B). Of the study population, 46 subjects completed the questionnaire.

Question 4 asked them about the effectiveness of the song on the vocabulary retention. Results were reflected on a 0-4 Likert scale (0=*not at all*, 4=*a lot*). The mean score (*M*) was 2.09 with a standard deviation (*SD*) of 1.347. Of 46 participants, 82.61% thought music helped them with their vocabulary retention. 17.39% regarded music helpless in the vocabulary retention (See *Figure 2*).

**Fig. 2.** Attitudes towards the Effectiveness of the Song

Question 10 asked their attitudes towards music-based language learning (See *Figure 5*). The majority (94.87%) enjoyed learning English words with music. Only 5.13% disliked the way of learning vocabulary through music.

**Fig. 5.** Participants' Attitudes towards Music-based Language learning

Open-ended Question 13 asked participants' personal opinions about the class content and their suggestions towards English vocabulary learning. Some representative comments were listed below.

| Attitudes | Comments                                                           |
|-----------|--------------------------------------------------------------------|
| Positive  | "The melody of the song facilitates my vocabulary learning."       |
|           | "I am motivated by singing in class."                              |
|           | "Singing makes the vocabulary more impressive."                    |
|           | "The class is fun and relaxing."                                   |
|           | "Listening to music helps with my pronunciation/listening."        |
|           | "I hope we can add more musical activities in the language class." |
|           | "Besides songs, I want to watch more comics and videos in class."  |
| Negative  | "I do not think music helps me with my vocabulary learning."       |
|           | "I prefer traditional methods to learn vocabulary."                |
|           | "This song is difficult to sing."                                  |

Fig. 6. Perceptions towards Music-based Language Classes

## 5. Discussion

The present study aims at examining the use of songs in English vocabulary classes. Most of the prior studies have noted the importance of music on vocabulary learning. However, the findings of the current study did not support previous studies. Contrary to the predictions, the results did not show effectiveness when children learned the vocabulary through the medium of song. Music may not a mnemonic cue for vocabulary retention. However, children were quite enjoyable in the music-based language class.

### 5.1 Analysis of the Tests

The music group did not score higher in both immediate and delayed posttest. There are several possible explanations for this result.

Cognitive burden of information may be one of the reasons. As children listen to the song, there is a dual-coding of information. It corresponds with the findings of Koelsch, who pointed out that melody and lyrics together might share cognitive/neural resources, and thus results in brain co-activation (2012). Two stimuli contend against each other and they may place an additional burden on memory capacity. At the retrieval stage, music distracts from learning and makes vocabulary retention more difficult.

Textual characteristics may also exert an influence on the score. Vocabulary in context helps children understand the meaning and thus facilitates acquisition. Schema theory supports this opinion (Salcedo, 2010). As schema is an organized knowledge structure, the meaning of the new vocabulary should be built on the cohesive context, which results from the activation of background knowledge in one's brain. The target vocabulary (lyrics) in the song *Everything at Once* is organized phrase by phrase, and it does not contain any contextual clues. Vocabulary without context makes comprehension and memorization much more difficult.

Another possible reason may be attributed to the feature of the music. Legg indicates that only simple songs facilitate learning; otherwise, the music would be overloaded information (2009). With the help of Dr. IP, an Assistant Professor from the Musical Arts Programme, some aspects of the song were examined. The song is well-organized in a verse-chorus structure. However, the tempo is a bit fast and complicated for children ( $\text{♩} = 77$ ). Too many 16<sup>th</sup> notes, as well as dotted notes were used in the composition of the melody. The melody is monotonous without much variation, and certain music notes do not match the exact syllables. These features make the song less catchy to children.

### 5.2 Analysis of the Questionnaire

The majority (94.87%) enjoyed learning English vocabulary with music. Their joy could be observed from their total participation in class as well as their answers to the open-ended questions. Learning vocabulary through songs may be a brand-new experience for children. Different from traditional English classes which demand much on memorization and choral repetition, music-based language classes require more kinesthetic movement. In this way, music may work as a motivating tool and thus lowers affective filters. Music draws children's attention and arouses their interest in learning English. For the rest of participants who did not like learning English with music, the explanation could be attributed to individual preferences.

However, excessive motivation may exert side effects in learning vocabulary. Seldom do children have self-regulation ability. Once they are fully engaged in musical activities, they may shift their attention to the music rather than the vocabulary. That is why though most of the participants (82.61%) regarded music as an effective mnemonic cue in vocabulary retention, their actual performance was contradictory.

## **6 Conclusion**

The purpose of this study is to explore the effectiveness of music as a mnemonic cue on language learning. An experiment was carried out in Xiangzhou No.2 Primary School. Two groups of Grade 6 students were invited to take part in the experiment. Both groups took one pretest and two posttests on the target vocabulary. Music group also did a questionnaire about their perceptions of the class content. The results of the test score showed that music is not a mnemonic cue on children's lexis acquisition. In the questionnaire, the music group reported positive attitudes on music-based language learning. Most of the participants regarded music as a facilitating tool in vocabulary learning.

### **6.1 Limitations**

Three main limitations need to be considered. Firstly, except for the 10 minutes for the test, there are only 30 minutes in the treatment session. Words plus phrases demand too much on children's memory capacity. Learning sixteen new words and eight phrases in 30 minutes' time is even impossible for advanced learners. Phrases (similes) demand more comprehension skills on them.

Secondly, the target vocabulary and the tests are too difficult for them. The second part of the post-test asked participants to choose two words to form a phrase. It does not only demand their memorization ability of word meanings, but also on their comprehensibility of forming appropriate similes.

The third limitation contains uncontrollable variables. These variables include participants' familiarity with the song, personal musical experiences and external revision of the vocabulary. In the questionnaire, half of the participants reported that they had heard the song before. 63% reported that they had received musical training experiences. Besides, it cannot be sure whether or not the participants reviewed the target vocabulary in two weeks' interval. Though these variables are out of the researcher's control, they may also influence the test results.

### **6.2 Implications and Suggestions**

From the results of the questionnaire, the participants are quite enjoyable in the music-based language class. According to Mori, music has benefits in language classes (2011). Music presents cultural situations and cultivates students' cultural awareness. Music makes learning more enjoyable and thus increases their motivation level. Krashen's Affective Filter Hypothesis claims that learning effects achieve a maximum when learning takes place in a relaxed and interesting atmosphere (1980). Therefore, from the description above, music can still be used in language classes but with some modifications.

Firstly, the session time should be longer than 30 minutes. If one period of a lesson is not enough to cover all vocabulary, two periods are suggested. Target vocabulary should be less than ten words/phrases. Phrases should be elaborated more with detailed examples. The chosen song should be simple and target specific vocabulary.

Secondly, reinforcing musical activities should vary from type to type. Pyper suggested different musical activities that could be used in a music-based language class (2005). Besides listening to and singing along with the song, teachers can prepare music videos or music games. They can design worksheets for students to fill in. Fill-in-blank exercise, matching exercises or incorporating dictionary work to look for different forms of a word are all good choices. Teachers can also prepare short discussion questions about the emotions and content in the song and thus cultivate their cultural awareness.

### **6.3 Future Research Direction**

This research has thrown up many questions in need of further investigation. First, this study did not count in any individual factors. Future research should concentrate on the investigation of musical training experiences and other individual differences in vocabulary learning. Besides, this study only examines language learning in vocabulary aspect. Future research could investigate more on other aspects of language learning, such as reading,

speaking or even cultural understanding. On top of that, vocabulary learning in this study is examined through a paper test, which demands more on participants' visual memory. It is recommended that further research should be undertaken on the verbal memory on vocabulary learning.

## 6.4 Final Conclusion

To sum up, this study examines the effects of music as a mnemonic cue on children's vocabulary learning. Though the results do not concord with the hypothesis, current findings add substantially insight to our understanding of music-based language teaching method. This study also gives insights for future interdisciplinary research on linguistics, music and psychology. As English is becoming a global language, learning English is a necessity for most EFL learners, especially children. The researcher truly hopes that children can pursue enjoyment and thus become autonomous learners in learning English.

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## Appendix A: Tests

### Test 1: Pre-test

Class: \_\_\_\_\_ ID number: \_\_\_\_\_

|                  |               |
|------------------|---------------|
| sly _____        | fox _____     |
| strong _____     | ox _____      |
| fast _____       | hare _____    |
| brave _____      | bear _____    |
| free _____       | bird _____    |
| neat _____       | word _____    |
| quiet _____      | mouse _____   |
| big _____        | house _____   |
| mean _____       | wolf _____    |
| sharp _____      | tooth _____   |
| deep _____       | bite _____    |
| dark _____       | night _____   |
| sweet _____      | song _____    |
| right _____      | wrong _____   |
| long _____       | road _____    |
| ugly _____       | toad _____    |
| pretty _____     | picture _____ |
| hanging _____    | fixture _____ |
| strong _____     | family _____  |
| hard _____       | nails _____   |
| grand _____      | whale _____   |
| warm _____       | sun _____     |
| silly _____      | fun _____     |
| cool _____       | tree _____    |
| scary _____      | sea _____     |
| hot _____        | fire _____    |
| cold _____       | ice _____     |
| sweet _____      | sugar _____   |
| everything _____ | nice _____    |
| old _____        | time _____    |
| straight _____   | line _____    |
| royal _____      | queen _____   |
| buzzed _____     | bee _____     |
| stealth _____    | tiger _____   |
| smooth _____     | glide _____   |
| pure _____       | melody _____  |
| bright _____     | light _____   |
| play _____       |               |

### Test 2: Pre-test

Class: \_\_\_\_\_ ID number: \_\_\_\_\_

#### 1. Please write the Chinese meaning in the blank. If not, just leave it in blank.

neat \_\_\_\_\_  
 deep \_\_\_\_\_  
 ugly \_\_\_\_\_  
 fast \_\_\_\_\_  
 hard \_\_\_\_\_  
 grand \_\_\_\_\_  
 smooth \_\_\_\_\_  
 pure \_\_\_\_\_

hare \_\_\_\_\_  
 melody \_\_\_\_\_  
 whale \_\_\_\_\_  
 glide \_\_\_\_\_  
 word \_\_\_\_\_  
 bite \_\_\_\_\_  
 toad \_\_\_\_\_  
 nail \_\_\_\_\_

2. Choose the correct words from the box and complete each sentence using *as...as*.

|        |         |        |        |                      |                     |
|--------|---------|--------|--------|----------------------|---------------------|
| Deep   | hard    | ugly   | smooth | Pure                 | a glide             |
| a hare | a bite  | fast   | grand  | a toad               | melody              |
| neat   | a whale | a nail | a word | <del>Beautiful</del> | <del>a flower</del> |

e.g., She is a beautiful girl. I think she is as beautiful as a flower.

- I cannot see what is in the river. The river is \_\_\_\_\_.
- This duck is with small head but big eyes. I don't like it. It is \_\_\_\_\_.
- Liu Xiang runs quickly. He runs \_\_\_\_\_.
- My grandma cannot eat that apple because the apple is \_\_\_\_\_.
- Look at his new big schoolbag! It is \_\_\_\_\_.
- My friend Lucy speaks good English. She speaks \_\_\_\_\_.
- Jessie sings very well. She sings \_\_\_\_\_.
- Mom always asks me to do the housework. She says that our house should be \_\_\_\_\_.

**Appendix B: Questionnaire: The perception of using songs in English vocabulary learning**

Class: \_\_\_\_\_ ID number: \_\_\_\_\_

Please complete the following questions.

Q1. Have you ever heard this song before? ☐ Yes ☐ No

Q2. Did you receive any musical training? ☐ Yes ☐ No (If you answered "No", you can move onto Q4.)

Q3. How many years and what type of musical training did you receive?

\_\_\_\_\_ year(s) of instrumental music training

\_\_\_\_\_ year(s) of school band, choir or orchestra

\_\_\_\_\_ year(s) of other(s) \_\_\_\_\_

Q4. How much do you think this song helped you remember the words and phrases in this lesson? (If you answered "Not at all", you can move onto Q11.)

☐ 1. Not at all ☐ 2. A little ☐ 3. Some ☐ 4. Much ☐ 5. A lot

Q5. Besides vocabulary, which aspect of language do you think was improved by the music heard in the lessons? (You can choose more than one option.)

☐ Culture ☐ Grammar ☐ Pronunciation ☐ Listening

Q6. Which aspect of music helped you remember the words and the phrases? (You can choose more than one option.)

☐ Melody (the tune, or voice)

☐ Rhythm (regular occurring patterns)

☐ Tempo (the speed of the song)

Q7. After the test, how much do you think the melody helped you recall the words and the phrases

☐ 1. Not at all ☐ 2. A little ☐ 3. Some ☐ 4. Much ☐ 5. A lot

Q8. After the test, how much do you think the rhythm helped you recall the words and the phrases?

☐ 1. Not at all ☐ 2. A little ☐ 3. Some ☐ 4. Much ☐ 5. A lot

Q9. After the test, how much do you think the tempo helped you recall the words and the phrases?

☐ 1. Not at all ☐ 2. A little ☐ 3. Some ☐ 4. Much ☐ 5. A lot

Q10. Did you like English vocabulary classes with music? ☐ Yes ☐ No

Please explain: \_\_\_\_\_

Q11. After we sang in class, how much did the words from the song play back in your head? (If you answered "Not at all", you can move onto Q13.)

☐ 1. Not at all ☐ 2. A little ☐ 3. Some ☐ 4. Much ☐ 5. A lot

Q12. Which aspect of the song played back in your head most?

☐ Music ☐ lyrics

Q13. If anything was left out of the questionnaire about your English vocabulary learning, please provide any relevant comments.

\_\_\_\_\_  
Thank you for your participation!

# Teachers' and Students' Views toward First Language Use in High School English Classes in China

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**Abstract.** Applying students' first language (L1) to teach the target language (TL) is a common phenomenon in the English classroom in China. Although there have been a large number of studies on using students' L1 in the teaching of English at university level, there is little updated research about teachers using the L1 in high school language teaching in China. This study examined the views of teachers and students toward the amount of students' L1 used by teachers in various types of English classes in a key high school in Guangdong, China. Participants were four teachers and 100 students from that school. First, all participating students were required to complete a questionnaire in their English lesson. Then the researcher analyzed the data from the questionnaire survey and chose five students who had most different responses to do the interview. After that, four teachers were interviewed with same questions. Additionally, the English final grades of the students were obtained to examine how their English abilities relate to their survey responses and interview responses. Statistical analysis showed that for all types of English lessons surveyed, students with higher English course grades generally disagreed the use of the L1 by the teacher to a greater extent. The interview results also showed that both teachers and students considered the use of students' L1 very necessary in grammar lessons. While students considered listening lessons to be the least important ones to use students' L1 in class, teachers believed that they should use as least students' L1 as possible in speaking lessons. Moreover, students had different views on the exclusive use of the TL in speaking classes because of their different English proficiencies. The findings suggested that no matter which type of English lessons, students' proficiency level should be the main consideration to determine how frequently L1 is used by the teacher and the teacher should try to meet students' needs when teaching.

**Keywords:** first language use, EFL classes, Grade 11, China

## 1. Introduction

Applying students' first language (L1) to teach the target language (TL) in the classroom is a common phenomenon in English classroom teaching in China. However, there is a general belief among language experts and teachers in China that the L1 should not be used in TL classrooms (Van der Meji & Zhao, 2010). Yet, Guthrie (1984) brought forward a question about whether using only the TL in the language classroom is effective for all learners, especially for the students who are beginners or in low proficiency of the TL. Researchers analyzed that teachers using students' L1 in the TL classroom is a spontaneous behavioral activity (Adendorff, 1996), and it is an important tool for L2 learners to acquire the TL (Cook, 2001). By far, teachers seem to employ code-switching (interchanging of the L1 and the TL) effectively in English-as-a-foreign-language (EFL) courses as a tool in language teaching (Kasperzyk, 2005). In China, normally the class size is big (approximately 50-60 students in one classroom), and students, especially at the high school level, are under the pressure of mastering all required materials for examinations. Meanwhile, it was found that students' attitudes toward teachers using the students' L1 in the language classroom have great influence on the quality of their TL learning (Tang, 2002). Therefore, in order to make the language course more effective, this study focused on the analysis of both teacher and student attitudes toward the amount of students' L1 used by teachers in the English lessons in a high school.

Although there have been a large number of studies on using students' L1 in teaching in the English classroom, there is little updated research about teachers using the L1 in high school language teaching in China. Due to the fact that the English subject score in the National College Entrance Exams is very important for high school students to enter a good university in China, this study analyzed the perceptions and attitudes of both teachers and students toward the teacher's use of the L1 in high-school English lessons. The English classes under study were divided into four types: grammar, vocabulary, speaking and listening. In addition, based on the teachers and students' attitudes toward the teacher's use of the L1 in the English class, this study provided suggestions for teachers for a more effective use of the L1.

## **1.1 Research questions**

This study was guided by the following research questions:

- (1) What are the teachers' and students' attitudes toward the use of students' L1 in teacher talk in different types of English classes (grammar, vocabulary, speaking and listening)?
- (2) Do teachers and students have different attitudes toward different types of English classes?
- (3) How students' attitudes toward the use of students' L1 in teacher talk are associated with their English proficiency?

## **2. Literature review**

### **2.1 Current situations of using students' L1 in English lessons in China**

According to Van der Meji and Zhao (2010), although teachers believed that they should not use the L1 frequently, there was still no official rule spelled out regarding the use of the L1 in the English lessons in China. Teacher's use of the L1 is mainly to assist students in better grasping specific technical terms and abstract concepts, in particular in content-based language learning classrooms in China (Lo, 2015). Tien and Liu (2006) found out that high school students preferred their teachers to use both the L1 and the TL in their EFL class because it was beneficial to them to comprehend information.

### **2.2 The overview of teachers using the L1 in different types of English lessons**

According to Cook (2001), grammar and vocabulary learning can be facilitated by using both the L1 and the TL. Teachers tend to use students' L1 more frequently when teaching grammar and vocabulary than when teaching speaking and listening. Kumar and Arenda (2012) found that in India, learners' L1 was largely used when high-school teachers gave instruction to grammar area.

### **2.3 Students' perceptions toward teacher's using students' L1 in language lessons**

It was found that university students in China hoped that the amount of the L1 used by the teacher could be reduced (Van der Meji and Zhao, 2010). A number of undergraduate students take the opposite position of teachers frequently using the L1, since they consider their target language is good (Jianjun, 2014). To be concluded, a large proportion of students preferred their teachers to use the TL in English lessons, but they considered the teacher use of students' L1 was necessary in some specific situation such as when explaining grammar points.

### **2.4 Teachers' perceptions toward using students' L1 in language lessons**

Zhou (2011) found that from teachers' perspectives, students' English proficiencies and their attitudes toward the classroom language might affect teachers' use of students' L1 in English classes. Same as the students, university teachers considered they should use more students' L1 when teaching grammar and difficult vocabulary (Zhou, 2011).

## **3. Methodology**

This study was a mixed-methods study, which collected data from both teachers and students' views toward teachers using students' L1 in English classes using the questionnaire survey and interviews. With the teachers' permission, the researcher also got the recent examination grade report of the students.

The school that participated in the study was a key high school in Guangdong Province in China. The English level of the students might be above the other high schools in inland China, especially for spoken English. The participating classes included one key class of arts and one normal class of arts at Grade 11 of the school. The teachers who were interviewed in this study had more than eight years of teaching English and they were native speakers of Chinese.

The investigation could be divided into four parts. First, the students were required to complete a questionnaire in their English lesson. Then the researcher analyzed the data of the questionnaire and chose five students who had most different responses to do the interview. After that, four teachers were interviewed with same questions. Finally, the researcher compared student's preference and their examination grade, to find out the connection between students' needs of the teacher use of L1 and their English proficiency.

### 3.1 Students questionnaire

A total of 100 students of the two classes had completed a questionnaire. The questionnaire contained nine multiple choices and one open ended question. The questionnaire provided both English and Chinese versions in order to help the students to comprehend the questions (see Appendix A for the English version of the questionnaire). A pilot study for questionnaire were taken before data collection and the wording of some question items was amended according to the results of the pilot. Students completed the questionnaire within 15 minutes.

### 3.2 Student Interviews

Five students who had provided extreme responses in the questionnaire survey were invited to do the interview. They were asked in Chinese about views and attitudes toward teacher using the L1 in English grammar, vocabulary, speaking and listening classes (see Appendix B for the English translation of the interview questions). Each student was interviewed for approximately ten minutes. I took notes as well as recorded the interview by phone.

In order to increase the reliability of the study, before every student was interviewed, I explained and encouraged them to express their true feelings, and I freely talked with them before the interview in order to provide them a relaxed atmosphere to answer the questions. The questions were asked in semi-structure.

### 3.3 Teachers Interviews

The teachers' interviews were done after class on November 6, 2017. Four teachers were interviewed individually. They were asked the same questions as the students. Each teacher was interviewed about 10 to 15 minutes.

### 3.4 The Comparison between Students' Preference of the Use of L1 and their English Proficiency

After the data collection, the researcher analyzed the data of the five top questions in students' questionnaire, and compared the data with their examination report by using Excel and SPSS.

## 4. Results

### 4.1 Students' views on L1 used by the teachers in various types of English classes

#### 4.1.1 Survey responses

There were 100 students (52 from an average class and 48 from an elite class) participated in the questionnaire survey. The results are presented in Table 1 and Table 2. According to the results, grammar was the type of English most students agreed to the use of L1 by the teacher. Most students reported that using student's L1 in teacher talk is essential in grammar lessons, while they considered listening was the least important to use students' L1 in class. Approximately half of them thought that the teacher using students' L1 in vocabulary lessons and speaking lessons was necessary.

**Table 1.** Students' responses ( $N=100$ ) toward the necessity of using students' L1 in teacher talk in various types of English lessons

| Type of English lessons | Mean | Standard Deviation |
|-------------------------|------|--------------------|
| Grammar                 | 3.84 | 0.90               |
| Vocabulary              | 2.6  | 1.19               |
| Speaking                | 2.38 | 1.53               |
| Listening               | 2.23 | 1.16               |
| Overall                 | 4.27 | 0.85               |

Note. A 5-point scale was used: 5 = *Strongly agree*, 4 = *Agree*, 3 = *Neutral*, 2 = *Disagree*, 1 = *Strongly disagree*.

**Table 2.** Students' responses (N=100) towards the usefulness of using students' L1 in teacher talk in various types of English lessons

| Type of lessons | Number of Response (%) |          |               | Total Responses(%) |
|-----------------|------------------------|----------|---------------|--------------------|
|                 | Really helpful         | so-so    | not necessary |                    |
| Grammar         | 74 (74%)               | 10 (10%) | 16 (16%)      | 100 (100%)         |
| Vocabulary      | 36 (36%)               | 14 (14%) | 50 (50%)      | 100 (100%)         |
| Speaking        | 50 (50%)               | 2 (2%)   | 48 (48%)      | 100 (100%)         |
| Listening       | 24 (24%)               | 10 (10%) | 66 (66%)      | 100 (100%)         |

Note. 100 students were selected from one average class and one key class

#### 4.1.2 Interview results

A total of five students were interviewed regarding the teacher using their L1 in various types of English lessons. For the grammar lessons, four students considered that the teacher using students' L1 to explain grammar rules was necessary. Most of the students (80%) found it difficult for them to understand the rules if the teacher used the TL only to explain them. For vocabulary lessons, the majority of the students (80%) stated that their L1 was not necessary because the textbook had already shown the meaning of the vocabulary in Chinese. For speaking lessons, three students (60%) thought that the TL environment should be provided to improve their speaking ability. They wanted to be immersed in an exclusive TL environment. Whereas two students (40%) believed that the teacher should also use students' L1 to explain the speaking skills because they had to take an oral test in the National College Entrance Exams. For the listening lessons, all participants considered the teacher using students' L1 was unnecessary. They preferred the teacher followed the original content and further explained the details rather than translating the content into Chinese.

#### 4.1.3 The connection between students' needs of the use of the L1 by the teacher and their English proficiency

Pearson correlation coefficients were computed to determine the associations between students' English subject scores and their responses toward the necessity of using students' L1 in teacher talk in various types of English lessons. The result is presented in Table 3. As can be seen from Table 3, there was a strong and negative correlation between students' preference of using the L1 by their teacher in English class and their English subject scores. For all types of English lessons surveyed, students with higher English proficiency (in terms of their English subject scores) was associated with a greater extent of disagreement of the use of the L1 by the teacher.

**Table 3.** Pearson correlation between students' English subject scores and their responses toward the necessity of using students' L1 in teacher talk in various types of English lessons

| English subject score           | Lesson types |         |            |          |           |
|---------------------------------|--------------|---------|------------|----------|-----------|
|                                 | Overall      | Grammar | Vocabulary | Speaking | Listening |
| Pearson correlation coefficient | -0.729       | -0.743  | -0.680     | -0.654   | -0.623    |
| p-value                         | 0.00         | 0.00    | 0.00       | 0.00     | 0.00      |

Note. (1) A 5-point scale was used: 5 = *Strongly agree*, 4 = *Agree*, 3 = *Neutral*, 2 = *Disagree*, 1 = *Strongly disagree*.

(2) The total score of the English examination was 150.

#### 4.2 Teachers' views on using students' L1 in English classes

Four teachers were interviewed for their views on using students' L1 in English classes. For grammar lessons, all teachers said that the students' L1 was largely used because it could save time and the grammar points could reach students more efficiently. For vocabulary lessons, three teachers (75%) said that they used both students' L1 and the TL and sometimes used code-switching to explain the meaning. They used students' L1 to explain the special use of the vocabulary and used the vocabulary to make sentences in the TL. For speaking and listening lessons, all teachers said that they seldom used students' L1. They believed that students could follow what they said and they wanted to offer students opportunities to practice speaking and listening in the TL. They only used students' L1 when explaining the speaking skills about how to answer questions on the National College Entrance Exam.

## 5. Discussion

The results showed that both teachers and students considered the use of students' L1 necessary in English classes, especially for the grammar classes. A possible reason for this was that in the high school, the students were under the exam-oriented system, which required teachers to explain the points and the skills in detail, so as to ensure students at all different levels could get higher scores. Meanwhile, according to the teachers, the main reason for using students' L1 in English lessons was to save time and to make the teaching more effective.

It was found that in Japan that regardless of the students' proficiency level, most students appreciated that the classes were conducted in English only rather than using L1 (Tsukamoto, 2011). However, the results of my study showed that there was a negative correlation between students' preference of the use of the L1 by their teacher in English class and their English proficiencies. Through the questionnaire and the in-depth interviews, both students and teachers provided different expectations of the use of students' L1 in different types of English lessons. From the interview, I found that both participating students and teachers considered using students' L1 in grammar classes very necessary and teachers tended to use students' L1 frequently when teaching grammar points. As for vocabulary, both the participating students and teachers had the same agreement toward the extent of using students' L1 by the teacher in the vocabulary classes. For listening lessons, both students and teachers considered the present teaching method suitable for them. They thought that the use of students' L1 in the listening lessons was not that necessary, only when the teacher used it to explain difficult points and gave instruction. They still expected that the students' L1 could be reduced in the listening classes. For speaking, the participating teachers claimed that they wanted to create a pure English-speaking environment to students, whereas students had different views on the teaching method of speaking lessons. Some of them desired to immerse themselves in a pure English environment, while some of them mentioned that they could not follow the English activities if the teacher only used the TL to give instruction. The reason may be that the students in the class were in different English levels. Therefore, the teacher can divide students into groups according to their English proficiency and give different instructions and activities for them to practice in the speaking classes.

### 5.1 Pedagogical Implications

This study has implications for language teaching practice. Teachers can maximize the provision of useful TL samples by avoiding the use of the L1, and insist that the TL should be the language of real communication in the English classroom (Cook, 2001). A majority of the participating students and teachers considered the use of students' L1 useful, but the TL should play the leading role in the English classroom, especially in listening lessons and vocabulary lessons. Students' L1 can be used when dealing with difficult points, for example in grammar lessons, teachers can use students' L1 to explain the grammar rules to let students' better comprehend the grammar points. However, teachers still need to try to reduce the use of students' L1 in order to provide students more chances to think and speak in English, especially in listening and speaking classes.

It is important to establish principles for the use of L1/L2 according to students' abilities (Macaro, 2001). Therefore, the educators may try to meet the need of the students and put students' English proficiency and the various types of lessons into consideration when setting the teaching objective or making teaching plans. A complete set of teaching principles can guide the teachers utilize students' L1 as an academic tool and teach more effectively.

### 5.2 Limitations

This study was based on a small sample. Moreover, this sample I chose was a key high school in Guangdong province, so most of the students had higher English proficiency than students in other high schools. They might expect less L1 use in their English classes than other students. Therefore, the results may not reflect the need of students from other high schools in China regarding the use of L1 by the teacher in their English classes in China. Another limitation is that the study only investigates the use of L1 by the teacher without investigating L1 use by students in the English classroom. Therefore, a further study may pay more attention to the L1 use by students.

## 6. Conclusion

This study investigated the teachers' and students' views toward the use of student's L1 by the teacher in different types of English lessons through a questionnaire survey and interview. The results have shown that both teachers and students considered the use of students' L1 very necessary in grammar lessons, followed by speaking, vocabulary and listening lessons. Most students felt comfortable with the amount of time the teacher

used students' L1 in grammar lessons and listening lessons. However, students had different needs in speaking lessons because of their various English proficiencies. From teachers' perspective, using students' L1 in English classes is an effective and time-saving tool to ensure students' understanding and modulate teaching method. Meanwhile, they preferred to reduce using students' L1 in speaking and listening lessons to offer students a pure or almost pure English environment to practice.

To conclude, no matter which type of English lesson, students' level should be the main role to determine how frequently L1 is used by the teacher in the classroom in particular in speaking classes. The education department for high schools in China may consider it when planning the guidance for teaching, and teachers should try to meet students' needs when teaching.

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## Appendix A: English translation of students' questionnaire

Date : \_\_\_\_\_ Name : \_\_\_\_\_

Project Title: Teachers' and Students' Views toward First Language Use by Teachers in High School English Classes in China

You are invited to participate in this research. Its aim is to teachers and students' perceptions toward teacher use of L1 in the English class and provide suggestions for teacher, in order to make the language course become more effective and help students to achieve higher grades.

You will complete a questionnaire, which contains 9 multiple choices and 2 open questions. All of the information will only be used for the research. The information will be protected and kept confidential, and the teacher will not read your responses. You may omit any question or you may quit the survey at any time. Your completion of the questionnaire indicates your consent.

Perception about students' first language (L1) use by teacher in English classes: Please select the options by circling.

1. I think teacher using students' L1 in English class is necessary.  
a. Strongly agree b. agree c. neutral d. disagree e. strongly disagree
2. When learning grammar, I hope my teacher use students' L1 frequently.  
a. Strongly agree b. agree c. neutral d. disagree e. strongly disagree
3. When learning vocabulary, I hope my teacher use students' L1 frequently.  
a. Strongly agree b. agree c. neutral d. disagree e. strongly disagree
4. When learning speaking, I hope my teacher use students' L1 frequently.  
a. Strongly agree b. agree c. neutral d. disagree e. strongly disagree
5. When learning listening, I hope my teacher use students' L1 frequently.  
a. Strongly agree b. agree c. neutral d. disagree e. strongly disagree
6. When my teacher uses students' L1 when teaching grammar, I feel...  
a. it is easier for me to understand the grammar.  
b. it is no difference.  
c. it is unnecessary and waste of time.
7. When my teacher uses students' L1 when teaching vocabulary, I feel...  
a. it is easier for me to understand the meaning of the vocabulary.  
b. it is no difference.  
c. it is unnecessary and waste of time.
8. When my teacher uses students' L1 when teaching speaking, I feel...  
a. it is easier for me to master the speaking skills.  
b. it is no difference.  
c. it is unnecessary and waste of time.
9. When my teacher uses students' L1 when teaching listening, I feel...  
a. it is easier for me to comprehend.  
b. it is no difference.  
c. it is unnecessary and waste of time.
10. Do you have any other comments about the teacher using students' L1 in English class?

## Appendix B: English translation of Interview Questions

1. When does your teacher usually use students' first language in English classes? Do you like it?
2. What type of English classes do you think teacher should use more students' first language? Why?
3. Under what circumstance do you think teacher should use more students' first language in English classes? Why?
4. Under what circumstance do you think teacher should use less students' first language in English classes? Why?
5. When do you think it is necessary for the teacher to use students' first language in English classes?
6. Do you have any comments or suggestions on teacher using students' first language in English classes?

# Language Ideology and Attitudes towards English Accents

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**Abstract.** This research serves to investigate English major undergraduates' preferences towards different pronunciation models, and factors affecting their choices. Attitudes towards their own accents and someone's strong Chinese accent were also examined, through which the issue of learner identity was raised. Bilingual questionnaires partially adapted from Benková (2013) and Rindal (2010) involving both close and open-ended questions were given to 108 participants. The results showed that American and British accents were viewed as the pronunciation models, although learners from Southern China slightly preferred the British accent while learners from Northern China preferred the American one. Two main factors affecting their choices were the influence of mass media and learners' previous English learning experiences. The majority of respondents held a negative attitude towards their own accent and Chinese accents in general. These results indeed reflected the ingrained influence of the *nativeness principle* and the *native speaker fallacy* in China. In order to make learners feel motivated and confident in pronunciation learning, awareness should to be raised among Chinese learners to appreciate their own accent by valuing intelligibility rather than purely pursuing native accents. More importantly, the construction of learner identity and discrimination towards Non-Native English Speaker Teachers (NNESTs) in the ELT profession remain.

**Keywords:** accent, EIL, intelligibility, learner identity, native speaker fallacy

## 1. Introduction

The global position of English is nowadays unassailable due to a range of historical, political and economic factors, resulting in increasing enthusiasm for research in the English Language Teaching (ELT) field. One issue that is controversial is 'which model?', especially in pronunciation teaching. Stern (1983) contributed to the debate by raising the question 'should the class be taught American English or British English?'. The standard British accent, commonly referred to as the Received Pronunciation (RP), and the standard American accent, commonly referred to as the General American (GA), are typically considered as the orthodoxies for providing norms in pronunciation teaching (Brown, 1992).

In 2001, the Chinese government has made English a compulsory taught subject in primary schools from Grade 3. However, the model for pronunciation teaching is largely influenced by the textbook. This varies from place to place as the freedom of choosing the textbook is given to each city, sometimes even each school. (Department of Education of Hainan Province, 2008). This leads to different pronunciation models (either RP or GA), is taught in different regions in China. Although differences exist, one thing in common is that Chinese learners have no say in the pronunciation they are taught. Another problem is that in the process of choosing between RP and GA as their ideal pronunciation model, learners often look down on the Chinese English accent, which may have a negative impact on their identity.

Little research has been done in China about learners' attitudes towards different pronunciation models, especially the factors affecting their language ideology. He (2004) found that British English was preferred as the pronunciation model due to its high prestige. To study the influence that the Internet has on making learning materials diverse and attractive, Benková (2013) studied Czech students' preferred pronunciation model by focusing on English songs, TV series and films.

There are presumably more factors other than the influence of mass media, and this research aims to investigate what they are and how they affect Chinese EFL learners choosing their pronunciation model. Underlying the issue of pronunciation teaching and learning in China, attitudes towards the Chinese English accent and learners' identity are also worth concerning. The research questions for this study are:

- i. What accents are normally considered as pronunciation models among Chinese EFL learners? Which one is preferred, the British accent or the American accent?
- ii. What factors affect learners' language ideology in choosing their pronunciation model?
- iii. Is there any correlation between learners' attitudes towards those pronunciation models and their attitudes towards the Chinese English accent?

Two testable hypotheses are proposed, with the first one based on He's (2004) attitude study in Guangdong University of Foreign Studies and the second one based on similar research conducted in Czech Republic by Benková (2013).

- 1) RP and GA are still considered as the English pronunciation models in China, and Chinese EFL learners are more inclined to learn the British accent.
- 2) Possible factors might be (1) the influence from schools and teachers, (2) learners' contact with English (studying abroad experiences and chances to use English), (3) the influence of the mass media like music, movies, or TV series.

## 2. Literature Review

A classic dichotomy in pronunciation teaching and learning is whether learners should aim to sound like native speakers or to have an intelligible accent with its own distinctive identity. Reflected in Levis' (2005) pronunciation pedagogy, there are two competing ideologies that have far-reaching impact: the *nativeness principle* and the *intelligibility principle*. Evidence shows native speaker norms are being challenged due to the flourishing condition of EIL. (Jenkins, 2000) Learners' identity issue is also embedded here, as accent actually signals one's social belonging. (Levis, 2005)

### 2.1 Traditional Approach: the *Nativeness Principle* and Kachru's Theory

The *nativeness principle* considers adopting native-like pronunciation as learners' ultimate goal. This principle took a dominant position before the 1960s. (Levis, 2005) However, Kachru (1992: 356-357) proposed *Three Circles of English*, an influential framework to describe the multiplexity of English speakers. The world was divided into the *Inner*, *Outer* and *Expanding Circles*. The Inner Circle, countries where the majority use English as their mother tongue, is *norm-providing*. Nevertheless, China as a member of the Expanding Circles is *norm-dependent*. This idea is compatible with the *nativeness principle* and has an effect on learners. Previous research from Kirkpatrick and Xu (2002) has noted that the native speaker model is still preferred by the greater majority of all stakeholders in China.

### 2.2 Modern Approach: the *Intelligibility Principle* and Jenkins' Theory

The *intelligibility principle* is gaining popularity in the context of EIL. It says that having an intelligible accent has priority over sounding native-like for learners. This has been strongly supported by linguists who advocate *World Englishes* such as Crystal (2012), Jenkins (2000), and Seargeant (1992). The rationale, from Jenkins' (2000) perspective on 'teachability' and 'learnability', is that targeting at native-speaker accents is neither necessary nor realistic for learners. To solve this problem, her *Lingua Franca Core* identifies a set of phonological features for learners in order to achieve mutual intelligibility. Noticeably, sounds like [θ] or [ð] are actually inefficient to be included in syllabuses. (Jenkins, 2000)

### 2.3 A Current Paradigm Shift

With these two ideologies developing chronologically, pronunciation teaching is currently experiencing a paradigm shift. (Levis, 2005) The core of teaching pronunciation should be intelligibility rather than nativeness. However, this paradigm shift is by no means clear in China.

### 2.4 Accent and Identity

Language choices are 'acts of identity' (Le Page & Tabouret-Keller, 1985) through which speakers can associate with or distinguish themselves from certain groups. By adopting an accent, speakers claim an affiliation with a particular community. However, learners may feel uncomfortable if they abandon features of mother tongue when speaking English. This can create a sense of separation and threaten their identity. (Dalton & Seidlhofer, 1994) Brown (1992) viewed setting a local variety of English as the model as a sensible move. In China, people who speak English with a strong Chinese accent are sometimes looked down on as native speaker norms are so ingrained that anything different from standard American and British accents might be viewed as lack of proficiency.

### 3. Methodology

#### 3.1 Research Design

The research was conducted through bilingual questionnaires (See *Appendix*), with both learners' Target Language (TL) English and their Native Language (NL). Answers provided in their TL and NL were both acceptable, with the aim of reducing the participants' efforts and allowing them to express what they truly wanted.

#### 3.2 Participants

108 Chinese undergraduates majoring in English completed the questionnaire. All had at least seven years of English learning. 95 were female and 13 were male, which reflects the gender imbalance in majoring in English in China. They were divided into two groups: Group A had 44 students from *China University of Petroleum* (UPC), a national public university using Putonghua as a Medium of Instruction (MoI) located in Qingdao in Northern China. Group B included 64 students from *BNU-HKBU United International College* (UIC), an English as a Medium of Instruction (EMI) university located in Zhuhai in Southern China. Convenience sampling was adopted.

#### 3.3 Instruments

The questionnaire was designed in an eclectic way. Six (5, 16, 17, 18, 19, 20) were adapted from Benková (2013) and five (6, 7, 8, 11, 12) were adapted from Rindal (2010). The questionnaire is given in the appendix. Section One asked for background information (gender, age, birth place, abroad experiences, etc). Section Two asked previous English learning experiences (teachers and textbooks). Learners' preferred pronunciation models was also asked, followed by five open questions (10, 12-15) to state their reasons and attitudes towards the Chinese accent. 16 to 20 aimed to investigate whether social influence and mass media would play a role.

#### 3.4 Procedures

The data from Group A was collected on Sep. 13, 2017 at UPC. Hard copies of the questionnaire were distributed at the beginning of their regular English class. The data from Group B was collected online between Dec. 7 to 11, 2017. An electronic form of the questionnaire using the Jinshuju platform was used for this group.

#### 3.5 Data Analysis

The quantitative data was analyzed directly by the Jinshuju platform and presented through bar charts. The qualitative data from open questions, however, was carefully analyzed by using the Excel software. The responses were categorized based on their similarities. Significant responses were either quoted or translated into English.

### 4. Results

#### 4.1 Pronunciation Models and Preferences

There are two questions which aim to discover participants' pronunciation models.

**Question 9: Which accent of English do you prefer to hear?**

Among all of the 108 entries, 54 (50%) preferred to hear the American accent, while 51 (47.2%) preferred the British one. None of them actually chose the Chinese one. Even though the American accent and the British accent were apparently preferred, there were still 19 (17.6%) who agreed on 'Accent doesn't matter as long as I can understand'. Reasons were

- *Everybody has accent, so it doesn't matter*
- *I mean sometimes accent can be a part of your identity. We don't need to focus too much on accent. We are Chinese*

- 口音不可避免，就算是个英国人，来自英国的不同城市，口音多少也会有点差别 [Accents are inevitable. Even if for Englishmen, their accents will be somewhat different if they were from different cities in Britain]
- 语言的本质是交流，每个人都有口音，只要能听懂，说清楚，就达到了交流的目的。不应该因为口音区分一个人的高低贵贱 [The essence of a language is to communicate. Everyone has accent. As long as it is clear and understandable enough, the communication purpose can be achieved. One shouldn't judge whether the speaker is highborn or baseborn, superior or inferior based on his or her accent]

#### Question 11: Which accent are you aiming at when you speak English?

Among all, 59 (54.6%) aimed at speaking English with an American accent, while 48 (44.4%) chose 'British'. Noticeably, 13 (12.0%) just wanted to have any native speaker accent. Reasons could be categorized into two types: one focuses on intelligibility, like *Meaningful communications are even more important than perfect pronunciation and perfect accent*; the other emphasizes accuracy, such as

- 比较希望口音比较标准，无论哪种靠近 native speaker 就好 [hope my accent is fairly accurate. No matter which type, as long as it is near native]
- 要说好一门语言，重要的是纯正和标准，能够融入当地语言的使用习惯，不让别人觉得奇怪 [the keys of mastering a language are authenticity and accuracy, being able to accommodate one's accent with local accustomed language use so that others won't feel weird]

Nevertheless, only 5 (4.6%) viewed intelligibility as the vital matter, clarifying

- The main point of a conversation is the context, as long as I can convey my idea clearly, my saying is efficient
- 我不因为自己有口音而感到耻辱，只要我确实说清楚了，你不能听懂是你的问题 [I'm not ashamed of the fact that I have an accent. If I speak clearly enough, but you cannot understand, then it's your problem]

#### 4.1.1 Meaningful Comparisons between the Two Groups

##### Question 9: Which accent of English do you prefer to hear?



Fig. 1. The results of Group A for Question 9

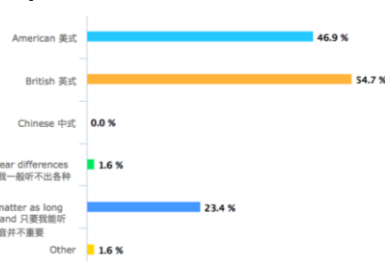


Fig. 2. The results of Group B for Question 9

Group A (See Figure 1) preferred to hear the American accent, whereas Group B (See Figure 2) preferred to hear the British accent. One significant finding is that only 4 (9.1%) agreed on the view that accent does not matter if they can understand it. Nevertheless, 15 (23.4%) of Group B agreed on the same view.

##### Question 11: Which accent are you aiming at when you speak English?

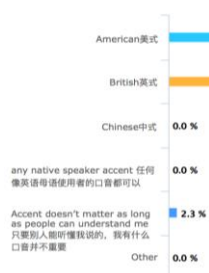


Fig. 3. The results of Group A for Question 11

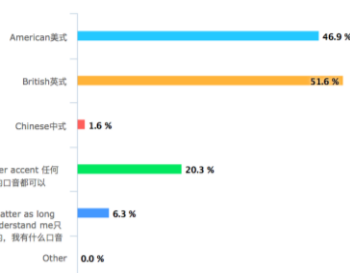


Fig. 4. The results of Group B for Question 11

The majority of Group A chose ‘American’, while the majority of Group B chose ‘British’. As shown in *Figure 3* and *Figure 4*, the main difference was precisely located in the green column, where 20.3% of Group B aimed at speaking ‘any native speaker accent’, while none of Group A agreed. Noticeably, the only one who chose the Chinese accent was from Group B. The reason, stated by the participant, was 好学 [easy to learn]. Concurrently, the participants of Group B who believed ‘Accent doesn’t matter as long as people can understand me’ obviously outnumbered the corresponding section of Group A.

## 4.2 Factors Affecting Learners’ Language Ideology

From a **cultural** perspective, interestingly, although most participants preferred the American accent, the majority (61.1%) would move to the U.K. if they had to. For those 35 participants who had stayed in an English-speaking country, no clear correlation has been identified between the place and the accent they preferred.

As to **previous learning experiences**, 59.3% chose ‘Chinese’ for their teachers’ accents, followed by ‘American’ (33.3%) and ‘British’ (16.7%). 41.7% reported both the American and British accents were used by the textbook. More (31.5%) believed that the American accent was favoured than the British one (21.3%).

With regard to the **social interaction**, the nationality of the people they regularly spoke with in English did not affect their choices significantly. In fact, 7 out of 33 who frequently spoke with their American friends preferred the British accent.

**The influence of mass media** is reflected by Question 17 to 20. More than a half listened to English songs everyday, but only watched movies and TV series 1-3 times per week. American songs, movies and TV series were preferred overwhelmingly with the percentage of 89.8%, 85.2%, and 74.1% respectively.

## 4.3 Attitudes towards the Chinese Accent

When they described their own accent, 26 mentioned ‘中式英语’ or ‘Chinglish’. 35 used ‘not accurate’, ‘not authentic’, ‘not very native’, ‘not natural’, or ‘poor’ to show negative attitudes. Several interesting descriptions are provided for further discussion:

- *It's not very authentic American English. And it should be improved.*
- *I think my accent is pretty good among Chinese, but I know it's still far away from native English speaker's accent, so I still need to make more progress.*
- *More American, without the accents of my hometown*
- *Watch too much movies and series. So nearly every foreign friend of mine believed that I have at least stayed in America for a while... But it's all imitation*
- *没甩掉 chinglish 的影子, 现在是半英半美, 努力向纯美靠近 [failed to get rid of the influence from chinglish. Now half British, half American. Work hard to get closer to a pure American accent]*
- *还行吧没有口音 [Not too bad. I don't have any accent]*

When examining their accent, 29 liked their accent. ‘Quite standard’, ‘understood by foreigners’, ‘unique’, ‘formal’ were given as reasons. By contrast, 49 admitted that their accent did not please them. Most of them included ‘Chinglish’, ‘not native’, ‘not authentic’, or ‘not accurate’ in their reasons. Two entries worth mentioning:

- *我的一切都是自己的一部分, 为什么要不喜欢自己? [Everything about me is all part of myself. Why will I not like myself?]*
- *‘口音生硬, 自己难以对语言注入感情’ [My accent sounds dull. It is rather difficult for me to have feelings for the English language]*

Feelings towards hearing a strong Chinese accent were also investigated. Neutral, positive and negative answers were all provided with the negative one being the overwhelming majority (66.7%). Adjectives like ‘uncomfortable’, ‘sad’, ‘awkward’, ‘strange’, ‘terrible’, ‘funny’, ‘low’, ‘not authentic’, and ‘not well educated’ occurred frequently. Some comments were given with a strong dislike or even hateful attitudes:

- *er.... fine... ren3 [sic] want to escape...*
- *难受哇! 心里翻白眼咯! [Really uncomfortable! Roll my eyes at them in my heart!]*
- *这个人在我心目中的形象毁了, 反正感觉没水平 [The impression of this person in my heart will be completely ruined. Anyway, feel like low level]*
- *浑身发痒, 想要帮他纠正 [Makes my body itchy. Wanna correct them]*
- *希望他闭嘴 [Hope he or she can shut up]*
- *很丢脸 [Lose face, really]*

Contrasting the comments above, a small portion of positive responses were given:

- *可以理解 [Understandable]*

- 觉得很可爱 hhhh [Feel very cute haha]
- 感同身受哈哈哈哈哈 [Feel exactly the same haha]
- 会很有熟悉感，会很喜欢，但不会学习 [Will feel familiar, will like it, but won't learn it]

Interestingly, there were some descriptions that could not simply use 'positive' or 'negative' to categorize:

- *Actually I have heard many people speak English with the accent of their hometown (家乡口音). I believe it's part the fault of their teachers...*
- *A Chinese here.... none of my business...*
- *emmmmm 这个中国人无疑了 多练练口语吧亲 [Emm this one is Chinese for sure. Practice your English speaking skills more, mate]*

## 5. Discussion

Although the general trend is that Chinese learners slightly favoured the American accent over the British accent, a difference has been noticed between the two groups. Group B preferred the British accent, which actually corresponded with He (2004)'s research conducted in another city in Guangdong Province. This suggests that geographical location of learners might play a role. Meanwhile, Group B were more tolerant towards different accents and ranked intelligibility higher. The fact that these participants studying at an EMI university indeed provides them with more opportunities to be exposed to a variety of English accents, both native (lecturers from Canada, Ireland, South Africa, etc.) and non-native (lecturers from Hong Kong, Korea, Bulgaria, etc. and exchange students from France, Germany, Thailand, etc.). Nonetheless, the participants from UPC were inclined to stick to the American and the British accents, possibly because they have not had enough chances to expose themselves to a diversity of English accents.

The most influential factors affecting learners' language ideology are the influence of mass media, and learners' previous English learning experiences. This can be well explained by the leading position that the American culture industry holds in China market resulting from globalization. However, cultural factors and social interaction factors, identified by Benková (2013), were not found influential. This might be because the learning context is very different. Czech Republic has more connections with Britain, while China is rather far away from either America or Britain.

A significant phenomenon is that native speaker accents are very often the benchmark for assessing learners' own accents; for instance, *not very authentic American English*. This is completely in conformity with how Silvana Richardson described herself when giving her plenary in IATEFL 2016: 'non-tall, non-male, non-single, non-atheist, ...and non-native English-speaking teacher'. She introduced the literature term 'litotes' in order to explain using negation of one quality to emphasize its opposite. As she questioned, 'how is asserting what we are by negating what we are not a meaningful and constructive way of referring to ourselves?'. It is especially worth thinking today with between 1.5 and 2 billion English speakers. Only between 400 and 500 million of them are native. (Crystal, 2012) This makes 80% of the English speakers a 'NON'. The vital question is, what is the point of expecting the vast majority to assimilate into the rest of the 20% native speakers?

Learners generally hold negative attitudes towards the Chinese accent, considering it as a dumbed down version of native accents. A genuinely negative relationship between pursuing an American or British accent and promoting the Chinese accent can be thus identified. However, how it might hurt their identity is not part of the learners' concern, at least not yet. Suggested by this, raising awareness to appreciate the Chinese accent is in urgent need. Meanwhile, discrimination against NNESTs still widely exists in China, shown in job requirements, such as 'English native speakers, aged under 55' (Dave's ESL Café, 2018). This calls for changing negative attitudes to the Chinese accent and breaking the *native speaker fallacy* (Phillipson, 1992), advocating Native English Speaker Teachers (NESTs) are ideal and best teachers.

## 6. Conclusion

This research has found that nowadays English pronunciation models for English major undergraduates in China are still the American accent and the British accent, with the former slightly favoured. Differences existing between the two groups show that learners from an EMI university have a greater degree of acceptance towards different accents and value intelligibility. Nevertheless, negative attitudes towards the Chinese accent held by the majority indicate that learners' identity has not been properly constructed in China.

This research could have been more significant if the variables were properly controlled. The fact that UPC, using Putonghua as a MoI located in Northern China, and UIC, an EMI university located in Southern China, made it rather difficult to investigate what exactly have caused the differences between the two groups. Meanwhile, the second aim of this research exploring the factors, by its nature, could be considered as

exploratory testing based on preexistence research in this field. It only served to test the feasibility of the factors proposed by other researchers in the context of China, but failed to identify new factors, if there were any. A common limitation of using questionnaires, which could not be avoided by this research, was that the data collected from a small population makes the conclusion rather hard to generalize.

Future research might want to find new factors affecting learners' ideology in choosing their pronunciation models by adopting other research method, such as interviews, along with conducting questionnaires. The correlation between pursuing native speaker accents and promoting the Chinese accent is still under investigation. More effort needs to be made to further research under this topic and therefore contribute to better construct non-native speakers' identities in the English-speaking world, as well as fight for equality against discrimination in the ELT profession.

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## Appendix: Questionnaire

### SECTION ONE 第一部分

1. Gender 性别: ☐Female 女 ☐Male 男
2. Age 年龄: \_\_\_\_\_
3. Which city are you from 你来自哪个城市? \_\_\_\_\_
4. How long have you been learning English 你学英语多久了? \_\_\_\_\_
5. Have you visited or lived in an English-speaking country 你在英语国家旅行或居住过吗?  
☐No.没有 ☐If yes, where? For how long? 如果有, 去过哪里? 停留了多久? \_\_\_\_\_
6. If you had to choose, where would you rather **move**? 如果你必须要选择, 你会搬去哪里?  
☐the U.K 英国 ☐the U.S.美国

### SECTION TWO 第二部分

7. Which accent have most of your English **teachers** had in primary or lower secondary school?  
在基础教育阶段, 你的大部分英语老师有怎样的口音?  
☐American 美式 ☐British 英式 ☐Chinese 中式 ☐Other 其他:\_\_\_\_  
☐I don't remember 我不记得了 ☐I can't tell 我无法辨别
8. Which accent of English is favoured by the **textbook** or other teaching materials in schools of your city when teaching English?  
在你的城市, 学校里英语教学的教科书或其他材料更偏重教哪种口音?  
☐American 美式 ☐British 英式 ☐both American and British 美英都有 ☐Other 其他: \_\_\_\_\_ ☐I don't remember 我不记得 ☐I don't know 我不知道
9. Which accent of English do you prefer to **hear**? 你更想听到哪种英语口音?  
☐American 美式 ☐British 英式 ☐Chinese 中式 ☐Other(s)其他: \_\_\_\_\_  
☐I don't usually hear differences among accents 我一般听不出口音的不同  
☐Accent doesn't matter as long as I can understand 只要我能听懂, 对方有什么口音并不重要
10. Please state the **reason(s)** for your choice in Question 9 请就第 9 题给出理由
11. Which accent are **you** aiming at when you speak English? 你自己在说英语的时候希望有怎样的口音?  
☐American 美式 ☐British 英式 ☐Chinese 中式 ☐Other(s)其他: \_\_\_\_\_  
☐any native speaker accent 任何像英语母语使用者的口音都可以  
☐Accent doesn't matter as long as people can understand me 只要别人能听懂我说的, 我有什么口音并不重要
12. Please state the **reason(s)** for your choice in Question 11 请就第 11 题给理由
13. How will you **describe your accent** when you speak English? 你会怎么描述自己的英语口音?
14. Do you **like** your accent? **Why** or **why not**? 你喜欢你自己的英语口音吗? 为什么喜欢或为什么不喜欢?
15. How do you feel when you hear someone speaking English with a strong **Chinese accent**? 当你听到有人说英语时有很重的中国式英语口音, 你会有什么感觉?

### SECTION THREE 第三部分

16. Do you regularly **speak** with someone in English both inside and outside school? 你在学校期间或者校外会经常和别人用英语交流吗?  
☐No, I don't.不, 我不会 ☐Yes, I do. Please specify their nationality: 是的, 我会。请说明对方国籍:
17. How often do you do these activities 你多久会进行以下几种活动?

|                                       | Everyday<br>每天 | 1-3 times per week<br>每周 1-3 次 | 1-3 times per month<br>每月 1-3 次 | Never<br>从不 |
|---------------------------------------|----------------|--------------------------------|---------------------------------|-------------|
| Listening to music in English<br>听英文歌 |                |                                |                                 |             |
| Watching movies in English<br>看英文电影   |                |                                |                                 |             |
| Watching TV series in English<br>看英文剧 |                |                                |                                 |             |

18. Which kind of **music** in English do you listen to the most often? 你最常听什么样的英文歌?  
☐American 美国 ☐British 英国 ☐Other (please specify)其他 (请说明)
19. Which kind of **movies** in English do you watch the most often? 你最常看什么样的英文电影?  
☐American 美国 ☐British 英国 ☐Others (please specify)其他 (请说明)
20. Which kind of **TV series** in English do you watch the most often? 你最常看什么样的英文剧?  
☐American 美剧 ☐British 英剧 ☐Others (please specify)其他 (请说明)