

Conceptualizing EDUCATION in Hong Kong and China (1984-2014)

Kathleen Ahrens

The Hong Kong Polytechnic University
11 Yuk Choi Road, Hung Hom,
Kowloon, Hong Kong

kathleen.ahrens@polyu.edu.hk

Huiheng Zeng

The Hong Kong Polytechnic University
11 Yuk Choi Road, Hung Hom,
Kowloon, Hong Kong

huiheng.zeng@connect.polyu.hk

Abstract

This study aims to provide an account of metaphor usage in Chinese political rhetoric regarding education over the past thirty years and shed light as to how lexical choices underline and reflect underlying conceptual patterns. Our study shows that the degree of metaphorization of “education” is similar among PRC Premiers while it varies among Hong Kong Governors and Chief Executives. Also, the concept of education in policy addresses in China often relies on the domain of BUILDING, with a focus on ‘structure’ and ‘foundation’ and a secondary focus on the concept of education as ENTERPRISE that can be ‘invested’ in. In contrast, Hong Kong Policy Addresses conceptualize education as a PRODUCT that can be ‘advertised’ or whose ‘quality’ and ‘quantity’ can be ‘improved’. In sum, analyzing metaphor variations in political speeches may reveal how politicians with different backgrounds and from different regions use language to present implicit ideologies.

1 Introduction

The last decade has witnessed a growth of research on conceptual metaphors in political discourse (Ahrens, 2009; Ahrens and Lee 2009; Ahrens, 2011; Lu and Ahrens, 2008; Charteris-Black, 2005, 2006, 2009; 2013; Lakoff, 1996, 2004; Musolff, 2004, 2010, 2016). This work may be categorized in terms of authors of the texts and types of source/

target domains being used for analysis. For example, Lu and Ahrens (2008) studied conceptual metaphors with one particular source domain (BUILDING) from Taiwanese presidents, while Charteris-Black (2005) looked at a range of conceptual metaphors from particular British prime ministers and American presidents. In contrast with these examples, this study provides an analysis of the target domain concept of ‘EDUCATION’ in Chinese to see how a target domain is structured by different political leaders at different points in time. To fulfill this goal, two Mandarin Chinese political corpora will be examined in terms of Chinese metaphors related to the target domain of 教育 *jiaoyu* ‘EDUCATION’.

This question of how EDUCATION is conceptualized will be examined by contrasting the keyword-in-context data for ‘education/jiao-yu’ as found in two corpora: the Hong Kong Governor’s Addresses, the Hong Kong (HKSAR) Chief Executive’s Policy Addresses, and the Reports on the Work of the Government by Premiers of the PRC. As Hong Kong has been both a colony of Britain (prior to 1997) and a Special Administrative region of China (since 1997), it has had different education systems. The British system only made education compulsory for those up to the age of 15. While the HKSAR originally followed this scheme, more recently it has moved to make education mandatory until the age of 18, while China continues to make education compulsory for students up until the age of 15. Both the British system and the Chinese system are exam-based beyond the age of 15; that is, students can only continue if they perform well on their exams. The HKSAR has continued with a modified form of this system; however, recent structural changes mean that most students will be able to

complete a full 18 years of study. Of note for the purposes of this study is that education is taken seriously by the society in both Hong Kong and China as it is seen as a way for people to advance and better their economic situation. Having an educated workforce is also seen as a desirable social and political goal. Thus, issues related to education are discussed in Hong Kong policy addresses and in speeches by Chinese premiers, which allows us to examine metaphorical uses of the concept of 'education' with an eye to further understanding how education is viewed in these societies.

In this study, we will examine the instances of conceptual metaphor use for the keyword 'education'. Conceptual Metaphor Theory (Lakoff, 1993; Lakoff and Johnson, 1980) and associated work within Critical Metaphor Analysis (Lu and Ahrens, 2008; Ahrens, 2009; Ahrens and Lee, 2009; Charteris-Black, 2004, 2005, 2006; Musolff, 2004, 2010, 2016) take as a starting point that more abstract conceptual domains (called target domains) use relatively more concrete conceptual domains (called source domains) in order to get across a particular idea about the target domain. For example, people might say "I spent a lot of time on this project" to indicate that TIME (the target domain) is being understood in terms of MONEY (the source domains). Ahrens (2010) goes on to demonstrate that target domains select source domains for a particular reason; these reasons are known as mapping principles. For example, TIME IS UNDERSTOOD IN TERMS OF MONEY in that MONEY is viewed as a valuable, limited resource and TIME is also viewed as valuable and limited. This is the mapping principle that drives this particular relationship between the source and target domain.

Recent studies have provided insight into how political leaders have used conceptual metaphors, and particularly invoked source domains, to reflect and strengthen their ideological viewpoints. For example, Charteris-Black (2005) argued that Martin Luther King's used conceptual metaphors derived primarily from source domains related to LANDSCAPE and JOURNEY to argue for civil rights, while Winston Churchill focused on source domains relating to LIGHT and DARKNESS as well as JOURNEY to help British citizens boost morale among British citizens in the Second World War.

Lu and Ahrens (2008), in another example of presidential speech analysis, found that Kuomintang (KMT) Presidents used BUILDING metaphors to instill a Chinese ideology, while the president from the Democratic Progressive Party (DPP) preferred not to use BUILDING metaphors, and instead used FARMING metaphors to emphasize Taiwan's agricultural background and political independence. In addition, KMT Presidents used BUILDING metaphors in ways that differ from U.S. Presidents, with the KMT Presidents using retrospective BUILDING metaphors to emphasize the history of China, and U.S. Presidents using BUILDING metaphors to emphasize creating a particular type of structure (i.e., economic, educational, and political) for future generations.

In a more recent study, the emphasis was on how the same viewpoint (the viewpoint of the government of the PRC) is shared with different audiences (Jing-Schmidt & Peng, 2017). The authors ran a keyword-in-context search for 'corruption' in both the People's Daily and the English version of the People's Daily, which are the Chinese and English versions of the media mouthpiece of the PRC government. They found a systematic difference in the conceptual metaphors used Chinese and English newspapers and argued that it is the knowledge base within an epistemic community that invokes particular conceptual domains; in this case, corruption is compared to HARM (DISEASE, VERMIN, WEED, SLOVENRY) in Chinese and to WAR in English.

Hypotheses and Research Questions

The hypotheses under study are: 1) Hong Kong Governors will conceptualize "education" differently from Hong Kong Chief Executives; 2) Hong Kong Chief Executives will conceptualize 'education' more in line with Chinese Premiers, as the Chief Executives are overseeing the Special Administrative Region of Hong Kong for China. Three research questions are involved in this study: 1) What types of source domains are used to understand the target domain concept of 教育 *jiaoyu* 'EDUCATION' in Chinese? 2) Do the metaphor source domains used vary by political group and/or by person or by time period? And 3) What underlying reasons can be postulated regarding the variations of source domain patterns by political group and/or by person? (i.e. Mapping Principles – Ahrens, 2010)

2 Methodology

2.1 Corpus Creation

In order to examine these issues, two independently compiled Chinese corpora of political speeches were created by: 1) downloading speeches of Chinese premiers (Corpus of Report on the Work of the Government by Premiers of the People’s Republic of China) from 1984 to 2013 with a total of 590,022 words; 2) downloading the policy addresses of Hong Kong Governors (for the period during 1984-1996 when Hong Kong was a British colony) with a total of 298,572 words and Hong Kong Chief Executives (for the period during 1997-2014 when Hong Kong is a Special Administrative Region of the People’s Republic of China) with a total of 367,939 words. We have made these two corpora available on the website of Corpus of Political Speech at <http://digital.lib.hkbu.edu.hk/corpus/chnsearch-sc.php> for the PRC Corpus and at <http://digital.lib.hkbu.edu.hk/corpus/chnsearch.php#ui-tabs-2> for the Hong Kong Corpus. Table 1 and Table 2 present the details of the PRC corpus and Hong Kong Corpus respectively.

Table 1. PRC Corpus of Premier Speeches (from the Report on the Work of the Government) (Pre and Post-1999)

Name	Year	Word Count
Zhao Ziyang	1984-1988	82,046
Li Peng	1988-1998	226,253
Pre-1999	1984-1998	308,299
Zhu Rongji	1999-2003	85,981
Wen Jiabao	2004-2013	195,742
Post-1999	1999-2013	281,723
Total	1984-2013	590,022

Source: http://www.gov.cn/test/2006-02/16/Content_200719.htm

Table 2. Hong Kong Corpus of Policy Addresses by Governors (Pre-1997) and Chief Executives (Post-1997) in Chinese

Name	Year	Word Count
Sir Edward Youde	1984-1986	54,147
Sir David Wilson	1987-1991	110,753
Sir Chris Patten	1992-1996	133,672
Pre-1997	1984-1996	298,572
Tung Chee-hwa	1997-2005	169,654
Donald Tsang Yam-Kuen	2006-2012	144,965
Leung Chung-ying	2013-2014	53,320
Post-1997	1997-2014	367,939
Total	1984-2014	666,511

Source: <http://www.policyaddress.gov.hk/2017/chi/archives.html>

After compiling all the speeches as text files, Natural Language Processing Software (Stanford Word Segmenter 3.7 and Stanford POS Tagger 3.7) (SNLPG, 2015) were operated for Chinese words segmentation and part-of-speech tagging.

In order to build a list of expressions in the target domain of EDUCATION, key-word-in-context searches were run using tools on the websites mentioned above. All the instances with the lexeme ‘教育 *jiaoyu* education’ were extracted and downloaded into excel files for further analyses on both metaphorical tokens and types.

2.2 Metaphor Identification and Source Domain Determination

In this study, we first read through all the instances extracted to determine if ‘education’ was used metaphorically, literally or as a proper noun. If it was hypothesized to be used metaphorically, we then identified the keyword that drove this decision (i.e. a word such as ‘投资 *touzi* invest’). We then checked Chinese WordNet to see if this keyword had a meaning unrelated to education as determined by the definition in Sinica Bow at <http://bow.ling.sinica.edu.tw/> (Chung & Ahrens, 2006). This is similar to step 3 in MIP (Praggeljaz Group, 2007) and step 2 to 4 in MIPVU (Steen, 2010) in which they checked for the possibility of a cross-domain mapping. Next, we verified the source domain of the keyword by checking the categories and definitions of the keywords

provided in WordNet-SUMO (Suggested Upper Merged Ontology) as facilitated by the Sinica Bow interface. WordNet is a large lexical database of English with words being interlinked by means of conceptual-semantic and lexical relations and SUMO is the only formal ontology that has been mapped to all of the WordNet lexicon. Collocation searches of the keywords by using Chinese Sketch Engine (Kilgarriff, Huang, Rychly et al., 2005) at <http://wordsketch.ling.sinica.edu.tw/> were also used as a complementary method to WordNet-SUMO method (Gong, Ahrens & Huang, 2008).

For instance, following the procedures below, ‘投資 *touzi* invest’ is ascertained to be a metaphorical keyword under the source domain of ‘事業 *shiye* ENTERPRISE’ metaphor: First, by searching definitions of ‘投資 *touzi* invest’ in WordNet-SUMO in Sinica Bow using the Chinese-English look-up search engine, we locate a list of senses of the word and the concrete sense ‘enterprise’ is chosen as the suggested source domain for ‘投資 *touzi* invest’. Table 3 is the selected sense information from WordNet-SUMO definition.

Table 3. WordNet-SUMO definition of “投資 *touzi* invest”

Metaphorical Keywords	WordNet Explanations	SUMO nodes
投資 <i>touzi</i> ‘invest’	the act of investing; laying out money or capital in an enterprise with the expectation of profit	Financial Transaction

Second, to further confirm the suggested source domain ENTERPRISE, we searched collocations of ‘投資 *touzi* invest’ to check if ‘事業 *shiye* ENTERPRISE’ is frequently collocated with ‘投資 *touzi* invest’ by using Chinese Sketch Engine which is based on the Chinese Gigaword corpus. Figure 1 shows the frequency of ‘投資 *touzi* invest’ is 355,182. The second column is the frequency of the collocate at a grammatical relation to the keyword searched. The third column is the saliency value for that collocation pair. Referring to the saliency values, ‘事業 *shiye*

ENTERPRISE’ is verified as one of the top collocations of the keyword ‘投資 *touzi* invest’.

Figure 1. Collocation Search of ‘投資 *touzi* invest’

Chinese_giga_trd freq = 355,182

PP 於	1096	7.2	Object	196827	4.2
資源	60	27.53	報酬率	2062	70.04
有價證券	12	23.26	金額	6992	58.99
股票	30	22.16	意願	4542	56.18
股市	38	20.31	業務處	519	55.98
金額	26	20.04	環境	9713	54.52
製造業	13	18.8	標的	976	52.23
基金	26	17.86	總額	2706	51.11
總額	14	17.23	洽談會	486	48.6
房地產	11	16.41	台股案	76	45.01
公債	10	16.18	保護法	734	44.94
產業	25	16.13	項目	3392	44.41
總金額	6	16.1	抵減率	116	44.15
國債	5	14.82	說明會	1420	43.89
市場	35	14.33	風險	1648	43.61
事業	16	14.19	上限	986	43.49
債券	8	13.81	回報率	124	41.25
企業	22	13.76	業別	149	41.22
建設	22	13.68	規模	1885	41.17
上市公司	6	13.6	組合	594	40.36
研究	20	13.43	比重	926	39.57
項目	13	13.0	基金法	74	39.31
比例	11	12.8	事業	2743	39.12
農業	13	11.96	考察團	513	38.77
資金	13	11.81	件數	397	38.76
未來	14	10.75	年增率	470	38.63

Based on results from WordNet-SUMO and collocation, we ascertain that the source domain of ‘投資 *touzi* invest’ is suggested to be under the source domain of ‘事業 *shiye* ENTERPRISE’.

The following step is the quantification and comparison of relative frequencies (number of metaphorical instances/corpus size multiplied by

100,000) of metaphors with different types or tokens in different regions and/or speakers.

3 Methodology

3.1 Metaphorical Use and Literal Use Analysis

Our analyses show that a relatively similar ratio of metaphorization of ‘education’ can be found between PRC premiers in pre-1999 and post-1999 (see Table 4).

Table 4. Relative Frequency of Metaphorical Use & Literal Use of EDUCATION by PRC Speakers in Pre-1999 and Post-1999

Name	Literal Use	Metaphorical Use
Pre-1999	60.01	90.82
Post-1999	78.09	105.78

By contrast, it is clear the metaphorization ratio varies significantly between Hong Kong Governors and Chief Executives with Chief Executive conceptualizing ‘education’ metaphorically more frequently than Governors (see Table 5).

Table 5. Relative Frequency of Metaphorical Use & Literal Use of EDUCATION by Hong Kong Speakers in Pre-1997 and Post-1997

Name	Literal Use	Metaphorical Use
Pre-1997	69.33	34.16
Post-1997	88.06	95.67

3.2 Source Domains Analysis

Analysis of the metaphor source domains patterns shows that in PRC corpus, the target domain concept of ‘education’ primarily involves the source domain of BUILDING, secondarily focuses on the concept of education as ENTERPRISE, following with the use of SYSTEM, OBJECT and PRODUCT source domains (see Table 6).

Table 6. Top 7 Source Domains Applied to the Target Domain of EDUCATION in PRC Premier Speeches between Pre-1999 and Post-1999

Source Domains	Pre 99	Post 99
BUILDING	27.25	33.37
ENTERPRISE	20.11	21.30
SYSTEM	19.46	12.42
OBJECT	11.35	13.13
PRODUCT	10.38	15.62
JOURNEY	5.84	3.90
VEHICLE	0.65	11.36

From Table 7 we find that Hong Kong corpus applies primarily the source domain of PRODUCT and secondarily conceptualizes education as BUILDING, following with applying source domains of OBJECT, ENTERPRISE and SYSTEM.

Table 7. Top 7 Source Domains Applied to the Target Domain of EDUCATION in Hong Kong Policy Addresses between Pre-1997 and Post-1997

Source Domains	Pre 97	Post 97
PRODUCT	14.74	26.09
BUILDING	8.37	20.11
OBJECT	5.02	10.60
ENTERPRISE	0.67	20.66
SYSTEM	1.34	8.97
PERSON	2.34	2.17
JOURNEY	0.33	2.99

Source domain variations can also be found between different speakers. For example, PRC premiers use SDs consistently among themselves while Hong Kong Chief Executives have conceptualized education more as an BUSINESS ENTERPRISE and SYSTEM in comparison with Hong Kong Governors.

Results in Table 8 show that CEs not only have a similar degree of metaphorization with Premiers who also are consistent within themselves (See Table 6) but also CEs and Premiers share the same top five source domains (BUILDING, ENTERPRISE, PRODUCT, OBJECT & SYSTEM) in the conceptualization of the target domain of EDUCATION.

Table 8. Comparisons on the Source Domains Applied by PRC Premiers in Post 1999 and HK CEs

Source Domains	PRC Premiers - Post 99	HK CE - Post 97
BUILDING	33.37	20.11
ENTERPRISE	21.30	20.66
PRODUCT	15.62	26.09
OBJECT	13.13	10.60
SYSTEM	12.42	8.97
JOURNEY	3.90	2.99

3.3 Metaphorical Keywords Analysis

After discussing and comparing the source domain categories among different speakers in different regions, we looked further into specific metaphorical keywords they applied under different source domains. As we can see in Table 6 & 7, in both PRC corpus and Hong Kong corpus, ‘education’ primarily involves the source domain of PRODUCT, BUILDING, ENTERPRISE, OBJECT, SYSTEM and JOURNEY. Analysis of the top 3 frequently applied metaphorical keywords to the six source domains shows that, in general, the BUILDING source domain underlines the ‘结构 *jiegou* structure’ and ‘基礎 *jichu* foundation’ of education which should be ‘加強 *jiaqiang* strengthened’, ‘擴展 *kuozhan* expand’ and ‘支持 *zhichi* supported’, e.g. ‘加強教育基礎能力建設 *jiaqiang jiaoyu jichu nengli jianshe* strengthen the construction of education foundational ability’; the source domain of ENTERPRISE emphasizes education as a business that can be ‘投入/投資 *touru/touzi* invested’ and has ‘效益 *xiaoyi* benefits’, e.g. ‘投資教育事業 *touzi jiaoyu shiye* invest education enterprise’; the source domain of PRODUCT focuses on the ‘质量 / 質素 *zhiliang/suzhi* quality’, ‘水準 *shuizhun* standard’ and ‘数量 *shuliang* quantity’ of education with the concept that education can be ‘改进 *gaijin* improved’ or ‘宣传 *xuanchuan* advertised’, e.g. ‘改良教育質素 *gailiang jiaoyu zhisu* improve education quality’ (see Table 9 & 10).

Table 9. Top 3 Frequent Metaphorical Keywords in PRC Premier Speeches

	BUILDING	ENTERPRISE	PRODUCT
PRC-Pre 1999	加強 <i>jiaqiang</i> strengthen (NR=11.68)	事業 <i>shiye</i> enterprise (NR=18.4)	质量 <i>zhiliang</i> quality (NR=3.57)
	结构 <i>jiegou</i> Structure (NR=6.49)	投入 <i>touru</i> invest (NR=3.24)	宣传 <i>xuanchuan</i> advertise (NR=3.57)
	建设 <i>jianshe</i> build (NR=2.59)	效益 <i>xiaoyi</i> benefit (NR=1.30)	改进 <i>gaijin</i> improve (NR=0.65)
PRC-Post 1999	加强 <i>jiaqiang</i> strengthen (NR=17.75)	事业 <i>shiye</i> enterprise (NR=11.36)	质量 <i>zhiliang</i> quality (NR=6.74)
	建设 <i>jianshe</i> build (NR=4.26)	投入 <i>touru</i> invest (NR=5.68)	免费 <i>mianfei</i> free (NR=3.90)
	支持 <i>zhichi</i> support (NR=3.55)	支出 <i>zhichu</i> expenditure (NR=2.48)	优质 <i>youzhi</i> good quality (NR=1.42)

Table 10. Top 3 Frequent Metaphorical Keywords in Hong Kong Policy Addresses

	BUILDING	ENTERPRISE	PRODUCT
Hong Kong-Pre 1997	擴展 <i>kuozhan</i> expand (NR=3.01)	投資 <i>touzi</i> invest (NR=0.67)	質素 <i>zhisu</i> quality (NR=6.03)
	基礎 <i>jichu</i> foundation (NR=1.34)		水準 <i>shuizhui</i> standard (NR=2.34)
	建立 <i>jianli</i> strengthen (NR=0.33)		優質 <i>youzhi</i> good quality (NR=1.67)
Hong Kong-Post 1997	加強 <i>jiaqiang</i> strengthen (NR=6.79)	投資 <i>touzi</i> invest (NR=8.97)	質素 <i>zhisu</i> quality (NR=4.35)
	擴展 <i>kuozhan</i> extend (NR=1.90)	支援 <i>zhiyuan</i> support (NR=4.08)	優質 <i>youzhi</i> good quality (NR=3.26)
	支持 <i>zhichi</i> support (NR=1.36)	事業 <i>shiye</i> enterprise (NR=2.99)	免费 <i>mianfei</i> free (NR=2.99)

The OBJECT source domain interprets education as a physical object that can be ‘推动 *tuidong* pushed’, ‘提升 *tisheng* lifted’ or ‘推进 *tuijin* carried forward’, e.g. ‘推进义务教育 *tuijin yiwu jiaoyu* carry forward compulsory education’; the source domain of SYSTEM highlights a concept that education can be ‘普及 *puji* popularized’, ‘施行 *shixing* implemented’ and ‘改革 *gaige* reformed’, e.g. ‘实施教育改革 *shishi jiaoyu gaige* implement education reform’; the JOURNEY source domain conceptualizes education as a journey with reference to the keywords of ‘定位 *dingwei* location’, ‘方向 *fangxiang* direction’, and ‘步伐 *bufa* pace’, e.g. ‘教育改革迈出新的步伐 *jiaoyu gaige maichu xin de bufa* education reform makes new steps’ (see Table 11 & 12).

Table 11. Top 3 Frequent Metaphorical Keywords in PRC Premier Speeches between Pre-1999 and Post 1999

	OBJECT	SYSTEM	JOURNEY
PRC-Pre 1999	提高 <i>tigao</i> raise (NR=3.24)	普及 <i>puji</i> popularize (NR=5.51)	步伐 <i>bufa</i> pace (NR=1.30)
	放 <i>fang</i> put (NR=2.59)	改革 <i>gaige</i> reform (NR=4.54)	稳步 <i>wenbu</i> steady step (NR=1.30)
	抓 <i>zhu</i> grab (NR=2.59)	体系 <i>tixi</i> system (NR=2.27)	探索 <i>tansuo</i> explore (NR=1.30)
PRC-Post 1999	推进 <i>tuijin</i> carryforward (NR=6.74)	普及 <i>puji</i> popularize (NR=5.32)	步伐 <i>bufa</i> pace (NR=0.71)
	推动 <i>tuidong</i> push (NR=1.42)	改革 <i>gaige</i> reform (NR=4.26)	稳步 <i>wenbu</i> steady step (NR=0.71)
	提高 <i>tigao</i> raise (NR=1.42)	体系 <i>tixi</i> system (NR=2.84)	里程碑 <i>lichengbei</i> milestone (NR=0.71)

Table 12. Top 3 Frequent Metaphorical Keywords in Hong Kong Policy Addresses between Pre-1997 and Post 1997

	OBJECT	SYSTEM	JOURNEY
Hong Kong -Pre 1997	推行 <i>tuixing</i> carry out (NR=3.68)	普及 <i>puji</i> popularize (NR=1.00)	方向 <i>fangxiang</i> direction (NR=0.33)
	放 <i>fang</i> put (NR=0.67)	施行 <i>shixing</i> implement (NR=0.33)	
	提升 <i>tisheng</i> lift (NR=0.33)		
Hong Kong -Post 1997	推行 <i>tuixing</i> carry out (NR=4.89)	改革 <i>gaige</i> reform (NR=10.87)	定位 <i>dingwei</i> location (NR=1.09)
	推动 <i>tuidong</i> push (NR=4.89)	普及 <i>puji</i> popularize (NR=1.63)	方向 <i>fangxiang</i> direction (NR=0.82)
	提升 <i>tisheng</i> lift (NR=1.09)	系统 <i>xitong</i> system (NR=0.82)	稳步 <i>wenbu</i> steady step (NR=0.54)

Results of the use of metaphorical words by PRC Premiers in comparison with Hong Kong Chief Executives show variations on keywords under BUILDING and JOURNEY source domains. We found that when talking about education as a BUILDING, both PRC premiers and Hong Kong Chief Executives highlight the concepts of ‘strengthening’ and ‘supporting’ education while Chief Executives have added the concept of ‘extending’ education in Hong Kong, e.g. ‘擴展高等教育 *kuozhan gaodeng jiaoyu* extend higher education’. Also, keyword patterns applied from the JOURNEY source domain show that PRC Premiers emphasize more on the ‘pace’ of education development, with an emphasis on the ‘steady’ development of PRC education, e.g. ‘教育稳步发展 *jiaoyu wenbu fazhan* education develops with steady steps’, while Hong Kong Chief Executive referring more to the ‘direction’ and ‘location’ of the education development, e.g. ‘香港高等教育的定位和發展方向 *xianggang gaodeng jiaoyu de dingwei he fazhan fangxiang* the location and development direction of Hong Kong higher education’. These subtle differences are interesting

in that they retain aspects of the main mapping principle associated with the Source-Target domain pairing, and also show that there can be variation among different groups of speakers within the broader mapping principles. This may be similar in some respects to the notion of sense and meaning facets as discussed in (Ahrens et al., 2003).

3.4 Modifiers of Education Analysis

By categorizing the modifiers of metaphorical education ('education' used as 'head nouns') in Hong Kong and PRC corpora, we found variations on the conceptualizations of education in certain fields between the Hong Kong corpus and PRC corpus.

The top five frequent education fields mentioned in Hong Kong policy addresses from 1984 to 2014 are categorized as '优质 *youzhi* good quality' education (NR=10.69) which is primarily conceptualized as PRODUCT; '高等 *gaodeng* higher' education (NR=10.48) which is mainly understood as BUILDING; '国民 *guomin* national' education (NR=8.22) which is mostly with the source domain of OBJECT; '小学 *xiaoxue* primary' education (NR=7.15) and '学前 *xueqian* pre-school' education (NR=6.44) which both are conceptualized as PRODUCT. By comparison, in the PRC corpus, '义务 *yiwu* compulsory' education (NR=19.17), '职业 *zhiye* vocational' education (NR=13.77), '高等 *gaodeng* higher' education (NR=13.49), '农村 *nongcun* rural' education (NR=11.5) and '思想品德 *sixiang pinde* moral' & '政治 *zhengzhi* political' education (NR=8.00) are found being the top five education fields discussed in speeches of PRC premiers in the past thirty years. Apart from the concept of compulsory education which is mainly interpreted with the source domain of SYSTEM, the other four types of education (vocational/higher/rural/moral education) are all conceptualized with the concept of BUILDING.

Results of the modifier categorizations also show that six education fields (moral education, '农村 *nongcun* rural' education, '劳动 *laodong* labor' education, '民族 *minzu* ethnic' education, '民办 *minban* private' education and '素质 *sushi* quality' education) have been metaphorically

discussed in PRC corpus but are not mentioned in Hong Kong corpus. Also, another seven education fields ('校本 *xiaoben* school-based' education, '特殊 *teshu* special' education, '禁毒 *jindu* drug enforcement' education, '环境 *huanjing* environmental' education, '家庭 *jiating* family' education, '健康 *jiankang* health' education and '区域 *quyu* regional' education) haven't been used metaphorically in PRC speeches but have been discussed metaphorically in Hong Kong policy addresses.

The underlying reasons for these variations may be able to be traced back to the influence in the history of Hong Kong and PRC's educational development, the backgrounds of different speakers and the interplay of political, economic and social factors in these two regions. Metaphor analyses may thus reveal certain viewpoints of political or social issues by political speakers from different areas.

4 Conclusion

In conclusion, this paper provides empirical data and applies a corpus-based approach to analyze metaphor patterns in political speeches by PRC Premiers and Hong Kong Governors and Chief Executives in the past thirty years. The results present different degrees for the metaphorization of 'education' in the PRC and Hong Kong corpora. PRC Premiers in both Pre-1999 and Post-1999 use similar metaphors consistently while Hong Kong Chief Executives applied more metaphors than Governors when conceptualizing the concept of education. In addition, source domains and metaphorical keyword patterns have been examined, revealing the mapping principles underlying the metaphor usage. PRC premiers primarily apply the BUILDING source domain with a focus on 'structure' and 'foundation' and secondarily focus on the concept of education as ENTERPRISE that can be 'invested' in. In contrast, Hong Kong politicians emphasize education as a PRODUCT that can be 'advertised' and its 'quality' and 'quantity' should be 'improved'. Hence, the results discussed show that examinations on metaphor variations in empirical corpus can contribute to revealing the ways lexical choices underline and reflect underlying conceptual patterns and associated ideologies.

Acknowledgements

This paper was funded in part by the General Research Fund (Project No.: 12400014) from the Hong Kong University Grants Committee to the first author.

References

- Ahrens, Kathleen. (Ed.). 2009. *Politics, gender and conceptual metaphors*. Basingstoke and New York, Palgrave-MacMillan.
- Ahrens, Kathleen. 2010. Mapping principles for conceptual metaphors. In Cameron Lynne, Alice Deignan, Graham Low & Zazie Todd (Eds.), *Researching and applying metaphor in the real world*, pp. 185-207. Amsterdam: John Benjamins.
- Ahrens, Kathleen. 2011. Examining conceptual metaphor models through lexical frequency patterns: A case study of US presidential speeches. In Hans-Joerg Schmid (Ed.), *Windows to the mind. Series: Applications of Cognitive Linguistics*, pp 167-184. Mouton De Gruyter, Berlin.
- Ahrens, Kathleen, Huang Huang, and Yuan-hsun Chung. 2003. Sense and meaning facets in verbal semantics: A MARVS perspective. *Language and Linguistics*, 4(3): 468-484.
- Ahrens, Kathleen and Sophia Lee. 2009. Gender versus politics: When conceptual models collide in the U.S. Senate. In Ahrens, Kathleen (Ed.), *Politics, gender, and conceptual metaphors*, pp. 62-82. Palgrave-MacMillan, Basingstoke and New York.
- Charteris-Black, Jonathan. 2004. *Corpus approaches to critical metaphor analysis*. Macmillan, London.
- Charteris-Black, Jonathan. 2005. *Politicians and rhetoric: The persuasive power of metaphor*. Palgrave-MacMillan, Basingstoke and New York.
- Charteris-Black, Jonathan. 2006. Britain as a container: immigration metaphors in the 2005 election campaign. *Discourse & Society*, 17(5): 563-581.
- Charteris-Black, Jonathan. 2009. Metaphor and gender in British parliamentary debates. In A. Kathleen (Ed.), *Politics, gender and conceptual metaphors*, pp. 139-165. Palgrave-MacMillan, Basingstoke and New York.
- Charteris-Black, Jonathan. 2013. *Analysing political speeches: Rhetoric, discourse and metaphor*. Palgrave Macmillan, Basingstoke and New York.
- Chung, Siaw-Fong and Kathleen Ahrens. 2006. Source Domain Determination: WordNet-SUMO and Collocation. In *Proceedings of the 2nd International Conference of the German Cognitive Linguistics Association*, pp. 1-4. Munich, 5-7 October 2006.
- Gong, Shu-Ping, Kathleen Ahrens, and Chu-Ren Huang. 2008. Chinese word sketch and mapping principles: A corpus-based study of conceptual metaphors using the building source domain. *International Journal of Computer Processing of Languages*, 21(01): 3-17.
- Jing-Schmidt, Zhuo and Peng, Xinjia. 2017. Winds and tigers: metaphor choice in China's anti-corruption discourse. *Lingua Sinica*, 3(1):1-26.
- Kilgarriff, Adam, Chu-Ren Huang, Pavel Rychly, Simon Smith, David Tugwell. 2005. Chinese word sketches. In the *Proceedings of Asialex*, Singapore.
- Lakoff, George. 1993. The Contemporary Theory of Metaphor. In A. Ortony (Ed.), *Metaphor and Thought*, pp 202-251. Cambridge University Press, New York.
- Lakoff, George. 1996. *Moral politics: How liberals and conservatives think*. The University of Chicago Press, Chicago.
- Lakoff, George. 2004. *Don't think of an elephant, know your values and frame the debate*. Chelsea Green Publishing, Vermo.
- Lakoff, George and Mark Johnson. 1980. *Metaphors We Live By*. University of Chicago Press, Chicago.
- Lu, L. Wei-Lun and Kathleen Ahrens. 2008. Ideological influences on BUILDING metaphors in Taiwanese presidential speeches. *Discourse and Society*, 19(3): 383-408.
- Musolff, Andreas. 2004. *Metaphor and political discourse: Analogical reasoning in debates about Europe*. Palgrave Macmillan, Basingstoke and New York.
- Musolff, Andreas. 2010. *Metaphor, nation and the Holocaust: The concept of the body politic*. Routledge, London.
- Musolff, Andreas. 2016. *Political Metaphor Analysis: Discourse and Scenarios*. Bloomsbury Publishing, New York.
- Pragglejaz Group. 2007. MIP: A method for identifying metaphorically used words in discourse. *Metaphor and Symbol*, 22(1): 1-39.
- The Stanford Natural Language Processing Group. 2015. Stanford Log-linear Part-Of-Speech Tagger (Version3.6.0) [Software]. Available from <http://nlp.stanford.edu/software/tagger.html>
- Steen, Gerard. J., Aletta G. Dorst, J. Berenike, Herrmann, Anna Kaal, Tina Krennmayr, and Pasma, Trijntje. 2010. *A method for linguistic metaphor identification: From MIP to MIPVU* (Vol. 14). John Benjamins Publishing, Amsterdam and Philadelphia.