Tracing Social Change through Metaphor:
A Diachronic Corpus-Assisted Analysis

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Abstract

This paper examines how conceptualizations of 'election' have changed in post-colonial Hong Kong. Drawing on Burgers' (2016) approach to model how metaphors change their focus on social topics over time, we study the uses of ELECTION metaphors in speeches by government leaders. These changes are classified as either fundamental changes (the use of metaphorical terms from a different domain) or incremental changes (changes in mapping principles within the same domain). We found a reliance on JOURNEY metaphors in framing ELECTION issues. Incremental changes within the ELECTION IS A JOURNEY metaphor highlight a change between the first (1997-2007) and second decades (2008-2017) after the handover from Britain to China. Our study shows that analysing changes in metaphorical frames in discourse is a practical approach to reflect the conceptualizations of social change.

1 Introduction

In political communication, it is widely acknowledged that metaphor acts as an effective framing devise for persuasion and evaluation (Burgers, Konijn, & Gerard, 2016; Charteris-Black, 2005/2011; Lakoff, 1996/2002). Conceptual Metaphor Theory defines metaphor as "a cross-domain mapping in the conceptual system" (Lakoff, 1993, p. 203) where a more abstract target domain (e.g., ELECTION) is conceptualized in terms of a more concrete source domain (e.g., JOURNEY).

The selection of a source domain highlights specific aspects of the target domain and simultaneously downplays other aspects (Lakoff and Johnson, 1980/2003, p. 10). This function makes metaphor an important linguistic device for framing in both communication and cognition (Burgers et al., 2016; Semino, Demjén, & Demmen, 2018). Since metaphor has the ability to reason about abstract concepts and has been used to frame various issues ranging from national politics in the US (Lakoff, 1996/2002; Cienki, 2004) and Europe (Chilton, 1996; Chilton and Ilyin, 1993; Musolff, 2017), to trade (Burgers and Ahrens, 2020), free economy (Zeng, Burgers, & Ahrens, 2021), and gender issues (Koller, 2004a, b; Zeng, Tay, & Ahrens, 2020), analysing changes in metaphorical frames in discourse is a practical approach to reflect the conceptualizations of social change (Burgers, 2016).

This study focuses on the diachronic changes in ELECTION metaphors in order to conceptualize the social changes in the Hong Kong Special Administrative Region (HK) over a two-decade period. We elaborate on the metaphorical frames used by political leaders in the framing of ELECTION issues in HK, the changes in these metaphorical frames over time, and how these changes reflect political changes and potentially facilitate political persuasion. This study argues that metaphors were deployed by politicians as a rhetorical strategy for achieving particular political agendas in different phases of the democratic development process in HK. Section 2 reviews the theoretical framework adopted in this study. Section 3 introduces the data and method for analysis. Section 4 presents and discusses the

results in response to the research questions. Lastly, Section 5 concludes the findings with implications provided.

2 Framework

Building on Burgers' (2016) metaphor-based approach to modelling social change in communication, this study tracks the changes in election issues in HK from ELECTION metaphor shifts in a corpus of political discourse over time. Burgers (2016) suggests that modelling metaphor change over time provides insight into how conceptualizations of topics have changed. He proposed two types of changes that reflect such social changes: 1) fundamental change in which extant metaphors are replaced over a long time span or on account of specific events, and; 2) incremental change, in which the meaning of metaphors changes over a long time span or on account of specific events. In Burgers' (2016) analysis, fundamental change is revealed by changes in metaphor source domains and incremental change is reflected in patterns of the mappings between source and target domains.

To date, a few studies adopting the metaphor-based approach to modelling social changes have examined the fundamental and incremental changes in the metaphorical frames of societal issues in political corpora from both Western (e.g., Burgers & Ahrens, 2020) and Eastern countries (e.g., Zeng, Burgers, & Ahrens, 2021). When examining incremental changes in metaphors, the 'corpus-based metaphorical framing analysis approach' (Zeng & Ahrens, 2023) is drawn upon to analyse the framing functions of metaphors based on variations of mapping principles between metaphor source-target domain pairings over time. The concept of Mapping Principles of metaphors from the Conceptual Mapping Model (Ahrens, 2010) argues that by examining the prominent linguistic mappings in a particular metaphor source-target domain pairing and evaluating the underlying reason for the high occurrence of this conceptual mapping, we can identify specific metaphorical frames and explain their functions in the discourse. The key steps of the approach proposed in Zeng and Ahrens (2023) are: 1) identify high-frequency metaphorical keywords in the corpus, 2) analyze mapping principles based on the contexts involving the high-frequency keywords, 3) generate frame frequency and evaluate frame sentiment based on patterns of mapping principles. This approach offers an operational method to incorporate metaphorical framing analysis at three levels: cognitive (domain-based), discourse-based (frame-based), and communication-based (framing function-based) (Semino et al., 2008).

Our study aims to examine changes in metaphor source domains used for framing a specific societal issue in Hong Kong in order to reveal the underlying social changes. In consideration of the political background of HK, which has been "standing at a critical juncture in the struggle for universal suffrage toward realizing full democracy" (Kan 2013, 73), this study focuses on how election issues were conceptualized in politicians' language use by examining the metaphors used in the framing of election issues in political speeches delivered between 1997 and 2017. Adopting the metaphor-based approach to tracking social changes (Burgers 2016), we present the development of ELECTION metaphorical frames and the underlying ideological implications in discourse over time. The following three research questions are addressed:

1) How does general attention to the ELECTION topic in HK political discourse change over two decades (1997-2017)?

2) What are the fundamental changes in ELECTION metaphors in HK political discourse over two decades (1997-2017)?

3) What are the incremental changes in ELECTION metaphor meanings in HK political discourse over two decades (1997-2017)?

3 Methodology

3.1 Data

The data was compiled from the online archive of 'Speeches by Senior Officials' in HK at http://www.info.gov.hk/isd/speech/sensp.htm using web scraping in Python. We focus on political speeches by principal officials who served as Secretaries of Departments during the first two decades of the post-colonial era in HK, including the Chief Secretary for Administration (CSA), the Financial Secretary (FS), and the Secretary for Justice (SJ) who have influential roles in the HK government.

We manually built the corpus, which includes 1,248 political speeches (totalling 1,793,611 words) delivered by the CSA, FS, and SJ. The corpus dates are 1 July 1997, the day when HK

transferred sovereignty from Britain to China, to 31 December 2017. All speeches were delivered in English to address different social, economic, and political issues in HK. As ELECTIONS are one of the major events in HK, it is reasonable to assume that the topic of ELECTION is consistently addressed by HK government leaders to the public. Therefore our diachronic corpus of public speeches serves as a suitable database for researching ELECTION metaphor use over time.

3.2 Analysis

The first step of this study, after building the corpus, was to obtain ELECTION instances from the corpus. We searched keywords under the target domain of ELECTION and extracted cases involving these keywords. Based on the observation of the data, we determined eight keywords that are most relevant to ELECTION: 'ballot,' 'campaign,' 'democracy,' 'elect,' 'poll,' 'referendum,' 'suffrage,' and 'vote.' All lemmas of the eight keywords were searched in the corpus using the Concord function in WordSmith 6.0 to obtain concordances.

This study obtained 1,404 concordances related to the target domain of ELECTION. 257 instances were excluded for either referring to the election issues in non-HK areas (e.g., UK Brexit vote) or non-political elections (e.g., anti-drug campaign); 69 instances were excluded when the words related to ELECTION were used as proper nouns, such as titles of agreements or policies (e.g., The Chief Executive Election Ordinance) and government agencies (e.g., HK Democratic Foundation or Election Committee). Of the original 1,404 instances, 1,078 ELECTION instances (76.8%) remained for further analysis.

The next step was to identify metaphorical ELECTION instances and their associated source domains. We adopted the Metaphor Identification Procedure VU University Amsterdam - MIPVU (Steen et al., 2010) for coding metaphors. Out of the 1,078 ELECTION instances, the corpus includes 349 metaphorical ELECTION instances (32.4%) and 729 literal instances (67.6%). Following the source domain verification approach (Ahrens and Jiang, 2020), we further identified nine types of source domains for the 349 metaphors, including JOURNEY, PRODUCT, BUILDING, LIVING ORGANISM, PHYSICAL OBJECT, SPORT, WAR, CONTAINER, and RECIPE.

Following previous methods for analysing the relation between 'time' and 'variables of interest' (Burgers and Ahrens, 2020; Zeng et al., 2021), we calculated bivariate Pearson correlation coefficients in SPSS (IBM SPSS statistics, version 24). The results of the relation between 'time' and 'attention to ELECTION' were presented in Section 4.1, which examined RQ1 regarding the diachronic changes of ELECTION references. The results of the relation between 'time' and 'ELECTION metaphors' and the relation between 'time' and 'source domains for ELECTION metaphors' were presented in Section 4.2, which examined RQ2 regarding the fundamental changes of ELECTION metaphors. In Section 4.3, we responded to RQ3 regarding the incremental meaning changes in ELECTION metaphors by analysing patterns of mapping principles between the source-target domains, which reflects changes in the meaning of ELECTION metaphors.

4 Results and Discussions

4.1 Attention to the topic of ELECTION over time

Our data encompasses 1,078 HK ELECTION instances from the 1,404 general ELECTION instances. In Figure 1, each y-axis value reflects average scores for a specific year. The solid line in Figure 1 presents the relative number of the ELECTION instances per 10,000 words of the corpus (standardized number), showing the attention to the ELECTION topic from 1997 to 2017. Pearson's Correlation analysis reveals no significant association between 'time' and 'attention to ELECTION' (r = .086, p = .710), indicating the changes (increases or decreases) in ELECTION references are not significantly correlated with time.
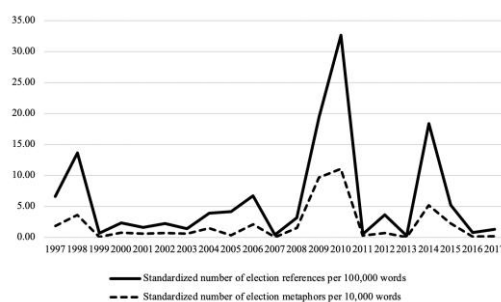

Figure 1: Standardized number of ELECTION references and metaphors per 10,000 words

In Figure 1, we observed that ELECTION references in the second decade (2008-2017)

experienced more variations than in the first decade (1997-2007). There were two sharp rises in the solid line between 2008 and 2010 and between 2013 and 2014, showing an escalation of attention paid to ELECTION issues in these two periods. The rise between 2008 and 2010 may be attributed to the decision by the Standing Committee of the National People's Congress of the People's Republic of China (NPCSC) on 29 December 2007, which ruled out universal suffrage in 2012 and instead proposed a timetable for universal suffrage in the 2017 Chief Executive election and the 2020 Legislative Council election. The rise between 2013 and 2014 is likely due to the '31 August Decision' by the NPCSC in 2014, which again ruled out universal suffrage for the 2017 Chief Executive election. The Occupy Central Protest from September to December 2014 for 'genuine universal suffrage' may have also triggered the rise of attention to ELECTION. We can see that the frequent occurrence of ELECTION issues addressed in public speeches by HK political leaders is related to the increasing demands for universal suffrage among the public in HK.

4.2 Fundamental changes in ELECTION metaphorical frames

ELECTION metaphors over time

Among the 1,078 HK ELECTION instances, we obtained 349 metaphorical ELECTION instances, as shown in Section 3.2. Following Burgers and Ahrens (2020) and Zeng et al. (2021), we analysed two indicators: 1) the standardized number of ELECTION metaphors and 2) the relative percentage of ELECTION instances that are metaphorical.

For indicator 1, the dotted line in Figure 1 plots the relative number of ELECTION metaphors per 10,000 words of the corpus. Pearson's Correlation analysis shows no significant association between time and relevant frequency of ELECTION metaphors (r = .112, p = .630). For indicator 2, we calculated the percentage of ELECTION metaphors by dividing the number of ELECTION metaphors by the total number of ELECTION instances. Indicator 2 controls for the change in relation to the total number of ELECTION instances. Pearson's Correlation analysis reveals no significant association between time and percentage of ELECTION metaphors (r = -.084, p = .717). Thus, we found the changes (either decreases or increases) in ELECTION metaphors are not significantly correlated with time.

Source domains of ELECTION metaphors over time

Among the 349 metaphorical ELECTION instances, we identified nine types of source domains: JOURNEY (211 cases), PRODUCT (55 cases), BUILDING (52 cases), LIVING ORGANISM (23 cases), PHYSICAL OBJECT (15 cases), SPORT (10 cases), WAR (10 cases), CONTAINER (4 cases), and RECIPE (3 cases). We found ELECTION has been primarily conceptualized in terms of the JOURNEY source domain in the corpus. The following analysis focuses on changes in the JOURNEY source domain, which comprises 211 of the 383 total (55.1%) source domains. The remaining eight source domains were excluded from further analysis because of their low frequencies. Figure 2 plots the percentages of ELECTION metaphors from the source domains of JOURNEY.
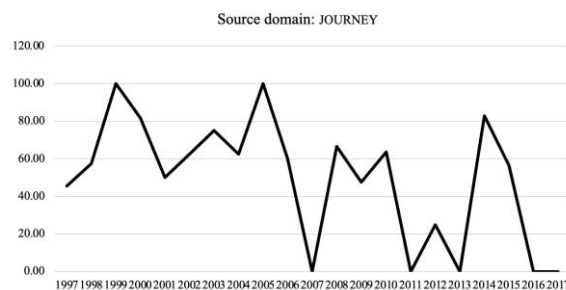

Figure 2: Percentage of ELECTION metaphors from the source domain of JOURNEY

Pearson's Correlation analysis shows a significant negative association between 'time' and the 'percentage of JOURNEY source domain' (r = -.535, p = .012), indicating that the percentage of source domains related to JOURNEY decreased over time. Thus, evidence of a negative relation between the use of ELECTION IS A JOURNEY metaphor and time is present, suggesting that the use of JOURNEY metaphors in the framing of ELECTION issues decreased in HK political speeches between 1997 and 2017.

4.3 Incremental changes in ELECTION IS A JOURNEY metaphors

The analysis of the incremental meaning changes in the ELECTION IS A JOURNEY metaphor draws upon a corpus-based metaphorical framing analysis approach (Zeng & Ahrens, 2023). We compared the changes in the mapping principles between the source domain of JOURNEY and the target domain of ELECTION. Based on the noticeable contrast of

ELECTION metaphor use between the first decade (1 July 1997 – 31 December 2007) and the second decade (1 January 2008 – 31 December 2017), as depicted by the dotted line in Figure 1, we selected these two periods for comparison analysis. The frequently occurring metaphorical keywords under the JOURNEY source domain are listed in Table 1. A cut-off cumulative percentage of up to 60% of the total metaphorical keywords was taken as the criteria for determining 'the frequently occurring keywords' (Zeng et al., 2021).

Table 1. Frequent metaphorical keywords under JOURNEY source domain (cumulative percentage up to 60%)

First decade (1 July 1997 – 31 December 2007)				Second decade (1 January 2008 – 31 December 2017)			
Metaphorical keywords (lemmatized)	Tokens	Percentage	Cumulative percentage	Metaphorical keywords (lemmatized)	Tokens	Percentage	Cumulative percentage
aim/destination/goal/objective	27	26.73	26.73	step	28	16.37	16.37
go/move	8	7.92	34.65	(gradual and orderly) progress	25	14.62	30.99
step	7	6.93	41.58	achieve/attain/reach	19	11.11	42.1
road map	6	5.94	47.52	path/passage/way	18	10.53	52.63
achieve/attain/reach	5	4.95	52.47	timetable	14	8.19	60.81
road/way	5	4.95	57.42				
timetable	5	4.95	62.37				

It can be seen in Table 1 that both periods frequently mention the aspects of 'step,' 'road/way/path/passage,' 'achieving/attaining/ reaching,' and 'timetable.' The variations are that the first decade emphasized the aspects of 'aim/destination/goal/objective,' 'going/moving,' and 'road map,' while the second decade emphasized the aspect of '(gradual and orderly) progress.' In other words, part of the ELECTION metaphor meanings remained constant, and part of the ELECTION metaphor meanings underwent incremental changes. Furthermore, constant and different mapping principles for the ELECTION IS A JOURNEY metaphor were identified based on the frequent keywords and their surrounding contexts

(Ahrens et al., 2003). Specific constant and unique JOURNEY frames were discussed to uncover the highlighted subdomain mappings for the ELECTION IS A JOURNEY metaphor in different periods. Section 4.3.1 presented the constant mapping principle for the ELECTION IS A JOURNEY metaphor with a discussion of the specific constant JOURNEY frames. Section 4.3.2 presented different mapping principles for ELECTION IS A JOURNEY metaphors and the unique JOURNEY frames highlighted between the first and second decades.

4.3.1 Constant Mapping Principle for ELECTION IS A JOURNEY metaphor over two decades (1997-2017)

The constant mapping principle for ELECTION IS A JOURNEY metaphor over the past two decades refers to: ELECTION ISSUES are conceptualized as A JOURNEY, in that travellers step on the road to the destination of a journey and HK people step on the road to attain the goal of universal suffrage. Based on the mapping principle, we further identified specific JOURNEY frames indexed by the same keywords that frequently occurred in both decades of the corpus. In what follows, we present one constant JOURNEY frame with examples for illustration.

In both the first and second decades, HK secretaries emphasized the frame of 'attaining the ultimate aim of universal suffrage for the elections in HK' by frequently using the keywords 'achieve,' 'attain,' and 'reach,' which shows the government's steadfast awareness of the importance of the goal of universal suffrage. Examples (1)-(2) are illustrative for the two periods. The metaphorical keywords are italicized and underlined, and the keywords in the target domain of ELECTION are in bold type for all of the examples provided.

(1) Whilst we have not _reached_ the _ultimate aim_ of **universal suffrage** prescribed in the Basic Law, we are not an autocracy. No one has absolute power in Hong Kong. (Donald Tsang, CSA, 17 May 2002)

(2) We have been debating the issue of constitutional development for many years. The _ultimate goal_ of **universal suffrage** is now in sight…We would like to _achieve the ultimate goal_ of **universal suffrage** by the years 2017 and 2020. (Henry Tang, CSA, 02 February 2010)

In the first decade, the secretaries introduced that "the ultimate aim of universal suffrage" as prescribed in the Basic Law has not been 'reached' yet (see example 1). The second decade continues to emphasize "achieving the ultimate goal of universal suffrage" for the 2017 Chief Executive election and the 2020 Legislative Council election (see example 2). The expression 'reaching or achieving the ultimate aim" is under the sub-mapping of the Purposes Are Destinations EVENT STRUCTURE metaphor (Lakoff 1993), relating to the final stage of a journey – GOAL. These linguistic metaphors present HK people as travellers on a journey toward universal suffrage. HK political leaders' consistent emphasis on the final stage of a journey – GOAL indicates that the government's determination to attain universal suffrage has not lessened throughout the democratic development in HK from 1997 to 2017. It also reassures the general public, many of whom have been pressing for full universal suffrage since 1997. Given the increasing pro-democracy protests and the rising trend in social unrest, the deployment of the JOURNEY frame here may be used as a strategy for showing the public that this goal is still important to the government and, thus, serves to help maintain social stability in HK.

4.3.2 Different Mapping Principles for ELECTION IS A JOURNEY metaphor between the first (1997-2007) and second (2008-2017) decades

Incremental meaning changes in ELECTION IS A JOURNEY metaphorical frames over time were also identified. As shown in Table 1, in the first decade, HK secretaries primarily emphasized the final stage of a journey indexed by the keywords 'aim/destination/objective' and then underlined the intermediate stage indexed by 'going/moving' and 'road map.' By contrast, in the second decade, they particularly emphasized the intermediate stage of a journey as reflected by the keywords '(gradual and orderly) progress.' Based on contextual information, we identified different mapping principles for ELECTION IS A JOURNEY metaphor between the first and the second decades:

a. The Mapping Principle in the first decade (1997-2007) is: ELECTION ISSUES are conceptualized as A JOURNEY, in that the guide provides road maps for

guiding travellers to moving toward the destination of a journey and the HK government provides policies for guiding HK people to move toward the ultimate aim of universal suffrage.

b. The Mapping Principle in the second decade (2008-2017) is: ELECTION ISSUES are conceptualized as A JOURNEY, in that the guide maintains a gradual and orderly speed by following specific travelling rules on a journey, and the HK government maintains gradual and orderly progress by following the Basic Law of HK on the journey of elections.

Accordingly, we hypothesize different JOURNEY frames indexed by the different keywords under the ELECTION IS A JOURNEY metaphor between the first and the second decades, as shown in Table 1. In the following section, we present the unique JOURNEY frames in the two periods, with relevant examples provided for illustration.

a. Unique ELECTION IS A JOURNEY frames in the first decade (1997-2007): The destination of the election as being universal suffrage
In the first decade, the most frequently occurring keywords under the ELECTION IS A JOURNEY metaphor are 'aim/destination/goal/objective,' indicating that HK secretaries primarily focused on the final stage of the journey by highlighting the frame of 'the destination of the election in HK as being universal suffrage.' In example (3), the secretary stated in 1998 that the "ultimate aim" of the constitution in HK is "a legislature elected wholly through universal suffrage."

(3) By the year 2007, the Basic Law provides us with the opportunity of deciding on a legislature elected wholly through **universal suffrage**, this being the *ultimate aim* of our constitution. (Anson Chan, CSA, 23 January 1998)

As can also be seen in example (1) from 2002, the ultimate aim of universal suffrage, prescribed in the Basic Law, has not yet been reached. In example (3) from 1998, the secretaries discuss the goal of all Legislative Council members being elected by full universal suffrage. The emphasis on universal suffrage is a gesture from the government intended to provide confidence to HK people and encourage a belief in a positive future for electoral and democratic development in HK. The highlighted JOURNEY frame serves as an effective

rhetorical tool to conciliate the general public who have been appealing for democracy since the 1997 handover.

b. Unique ELECTION IS A JOURNEY frame in the second decade (2008-2017): Maintaining gradual and orderly progress towards universal suffrage

During the second decade, 2008 to 2017, HK secretaries focused on the intermediate stage of the journey of election by predominantly using the expression 'gradual and orderly progress' to emphasize the frame of 'maintaining a gradual and orderly progress toward universal suffrage for the elections in HK'.

(4) It is the common aspiration of the HKSAR Government and the community to further democratise Hong Kong's electoral system. Articles 45 and 68 of the Basic Law stipulate clearly that Hong Kong shall *attain the ultimate aim* of selecting the Chief Executive (CE) and forming the Legislative Council (LegCo) by **universal suffrage** in the light of the actual situation and in accordance with the principle of *gradual and orderly progress*. (Henry Tang, 18 November 2009)

Example (4) from the second decade emphasizes the aspect of 'maintaining gradual and orderly progress.' The frame of 'maintaining progress' entails positive evaluations, including the fulfilment of plans, and refers to the accomplishments that the HK government has made in the process of attaining democracy. However, the expression of 'gradual and orderly progress' delivers a message to the pan-democratic camp, who advocate immediate democratization, that they should not expect instant results from the government. There are no shortcuts to reaching universal suffrage. HK people may need to endure hardship and suffer obstacles to achieving the desired goal. As stated explicitly in the Basic Law, the pace of attaining universal suffrage should encourage a belief in a positive future for electoral and democratic development in HK.

The highlighted JOURNEY frame serves as an effective rhetorical tool to conciliate the general public who in light of the actual situation in HK (see example 4). The frame of 'maintaining a gradual and orderly progress' thus relates to the sub-mapping of Difficulties Are Impediments to Motion EVENT STRUCTURE metaphor and the

intermediate stage of a journey – PATH. This highlighted frame influences the pace of the public's call for democracy and alerts the public to follow the pace prescribed in the Basic Law, which is also reflected by the Mapping Principle for ELECTION IS A JOURNEY metaphors in the second decade.

5 Conclusion

Our study presents an analysis of diachronic changes in metaphorical frames that reflect particular social changes. A corpus-assisted case study has been conducted by focusing on the diachronic changes in the metaphorical framing of ELECTION in a corpus of political speeches in post-colonial HK over a period of two decades (1997-2017). We tracked the fundamental changes (the use of metaphorical terms from a different domain) and incremental changes (changes in mapping principles within the same domain) in metaphors of ELECTION over time. First, we identified continuous attention to ELECTION in the corpus, suggesting that ELECTION has been one of the most critical societal issues in HK since the 1997 handover. In addition, the ELECTION issues received an increased amount of attention between the periods of 2008-2010 and 2013-2014, likely due to political events during those periods. Second, we found no significant changes in the use of ELECTION metaphors over time. The HK government leaders predominantly adopted JOURNEY metaphors to address ELECTION issues via the construction of a general JOURNEY frame emphasizing 'HK people are travellers on a journey towards the destination of universal suffrage.' Third, we examined the incremental meaning changes in the ELECTION IS A JOURNEY metaphor between the first (1997-2007) and second decades (2008-2017). Our data showed that in the first decade, HK secretaries primarily focused on the final stage of the election journey (i.e., the destination of universal suffrage) and also the intermediate stage (i.e., the path and measures taken). In the second decade, ELECTION was framed as a time-consuming process that required a slow and measured pace. The government strategically turned the public's attention from fast policies for attaining universal suffrage in the early phase (i.e., the first decade) to a gradual, steady,

and slow political reform in the later phase (i.e., the second decade) of post-colonial HK.

The present study also has methodological implications. By adopting an operational corpus-assisted approach to quantify the incremental changes in metaphorical frames, we showed that changes in metaphor subdomain mappings reflect changes in the highlighted frames, which can trace social changes over time.

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