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EXPLORING CREATIVE METAPHORS IN VIDEO ADS:
MANIFESTATION, USES, AND EFFECTIVENESS

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PhD

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Exploring Creative Metaphors in Video Ads: Manifestation, Uses, and Effectiveness

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A thesis submitted in partial fulfilment of the requirements for
the degree of Doctor of Philosophy

June 2020

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Molly Xie Pan

Abstract

Creative metaphors as impressive and noticeable conceptual phenomena are prominent advertising strategies to influence the perceivers' decision-making. Video ads as a type of temporal dynamic discourse provide creative metaphors with fertile resources to manifest themselves and to enhance perceivers' experience through rich interactions of multi-sensory elements. To date, the systematic investigation of creative metaphors in video ads is still underexplored. The lack of a reliable procedure to identify creative metaphors in video ads limits such investigation to qualitative analyses of a few cases, which can hardly generate replicable findings. This in turn impedes valid examination of the extent to which creative metaphors assist in effective advertising.

This thesis aims to examine creative metaphors in video ads and address the aforementioned issues via three components: i) theorising the characteristics of creative metaphors in video ads and conducting reliability examinations of a proposed identification procedure, ii) analysing the structural uses of creative metaphors, and iii) measuring how different uses influence perceptions.

It starts with corpus-driven research, where 100 Chinese video ads were collected through a stratified sampling method. Insights from research on multimodal metaphors (Forceville, 1996, 2002, 2007, 2017b) help clarify the nature of creative metaphor in video ads as goal-oriented and dynamic, leading to the proposal of a 'Creative Metaphor Identification Procedure in Video Ads' (C-MIPVA). The reliability of C-MIPVA was established with inter-rater reliability tests among six annotators.

Subsequent content analyses of 197 creative metaphors which were identified in the corpus by C-MIPVA drew insights from the synergy of Relevance Theory (Forceville, 2014; Sperber & Wilson, 1986) and research on multimodal metaphors (Forceville, 1996, 2008). The purpose of these analyses is to systematically investigate how creative metaphors are used for advertising products. The analyses specified existing categories of using creative metaphors by extracting how the content of metaphors, i.e. the target and the source, were linked to its roles in the ad.

Findings from content analysis lay the foundation for an experimental survey study, which aims to examine the effectiveness of creative metaphors in video ads. In the first place, patterns of how creative metaphors manifest under different uses guided the design of experimental stimuli. Secondly, relationships between metaphor uses and product types underpin the formulation of hypotheses. To prevent associations with existing real-world brands and ads, experimental stimuli were designed and constructed. A within-subjects experiment was designed to examine how different uses of creative metaphors (features-highlighting metaphors vs. needs-highlighting metaphors) for different types of products (tangible products vs. intangible products) exert influences on perceptions of complexity, cognitive elaboration, affective elaboration, attitude towards the ad, and purchase intentions (Kim, Baek, & Choi, 2012; Sobrino, Littlemore, & Houghton, 2018; Van Mulken, Le Pair, & Forceville, 2010). 323 Chinese participants participated in the research. 32 of them took further part in an exploratory Electrodermal activity (Dawson, Schell, & Filion, 2007) study while watching the ads and finish the follow-up interviews. Other participants only completed online surveys. Results showed that while creative metaphors positively influenced the effectiveness of video advertising, the frequently occurring patterns in real-world ads

from content analysis might not necessarily be the most impactful in viewers' perceptions.

This thesis systematically explores creative metaphors in video ads, regarding manifestation, uses, and effectiveness. It contributes to research on multimodal metaphors (Forceville, 1996, 2007, 2008) by providing a replicable procedure of identification, specifying uses of metaphor's in video ads, and examining the effect of major uses for different types of products with empirical evidence. It also suggests directions for future studies through critically reflecting on limitations of each component.

Publications from this Thesis

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Chapter 1. Introduction

1.1. Preliminaries

Research on multimodal metaphors (Forceville, 1996, 2016) has demonstrated how diverse modes of communication could contribute to constructing metaphorical meaning, through investigating a wide range of artefacts, such as commercials (Pérez-Sobrino, 2017; Yu, 2011), posters (Tay, 2017), and cartoons (EI Refaie, 2003), just to name a few. This body of research has contributed to theory construction, providing solid theoretical support for researching metaphor in multimodal discourse. However, descriptive research can hardly meet the needs of generating reliable and replicable findings when research on multimodality is moving to large-scale studies that build on those theoretical foundations (Bateman & Hiippala, 2020). While perceptible patterns could be extracted with visual perceptions and descriptive analysis, many significant inter-relationships among variables are less accessible without statistical examinations (Bateman & Hiippala, 2020), especially when the sample size of investigation tends to be enlarged in contemporary research. A systematic investigation including quantitative approaches could provide descriptive studies with complementary strengths by improving the reliability and replicability.

Take the current pandemic of Covid-19 as an example. Personal stories of patients who suffer from the coronavirus provide the public with a sense of how the coronavirus influences a person's life and clues for avoiding infection. On the one hand, these

stories are precious to summarise possible symptoms and potential precautions. On the other hand, the degree of how serious the coronavirus could influence a person can hardly be generated to others. Studying the demographics is helpful to yield generalizable insights for the human to fight against Covid-19 with effective precautions.

Researching creative metaphors in video ads, to some extent, is similar to evaluating precautions against Covid-19. The ultimate purpose of both is to generate the most effective actions by scrutinising the given data. Descriptive studies on individual ads could be viewed as individual stories from the patients. Research on multimodal metaphors in static images (Forceville, 1996; Forceville & Urios-Aparisi, 2009a; Pérez-Sobrino, 2017; Gerard Steen, 2018) has pinpointed important traits of metaphors in terms of manifestation and uses. These analyses have laid solid theoretical foundations for researching metaphors in video ads, which are comparatively less to date (Forceville, 2007, 2008; Urios-Aparisi, 2009; Yu, 2011). Descriptive studies could help provide nuanced insights into the characteristics of creative metaphors in video ads. Nevertheless, individual cases can hardly be generated to others. To obtain an overview of how crucial dimensions of interest interplay in general, such as the manifestation of creative metaphors, how they are used, and product types, statistical analysis of a large corpus is indispensable. The significance of statistical analysis here is similar to how statistical analysis in Covid-19 assists in yielding replicable insights.

When Covid-19 becomes a pandemic and influences countries with diverse cultures and economies, governments generally plan actions that are supposed to be suitable for the country's culture and its economy based on given information about the coronavirus and precautions taken by other countries. This is similar to the stage when

researchers carefully extract patterns of findings through content analysis with either discourse analytic skills or statistical examinations. Nevertheless, only after the announcement and implementation can they receive reactions of the public and reflect on the effectiveness of the crafted plans. For instance, at the early stage of tackling with Covid-19, the UK government announced plans towards achieving a goal of herd immunity by infecting 60% of the population so that vulnerable groups could be protected. There were some modelling analyses from medical experts making achieving herd immunity sounds plausible in this case. The plans announced were completely contrary to restrictive measures taken by China and Italy, such as instituting quarantines, closing public spaces, banning mass gatherings, and issuing strong advice about social distancing. However, after a week, the UK government dropped the herd immunity approach due to fierce resistance from the public and jumping infected cases and death tolls.

The phase of implementing crafted plans is similar to experimental studies that collect data for testing hypothesis in research. It is the empirical evidence that verifies the postulations made from analysing discourse by researchers. The experiments in a research context, however, is under a trial mode rather than the real-world implementation of political actions. The similarity lies in the necessity of collecting responses from external parties to examine the effectiveness of crafted plans based on claims from analysing given information. Adding an experimental study to a systematic investigation helps researchers verify findings from discourse analysis and gain valuable insights into the issue under investigation with external validity. This thesis follows such logic, combines discourse analysis with experimental study, and argues that a combination in the same project can not only increase the external validity of research but also help maintain the internal consistency of research regarding the

theoretical and methodological choices in the research trajectory, contributing to the sustainability and ecology of research.

Opinions from external parties are especially significant for decision-making area to adjust initial plans. Video advertising is such an industry that the public's responses and comments are important for deciding the extent to which similar themes shall be broadcasted or adjusted for further sessions. As technologies revolutionize advertising, video ads have been ubiquitous and also attracted significant investments from marketers. Globalization increases audience worldwide (see Figure 1.1). The expenditure on video ads, especially digital video ads on social media, experiences continuous increase. For example, according to the latest survey report from eMarketer (an organization in the USA that provides a comprehensive source of information about the business for research), expenditure on video ads in the US has been embracing a compound annual growth rate (CAGR) of 12.8% from 2019 to 2023¹. Programmatic digital video ad in China accounts for 20.2% of programmatic display ad spend, i.e. RMB 41.95 billion (\$ 6.34 billion) in 2019. The portion of programmatic digital video ads in China will rise to 56.5% by 2021².

¹ <https://www.emarketer.com/content/digital-video-2019>

² <https://www.emarketer.com/content/china-programmatic-digital-display-ad-spending>

Digital Video Viewers Worldwide, by Region, 2019-2023
millions

	2019	2020	2021	2022	2023
Asia-Pacific	1,431.9	1,541.3	1,642.0	1,736.5	1,812.1
Latin America	289.2	298.2	305.9	312.0	317.9
North America	260.2	265.9	271.0	275.8	280.3
Western Europe	254.1	260.0	264.9	269.0	272.8
Central & Eastern Europe	226.6	233.5	239.1	245.5	250.3
Middle East & Africa	170.3	182.7	192.6	200.7	207.8
Worldwide	2,632.2	2,781.6	2,915.5	3,039.5	3,141.2

Note: internet users of any age who watch streaming or downloaded video content via any device at least once per month

Source: eMarketer, September 2019

T10538

www.eMarketer.com

Figure 1.1 Digital Video Viewers Worldwide, by Region, 2019-2023

The increasing global audience and soaring investment on video ads motivate the demands of designing creative and effective video ads, where a combination of discourse analysis and experimental study on creative metaphors can contribute to. Creative metaphor is ubiquitous, stimulating, and encouraging in advertising (McQuarrie & Mick, 1996, 1999). The phenomenon has been researched with a long history, under different labels, such as novel metaphor (Black, 1977; Bowdle & Gentner, 2005; Raymond W Gibbs, 2018) and poetic metaphor (Lakoff & Turner, 1989). The label of creative metaphor in this thesis considers the definition of creativity, i.e. novel and appropriate (Sternberg, 1999), the cognitive nature of metaphors (Forceville, 1996; Lakoff & Johnson, 1980) and a usage-based perspective (Kristiansen & Dirven, 2008; Kristiansen & Geeraerts, 2013), suggesting that creative metaphor shall be a noticeable and impressive phenomenon which is in consensus with the ultimate purpose of a specific genre. Employing creative metaphors in print ads has been demonstrated to

increase the perceived effectiveness by mediating perceived complexity, eliciting cognitive and affective elaboration, generating good attitudes, and increasing purchase intention (Ang & Lim, 2006; Chang, Wu, Lee, & Chu, 2018; Chang & Yen, 2013; Jeong, 2008; Kim, Baek, & Choi, 2012). Nevertheless, the extent to which the positive influence can be generated to creative metaphors in video ads remains underexplored. Research on multimodal metaphors (Forceville, 1996, 2016, 2017b; Pérez-Sobrino, 2017; Gerard Steen, 2018) has investigated characteristics of metaphor in static images extensively. However, existing investigation of creative metaphors in video ads is limited to a few cases (Forceville, 2007, 2008), leaving replicable findings underexplored.

1.2. Aim of the Thesis

This thesis aims to systematically explore the characteristics and effectiveness of creative metaphors in video ads. Drawing from Cognitive Linguistics and research on multimodal metaphors (Forceville, 1996; Lakoff & Turner, 1989; Pérez-Sobrino, 2017; Gerard Steen, 2018), it focuses on yielding replicable and generalizable findings of (a) how creative metaphors manifest in video advertising which is a type of temporal and dynamic discourse with a clear ultimate commercial purpose; (b) how creative metaphors are used to assist in advertising different types of products; and (c) how the inter-relationships between using creative metaphors and product types exert influences on viewers' decision-making.

Figure 1.2 displays the outline of this thesis. The content analysis investigates the underexplored characteristics of creative metaphors through mixing discourse analytical approaches and statistical examinations. A combination of them provides complementary strengths for the investigation. Discourse analytical approach probes into prominent dimensions to understand underexplored phenomena with nuanced insights (Wertz, 2011). Statistical examinations with a logic of quantitative approach reduce subjective interpretation and generate reliable and replicable findings with a general picture (Bateman & Hiippala, 2020; Tay, 2018b). While findings from content analysis reflect what can be detected from the existing artefacts, analysing the artefacts alone can hardly address the evaluation of the detected characteristics or patterns. The extent to which findings from content analysis influences viewers can only be demonstrated through studies involving the audience. For video ads, opinions from the public are necessary to address the effectiveness of metaphors in contributing to advertising. This thesis, therefore, collects such data from survey-based experimental studies and interviews to 1) examine the effectiveness of creative metaphors; 2) detect the underlying reasons through exploring viewers' experience.

Experimental studies verify postulations from analysts through controlling variables that are not of research interest. However, the design of experimental studies needs to consider the external validity, especially the ecological validity that the findings can be generalized to the real-life situations (Schmuckler, 2001). The ecological validity highlights that a study shall measure what it is supposed to measure. It requires a trade-off between experimental settings and real-world scenarios. One crucial way to achieve ecological validity is to design the experimental stimuli in ways that represent salient characteristics of real-world ads. When it comes to designing experimental video ads with creative metaphors, investigation of how creative

metaphors manifest in real-world ads provides valuable grounds that underpin the validity of the design. This thesis, therefore, has such an internal logical link that findings from the content analysis guide the design of experiments and results from experimental studies and interviews, in turn, verify postulations from the content analysis.

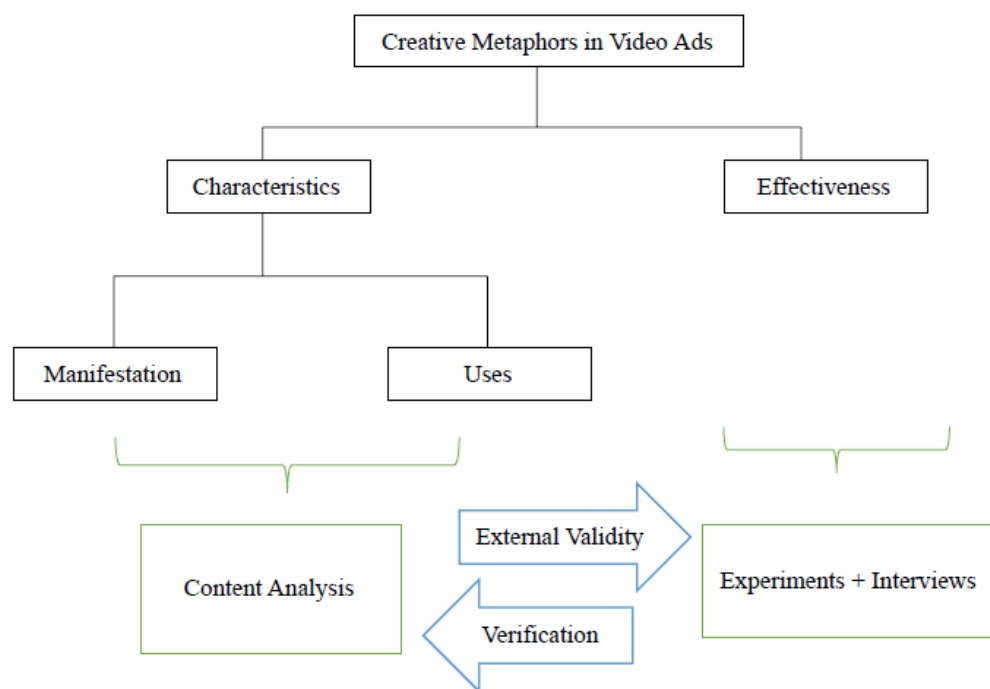


Figure 1.2 Outline of This Thesis

1.3. Outline of Chapters

I start this thesis with a general review on the notion of creative metaphors in video ads and the progress of research on multimodal metaphors. The review points out underexplored areas regarding the manifestation, uses, and effectiveness of creative

metaphors that will be addressed by Chapters 3 to 5, respectively. I organise Chapter 3 to 5 following the structure that each chapter starts with a detailed review focusing on specific issues in each component, followed by specific research questions, the methodology adopted to address them, findings, and conclusions. Then I summarise the major findings, limitations, and future directions of each component in Chapter 6.

In Chapter 2, I problematise the notion of creative metaphors in video ads and propose a working definition of creative metaphors, which will be consistently used in the rest of this thesis. The working definition captures the characteristics of creative metaphorical phenomena in the genre of video ads. Through the literature review, I also extract challenges for developing the progress of research on multimodal metaphors and articulate how the issues can be addressed systematically.

Chapter 3 investigates the manifestation of creative metaphors in video ads, focusing on how the metaphorical phenomena can be detected reliably which is a methodological challenge faced in research on multimodal metaphors. Draw insights from existing studies, I work on a corpus of Chinese video ads and develop a six-step Creative Metaphor Identification Procedure in Video Ads (C-MIPVA) with sufficient evidence of reliability. The corpus includes 100 Chinese video ads collected through stratified random sampling. Details of it can be found in Section 1.4.1 and Section 3.3.1. I outline crucial dimensions to address in theorizing a reliable procedure under the context of multimodal discourse and introduce principal criteria when applying C-MIPVA. Since the essence of it is to exploit concrete filmic techniques to detect potential metaphorical units, I introduce an inventory of filmic techniques that can play the role of metaphor signalling devices and exemplify them with real-world ads. I also show a scheme to detect these filmic techniques with examinations of its reliability.

After demonstrating how C-MIPVA could be applied into video ads in the real world and the extent to which it is reliable, I apply the procedure to the whole corpus and identify 66 metaphorical video ads for further content analysis.

Chapter 4 carries out content analysis on these 66 metaphorical video ads identified from the corpus. Each metaphorical video ad contains at least one creative metaphor. The content analysis first focuses on extracting major uses of creative metaphors to assist in advertising products by investigating how the target, the source, and mapping features relate to the advertised product, based on the framework of adapting Relevance Theory (hereafter, RT) (Sperber & Wilson, 1995) into multimodal discourse (Forceville, 2014). While the focus is to analyse the characteristics of creative metaphors, I also demonstrate how analytical lens RT can be applied into video ads by a number of cases, which is scarcely addressed in existing research. After analysing characteristics of creative metaphors when they serve a different purpose within the ad content, I develop a reliable coding scheme for different metaphor uses and carry out statistical examinations of how metaphor uses associate with their signals as crucial parts of manifestation and different types of products with insights from theoretical enquires. The statistical analysis reveals latent relationships between metaphor uses and manifestation, as well as product types, pointing out potential effective designs for ads in the real world. Discourse analysis and statistical analysis in this chapter make the convergent effort in a systematic investigation of how creative metaphors manifest and contribute to video advertising.

Chapter 5 reports a survey-based within-subjects experimental study with supplementary components of Electrodermal activity (Dawson, Schell, & Fillion, 2007) study and semi-structured interviews. Findings from Chapter 4 guide the design of

experimental stimuli to replicate patterns from the real-world ads and hypotheses building for the experiment. Following the sequential explanatory design, I collect quantitative data from 323 Chinese participants from online surveys which contain constructed stimuli. To explore non-volitional responses and viewers' experience of metaphorical ads, I collect EDA and qualitative data from 32 participants who wear the EDA device while watching the ads and finish the followed-up semi-structured interview. The experimental studies provide empirical evidence for the effectiveness of creative metaphors and help verify postulations from the content analysis.

Chapter 6 concludes the thesis by pointing out (1) contributions to metaphor theories and research on multimodality, (2) critical reflections on each study carried out in this thesis, (3) possible directions for future research that are of theoretical and practical interest.

1.4. Introduction to Materials and Methodology

Motivated by the ultimate goal of generating replicable results through systematic investigation on a large corpus, this thesis adopts different methodologies to fulfil each aforementioned research aim. The features of manifestation and uses of creative metaphors will be analysed both qualitative and quantitative discourse analysis skills, which are complementary to each other. The effectiveness of creative metaphors will be investigated through both experiments and interviews, which provide compatible findings for the influences of creative metaphors. Here, I will introduce details of the corpus and the constructed experimental stimuli.

1.4.1. The Corpus of Video Ads

Since the characteristics of creative metaphors in video ads are underexplored, the aim of building a corpus is to analyse emerging features in a representative sample, rather than examining existing hypotheses with categories that are assumed to be theoretically interesting. The content analysis in this thesis is predominantly corpus-driven rather than corpus-based (Deignan, 2005). The corpus under investigation is 100 Chinese video ads built with stratified random sampling. I build ten strata with consideration of two product types and five online platforms to retrieve video ads. The consideration of product types is motivated by theoretical claims that the predominant attributes of products might influence the manifestation of metaphors (Forceville, 2008). Search products, which are generally tangible and objective (such as water bottles), appear to use metaphors to advertise the features of products and highlight the brand personality of sophistication and excitement (Bloom & Reve, 1990; Gultinan, 1987; Jiménez & Mendoza, 2013). Experience products, which are generally intangible and abstract (such as delivery service), might use metaphors for increasing sincerity and competence (Bloom & Reve, 1990; Gultinan, 1987; Jiménez & Mendoza, 2013). The five platforms are supported by the BAT companies—Baidu, Alibaba and Tencent, which dominate the current digital advertising field in mainland China³. Table 1.1 shows an overview of the numbers of ads selected for each stratum by the keyword ‘广告’ (Advertisements). Repeated ads have been excluded during the selection. Links to Ads in the corpus are provided in Appendix E. The author added English subtitles to all ad examples discussed in this thesis. Videos with English subtitles can be found at <https://drive.google.com/drive/folders/1k1dOXRjGMReIQy4r3j8mmKNuMstW80mp>

³ <https://www.emarketer.com/Article/Chinasquos-Digital-Video-Ad-Spending-Overtake-TV-by-2021/1016452>

[?usp=sharing](#).

Table 1.1 An Overview of the Corpus

Online Websites	Search Products	Experience Products	Total
Iqiyi	10	10	20
Tencent	10	10	20
Youku	10	10	20
Shuying	10	10	20
TVC	10	10	20
Total	50	50	100

1.4.2. Annotation Tools

Metaphor identification and annotations are carried out with assistance of Excel worksheets and are benefited from the software Elan⁴, which is famous for systematically archiving multimodal annotations. Here, I show how it looks like in Figure 1.3 and 1.4. This software is particularly useful for archiving annotations on videos as it can track the temporal segments and specific annotations (see Figure 1.3). Annotations from different annotators can be combined as a single document so as to compare the similarities and differences (see Figure 1.4). However, for the purpose of clarity, metaphor identification and analyses in this thesis will be presented in tables, rather than screenshots of the interface of Elan.

⁴ <https://archive.mpi.nl/tla/elan>

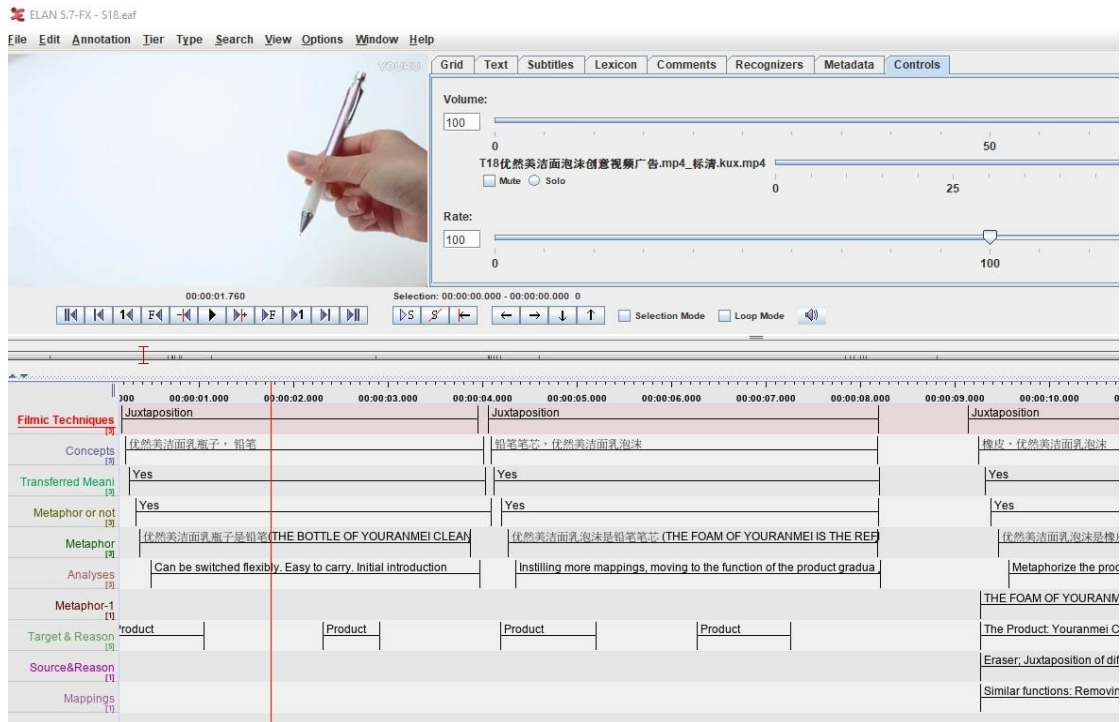


Figure 1.3 Screenshots of Project-S18 in Elan

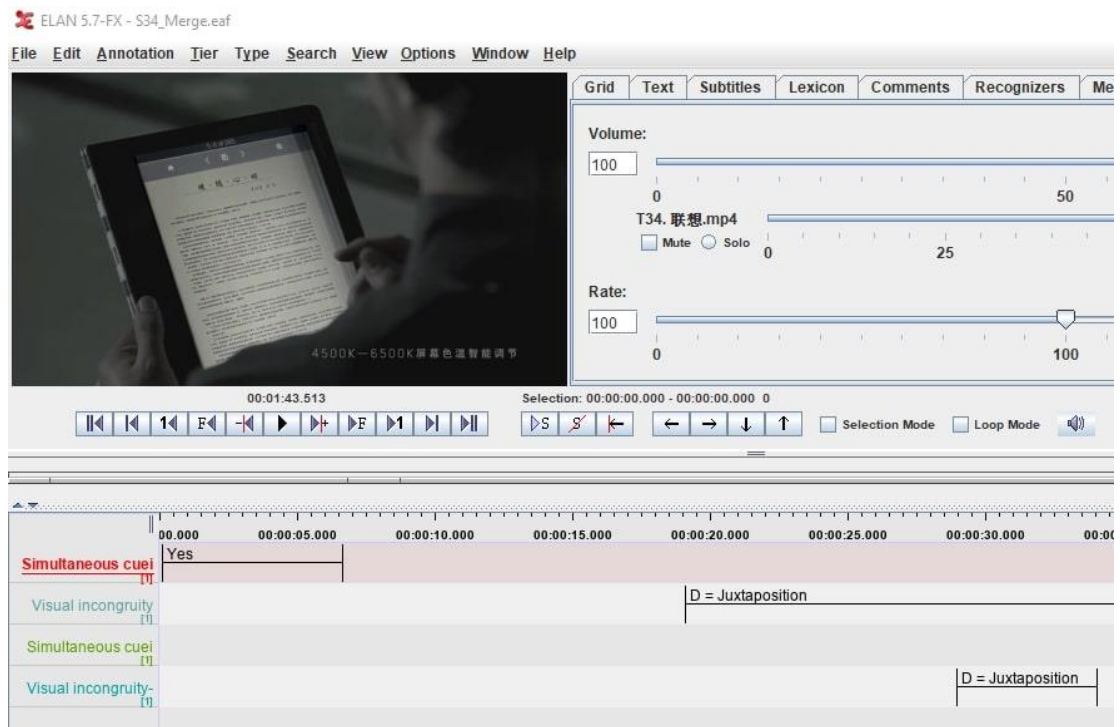


Figure 1.4 Screenshots of Project-S34-M in Elan

Elan is user-friendly regarding annotation, segmentation, and transcription for multiple annotators. When annotating video ads, it is important to create new types (such as talk) and then tiers (such as the name of a speaker) to label the annotated content. It also enables users to specify annotators with custom colors. Figure 1.5 shows a screenshot of setting a new tier when annotating videos. After creating tiers for annotation, by selecting a section and double clicking on the selected section, annotators can easily input annotation in a white box, as shown in Figure 1.6.

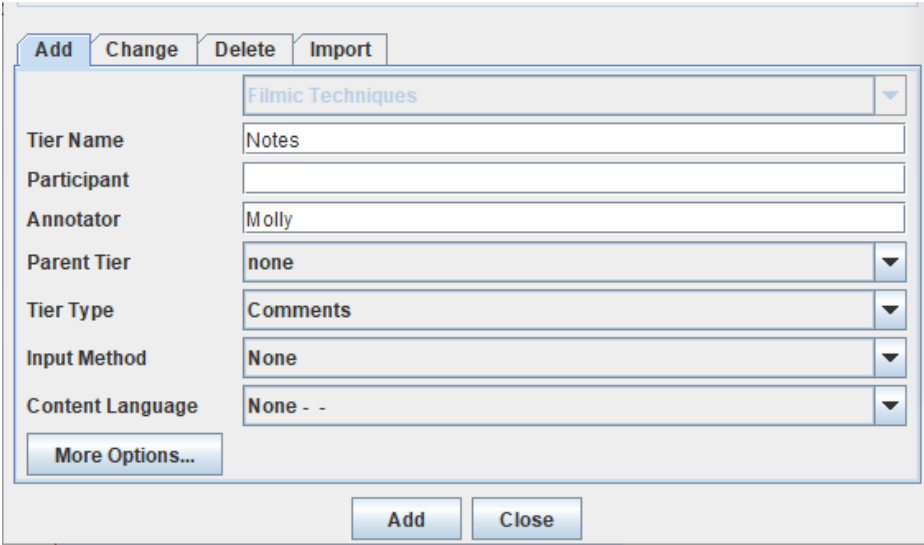


Figure 1.5 Screenshot of Adding a New Tier in Elan

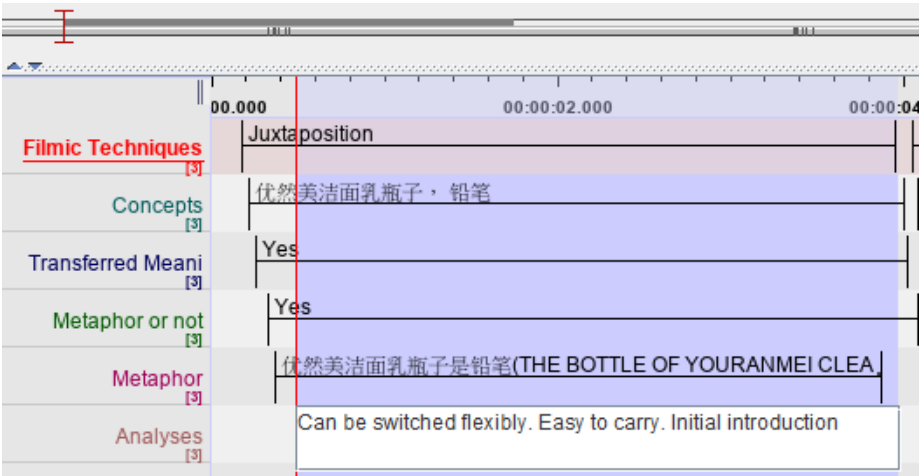


Figure 1.6 Screenshot of Typing in Annotation in Elan

An alternative way of annotation in a more structural method when dealing with large amount of data can be achieved by accessing the segmentation mode first, followed by the transcription mode in options. While Elan is helpful for archiving annotations, I propose to use it as an exploratory tool for analysts. It is easier to use worksheets in Excel to do the metaphor identification following a procedure, especially when it comes to statistical examinations of reliability on certain steps. Figure 1.7 shows a screenshot of working on metaphor identification from video ads with a six-step procedure, providing concise and reader-friendly raw data for further analyses.

	A	B	C	D	E	F	G	H
1		Step 1	Step 2	Step 3		Step4	Step5	Step6
2	No.	Product	Segment	Concept1	Concept2	Transfer of meaning (Y/N)	Metaphor (Y/N)	Metaphor
3	E1	美团外卖	A 07-08s	美人鱼	美团外卖	Y	Y	外卖是美人鱼
4			2.1	N	N	N	N	N
5	S4	旺仔辅食品 (牛奶小馒头)	2.1	N	N	N	N	N

Figure 1.7 Screenshot of Working with Excel

1.4.3. Statistical Software

This thesis performs a set of data analytics by statistical software, including Statistical Product and Service Solutions⁵ (SPSS), Jeffrey's Amazing Statistics Program⁶ (JASP), Jamovie⁷, and R⁸, according to the nature of data and strengths of the software.

⁵ <https://www.ibm.com/analytics/spss-statistics-software>

⁶ <https://jasp-stats.org/>

⁷ <https://www.jamovi.org/>

⁸ <https://www.r-project.org/>

Specifically, SPSS is robust to carry out inter-rater reliability tests and provides detailed statistics of adjusted residuals for Chi-square Test of Independence. JASP has concise interface and easy procedures for Repeated Measures ANOVA. R is a strong tool to generate data visualization. Jamovie has the package to carry out Bayesian Analysis. Table 1.2 displays an overview of the tests and software exploited in this thesis. Data for statistical analysis in this thesis can be found through links provided in Appendix D.

Table 1.2 Statistical Tests and Software Used in Each Chapter

Chapter	Purpose	Tests	Software
Three	Interrater Reliability	Cohen's Kappa	SPSS
		Fleiss's Kappa	SPSS
		Krippendorff's Alpha	SPSS
Four	Associations Among Categorical Data	Chi-Square Goodness of Fit Test	JASP
		Log-Linear Analysis	SPSS
		Multiple Correspondence Analysis	R
		Chi-Square Test of Independence	SPSS
		Bayesian Analysis	Jamovie
Five	Comparisons Between Different Groups	Repeated Measures ANOVA	JASP
		Bayesian Analysis	Jamovie

1.4.4. Experimental Stimuli and Surveys

Stimuli used in experimental studies have been constructed based on findings from the content analysis of the real-world ad corpus. The content analysis generates variables of interest and postulations about how potential associations between variables take effect on changing consumers' decision making. On the one hand, findings from the content analysis underpin the design of the experimental stimuli, which maximize the

ecological validity of the experiment by designing stimuli that reflect patterns of the real-word ads. On the other hand, the postulations from the content analysis underpin the hypotheses of the experiment.

There are six experimental video ads in total, created by the joint effort from the author and an ad designer who specializes in video ad design and works in an advertising company. The six video ads (in Chinese) can be retrieved at https://osf.io/qrph2/?view_only=e493f814bf2f4e54b3566ff1a37af070.

The construction of video ads across six conditions balances the equivalence of delivered meaning and the diversity of elements to minimize viewers' fatigue. Each video lasts 16 seconds using similar images and techniques to present different themes. A norming study has been carried out and provides substantial evidence that these videos are equivalent in dimensions of understandability, naturalness, familiarity, and similarity, but different in metaphoricity. Details about the norming study could be found in Section 5.3.1. Specifications (in Chinese) about designs of these six video ads can be found in Appendix B.

These video ads are inserted in online surveys, following the order of the Balanced Latin Square (see Table 5.6 in Section 5.3.3) in order to reduce the carryover effect from the sequence of orders. Each video is followed by 12 questions (see Table 5.4 in Section 5.3.2) to measure the effectiveness of ads in different conditions. The online surveys are designed on the platform of Tencent Surveys. Each survey starts with introducing the basic information of this research and collecting consent. When a participant refuses to give consent, the survey will display a notice that any data from this participant will be excluded from this research. The second part of this survey is to

collect basic information of the participant, such as gender and age. The body part of this survey displays each video ad with the accompanying set of questions. The survey ends with compensation through the platform Wechat, a platform developed by Tencent. Links to these surveys can be found in Appendix C.

1.4.5. Interview Transcriptions

Semi-structured interviews are designed as a supplementary component after the survey-based experiments. The purpose of interviews is to probe into more detailed aspects of understanding and experience of creative metaphors in video ads, which are difficult to infer from survey results alone. Questions in interviews are closely related to the protocol in surveys and ask for more details of reasons about the given scores. Specifically, there are five dimensions in the interview plan, which are in line with the dependent variables in experiments, i.e. perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention. As semi-structured interviews, there are naturally occurred interactions. It also happens frequently that participants elaborate their answers from many dimensions in response to a single question. Since the interview aims to detect explanations for survey scores rather than analysing the occurrence or frequency of any lexical units, the transcription of the interviews focuses more on the participant's replies rather than a word-by-word transcription of both interlocutors.

Chapter 2. Creative Metaphors in Video Ads

2.1. Chapter Introduction

A broad definition of creative metaphors falls into the same category of novel metaphors, which has experienced ample investigation as phenomena in contrast with conventional metaphors in linguistic research (Bowdle & Gentner, 2005; Burgers, Konijn, Steen, & Iepma, 2015; Raymond W Gibbs, 2018; Lakoff & Turner, 1989).

For instance, in the poem *Because I could not stop for death*, Emily Dickinson depicts death as a coachman (see the following stanza):

Because I could not stop for Death
He kindly stopped for me
The Carriage held but just ourselves
And immortality

The creative metaphor *Death is a Coachman* is salient to general readers here. However, in daily communications, sentences like *The baby arrived at 6 o'clock this morning*; *his father passed away last night* might only be metaphorical to metaphor analysts as the phrases of *arrive at* and *pass away* have been conventionalized, as linguistic manifestations of the Conceptual Metaphor LIFE IS A JOURNEY (examples from onestopenglish⁹). However, in the context of video ads where multi-sensory elements can highlight the salience of a metaphorical phenomenon, boundaries between creative metaphors and conventional metaphors that are from linguistic research can be blurred. Consider the following screenshots of an advertisement:

⁹ <http://www.onestopenglish.com/grammar/pdf-content/vocabulary-metaphors/metaphors-life-is-a-journey-worksheet-and-teachers-notes/147517.article>

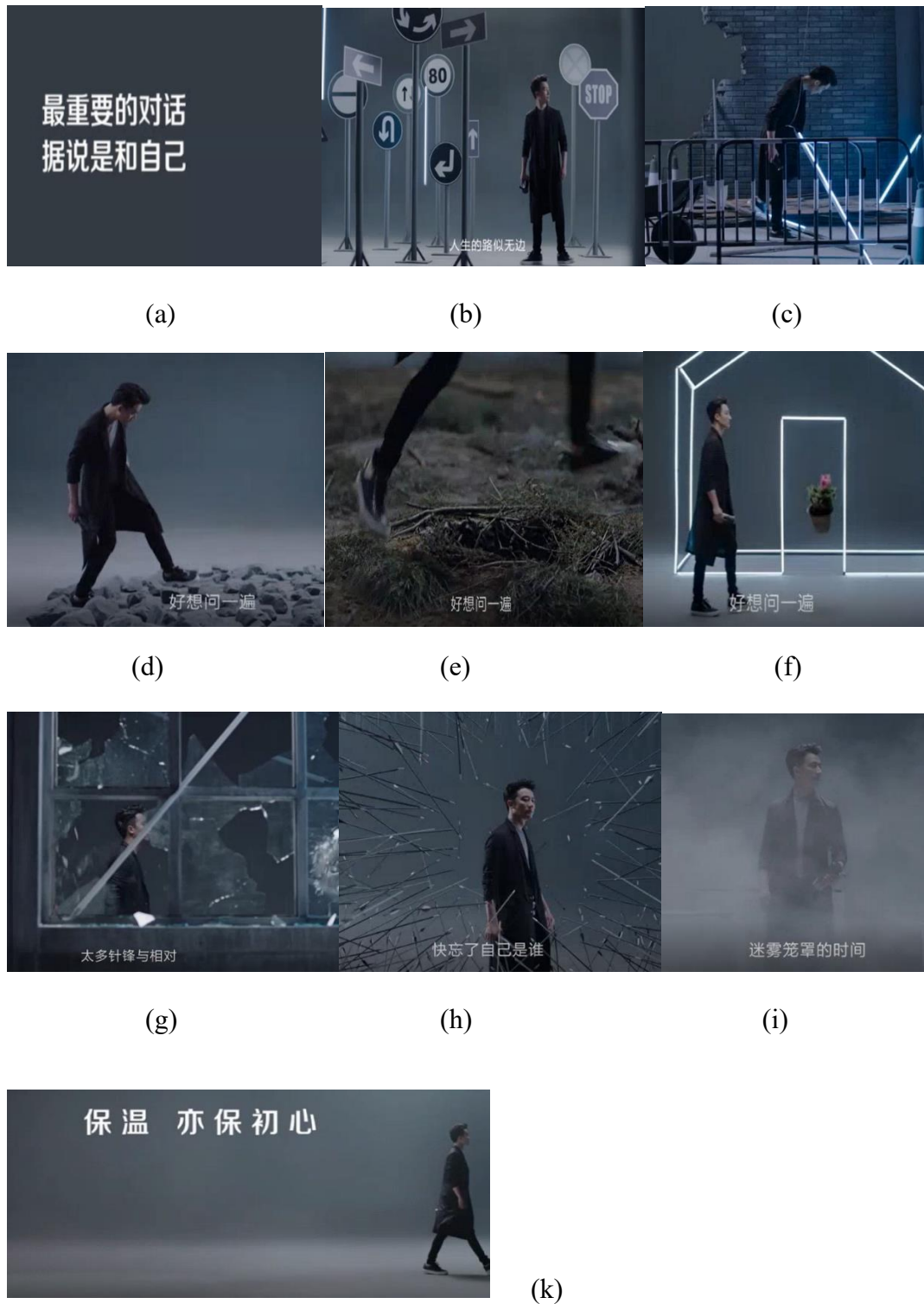


Figure 2.1 Screenshot from the Ad for SUPOR Thermos Bottle (S47¹⁰).

¹⁰ <https://www.digitaling.com/projects/23800.html>
(session 3)

This ad unfolds with a static image stating that “最重要的对话据说是和自己 (Translation, hereafter T: Seems the most important conversation is to communicate with oneself)” and then changes to a scenario where a man seems to be on a road that is surrounded by traffic signs. The accompanying song states that “人生的路似无边 (T: The path of life seems to be endless)” (see Figure 2.1 b). So far, the interactions of the song and the moving images have constructed a metaphor LIFE IS A JOURNEY. The following scenarios further elaborated mappings between the source journey and the target life by visualising obstacles and criticisms as sticks, stones, a trap, a falling flowerpot, broken glasses, arrows and mist (see Figure 2.1, d-i). The final phase of this ad invites viewers to construct one’s primary motivation for accomplishing the mission of life as water, which can be kept warm by their product Thermos Bottle (see Figure 2.1k, verbal language: 保温亦保初心 T: Keeping the water warm as well as keeping the original aspirations). The shift from the metaphorical scenario to the product is unexpected but with consistent and plausible logic in the video.

This ad has received high scores for its creativity by the public (8.8 out of 10)¹¹. The metaphor LIFE IS A JOURNEY is typically conventional in linguistic research. In this ad, nevertheless, the manifestation of LIFE IS A JOURNEY is eye-catching and noticeable, which matches with the definition of creative/novel metaphors in linguistic research (Bowdle & Gentner, 2005; Lakoff & Turner, 1989). This signals the challenges of discussing such phenomena under the current theories of linguistic metaphors. That is, both so-called conventional and novel metaphors in linguistic research can be designed creatively in video ads. Therefore, refining the definition of creative metaphor in the context of video ads is necessary to best capture its characteristics, which appear to be

¹¹ <https://mobile.adquan.com/creative/detail/46599>

quite different from a metaphor in the context of linguistic discourse.

In this chapter, I first review different perspectives to creative metaphors in the existing literature and discuss characteristics of video ads in order to generate a working definition of creative metaphors in video ads for this thesis. I also extract challenges of systematically investigating such phenomena and underexplored areas through the review. I then discuss how these issues could seek remedies from adapting RT into analysing multimodal discourse.

2.2 The Definition of Creative Metaphors

A broad definition of creative metaphors can be extracted from existing literature, where creative metaphors are frequently referred as novel metaphors, which innovatively synergise conceptual resources of two different things (Forceville, 2009; Raymond W. Gibbs, Okonski, & Hatfield, 2013; Lakoff & Turner, 1989). The issue of how mappings between the two different things in novel metaphors are established, however, has undergone manifold investigation with divergent opinions. A common approach regards metaphors as comparisons which highlight preexisting similarities between two different things (Malgady & Johnson, 1980; Ortony, 1979). Metaphors in the ad for SUPOR Thermos Bottle under this approach are built through emphasizing the similarities between journey and life, such as the endless paths and experience of travelling, which are relevant to both concepts.

An interaction view (Black, 1962, 1977) and Conceptual Blending Theory (Fauconnier & Turner, 2002) advocate that mappings could be created during an interactive process, in which properties or features of involved things are selected,

emphasised, suppressed, and organised. For instance, the mappings between journey and life in the ad for SUPOR Thermos Bottle may not necessarily pre-existing. Through presenting in the context of this ad, only some attributes of the journey (not all), such as traffic signs, sticks, falling flowerpot, mist, water, and the thermos bottle, are highlighted. Similarly, only some attributes of life, such as directions, obstacles, and original aspirations, are emphasised. The mapping between water and one's original aspirations are created within the specific context, as there are no existing similarities between them outside of the context. The ad then further claims that the product can maintain one's true self since it keeps water warm in the journey.

Conceptual Metaphor Theory (Lakoff, 1993; Lakoff & Johnson, 1999; Lakoff & Turner, 1989), however, claims that novel metaphors are extensions of conventional metaphors in our conceptual systems, which suggests that people use existing knowledge towards the source to systematically comprehend attributes of the target. For instance, viewers tend to use their knowledge of a journey to systematically understand life in the ad for SUPOR Thermos Bottle. The mappings between life and journey make sense to viewers when they rely on their personal experience of journey to understand how life is. The novel relations between water and the original purpose are extensions of some aspects in life and journey. In this ad, the metaphor LIFE IS A JOURNEY appears to be both conventional and creative. A plausible explanation could be that the conceptual metaphor LIFE IS A JOURNEY can manifest part of itself in any modes, such as the interaction of spoken language and visuals in this ad and it can also manifest actual mappings in multimodal manifestation, such as criticisms in the spoken language and arrows in visuals. The flexibility of manifestation in multimodal discourse enables conventional metaphors to be noticeable and impressive as well as novel metaphors.

The ways that how creative metaphors are understood have been experienced a good deal of empirical investigation and generated significant theoretical developments, such as Categorization View (Glucksberg & McGlone, 1999), the Career of Metaphor (Bowdle & Gentner, 2005), and Mapping Principles (Ahrens, 2002, 2010). These theoretical developments provide more details insights into how mappings between journey and life are made sense to people. For instance, under the Categorization View (Glucksberg & McGlone, 1999), people use their existing knowledge towards both journey and life to understand the mappings provided in the ad for SUPOR Thermos Bottle. The creativity might lie at constructing one's original purpose as water and keeping it through using the product, which could be novel experience to viewers. The Career of Metaphor (Bowdle & Gentner, 2005) would view the similarities between journey and life as conventional but the mappings from water and the original purpose as novel, which eventually will be conventionalized if the ad is broadcast to the public frequently. Mapping Principles (Ahrens, 2002, 2010) might focus on whether the mappings from water to one's original purpose are extensions of conventional metaphors or completely new associations by investigating its relation to the conceptual metaphor LIFE IS A JOURNEY.

Inspired by CMT, Forceville (1996) revisits the interactive view of metaphors in multimodal discourse and advances creative metaphors as conceptual phenomena that are constructed by any mode of communication, stimulating metaphor research in multimodal discourse (Fahlenbrach, 2016b; Forceville, 1999, 2007; Forceville & Urios-Aparisi, 2009b; Pérez-Sobrino, 2017; Schilperoord, 2018; Tay, 2017). The above analysis of how metaphors in the ad for SUPOR Thermos Bottle under different approaches actually is underpinned by claims made by research on multimodal

metaphors that multi-sensory elements can contribute to the metaphorical phenomenon and that verbal language is not the only device for a metaphor to manifest. Research on metaphor in multimodal discourse pays attention to how metaphor arises from different modes of communication. However, limited systematic research on large-scale corpus (Enschot, Beckers, & Mulken, 2010; Enschat & Hoeken, 2015) has been carried out. Research on metaphors in video ads are still limited within the qualitative analysis of a few cases (Forceville, 2007, 2008; Guan & Forceville, 2020; Zhang & Xu, 2018).

Although based on the essential claims on multimodal metaphor (Forceville, 1996; Forceville & Urios-Aparisi, 2009b), different perspectives to creative metaphors can be adopted to interpret how the mappings are established, none of these perspectives provides a full picture of creative metaphors in video ads. More importantly, most of these perspectives are developed from research on linguistic metaphors, applications of them to researching creative metaphors in multimodal discourse require adaptations, as discussed in the example of the ad for SUPOR Thermos Bottle. Therefore, refining the notion of creative metaphor in video ads is worthy of more scholarly attention.

2.2.1 The Interactive View of Metaphors

Metaphors are traditionally deemed as a rhetorical device which compares one thing to a different thing, highlighting the existing similarities and decorating language (Malgady & Johnson, 1980; Ortony, 1979). This notion of metaphor emphasises the artistic deviation from expectations (Grice, 1975), underpinning metaphor research to highly creative genres, such as poems and novels (McFague, 1975). While such research attempts to address metaphor and creativity, the key question is whether

similarities between the two things are pre-existing and the extent to which such investigation captures the spirit of creativity (Black, 1962, 1977).

An Interaction View of Metaphor (Black, 1962, 1977, 1979) contends that metaphors could create novel relations when they work as cognitive instruments.

Essential claims from the interactive view of metaphors are:

“(1) A metaphorical statement has two distinct objects, to be identified as the ‘primary’ subject and the ‘secondary’ one

(2) The secondary subject is to be regarded as a system rather than an individual thing

(3) The metaphorical utterance works by ‘projecting upon’ the primary subject a set of ‘associated implications’, comprised in the implicative complex, that are predicable of the secondary subject.

(4) The maker of a metaphorical statement selects, emphasises, suppresses, and organises features of the primary subject by applying to it statements isomorphic with the members of the secondary subject’s implicative complex.

(5) In the context of a particular metaphorical statement, the two subjects ‘interact’ in the following ways: the presence of the primary subject incites the hearer to select some of the secondary subject’s properties; and invites him to construct a parallel implication-complex that can fit the primary subject; and reciprocally induces parallel changes in the secondary subject.”

(Black, 1977, pp. 27-28)

A metaphor, under the discussion of Black (1977), is short for a metaphorical statement, where the focus is the non-literal word, and the frame is the literal surrounding text. The surrounding context is indispensable for analysing what can be projected from the secondary subject to the primary subject, which are deemed as systems rather than individual things. For example, the statement ‘the man is a machine’ throws several interpretations. Context helps narrow down the interpretations. For instance, the statement *He completed the complicated task in two hours. The man is a machine* directs the interpretation of the efficiency of a machine, whereas the statement ‘he

deserves a good rest after a long-distance drive. The man is a machine' points to the maintenance of a machine. The possible interpretations could be derived from an implicative complex, i.e. properties or features that could be projected from the secondary subject to the primary subject.

The essence of an Interaction View of Metaphor lies at the interaction of the primary subject and the secondary subject within the context, which can be regarded as how metaphor works, as illustrated by (4) and (5). Take *The man is a machine* as an example. The maker first selects a feature, such as efficiency. The feature of high efficiency is emphasised by the metaphor. Other features of a man are suppressed. The aspect of the man in terms of efficiency is reorganised subsequently, as the laziness is contradictory to efficiency. During the interaction between the primary subject and the secondary subject within the context, the hearer selects and emphasises properties from the secondary subject as well. Other properties of the secondary subject are suppressed. The interactions between the primary subject and the secondary subject highlight the dynamic characteristics of metaphors, whose projectable properties are selective, subjecting to the context. Metaphors, therefore, could function as cognitive instruments which enable hearers to detect completely novel similarities which are not necessarily antecedently existing.

The rising of new meanings through interactions of concepts is in line with essential claims from Conceptual Blending Theory (hereafter, CBT) (Fauconnier & Turner, 2002) that conceptual resources from multiple domains of concepts (i.e. input spaces in CBT) project certain attributes to a blended space where these attributes merge, hybrid, and interact, creating a new phenomenon with attributes that are different from any input space. The input spaces normally share a generic space

containing their common attributes by definition.

For instance, when looking at the ad for SUPOR Thermos Bottle, the generic space is created between the concept of life and journey with common attributes of travelling along paths (the source-path-goal schema). As Figure 2.2 displays, the attributes from the input space of life (such as confusion, obstacles, criticism, and the true self) are illustrated in spoken language, whereas the attributes from the input space of journey (such as traffic signs, sticks, traps, broken glasses, arrows, and water) are visualized in a sequence of scenes. The product in this ad is displayed in the scenario of a journey whose function is to keep water warm. The blending of attributes from two spaces, however, leads to the construction that the product can hold one's true self in the scenario of the journey.

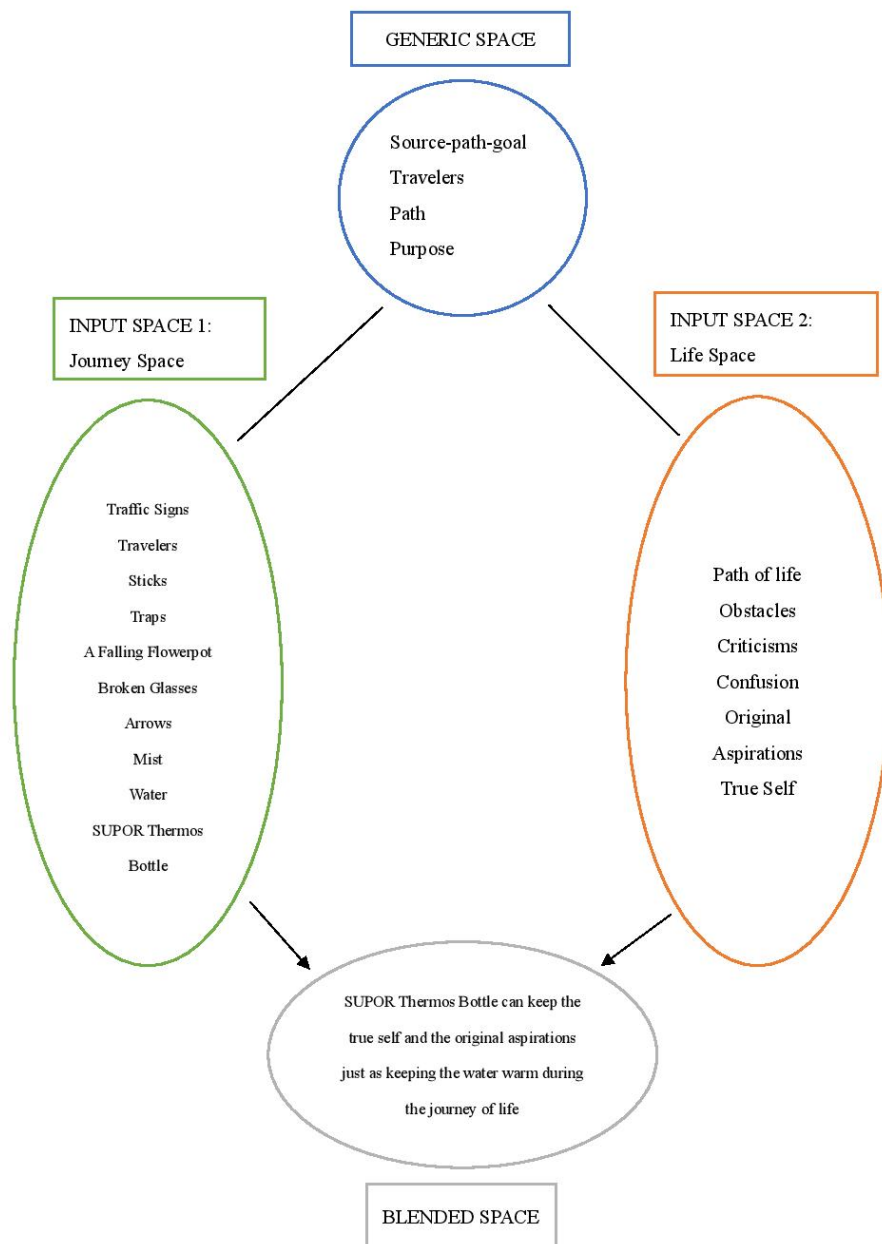


Figure 2.2 Diagram of Life-Journey Blend in the Ad for SUPOR Thermos Bottle

CBT is distinguished from the Interaction View in terms of the scope of the phenomenon investigated. CBT features in generating a blended space from unlimited input spaces, which often results in highly creative artefacts, but the blended phenomenon may not necessarily be metaphorical. The Interaction View of metaphor specifically focuses on metaphorical relations between two things, which cannot cover non-metaphorical blends and mixed metaphors, such as A is B and C. Motivated by the goal of systematic investigation, this thesis focuses more on metaphorical relations between two different concepts and reserves the analysis of interactions between unlimited multiple concepts.

2.2.2 Conceptual Metaphor Theory

In the late 1990s, research found that everyday communication is suffused with metaphorical language, developing the Conceptual Metaphor Theory (CMT) (Lakoff, 1993; Lakoff & Johnson, 1980). Within the tenet of CMT, metaphor is defined as a conceptual phenomenon, by which people systematically understand and experience a relatively abstract concept in terms of another relatively concrete concept. According to CMT, metaphor is not merely a linguistic rhetorical decoration, but a phenomenon locus in the conceptual system that people live by. Everyday language is suffused with linguistic metaphors. For instance, sentences such as *I go where my path leads me; As I've travelled through life, I've made a lot of friends along the way; I have changed my direction in life* are instantiations of the conceptual metaphor LIFE IS A JOURNEY, where the abstract concept (the target domain) of *life* is systematically understood by *journey*, a much more concrete concept (the source domain) in our bodily experience. Research also found salient similarities between Chinese and English, regarding the systematicity

of IDEA metaphors (Wen & Yang, 2016).

Novel metaphors or creative metaphors are noticeable and impressive phenomena, resulting from using conceptual resources in innovative ways (Lakoff & Turner, 1989). For example, the creative metaphor DEATH IS DEPARTURE, which emerges from poems about death, can be deemed as an extension of the conventionalized metaphor LIFE IS A JOURNEY, as death is the endpoint of a life's journey. More examples in poetry were discussed by Lakoff and Turner (1989). Essential claims about creative metaphors could be extracted that: (1) creative metaphors are alternative terms for novel metaphors, which are phenomena at conceptual level rather than discourse level; (2) creative metaphors are noticeable and impressive; (3) mappings of creative metaphors are extended from existing conventional metaphors.

The third claim about how mappings of creative metaphors are established which underpins how creative metaphors are processed and understood has been questioned by insights from various investigation (Forceville, 2009; Glucksberg & McGlone, 1999). While using the most relevant examples is necessary when illustrating theoretical claims, the compromise of losing representativeness in sampling impedes the generalizability of these claims (Forceville, 2009). On the first hand, there is a lack of systematic corpus research on poetic metaphors, leaving the proportions of correlation metaphors and resemblance metaphors in poetry unclear. It is not rare for poems to have concrete target topics and resemblance metaphors. For instance, in the poem *The Tyger* by *William Blake*, the tiger is compared to fires in the forest at the first stanza of the poem:

Tyger, tyger, burning bright
In the forests of the night
What immortal hand or eye
Could frame thy fearful symmetry?

However, correlation metaphors with abstract topics, such as DEATH IS DEPARTURE, constitute the major source for discussions by Lakoff and Turner (1989), which fails to fulfil the representativeness of sampling (Forceville, 2009).

Scholars also argued that inadequate empirical evidence could be found to warrant the claim that conceptual mappings were automatically accessed during the comprehension of conventional metaphors, novel metaphors, and idioms (Malgady & Johnson, 1980). The Categorization View (Glucksberg & McGlone, 1999) articulated that metaphorical meanings were comprehended as a result of searching attributive categories which were exemplified by the source of metaphors. This contradicts the view that metaphors were processed as comparisons (Malgady & Johnson, 1980) and the view that the knowledge of the source overrides that of the target in CMT. The Career of Metaphor (Bowdle & Gentner, 1999, 2005) was then developed as a unique framework to reconcile these two contradictory views, contending that when people processing metaphors, there is a shift from comparison to categorization, depending upon the changes of the conventionality of metaphors. That is, when a novel metaphor is firstly introduced, it is understood by comparing and extracting similarities between the two things. When people are getting familiar with this novel metaphor, metaphor categories will be developed and accessed during comprehension. Eventually, the

novelty will be lost and people understand it as a conventional metaphor. Findings from Bowdle and Gentner (1999, 2005) address how metaphor is processed, which are essential to verify theoretical arguments about metaphors. While the theory points out the conventionalization faced by novel metaphors, little insights could be derived if our focus is on novel metaphor itself, i.e. whether existing connections in conventional metaphors are indispensable during the creation of novel metaphors.

To better understand how mappings are established, Ahrens (2002, 2010) developed Conceptual Mapping Principles (CMP), warranted by systematic investigations through corpus and experiments. Through analysing linguistic metaphors at the discourse level, CM model was articulated, contending that the mapping from source to target follows a principle, which could be revealed after addressing possible lexical correspondences between the target and the source in terms of the entities, qualities and functions. The analyses, in turn, revealed that the original distinction between novel metaphors and conventional metaphors is inadequate to capture the variance observed from linguistic data. While mapping principles govern conventional metaphors and some novel metaphors, there were novel metaphors who obtain completely new connections and do not follow mapping principles. Hypotheses about the acceptability and interpretability were tested by experiments, results from which verified CMP by illustrating that (1) conventional metaphors following the mapping principles receive similar ratings with literal expressions in terms of being acceptable and interpretable; (2) conventional metaphors following the mapping principles scored higher than novel metaphors; (3) novel metaphors follow the principle were rated more acceptable and interpretable than novel metaphors that do not follow mapping principles.

Mapping principles provide thoughtful insights into the diverse metaphorical phenomena. Unlike a binary distinction between conventional metaphors and novel metaphors, mapping principles reinforce the diversity of novel metaphors. Despite that there are novel metaphors following the mapping principles, some novel metaphors do not follow the mapping principles and are less acceptable and interpretable (Ahrens, 2002, 2010). The low acceptability and interpretability of novel metaphors that do not follow their mapping principles could be due to the limited context provided in the experiments due to the comparison purpose of this research. But these novel metaphors could be acceptable and interpretable if we encounter them in the real-world discourse, such as poems, novels, and advertising, as it is innovative ideas that develop creative phenomena, which are appropriate, noticeable, and impressive (Sternberg, 1999). Determining whether a novel metaphor follows the mapping principles requires a thorough analysis of possible correspondences between two things at the discourse level and the associated established Conceptual Metaphor.

2.2.3 Multimodal Metaphors

While the research of metaphor has experienced tremendous advance in recent decades, most of the development is based on investigating linguistic communication. Metaphors in multimodal discourse, however, receive much less attention than their verbal counterpart (Forceville, 2009, 2016; Forceville & Paling, 2018). It was not until the late 1990s that linguists considered metaphor in the multimodal discourse worthy of more scholarly attention. By far, the most influential account of multimodal

metaphors is to be found in the work of Forceville (1996), stimulating metaphor research in the multimodal discourse, such as films (Fahlenbrach, 2016b; William, 2017), ads (Forceville, 2017b; Yu, 2011; Zhang & Xu, 2018) and comics (EI Refaie, 2003; Tasić & Stamenković, 2015).

The increasing research on metaphors in the multimodal discourse, however, proceeds along with the dispute of defining *mode* in multimodality, which is difficult to achieve consensus among divergent research diagrams. One prominent approach to defining mode is to regard a mode as a type of semiotic resource for meaning-making (Kress & Van Leeuwen, 1996). A social semiotic approach focused on the uses of semiotic systems in social practice (Bateman, 2008; Kress & Van Leeuwen, 1996). A semiotic mode is often associated with a certain meaning that is shaped by social interests and ideologies (Hodge & Kress, 1988). And the integration of modes is “the work of an overarching code whose rules and meanings provide the multimodal text with the logic its integration” (Kress & Van Leeuwen, 1996, p. 177). Development of social semiotic approach contends that a mode has two facets, i.e. a material dimension which relates to the sensory channels and a semiotic dimension which carries intrinsic important meanings from the perspective of social practice (Bateman, Wildfeuer, & Hiippala, 2017).

A cognitive semiotic approach also advocates combinations of semiotic systems (language, gesture, and depiction) and sensory modalities (Stampoulidis, Bolognesi, & Zlatev, 2019; Zlatev, 2015). As a result, semiotic systems can be assigned with sensory modalities, subjecting to its manifestation: written language (visual), speech (auditory), gesture (visual), and depiction (visual). The synergy of more than one semiotic systems is referred to as *polysemiotic communication*. But the synergy of more than two sensory

modalities could be regarded as multimodal (Stampoulidis et al., 2019). For instance, a painting with written text would be considered as polysemiotic and monomodal, if it is shown from an online website. If the painting is hanging on a wall and allows people to touch it, it is polysemiotic and multimodal. If the painting does not have any verbal language, it is unisemiotic.

The most recent work on exploring metaphors from a cognitive semiotic approach articulated the Motivation and Sedimentation Model (MSM) of meaning-making (Stampoulidis et al., 2019), which is claimed to account for the embodied, social and cultural, and situated meaning of metaphors. Under this approach, metaphor is defined as a *sign*, i.e. a process of experience, which presupposes conscious awareness (Stampoulidis et al., 2019). This approach “goes to the opposite extreme of CMT, acknowledging as metaphorical only fully creative and non-conventional (iconic) processes” (Stampoulidis et al., 2019, p. 6). The assumption of conscious awareness as a universal rule for metaphors, however, is contradictory with abundant existing empirical evidence that people process conventional metaphors automatically (Raymond W Gibbs, 2006; Raymond W Gibbs, Bogdanovich, Sykes, & Barr, 1997; Raymond W Gibbs & Chen, 2018). The critique on CMT-inspired research on multimodal discourse about overlooking cultural, contextual, and dynamic meaning fails to acknowledge the essential claims from contemporary research on multimodal metaphor (Fahlenbrach, 2016b; Forceville, 2007, 2017b; Pérez-Sobrino, Littlemore, & Houghton, 2019). CMT-inspired research on multimodal metaphors (Forceville, 2009, 2017b; Pérez-Sobrino et al., 2019) advocates that creative metaphors are not necessarily extensions of conventionalized metaphors, and interpretations of creative metaphors should account for the contextual and cultural knowledge about the multimodal discourse. CMT-inspired research on films also acknowledges the dynamic traits of the

multimodal discourse when investigating cinematic metaphors (Fahlenbrach, 2016b; Forceville, 1999; William, 2017).

While semiotic approaches attempt to address the social, cultural, and cognitive aspects of metaphor research, there is inadequate empirical evidence for the assembled meanings to the semiotic systems and theoretical assumptions, which challenges the validity and consistency of the investigation. It is also methodologically challenging to adopt sensory modalities, which includes sight, hearing, touch, smell, and taste. For instance, the visual mode from sight encompasses pictures, motions, gestures, and written language. The aural mode from hearing includes spoken language, music, and non-verbal sound. There is intrinsic differences within one mode, regarding the ambiguity of meaning. For instance, the meaning of the written language is clearer than non-verbal pictorials. There could also be overlapping between gestures and motions. Other factors such as the production, display, and region of the artefacts might also worth considering in order to differentiate the analytical units objectively, which could lead to an endless list. That is, “it is at this stage impossible to give either a satisfactory definition of ‘mode’, or compile an exhaustive list of modes” (Forceville, 2009, p. 23). To date, the widely adopted possibilities of distinctive modes in contemporary CMT-inspired research on multimodal discourse (EI Refaie, 2003; Forceville, 2016, 2017b; Pérez-Sobrino, 2017; Schilperoord, 2018; Tay, 2017; William, 2017; Yu, 2011; Zhang & Xu, 2018) are (1) pictorial signs; (2) written signs; (3) spoken signs; (4); gestures; (5) sounds; (6) music; (7) smells; (8) tastes; (9) touch.

The principal claim of research on multimodal metaphors is that metaphor can manifest itself in any mode in communication. When the target and the source are rendered in different modes, it is labelled as a multimodal metaphor (Forceville, 2009)

(Forceville, 2009). When the target and the source are exclusively rendered in only one mode, it is called a monomodal metaphor. In video ads, these modes could be: “(1) visuals; (2) written language; (3) spoken language; (4) non-verbal sound; (5) music” (Forceville, 2007, 2008). Under this view, the creative metaphor does not restrict itself in a certain mode. That is, a creative metaphor can exploit different modes to construct its target and source. For instance, as discussed by Forceville (2009, pp. 31-32), the simultaneous cueing of an image of kiss and a clunking of chains construct a metaphor LOVE IS IMPRISONMENT. The notion of multimodal metaphors accelerates metaphor research on how different modes of communication interact and construct meaning at the conceptual level (El Refaie, 2003; Fahlenbrach, 2016b; Forceville & Urios-Aparisi, 2009a; Pérez-Sobrino, 2017; Pérez-Sobrino et al., 2019; Schilperoord, 2018; Yu, 2011; Zhang & Xu, 2018), forming a vibrant branch in research on multimodality. Research also showed that metaphors could work with other rhetorical tropes, such as metonymy and irony, although the investigation is still in infancy (Andersen, 2013; Pérez-Sobrino, 2017; Pérez-Sobrino et al., 2019).

It is widely acknowledged that multimodal discourse has intrinsic difference with linguistic discourse, regarding ambiguity and diversity (Forceville, 2009; C. Müller & Schmitt, 2015; Pérez-Sobrino, 2017; Pérez-Sobrino & Littlemore, 2017). Research on multimodal metaphors has revealed that unlike linguistic metaphors which have clear analytical units, such as metaphorical units at the word level (Pragglejaz Group, 2007; Gerard Steen, 2010) or at the discourse level (Cameron et al., 2009), metaphors in multimodal discourse lack such unambiguous cues to be signalled (Forceville, 2009; Pérez-Sobrino, 2017). This is due to the ambiguous nature of multimodal elements that constitute the discourse, where even a single non-verbal element could elicit diverse interpretations. For instance, the sound of chains could be retrieved as itself, i.e. *the*

sound of chains, but can also be interpreted as *Imprisonment*, given a certain context. The ambiguous nature of multimodal elements increase the diversity of metaphors that could be derived by individuals. It has been found that viewers from different cultures responded marked differently regarding interpretation and preference of same metaphorical ads (Pérez-Sobrino et al., 2019).

This thesis has pointed out that the intrinsic difference between different multimodal elements could be exploited to create impressive phenomena, regardless of the conventionality of the metaphor itself. For instance, in the ad for SUPOR Thermos bottles, the conventional metaphor LIFE IS A JOURNEY was designed in an eye-catching way, using non-existing gestalt to capture the attention of viewers. However, limited research explicitly addresses the notion of creative metaphors in multimodal discourse to date. I argue that the notion of novel metaphors from linguistic research is inadequate to capture the diversity of creative metaphorical phenomena in multimodal discourse. Determining the degree of the conventionality of the creative metaphorical phenomena could be a step after bottom-up analyses rather than a threshold to be applied during the identification. Similarly, whether a novel metaphor is an extension of a conventional metaphor should also be addressed after a careful analysis of the metaphor itself. Therefore, this thesis proposes to utilise the notion of noticeable and impressive conceptual phenomena (Lakoff & Turner, 1989) to define creative metaphors as this trait can be derived as a common feature from divergent perspectives, but this thesis contends that the conventionality of creative metaphors, especially how the mappings are established, is subject to thorough analyses.

A more specific definition of creative metaphors should be carried out within a specific genre, as the context is crucial in metaphor analyses (Black, 1977; Forceville, 1996). Even within the paradigm of multimodal discourse, there are different types of genres which might influence the manifestation and design of metaphors. Considering both films and ads are both temporal and dynamic discourse, metaphors behave differently. For instance, metaphors in films often show their source domains and invite viewers to infer the target domains (Fahlenbrach, 2016b)change citation to the chapter2 audio-visual metaphors as embodied narratives in moving images. As discussed in her work, Fahlenbrach (2016a) showed how the target domains of society and supernatural power can be inferred from dialogues and actions in the Television Series *Twin Peaks*. The challenge of identifying the target domain is “bigger” than the source domain (Fahlenbrach, 2016a, p. 43). Metaphors in ads, however, tend to depict both the target, especially when the target is the product (Forceville, 1996, 2016). Even adopting a narrative plot, the product are normally presented in salient ways. For instance, the ad for SUPOR starts with a self-exploratory story but ends with introducing the product to highlight its function of keeping water warm.

2.3 An Overview of Video Advertisements

Video advertisements feature in achieving a clear-cut purpose of selling products or services through delivering persuasive messages by a short video clip. The features of video ads provide research on metaphors a guiding principle that the design of information is driven by the final purpose, which is to elicit positive opinions towards the target products or services (Wells, Burnett, Moriarty, Pearce, & Pearce, 1989). However, the dynamic nature of the temporal discourse suffused with multi-sensory elements bring about challenges in systematic investigations of metaphors.

2.3.1 Traits of Video Ads

Advertising is a sub-element of promotion and constitutes the four elements of the marketing mix, together with product, distribution, and price (Borden, 1964; Constantinides, 2006). An ad can be defined in different ways. A narrow definition defines an Ad as a promotional message that is paid for broadcasting through communication platforms (Richards & Curran, 2002). Aligning with this definition, the ultimate goal of an Ad is to persuade people to purchase their products or services (Hackley, 2005). Messages of an ad are designed to be persuasive and motivated by the ultimate goal. This definition is narrow in the sense of restricting the functions of Ads as purchasing, which is inadequate to depict the diverse forms and influences of Ads (Cook, 2001). For instance, since Ads are often broadcasted to the public, the messages could influence viewers' emotions and views of the world, even they are not in the target group. Some ads advertise well-being for social benefits, which do not have products or services to sell. Ads under the narrow definition, according to Cook (2001), therefore, are better to be regarded as prototypical ads.

A wider definition of Ads has been explored by the effort from both marketing business (Hackley, 2005; Keller, 2001; Percy, 2008) and discourse analysis (Cook, 2001). Research in marketing business adopts a holistic view towards integrating advertising with other types of promotion, which considering factors that might influence the process of advertising. For example, the increasing use of social media might add comments to the ad, which could be forwarded to others, making the messages different from the original ads. By this way, integrated marketing communication (IMC) helps achieve impacting a larger group of audience (Percy, 2008). Another factor often examined by business research is specified traits of

consumers, where categories were developed based on factors such as age, gender, and needs for cognition, to name a few. Experimental studies are the major approach to examine the extent to which the ad is effective for different groups of consumers within this diagram (Chang et al., 2018; Chang & Yen, 2013; Delbaere, McQuarrie, & Phillips, 2011; Jeong, 2008; Kim et al., 2012). Research from the perspective of discourse underwent changes from investigating the advertising language (Cook, 2001) to interactions of language and visuals (Forceville, 1996).

While the breeding of different approaches generates intriguing research on Ads, it is the narrow definition that focuses on what differentiates the genre of Ads from other discourse in mass communication. The narrow definition provides a clear-cut criterion to ensure the validity of sampling when the research focuses on how the prototypical type of ads makes meaning. It also provides a guiding principle for discourse analysis when the emphasis is on how the goal of advertising products or services is achieved through language, music, and/or images (Forceville, 1996, 2017b). This thesis adopts a narrow definition of Ads, as a methodological choice for a systematic investigation, aiming at investigating how the distinctive nature of Ads guides the design of metaphorical messages. Adopting a narrow definition of an Ad does not mean overlooking the wider range of possibilities which could generate valuable findings for research with different focuses. For instance, research on ads for public wealth might define ads as a persuasive message that aims to influence people's daily behaviours rather than achieves a commercial goal.

An Ad could be delivered through a wide range of mediums, including magazines, newspapers, street billboards, televisions, online websites, to name a few. The concept of video Ads here refers to the form of advertising, where the crafted messages are

broadcasted to the public through videos. The relevant medium, then, could be various, ranging from the traditional medium of televisions to novel platforms, such as online websites and digital billboards, as long as the persuasive messages are communicated by videos. Focusing on the form of video rather than a specific medium does not compromise the accuracy of sampling but considers the currently integrated communication channels, where a television commercial could be easily uploaded to the internet or be displayed in digital billboards. The prototypical type of Video Ads lasts for 15 seconds, whereas some ads extend to 30 seconds, subjecting to the available broadcasting time by channels. There are also some video Ads that last 1 to 2 minutes and a few Ads could extend to 4-5 minutes which could be found in online forums.

Video ads enhance customers' experience through multi-sensory interaction of sight, sound and motion, compared with print ads that are text-only or text-picture appeals (Appiah, 2006). Information presented in multi-modal formats enables customers to perceive corporate brands in a more vivid communication mode. While recent decades witnessed shifts of research scope from language (Cook, 2001) to the integration of multi-sensory elements (Forceville, 2007, 2008), the investigation of video ads is still underexplored due to the high complexity resulting from its temporal and dynamic nature (Pérez-Sobrino & Littlemore, 2017). Research on the influences of video ads in marketing business investigates the priming-effect of television commercials regarding brand attitudes (Ang & Lim, 2006), emotions (Moore & Harris, 1996), and behaviour changes (Jiménez & Mendoza, 2013). There is limited research on how different ways of packaging video ads influences the perceptions, which might be due to challenges of controlling factors in the experimental stimuli. The high complexity of video Ads has also limited most discourse research to case studies (Forceville, 2017b; Zhang & Xu, 2018), which postulates patterns from analysing a few

cases but can hardly generate replicable findings. That is, the exploration of the discourse of video Ads and influences brought by the packaging of messages are underexplored.

2.3.2 Researching Metaphors in Video Ads

Two prominent features that distinguish video ads from other genres are the purchase-driven goal and the temporal and dynamic form of communication. On the one hand, these two features underpin the nature of creative metaphors, which have been regarded as important advertising strategies to influence viewers' experience and behaviour (Burgers et al., 2015; Chang et al., 2018; Chang & Yen, 2013; Jeong, 2008; Kim et al., 2012). On the other hand, the temporal and dynamic discourse increases the methodological challenges for systematic investigation (Pérez-Sobrino & Littlemore, 2017), which limits metaphor research to qualitative analyses of a few cases (Forceville, 2007, 2008; Zhang & Xu, 2018).

As discussed in section 2.2.3, the definition of novel metaphors in linguistic research fails to capture the diversity of creative metaphors in the multimodal discourse, which are noticeable and impressive phenomena that could be constructed by both novel and conventional metaphors. Here I suggest we trace back to the notion of creativity to reconsider what is a creative metaphor in video ads. A classic definition of creativity refers to “the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e., useful, adaptive concerning task constraints)” (Sternberg, 1999, p. 3). Accordingly, creative metaphors should be phenomena that are innovative and appropriate. In the context of advertising, creative metaphors shall

provide novel experience or knowledge towards the products or services and shall not elicit negative associations towards the products or services. The novel experience could be brought by the content of a metaphor (a novel metaphor), but could also be innovative presentations, where people may find eye-catching or impressive. The ad for Supor Thermos bottles at the beginning of this chapter demonstrated how LIFE IS A JOURNEY could be manifested by eye-catching visuals and background music with metaphorical lyrics that highlight this metaphor. However, the criteria of being innovative and appropriate are not unambiguous, considering how the diverse personal experience and cultural differences could influence a person's judgements. Forceville (2017b) found that a metaphor about a computer that has been positioned as Japanese warrior was regarded as creative by western viewers but inappropriate and resistance by Chinese viewers, demonstrating how cultural background influences the appraisal of creative metaphors. What is being designed as creative metaphors at the best effort of designers may not be considered as innovative or appropriate by receivers. This is in alignment with existing research on multimodal metaphors (Forceville, 2017b), where individual differences in personal experience and cultures play significant roles in interpreting metaphors.

However, this does not mean that there is no way to locate creative metaphors in video ads but to be aware that there is disparity of determining creativity between producers and receivers. The analyses of creative metaphors in print ads have showcased the feasibility of locating creative metaphors by thinking about the ultimate purpose of ads (Forceville, 1996, 2016), which makes sense if we consider the requirements of the profession of ad design. Under the pressure of making tremendous payments to a golden timeslot in a specific channel, the designers have to make all effort in creating a satisfactory Ad, which aims to promote their products or services.

The crafted metaphors, therefore, have to be impressive and noticeable and with purposes of yielding positive associations towards the products or services (Cook, 2001; Forceville, 2007; Keller, 2001; Percy, 2008; Pérez-Sobrino, 2017). Research has found that in print ads, the products or services are frequently involved as the target of a creative metaphor (Forceville, 1996, 2007; Pérez-Sobrino, 2017). In the context of video ads, although limited systematic research has been carried out, the analysis normally link to concrete filmic techniques adopted (Bobrova, 2015; Forceville, 2007, 2008; Iversen, 2017)

The temporal and dynamic nature of video ads establishes the intrinsic difference between creative metaphors in video ads and print ads, generating methodological challenges towards a systematic investigation (Pérez-Sobrino, 2017; Pérez-Sobrino & Littlemore, 2017). Unlike print ads which present the messages in static images, video ads are more temporal and dynamic. The temporal trait is similar to films where the processing of it has a tendency to be focalized (Verstraten, 2009). On the one hand, viewers also tend to have an enquiring mind towards what they perceive. For example, when viewing a moving butterfly, people might think that ‘the butterfly is flying away from the garden. Is it going somewhere? How long and where will it stop?’ On the other hand, the sequence of shots might be processed as causal correlations (Verstraten, 2009). For instance, viewers might wonder why the shot of butterfly is followed by a shot of perfume and trying to seek any causal relation between them. The temporal trait of video ads enables creative metaphors to extend itself within a period, even the whole ad. It is not necessary to manifest itself within one image by making full use of pictorial elements and texts. The target and the source could be introduced in sequences. For instance, an example from (Forceville, 2008, p. 185) showed that in a TV commercial for shampoo, the moving shots invited viewers to construct long hair of a female model

as trees to elicit the impression of naturalness.

The dynamic traits of video Ads are often described by the rich multi-sensory interactions that enhance viewers' experience. Even within a short period of 15 seconds, there could be various ways of packaging moving images, written texts, spoken language, and background music. What has been emphasised is that meaning-making in this context can hardly be completed by only one mode of communication (Forceville, 2007, 2008; C. Müller, 2009; C. Müller & Schmitt, 2015; Whittock, 1990). Similar to films, the recognition of meanings results in interactions of all elements, which is similar to the way that how people understand the world around them (Verstraten, 2009; Whittock, 1990). For instance, people may derive a message that a bird is flying in the sky from moving images and think about what is next, rather than identifying feathers, wings, or tails separately when watching the short clip. Situated in the dynamic context, any mode of communication could contribute to the construction of a creative metaphor, although it is also possible that some metaphors are constructed predominantly in one mode and be emphasised by other modes. This is similar to cases in print ads that sometimes pictorial elements construct the metaphors independently, whereas some metaphors can only be derived by interactions of verbal language and pictures (Forceville, 2016). The difference is that richer elements could be exploited in video ads, including visuals, written language, spoken language, non-verbal sound, and music (Forceville, 2008).

The dynamic nature of creative metaphors discussed here is shared by temporal and dynamic discourse, which could be investigated from various approaches. The Dynamic View on audio-visual metaphors which has been developed from films and TV shows (C. Müller, 2009; C. Müller & Schmitt, 2015) provides an in-depth account

for meaning-making by audio-visual metaphors which are “specific, emergent, and experienced” (C. Müller & Schmitt, 2015, p. 316). Not only the target and the source of audio-visual metaphors but also the mappings invented are arising and unfolding across time (C. Müller & Schmitt, 2015). The situated and dynamic manner of making metaphorical meaning is shared by metaphors in the temporal and dynamic discourse, as illustrated by analyses on films and commercials from a perspective of CMT (Fahlenbrach, 2016b; Forceville, 2007, 2008). Nevertheless, the Dynamic View (C. Müller, 2009) distinguishes itself from research underpinned by CMT, claiming that CMT-inspired multimodal/audiovisual metaphor studies overlook the dimension of experience brought by interactions of different modes and the roles of cultures and context in specific knowledge in meaning-making. These criticisms, according to Forceville (2018), attacked strawmen. The influence of cultural background in metaphorical experience was addressed by a number of CMT-inspired multimodal metaphor studies (Forceville, 2017b; Pérez-Sobrino, 2017; Pérez-Sobrino et al., 2019). Although explanations of how different modes contribute to creating metaphors proceed by focusing on one mode at a time, CMT-inspired research has acknowledged that these modes work together rather than work in isolation to make meaning in CMT-inspired multimodal metaphor studies (Fahlenbrach, 2016b; Forceville, 2017b; Forceville & Paling, 2018; Pérez-Sobrino, 2017; Šorm & Steen, 2018). The investigations of multimodal metaphor are carried out within context as well, including genres and contextual knowledge. The creative metaphors under investigation of this thesis are at a multimodal discourse level, which is similar to the audio-visual metaphors under the Dynamic View (C. Müller, 2009; C. Müller & Schmitt, 2015). But the investigation will focus more on the structural traits of creative metaphors and reserved the rejection of how CMT might guide the interactions of different modes.

After discussing notions of novel metaphors in linguistic discourse, the essential meaning of creativity, and the influence of genre, i.e. video ads, I propose to define creative metaphors in video ads as impressive and noticeable metaphorical phenomena in the temporal and dynamic discourse, which are in line with the ultimate purpose of an Ad. This working definition can be used consistently for a systematic investigation of creative metaphors in real-world video ads.

While existing CMT-inspired research on multimodal metaphors is spurred in recent years, the majority of research has been carried out on print ads (Forceville, 1996; Pérez-Sobrino, 2017; Šorm & Steen, 2018) which are in the form of static images. The high complexity of video ads resulted from the temporal and dynamic discourse limits metaphor research on case studies, which discussed potential parameters of manifestation (Forceville, 2007, 2008) and argumentative functions (Zhang & Xu, 2018). Nevertheless, the extent to which these findings could be generated to video ads in general and how to verify postulations from the qualitative investigation can only be remedied by a systematic investigation with empirical evidence. The majority of marketing-related research also examines the effectiveness of metaphors in print ads, leaving how metaphors in video ads take effect underexplored. All of these issues concern a theory that considers both socio-cultural context and medium-specificity in analysing media communication through a systematic methodology.

2.4 Analytical Lens of Relevance Theory

Aforementioned challenges could seek plausible methodological insights from the analytical lens of Relevance Theory (hereafter, RT) (Wilson & Sperber, 2002) which can be adapted to multimodal communication. This idea was initially advanced by

Forceville (2014) to propose more rigorous analytic models for multimodality theory. While RT deems communication as a cognitive process, where meanings of communication are manifested in either verbal or non-verbal elements, the majority development of RT is based on analysis of verbal-linguistic data (Wilson & Sperber, 2002). Since the cognitive principle of relevance is assumed as a universal cognitive principle of human nature stemming from invariant cognitive mechanisms, it is reasonable to deploy it into multimodal communication (Forceville, 2014). The recent decade has witnessed several insights drew from integrating RT into analysing static images (Abdel-Raheem, 2017, 2018; Forceville & Clark, 2014; Forceville & Kjeldsen, 2018) and mass communication (Braun, 2016). These attempts help explore primary parameters of applying RT in a context where non-verbal communication plays a crucial role in delivering messages. However, the effort on the genre of video ads to date is scarce. Here, I will first present a brief introduction of RT and how it relates to mass communication, regarding crucial parameters, such as the cognitive principle of relevance, ostensive stimuli, explicatures and implicatures. Then, I'll discuss methodological insights to analyse metaphors in video ads.

2.4.1 An Overview of RT

Relevance Theory (Wilson & Sperber, 2002) is developed based on some central claims of Grice's framework (Grice, 1975) towards inferential pragmatics, aiming at revealing how inferences towards the meaning of the speaker were derived by the hearer during their communication. RT works in details of the Grice's claim that expectations raised by utterances lead the hearer to the speaker's meaning. Grice (1975) describes the process of deriving inferences in terms of Cooperative Principle and four

conversational maxims. Cooperative Principle states that interlocutors expect conversational contributions from each side during the communication. It is expected that speakers make a contribution that 1) provides optimally information in terms of quantity (quantity maxim); 2) is true and has sufficient evidence (quality maxim); 3) is relevant (maxim of relevance); 4) has a good manner in terms of clarity, ambiguity, conciseness, and order (maxim of manner) (Grice, 1975; Wilson & Sperber, 2002). A hearer should reasonably choose an interpretation that best satisfies the expectations. RT highlights the significance of relevance as a conversational maxim in the cognitive process of communication and questions the necessity of Cooperative Principle and other maxims. The central claim of RT is that “the expectations of relevance raised by an utterance are precise enough and predictable enough, to guide the hearer towards the speaker’s meaning”(Wilson & Sperber, 2002, p. 2). An input is relevant to an individual when and only when its processing yields positive cognitive effects.

2.4.2 The Cognitive Principle of Relevance

RT argues that the concept of relevance is inseparable from human cognition (Wilson, 2003; Wilson & Sperber, 2002). Instead of following a Cooperative Principle and maxims, communicators search for relevance from an input as a basic feature of human cognition. The concept of input here encompasses verbal input and non-verbal materials, such as sight, sound, and memory. That is, the input could be in any form of communication, rather than just face-to-face verbal communication. The input becomes relevant only when it connects an individual’s “cognitive environment” (Sperber & Wilson, 1995, p. 38) and yields a cognitive effect during the processing. Cognitive environment refers to the sum total of knowledge, emotions, and beliefs. The input could be relevant by “answering a question he had in mind, improving his knowledge

on a certain topic, settling a doubt, confirming a suspicion, or correcting a mistaken impression” (Wilson & Sperber, 2002, p. 3). To give a few examples, receivers may find the input relevant when (1) they gain knowledge that they didn’t know (such as people read the first news about the outbreak of an epidemic in their city); (2) their existing assumptions are reinforced (such as citizens receive hygiene reminders from public services during the outbreak of epidemic); and their existing assumptions are weakened (such as students receive announcements about postponing the open date of schools). During the processing of the messages, the receivers normally are attracted by the more relevant input than other available inputs. That is, receivers consider the degree of relevance rather than judging being relevant or not. The greater the positive cognitive effect is, the more relevant the input will be. The positive cognitive effect happens when the gain from the input outpaces the processing effort spent on it. RT claims that comparative judgements are made among processing effort, cognitive effect, and relevance, which can be summarised as: “

- (a) Other things being equal, the greater the positive cognitive effects achieved by processing an input, the greater the relevance of the input to the individual at that time.
- (b) Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time.”

(Wilson & Sperber, 2002, p. 4)

When processing inputs, humans automatically maximize the relevance of the inputs by balancing the cognitive effect and the processing effort. This is called Cognitive Principle of Relevance in RT (Wilson & Sperber, 2002). Fundamental parameters of RT, such as input and CPP, do not rule out multimodal communication, suggesting that although most development of RT has been made from investigation linguistic communication, the framework is amenable to research on multimodal communication with adjustment within the multimodal context (Forceville, 2014).

2.4.3 Ostensive-inferential Communication

Communication under the Cognitive Principle of Relevance guides the ostensive-inferential communication (Sperber & Wilson, 1995), where both communicators and the audience are aware that communicators deliver a message for the audience to pay attention to and to infer information from the message. Two types of intentions of ostensive-inferential communication are classified by understanding and believing:

“Informative Intention: The intention to inform an audience of sth.
to make manifest or more manifest to the audience a set of assumptions
Communicative Intention: the intention to inform the audience of one’s
informative intention.
to make it mutually manifest to audience and communicator that the
communicator has this informative intention.”

(Sperber & Wilson, 1995, pp. 58-61)

Informative intention is fulfilled when the audience recognises the content of delivery. Communicative intention is fulfilled when the audience believe and accept the messages (Wilson & Sperber, 2002). In order to encourage the audience to recognise the informative intention, speakers tend to select ostensive stimuli, which are made to be optimally relevant so that it is worth processing for the audience. An ostensive stimulus creates the presumption of relevance. In multimodal communication, the presumption of relevance indicates that designers of multimodal artefacts, such as political cartoons and advertisements, have chosen the stimuli with optimal relevance in order to reach their envisaged audience (Forceville, 2014; Forceville & Clark, 2014). Optimal relevance is achieved when the stimulus is made relevant enough to attract the

audience to the best effort and preferences of the communicators. For instance, an ad designer will manage to produce a video ad that is most comprehensible and relevant to the target audience at his or her best effort, although some rhetorical strategies such as metaphor and irony or fancy filmic techniques might be adopted.

2.4.4 Explicatures and Implicatures

The notion of optimal relevance and the Cognitive Principle of Relevance is essential to yielding a comprehension procedure: “

- a. Follow a path of least effort in computing cognitive effects: Test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.
- b. Stop when your expectations of relevance are satisfied.”

(Wilson & Sperber, 2002, p. 12)

This comprehension procedure provides an overview of the comprehension process that include crucial tasks in verbal communication: identifying explicatures, implicated premises and implicated conclusions. To use a dialogue as an example:

A: Do you swim?

B: I only do easy exercise.

The explicature is that B only do easy exercise. The implicated premise is that swimming is not easy. The implicated conclusion is that B does not swim. The implicated premises and conclusions construct implicatures.

While the notions of explicatures and implicatures are developed and used predominantly in linguistic research, they are amenable to multimodal communication, with cautions of the affordances and constraints of multimodal data (Forceville, 2014). Compared with verbal communication, multimodal communication has more variances

in terms of deriving clear-cut meanings. However, it is feasible to distinct processes of en/decoding, pragmatically inferring explicatures, and pragmatically inferring implicatures (Forceville, 2014; Forceville & Clark, 2014). For instance, when the audience processes a picture, the depicted elements were recognised first at the decoding stage, such as a man with a long nose in Figure 2.3. Together with existing background information (such as the resemblance between the man and Obama, the colour, the time of producing it, and the accompanying text *LIES*, explicatures could be extracted that “Obama is a liar” (Forceville, 2014, p. 60). Then implicatures might be inferred that the producer was against voting for Obama, which requires social knowledge of what was happening in the society during the publication of this poster.



Figure 2.3 Political Comics of Barack Obama.

Retrieved from <http://noisyroom.net/blog/2012/06/30/obama-lies-taxes-rise/>

Forceville (2014) emphasised that even for mass communication, relevance is only relevant to individuals. Unlike face to face communication, communicators of mass communication can hardly adjust messages or recalling misinterpretation once the messages are delivered by artefacts. But for advertising, once the audience figures out

the purpose of promoting a product, the communicative intention will be fulfilled. The extent to which the information derived by the audience matches with the original intention of the designers, however, determines the degree of fulfilling the informative intention, which is less easy than that for the communicative intention. Whether the audience accepts the derived information depends on how productive the processing of the information in their cognitive environment, which is subject to the individual difference regarding life experience and socio-cultural background. In other words, RT accounts for the diversity of interpretation at the individual level as well as the observable phenomena provided by the communicators in mass communication.

2.4.5 Potential Methodological Insights

Forceville (2014) theories major analytical lens that RT could be applied to multimodal communication: presumption of relevance, explicatures and implicatures, relevance to an individual in mass-audience, communicative and informative intention, and effect and effort. The recent decade witnessed how RT could generate fruitful investigation in analysing multimodal communication. Abdel-Raheem (2017) articulated a model that drew insights from Blending Theory (Fauconnier & Turner, 2002), Relevance Theory (Sperber & Wilson, 1995), and Frame Semantics (Fillmore, 1985) towards pictorial framing, by discussing metaphors in multimodal political cartoons on the United States. Braun (2016) outlined critical values of synergizing Relevance Theory (Sperber & Wilson, 1995) and Mental Model Theory (Johnson-Laird, 1983) in audiovisual translation, which was deemed as ‘partial/constrained’ translation (Benecke, 2014) due to the restrictions of visual images. A cognitive-pragmatic model provides audiovisual translation with a holistic view that accounts for cognitive factors and socio-political

factors in the processes of discourse comprehension and production (Braun, 2016). Insights from Relevance Theory also underpins the metaphorical experience of conceptual metaphors in animation films, where embodied schemas interact with high complexed cultural and contextual factors, exerting influences on the cognitive environment of a recipient (Forceville, 2017a).

In this thesis, I argue that adopting the analytical lens of relevance theory has the potential to shed light on multimodal metaphor theory in terms of investigating creative metaphors in video ads, particularly given the fact that it also shares common ground with metaphor theory (Forceville, 2014; Raymond W Gibbs & Tendahl, 2006). On the first place, it provides a more rigorous model to discuss the phenomenon in terms of its explicatures, implicatures, and potential effectiveness. When we view metaphors in video ads in terms of explicatures and implicatures, it seems plausible to derive explicit information from the explicatures, which were aimed to be communicated by advertisers. We could also derive implicatures, i.e. a specific meaning implied by a symbol or multimodal interactions. The overall interaction of explicatures and implicatures work through influences on an individual's cognitive environment. When the communicative intention is fulfilled, positive cognitive effect happens and the audience could have good attitudes towards the ad, or higher purchase intention towards the product. Deriving explicatures and implicatures are often foci of discourse analyses in research on multimodal metaphors (Fahlenbrach, 2016b; Forceville, 1996; Pérez-Sobrino, 2017; Gerard Steen, 2018), whereas the influence of metaphors on viewers are also discussed by discourse analyses but are more likely to be focused in marketing-related research.

When RT is integrated with metaphor theories in multimodal communication, it is plausible to extract explicatures at the discourse level. For metaphors in video Ads, there could be an identical way to analyse what is delivered explicitly as metaphors to fulfil the informative intention by advertisers. Further postulations could be made that a reliable and replicable procedure to identify metaphors at the discourse level is feasible, although a certain ambiguity might exist due to the variances of human nature. The postulation about a reliable procedure does not make assumptions about interpretations of metaphors at individual levels but concern the purpose of creating such metaphors within the context.

Existing studies about unambiguous creative metaphors in print and video ads are warranted with visuals and linguistic words warranted in the artefacts (Forceville, 1996, 2007, 2008; Pérez-Sobrino, 2017). Nevertheless, I argue that the identification and the interpretations are not necessarily dependent, if they are analysed as explicatures and implicatures as a methodological choice. It is also possible that the interpretation of a metaphor might block the identification of a metaphor, which is unavoidable at an individual's perceptions. This is similar to the case when the hearer misunderstood the delivered meaning by the speaker when the hearer tries to understand the informative intention. The dependent way of analysing explicatures and implicatures of a metaphor indeed generate thorough and comprehensive analyses of a few print ads. However, it can hardly work effectively when it comes to highly complex discourse, such as video ads, especially for investigations of a large corpus, which aims to generate replicable results. The postulation of feasibility in analysing identification and interpretation separately provides a conceptual base for resolving the methodological challenge of identifying creative metaphors in video ads.

Apart from the identification, RT also provides a systematic way to interpret multimodal metaphor in video ads. The implicatures conveyed by the metaphor depends on the mappings between two different categories, which might interact with contextual and cultural elements. Through detailed analysis of informative information, it is possible to make predictions about the effort and effect, and further predictions about the fulfilment of communicative intention, which in turn could be examined by experimental studies. RT can also be used for understanding how viewers experience metaphorical ads, especially probing into how they derive relevance from ads in different versions. This thesis, therefore, will adopt the analytical lens of RT during the content analysis of metaphors in video ads and explore viewers' metaphorical experience in experiments based on RT.

2.5 Chapter Conclusion

This chapter has refined creative metaphors in video ads. Creative metaphors as noticeable and impressive phenomena in video ads which are temporal and dynamic have encountered methodological challenges for systematic investigation. Adapting the analytical lens of Relevance Theory can provide a systematic analytical framework and plausible directions for resolving current methodological challenges. The following chapters tackle the challenges of metaphor identification, content analysis, and examine how metaphors in video ads exert influences on the public.

Chapter 3. Creative Metaphor Identification Procedure in Video Ads

3.1. Introduction

This chapter tackles the methodological challenge of identifying creative metaphors in video ads with a reliable and replicable procedure. While the significance of identifying metaphors from multimodal discourse has been recognised in the field of multimodality, there is a lack of such procedural guidance for creative metaphors in video ads.

I first synergise critical issues to be addressed for developing such a procedure by reviewing existing attempts towards the similar methodological challenge in the multimodal discourse, such as identifying visual metaphors in political cartoons and multimodal metaphor and metonymy in print ads. I then discuss potential solutions to achieve reliable identification in the light of adapting Relevance Theory (Sperber & Wilson, 1995) to multimodal discourse (Forceville, 2014) and an existing procedure of identifying potential multimodal metaphors in TV commercials (Bobrova, 2015). After the theoretical conceptualization of developing a reliable procedure, I report a corpus-driven study in two phases that address research questions of metaphor signalling devices in video ads and procedures to identify these creative metaphors. Each phase of the study includes interrater reliability examinations that provide substantial support for proposals of detecting metaphor signalling devices and creative metaphors. I also show sufficient typical examples and borderline cases when exemplifying filmic techniques and the procedure.

3.2. Identifying Metaphors from Multimodal Discourse

Recent developments in researching metaphors in multimodal discourse have heightened the need for reliably identifying metaphors from multimodal discourse (Pérez-Sobrino, 2017; Pérez-Sobrino & Littlemore, 2017; Šorm & Steen, 2018). Nevertheless, the relatively ambiguous nature of multimodal discourse impedes such developments, especially when it comes to audio-visual genres, such as films and video ads, where the complexity is much higher due to the dynamic and temporal meaning-making. Other variables, such as cultural knowledge and individual perceptiveness, increase the difficulties of a structural procedure. Metaphor scholars also recommended that an identification procedure of metaphor in multimodal discourse could distinguish metaphor from other rhetorical tropes, such as metonymy, irony, and hyperbole (Forceville, 2016), which further increases the challenges, as most of the work on other tropes in multimodal discourse is “still to be done” (Forceville, 2016, p. 15).

While the high complexity of multimodal discourse exhibits methodological challenges of metaphor identification, a feasible remedy could be discerned from existing attempts (Bobrova, 2015; Forceville, 2002, 2009; Pérez-Sobrino, 2017; Šorm & Steen, 2018) that have probed into critical parameters of this issue. The pioneering work on metaphors in multimodal discourse settled guiding questions to be addressed when identifying a metaphor (Forceville, 1996, 2002) and pointed out prominent possibilities of metaphor cues (Forceville, 2009). Procedural guidance has been articulated in TV commercials (Bobrova, 2015), political cartoons and print ads (Šorm & Steen, 2018), and audio-visual report (C. Müller & Schmitt, 2015).

Identifying metaphor from multimodal discourse has witnessed effort from divergent perspectives. Within the realm of CMT-inspired research, the pioneering work guided research to tackle the methodological issue by exploring the intrinsic features of multimodal discourse (Forceville, 2002, 2007, 2008), whereas further developments of research drew insights from metaphor identification in linguistic discourse (Pérez-Sobrino, 2017; Pérez-Sobrino & Littlemore, 2017; Šorm & Steen, 2018; Stampoulidis & Bolognesi, 2019), which according to Pérez-Sobrino (2017), is in consensus with the “equipollence hypothesis” (Ruiz de Mendoza & Mairal, 2008, p. 154). The equipollence hypothesis assumed the feasibility of adapting methodology from one domain to another (Ruiz de Mendoza & Mairal, 2008). Since metaphor is regarded as a conceptual phenomenon which can manifest itself in any mode, it is not unreasonable to seek inspirations from linguistic research (Pérez-Sobrino, 2017). But metaphor in multimodal discourse does have its special characteristics, compared with metaphor in linguistic discourse (El Refaie, 2003; Pérez-Sobrino & Littlemore, 2017; Yu, 2011). If there is a continuum of the ambiguity of meaning, linguistic discourse and non-verbal discourse could be situated in two extremes, where the non-verbal discourse involves the greatest degree of ambiguity, and the linguistic discourse embraces clear-cut attributes to analyse.

All aforementioned attempts towards resolving the methodological challenge of identifying metaphors in video ads contribute to synergizing crucial issues to some extent. Essential concerns include decoding the meaning of multi-sensory elements, analytical units, and determining the phenomenon as a metaphor, which shall be addressed when developing a metaphor identification procedure. A further development will be examining the reliability of the developed procedure.

3.2.1. Decoding the Meaning of Multi-sensory Elements

Analysing the meaning of non-verbal elements is essential in the multimodal discourse, but strenuous due to the undefined nature of non-verbal elements, which involves diverse subjective interpretations that could vary across the situations of encountering the artefacts and cultural backgrounds of the viewers. Existing research defines meaning with divergent descriptions. A well-accepted view towards meanings of visuals has distinguished the denotation and the connotation regarding layers of meaning (Moriarty, 2005; Penn, 2000; Van Leeuwen, 2001). Denotation refers to the depicted visual elements and connotation refers to the deeper contextual and cultural meaning that the visual elements are associated with (Van Leeuwen, 2001). For instance, a picture of an apple has the denotation of the fruit apple. When a snake is added into the picture, viewers who are familiar with Christianity will infer the connotative meaning of temptation when they see the apple. There are different views on layers of meaning in terms of visual semiotics. For instance, iconography (M. G. Müller, 2008) distinguished representation meaning, iconographical symbolism, and iconological symbolism. Representation meaning is comparable to denotation (Van Leeuwen, 2001). Iconographical symbolism refers to the accepted conventions used purposefully by the designer. The example of temptation created by an apple and a snake falls into this category. Iconological symbolism extends the meaning to the wider social or historical context, leading to explanations of the visuals. These views explore the meaning of non-verbal elements from static images, with expectations to be extended to other non-verbal elements, such as music and motion. However, the effort on static images remains to be discrete for extending it to other elements.

A growing approach that aims at systematically analysing multimodal discourse draws insights from Relevance Theory (RT) (Sperber & Wilson, 1995), with the presumption of relevance which motivates addressee to derive meaning from non-verbal elements. Since RT is developed from linguistic communication, refinements that link the theory to the multimodal discourse are necessary. However, there are no exhaustive parameters for describing the artefacts. Principal dimensions have been discussed by some research (Abdel-Raheem, 2017, 2018; Braun, 2016; Forceville, 2014), which advanced ‘explicatures’ and ‘implicatures’ to account for the meaning depicted on the artefacts and the interpretations associated with it. An important caveat is that the presumption of relevance is relevant to individuals in mass communication (Forceville, 2014), highlighting that the knowledge towards depicted elements is indispensable in deriving explicatures from the artefacts. In other words, the extent to which the explicatures could be derived fully depends on how familiar the recipient is with the elements in the artefacts, even with the designer. For instance, the depiction of an apple and a snake has the explicatures of a snake besides an apple to people who are ignorant of Christianity but delivers the explicatures of temptation and consequences to viewers who are familiar with the underlying cultural connotation. The way in which such depiction is relevant to the artefact’s theme, however, falls into implicatures. This does not mean that the explicatures of multimodal discourse are ambiguous. For a genre with strong purposes, such as political cartoon and advertisements, the explicatures could be clear-cut and straightforward when designers intend to ensure the perception of their designs so as to maximize the range of their target audience.

The notions of explicatures and implicatures appear to capture how multimodal discourse communicate with envisaged viewers, especially when it comes to video ads, as the creation of ads is motivated by a strong purpose. On the one hand, the

combination of multi-sensory elements increases the challenges for systematic investigations. Divergent approaches to multimodal discourse, such as video ads and films, lead to restrictions of research method into case studies, impeding the empirical validation of theoretical insights gained from existing research. A systematic analytical framework benefits the research trajectory at the initial stage by bringing insights towards different modes of communication together. On the other hand, video ads as an extension of print ads in mass communication in terms of genre, has the potential to adopt the RT that has been warranted with research on static images, where print ads were investigated as well as political cartoons and other static images. The clear-cut ultimate goal of promoting products or service underpins the straightforward explicatures that shall not cost too much cognitive effort for general viewers. Detailed implicatures are subject to the personal interest of viewers to determine to what extent they would like to derive the in-depth meaning of specific combinations of elements. In other words, the variant understanding of a video ad might fall in implicatures rather than explicatures in general.

When it comes to creative metaphors, which are crafted to assist in advertising, noticing them should not take too much effort, considering the valuable time a metaphor takes in an expensive video ad. The recognition of metaphor, from the perspective of methodological development, is also not necessarily bonded with metaphor analyses, i.e. the interpretation and explanation of a metaphor, especially when a goal of reliability is set (Šorm & Steen, 2018). Identifying creative metaphors with a reliable procedure, therefore, is feasible at the level of explicatures created by explicit cues. A metaphor can rise through connecting the explicit concepts. Subsequent content analysis of the mapping features and reasons for designing the metaphor will fall into deriving implicatures.

3.2.2. Analytical Units of Metaphor in Multimodal Discourse

One of the big challenges of developing a reliable procedure for metaphor identification in multimodal discourse is determining the analytical units (Šorm & Steen, 2018) since multimodal discourse can hardly be segmented by lexical units as what has been done in linguistic discourse (Pragglejaz Group, 2007; Gerard Steen et al., 2010). Units of analysis explicitly point out where the metaphor could be found in the discourse and facilitate quantification procedures for more rigorous analysis. Without clear-cut analytical units, it is difficult to examine the reliability of a procedure, especially when it comes to highly complex discourse such as video ads and films. Existing research addresses the unit of analysis to different extents. Research on multimodal metaphors by Forceville (2002, 2009) and Pérez-Sobrino (2017) did not address this issue explicitly and appeared to regard the whole ad as a unit of analysis. VISMIP (Šorm & Steen, 2018) defined a unit of analysis as “a component of a structural description of the referential meaning of an image. A component may receive the label Agent, Action, Object, Recipient, or Setting, following ” (Tam & Leung, 2001, p. 67).

Research on audio-visual discourse (Horst, 2018; C. Müller, 2009; C. Müller & Kappelhoff, 2018; C. Müller & Schmitt, 2015) appeared to locate the unit of analysis through filmic techniques exploited. A dynamic view of audio-visual metaphors (C. Müller, 2009; Scherer, Greifenstein, & Kappelhoff, 2014) took cinematic expressive movement as analytical units, where filmic techniques, such as camera movement, montage, and sound design, played important roles as articulatory modalities of audio-visual staging. However, since the expressive movements aimed to assist in reconstructing experience of viewers through orchestration, they appeared to be indistinct. Without explicit guidance on segmenting expressive movements, the actual

operationalization appeared to be somewhat unclear.

A CMT-inspired procedure for identifying potential metaphors in TV commercials (Bobrova, 2015) highlighted how filmic techniques could create incongruence which is essential to metaphors. Three filmic techniques, including the compelling context (Whittock, 1990), juxtaposition, and the transformation of images, were utilised in her procedure (Bobrova, 2015) to signal potential metaphorical units. The filmic techniques here were loosely used, as effects created by technical filmic techniques seemed to be addressed. For instance, the transformation of images emphasised incongruent images created through “distorting, inserting, removing, substituting, fusing, making features ambiguous or converting one feature or the entire entity into another” (Bobrova, 2015). It is reasonable to detect metaphor in video ads through concrete filmic techniques, as filmic techniques play the role of guiding and shifting the focus from viewers (Verstraten, 2009), providing a concrete way to track the meaning shifts in the temporal discourse. Nevertheless, to what extent the three filmic techniques discussed in (Bobrova, 2015) can capture the major possibilities that signal metaphors is underexplored as the reliability of the procedure was not examined in her study.

3.2.3. Determining the Phenomenon as Metaphor

After locating analytical units of a video and having an approach to the meaning of multi-sensory elements in mind, analysts are confronted with the issue of determining a phenomenon as a metaphor rather than other rhetorical tropes (Black, 1962; Forceville, 1996, 2016). Instead of excluding metaphors from other tropes with considerations of all characteristics of rhetorical figures in the multimodal discourse, which is also

unpractical regarding the current developments of both theories and methodologies, this thesis tackles this issue by aligning with definitions of metaphors which inherently distinct itself from other rhetorical figures. The abundant work of metaphor in multimodal discourse (Forceville, 1996; Forceville & Urios-Aparisi, 2009b; Gerard Steen, 2018) has also laid robust theoretical foundations for systematic empirical investigation.

Existing research on multimodal discourse has highlighted the role of incongruity that underpinned the identification of linguistic metaphors and visual metaphors (Pragglejaz Group, 2007; Schilperoord, 2018; Šorm & Steen, 2018; Gerard Steen et al., 2010). During identification, a guiding principle for existing procedural guidance (Bobrova, 2015; Šorm & Steen, 2018) is to locate the incongruity, either from the topic-content relations or properties depicted (Šorm & Steen, 2018). Locating the incongruity is in line with the historical perspectives to metaphor which is a poetic way of using languages (Ortony, 1979) or an artful deviation from expectations (McQuarrie & Mick, 1996). Nevertheless, when researching metaphor in multimodal discourse is enlightened by core claims of CMT that the essence of metaphor is “understanding and experiencing one thing in terms of another” (Lakoff & Johnson, 1980, p. 5), the restrictions on visual incongruity can hardly capture metaphors that are cued by simultaneous cueing of different modes (Forceville, 2016), the combination of which normally does not display visual incongruity. This thesis will follow essential claims from CMT when determining a phenomenon as a metaphor within analytical units.

3.2.4. The Issue of Reliability

While there is a lack of reliable procedure to identify metaphor in video ads, the significance of internal consistency in identification has been addressed by existing studies (Pérez-Sobrino, 2017; Pérez-Sobrino & Littlemore, 2017; Pérez-Sobrino et al., 2019). In her book on metaphor and metonymy in advertising, Pérez-Sobrino (2017) emphasised the importance of internal consistency and calculated Cronbach's Alpha to demonstrate the consistency of numbers of metaphor and metonymy identified from different raters. Further research updated the examinations of reliability by calculating Krippendorff's Alpha (Pérez-Sobrino et al., 2019), which warranted the agreements with the reliability coefficient ($k = .71$). The importance of reliability for metaphor identification was also emphasised during developing Visual Metaphor Identification Procedure (VISMIP) (Šorm & Steen, 2018), which is a procedure adapted from MIPVU, a replicable procedure in identifying linguistic metaphors. However, the extent to which VISMIP is reliable and replicable was not examined in their research (Šorm & Steen, 2018). The procedure proposed to identify potential metaphors in TV commercials by Bobrova (2015) did not address the issue of reliability. While a most recent research on identifying metaphors from TV commercials (Bort-Mir, 2019) illustrated theoretical grounds for using filmic techniques to identify metaphors in TV commercials, instead of examining to what extent the procedure can be applied by other annotators, the inter-rater reliability examinations were carried out on annotating 21 participants' responses to 2 TV commercials in two questionnaires, which contain 5 questions corresponding to steps in the Filmic Metaphor Identification Procedure (FILMIP). Although high agreements were generated with statistical evidence, the inter-rater reliability tests examined the agreements on annotating participants' comprehension of two video ads, rather than the replicability of the procedure.

Another different perspective claimed to synergise cognitive linguistics and cognitive semiotics theoretically and articulated a four-step procedure for identifying and analysing visual metaphors in street arts, with consideration of external evaluations from non-metaphor analysts (Stampoulidis & Bolognesi, 2019). The procedure started with determining the topic of the image and then identifying incongruous elements at the expression level, interpreting the connections and identifying metaphors at the conceptualization level, and determining the pragmatic messages at the communication level. While this procedure appears to cover both metaphor identification and metaphor analysis, the reliability tests carried out in their studies (Stampoulidis & Bolognesi, 2019) can hardly reflect the validity of examinations, as the including of external evaluators in judging the agreement among internal annotators increases unnecessary subjection. For instance, whether different phrases refer to the same concept can be confirmed among annotators rather than being judged by so-called external evaluators. More importantly, the external validity in this context can be addressed better if it is demonstrated that the procedure can be used effectively for external annotators who are non-linguists, as the concept of external validity refers to the degree of extending the research to other scenarios in life (Calder, Phillips, & Tybout, 1982; Campbell, 1986).

Considering the methodological operation, diverse interpretations of metaphors might generate inconclusive results when examining the reliability of a procedure. Since clear-cut quantifiable data is necessary for addressing the issue of reliability, it is worthwhile to separate metaphor identification from metaphor interpretation. On the one hand, metaphor identification is theoretically not necessary to be fused with metaphor interpretation. On the other hand, recognizing a metaphor or not could provide clear-cut categorical data for statistical examinations. This thesis, therefore, holds the view that separating metaphor identification from metaphor analysis helps in

developing a reliable procedure as with reasonable theoretical base and methodological considerations.

To summarise, while the importance of a reliable procedure of identifying metaphor in multimodal discourse is recognised, there is a lack of such an attempt when it comes to video ads. Key issues related to developing a replicable procedure could be inspired by recent research on multimodal metaphors (Bobrova, 2015; Forceville, 2007, 2008, 2009), by addressing the following research questions:

- (1) What filmic techniques can be the signalling devices of creative metaphors in video ads?
- (2) How to identify these filmic techniques?
- (3) What are the procedures to identify creative metaphors in video ads?
- (4) To what extent is the procedure reliable?

3.3. Methodology

This study encompasses two phases. Phase One addressed the first two research questions, focusing on what filmic techniques can work as metaphor signalling devices and how to identify them reliably. Phase Two addressed the remained research questions about the metaphor identification procedure and the reliability examinations of the procedure. In this section, I introduce how the corpus of video ads was built, specifications of inter-rater reliability examinations carried out in both phases, and the annotation software recommended for analysing video ads.

3.3.1. Corpus Building

A corpus of 100 Chinese video ads was built through stratified random sampling, where the platforms to retrieve these ads and the types of products together created ten strata in total (see Table 3.1). Links to Ads in the corpus could be retrieved from Appendix E. Since all ads were original in Chinese, the author added English subtitles to ad examples discussed in this thesis. They could be found at <https://drive.google.com/drive/folders/1k1dOXRjGMReIQy4r3j8mmKNuMstW80mp?usp=sharing>.

The ads were selected from five online video platforms with keywords ‘advertisements’, according to random numbers generated by research randomizer¹². Repeated ads were excluded during the selection. These platforms were supported by the BAT companies—Baidu, Alibaba and Tencent, which according to report from emarketer¹³, are expected to dominate the digital ad market in China from 2016 to 2021. Types of products considered the distinction between search products and experience products, which were differentiated by the tangibility of products’ attributes when it comes to research on the Economics of Information (EOI) (Bloom, 1989; Ford, Smith, & Swasy, 1990). Research has demonstrated that consumers evaluated the prominent attributes of products with different criteria (Huang, Lurie, & Mitra, 2009; Jiménez & Mendoza, 2013). Products under EOI could be classified into search products and experience products. The prominent attributes of a search product are tangible and concrete, which could be manufactured with a given standard and be evaluated by consumers ahead of purchasing (Bloom & Reve, 1990; Gultinan, 1987; Jiménez &

¹² <https://www.randomizer.org/>

¹³ <https://www.emarketer.com/Article/Chinarsquos-Digital-Video-Ad-Spending-Overtake-TV-by-2021/1016452>

Mendoza, 2013), such as cups, papers, and pens. The dominate attributes of an experience product are intangible and abstract, which can hardly be assessed effectively before purchasing (Bloom & Reve, 1990; Gultinan, 1987; Jiménez & Mendoza, 2013), such as travelling services, haircuts, and cosmetics services.

Table 3.1 An Overview of the Corpus

Online Websites	Search Products	Experience Products	Total
Iqiyi	10	10	20
Tencent	10	10	20
Youku	10	10	20
Shuying	10	10	20
TVC	10	10	20
Total	50	50	100

3.3.2. Reliability Examinations

Procedures to identify filmic techniques of interest and creative metaphors in video ads all went through a process of examining inter-rater reliability, starting with calibrating understanding of the procedure and proceeding to independent coding 20% ads randomly selected from the corpus, quantifying the degree of agreement, and finally discussing to resolve the disagreement. Calibrating understanding of the procedure required annotators familiarising themselves with the procedure through detailed explanations on criteria of each step and instantiations of data from the corpus (Cameron & Maslen, 2010). The discussions on resolving disagreement aimed at generating guiding replicable principles for subsequent identification (Bolognesi, Pilgram, & van den Heerik, 2017; Krippendorff, 2004).

For the scheme to identify segments that contains filmic techniques of interest, the author and another rater performed the above annotation process. The second rater holds a master degree in Chinese Language Teaching, with limited linguistic knowledge of metaphor. The statistical test performed was Krippendorff's Alpha, a reliability coefficient to measure the agreement among raters on unstructured phenomena (Bolognesi et al., 2017; Krippendorff, 2004). Krippendorff's Alpha was frequently adopted in content analysis as a robust test which is similar to Cohen's Kappa (Cohen, 1968). However, Cohen's Kappa can only measure agreements between two raters and require that there is no missing data for calculation (Cohen, 1968). Strengths of Krippendorff's Alpha include that it does not have strict requirements on the number of raters and it is able to cover missing data. In this phase, the numbers of segments identified by two raters were different. Those omitted segments were labelled as missing data during the reliability examinations. Therefore, Krippendorff's Alpha was performed in Phase One.

For the procedure to identify creative metaphors in video ads, there were six Chinese raters in total. Three raters were PhD students who studied metaphor, including the author. The other raters majored in non-linguistic disciplines and had little knowledge of metaphors, including the rater in Phase One. Phase One resolved the issue of segmenting 20 randomly selected video ads, which completed Step 2 in the metaphor identification procedure (see Figure 3.3 in Section 3.5.1). Other four raters skipped Step 2 and focused on deriving metaphors from each unit due to the tremendous effort required for segmenting videos. Since Step 3 requires verbalisation of concepts, discussions on linguistic phrasing were included in the annotation process before quantifying the agreement. Discussions on linguistic phrases did not resolve disagreements, following the criteria presented in Section 3.5.1.3. Therefore, the

annotation process for phase two included stages of calibrating understanding of the procedure, independent coding 20% ads randomly selected from the corpus, discussing the verbalisation of concepts, quantifying the degree of agreement, and final discussions on resolving the disagreement.

Including novice raters who were not familiar with metaphor considered the external validity of the research (Calder et al., 1982; Campbell, 1986) that the crafted procedure by metaphor analysts could be used by non-linguistic viewers who are closer to the general audience of ads. Research on reliability examinations of content analysis recommended to demonstrate the replicability of a protocol by including novice raters into the annotation process as trained raters tend to achieve mutual agreements from the same perspective, which might lead to a higher score in reliability tests (Bolognesi et al., 2017; Krippendorff, 2004).

The examinations of the procedure to identify creative metaphors in video ads were carried out at two levels. The first level was to examine to what extent the metaphorical unit is reliable, i.e. the extent to which the raters achieved agreement on whether an analytical unit is metaphorical. Fleiss' Kappa (Fleiss, 1971) as an extension of Cohen's Kappa (Cohen, 1968) was carried out to measure it. Cohen's Kappa, a more robust measure of interrater reliability or interobserver agreement than a simple percentage agreement as Cohen's Kappa takes into account the agreement occurring by chance (Cohen, 1968). However, Cohen's Kappa can only measure agreements among two observers. When there are more than two observers, Fleiss' Kappa can work. The second level was to measure the extent to which the content of identified metaphors are the same, i.e. the metaphors identified by different raters have the same target and the same source. Percentage Agreement was carried out as the only applicable way of

measuring the agreement on the content. Pilot studies were carried out prior to the main study and were reported in the following sections.

3.4. Phase One

To address research questions (1) and (2) about how filmic techniques functioning as metaphor signalling devices, the study started with identifying filmic techniques that could lead to metaphorical interpretation by applying the procedure for identifying potential multimodal metaphors in TV commercials (Bobrova, 2015). A refined category of filmic techniques of interest was developed with considerations of the phenomena appearing in the video ads and existing research (Bobrova, 2015; Forceville, 2008, 2009; Gkiouzepas & Hogg, 2011). It then developed a scheme for segmenting the video ad with specifications of segmenting each filmic techniques and examined the extent to which the scheme is reliable. In this section, I introduce the refined category of filmic techniques with exemplifications and the scheme to detect them with reliability examinations. Different fields might have different understandings towards the terminologies of filmic techniques. Filmic techniques in this thesis were from the literature in linguistic research. They generally highlight the visual effects that can be perceived by general viewers.

3.4.1. An Inventory of Filmic Techniques as Metaphor Signalling Devices

Filmic techniques guide viewers' foci and shift the emphases of the plot (Verstraten, 2009), enabling the co-occurrence of some filmic techniques and metaphors, which makes these metaphors prominent. Utilizing filmic techniques to detect metaphorical

analytical units is inspired by research on TV commercials (Bobrova, 2015), films (Scherer et al., 2014), and TV reports (C. Müller & Schmitt, 2015), which are all temporal dynamic discourse. The filmic techniques are substantially related to metaphors, but whether they are metaphor signals subjects to whether metaphorical relations are created through exploiting the technique. There might be other filmic techniques as metaphor signals which have not been included in this inventory but the inventory of filmic techniques proposed in this thesis summarises the major possibilities that are both discussed in the literature and emerge from the corpus. The procedure proposed by (Bobrova, 2015) was applied to 20 randomly selected Chinese video ads due to the similar research aims with identifying metaphors in dynamic commercials.

There were several issues showed by applying the framework by Bobrova (2015) to several Chinese video ads. Firstly, it turned out that the original definition of transformation of images encompassed several possibilities that were distinct to each other and some of them had been named in other terms in the literature. In her study, the technique of transformation of images created incongruent images by “distorting, inserting, removing, substituting, fusing, making features ambiguous or converting one feature or the entire entity into another” (Bobrova, 2015, p.123). Visual outcomes from distorting, inserting, removing, and substituting appear to be different from those created by converting one entity to another. The visuals created by distorting, inserting, removing, and substituting are similar to that created by the technique of *replacement* in the literature (Chang et al., 2018; Gkiouzepas & Hogg, 2011; Jeong, 2008; Phillips & McQuarrie, 2004). An example can be found in Figure 3.1, where a chair is replaced by a car. This technique can be exploited in both static images and moving images. However, converting one feature or the entire entity into another contains a dynamic

process which is unique to moving images, considering the virtual effect of transformation that can only be achieved by techniques.



*Figure 3.1 An Example of Replacement Metaphor,
An Ad Example from Gkiouzepas & Hogg (2011, p. 104)*

Fusing features of entities creates another type of visuals, where two saliently different things are hybrid, which has been discussed as *hybrid* in existing literature (Forceville, 1996, 2016). In his research, the technique of hybrid creates non-existing gestalts (Forceville, 1996, 2016). In the ad corpus, I found that non-existing gestalts occurred frequently, either through creating animation characteristics or combining two prominently different objects (see Figure 3.2). Considering the distinct visuals created by these techniques and theoretical effort on discussing them separately, this thesis distinguishes them by different labels of filmic techniques, rather than categorizing them under the umbrella term of transformations of images. Therefore, transformation of images is defined as “converting one feature or the entire entity into another” (Bobrova, 2015, p. 123) in this thesis. At the same time, the techniques of *replacement* and *depicting non-existing gestalt* are included.

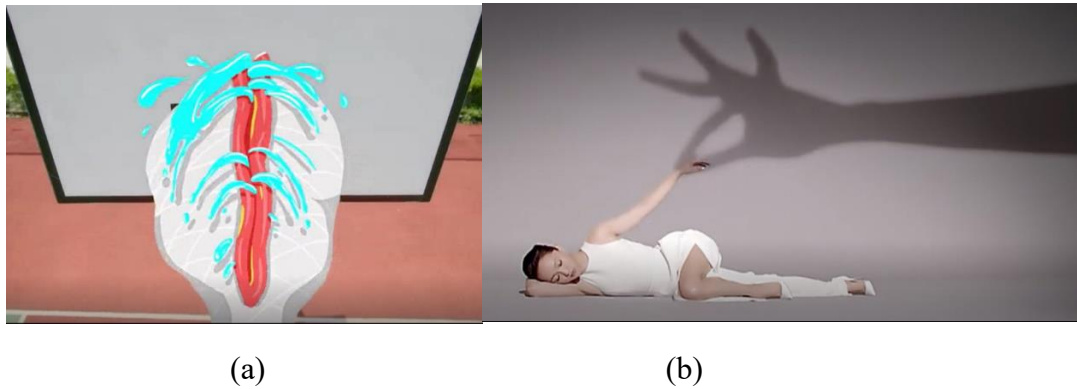


Figure 3.2 Examples of Depicting Non-existing Gestalts,

(a) from Ad E39, (b) from Ad S16

Another issue is that the technique of “the compelling context” (Bobrova, 2015, p. 121; Whittock, 1990, p. 52) is ambiguous to locate the phenomenon. According to Whittock (1990, p.52), the context “forces the audience to see A as B”(emphasis in original). According to Bobrova (2015, p.121), the context “compels a viewer to view one entity in terms of another by featuring it as if it were a different entity or as associated with another entity” (emphasis in original). Their discussions seem to emphasise that the connections between two different things are deliberately presented as metaphors in a specific context, implying that the only accessible way of perceiving them is through metaphors. The essence of this technique is in line with *simultaneous cueing of different modes* discussed by Forceville (1996, 2009). In print ads, the verbal language can name visuals as something else, creating a “verbo-pictorial metaphor” (Forceville, 2016, p.249). In video ads, this technique has more possibilities to combine different modes of communications. However, since in dynamic discourse, it is ambiguous to locate filmic techniques by searching for *the compelling context*, as the ad itself can provide a unique context as a whole to advertise the product and nearly all metaphors occurred in the ad are specific to the context. Locating the technique by its original name and definition, therefore, turns out to be misleading and unfeasible. This thesis adopts the

term of *simultaneous cueing of different modes* which is more concrete to locate the technique. Together with the technique of *Juxtaposition* discussed in Bobrova (2015), we finally have an inventory of five filmic techniques that can signal salient metaphors in video ads (see Table 3.2).

Table 3.2 An Inventory of Filmic Techniques as Metaphor Signalling Devices

Filmic Techniques	Definition
Transformation of Images	“Converting one feature or the entire entity into another” (Bobrova, 2015, p. 123)
Depicting non-existing gestalt	Visuals that show “impossible” gestalt in real life (Forceville, 2008, p. 182), including “combining part of two focal objects to form a single hybrid one”(Gkiouzepas & Hogg, 2011, p. 106)
Replacement	“Visuals where one of the objects has been replaced by an object foreign to the schema” (Gkiouzepas & Hogg, 2011, p. 105)
Juxtaposition	“Alignment-horizontal or vertical-within one shot or the sequence of shots” (Bobrova, 2015, p. 121)
Simultaneous Cueing of Different Modes	“Two things are signalled in different modes.” (Forceville, 2009, p. 31)

3.4.2. Identifying Five Filmic Techniques

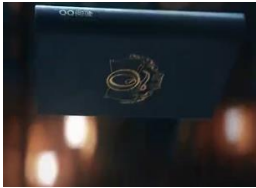





Definitions of these filmic techniques will be elaborated with instantiations, signalling the potential process of identifying them as methodological developments. Since the major purpose of this section is to exemplify what each filmic technique of interest looks like and how they could signal metaphors, only the content related to the filmic

technique rather than the entire video ad will be presented and discussed and the analyses presented here will not address a thorough interpretation and explanations of metaphors. The visual effects of these five filmic techniques can be found at <https://drive.google.com/drive/folders/1IHGQGaZ71guJ34uUIN71qjSxWIUbHmj0?usp=sharing>.

3.4.2.1. Transformation of Images

Transformation of Images creates the visual effect that one feature or the entire entity is converted into a different one. The whole process of transformation is identical and it is often, as suggested by data, that an entity rather than the whole scene transformed into something else. It is the changes of a specific element or participant in the scene that creating the visual effect of transformation of images. For instance, in the ad for QQ Reading APP, there was a segment (duration 1'34s- 1'38s) that a book transformed into a mobile phone visually, accompanied by fanciful sound to mark the transformation. The background scene was consistent but the visual elements of a book changed to the visual elements of a mobile phone (see Table 3.3). Normally the background and the larger context remains the same during the transformation process, but have the potential to extend as a new context for the transformed entity after the transformation process. For instance, in the ad for Yakult, a segment of transformation (09s-11s) changed the scenario of the playground to a simplified part of the human body. Cinematic techniques are necessary to create such visual effect as such transformation between two concepts can only be realized in novels or science fiction films by special effects rather than any living creatures in real life.

Table 3.3 Examples for Transformation of Images

Ad	Duration	Scene 1	Scene 2	Scene 3
E13 ¹⁴	1'34s-			
QQ	1'38s			
Readin				
g APP				
S15 ¹⁵	09s-11s			
Yakult				

3.4.2.2. Depicting Non-existing Gestalt



Depicting non-existing gestalt refers to impossible gestalt created by special visual effects and/or interactions of multi-sensory elements. The special visual effects include “combining part of two focal objects to form a single hybrid one” (Gkiouzepas & Hogg, 2011, p. 106). The most prominent technique to create such gestalt is using animations to depict virtual characters or part of the virtual elements attached to the original object. For instance, in the ad for *Jing Dong* Coffers, a virtual context was created by depicting abstract items which attached to a real person (see Table 3.4). In a segment (09-13s), a virtual ATM was depicted and attached to a man, accompanying with spoken language

¹⁴ <https://v.qq.com/x/page/g05524826aw.html>

¹⁵ <https://v.qq.com/x/page/x0307tg3rf1.html>

that the man is an ATM. Non-existing gestalt can also be created through interactions of different sensory-elements without animations. For example, in the ad for *Mai Dong*, the size of the product was enlarged to an impossible scale in real life and accompanied with spoken language that the product is a person. The essence of this technique highlights the appeals of a concept, which is impossible gestalt in real life.

Table 3.4 Examples for Depicting Non-existing Gestalt

Ad	Duration	Scene
E27 ¹⁶ <i>Jing Dong</i> Coffers	09-13s	
S7 ¹⁷ <i>Mai Dong</i>	05-07s	

¹⁶



https://v.youku.com/v_show/id_XMTg3NTYxODc2MA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2

¹⁷ http://www.iqiyi.com/w_19ru19x42p.html

3.4.2.3. Replacement

Replacement is a technical term frequently adopted by marketing-related research on visual metaphors in static images, creating “visuals where one of the objects has been replaced by an object foreign to the schema” (Gkiouzepas & Hogg, 2011, p. 105). Research on multimodal metaphors (Forceville, 2009, p. 31) described a similar concept that “filling in a schematic slot unexpectedly”, where something alien to the schema has been added into the context and invited a metaphorical understanding of this different concept. For instance, in the ad for TMALL, a segment showed that a girl cried with breaking-up claims to a direction in a rainy night (see Table 3.5). The uses of words ‘I dislike you for a long time’ and the whole scenario suggested she was shouting at her partner, based on our knowledge. Nevertheless, a bag of used skincare products instead of a person was shown in the following scene. The bag of items turned out to replace the schema of a person, inviting viewers to see the bag of used items in terms of an old love. Replacement could be created through fancy editing techniques, such as in the ad for QQ Reading App, the schema of birds is replaced by books. This is similar to the visual effects created in static images. However, in video ads, the visuals could also be processed naturally without salient alien elements. The bag of used skincare products in the ad for TMALL looked incongruent only when viewers following the plot and understanding the preceding context. If just having a glance at the scene of the bag, it would be a very common scenario in life, without any special visual effects created by techniques. Metaphors suggested by replacement could be recognised by viewers who watched the ad, rather than carelessly browsing it, which is not rare for viewing video ads. The visuals created with special effects might be easier to be captured than those without.

Table 3.5 Examples for Replacement

Ad	Duration	Scene 1	Scene 2	Other mode
E32 ¹⁸ TMALL	23s-24s			Spoken: 我早就不喜欢你了 (T: I dislike you for a long time)
E13 ¹⁹	1'14-1'28s			Sound of Birds

3.4.2.4. Juxtaposition

Juxtaposition is a technique frequently adopted in both print ads and video ads (Bobrova, 2015; Chang et al., 2018). It creates the visual effect that two different things are positioned side by side, either horizontally or vertically, inviting comparisons between the two (Bobrova, 2015; Chang et al., 2018). In video ads, juxtaposition could occur in either one image or the sequence of shots. The two different things could be put side by side in one scene or appearing in different scenes that align horizontally or vertically. For instance, in the ad of *Wei Quan*, a girl was juxtaposed with a clown in







¹⁸

http://www.tvbook.com/showVideo.html?vid=33145&code=f747uVnYSHVgdZB-Bycd3iMk-h-XcH0-gRfj_Ai1oXQVXQ

¹⁹ <https://v.qq.com/x/page/g05524826aw.html>

plastic and moved their bodies in the same way. In the ad of Tommee Tippee Feeding Bottle, two different scenes align vertically (see Table 3.6). The ad of Siemens Dishwasher switched scenes in sequence repeatedly. The juxtaposition of scenes in the sequence is different from transformations of images in the way that for transformation, there is a clear process of transforming, where an entity is changed to another one and they are linked by techniques that create special visual effects. The visual effect of changing A to B is normally observable and salient. However, visuals created by juxtaposition lack such clear links between the two entities or scenes. The observable phenomenon is that these two are put side by side or introduced in a sequence. The relationship between A and B is less salient than that created by transformations of images. There is another possibility in video ads that scenes appear in the early part of the ad juxtaposed with scenes appeared in the late stage of the ad and inviting a metaphorical interpretation between them. This is often the case when a narrative story is unfolded and switched to the context of the product at the final stage. For example, in the ad for Di Di, the girl wrote a thank letter to express her gratitude to Mr Di, who offered wonderful help during her trip. The content of the letter accompanied by scenarios where a handsome young man helped her with everything in her travel. In the second half of the ad, the scenarios depicted earlier showed again but the man was replaced by a mobile phone with the App and staff from the company. This showed that scenes that are at different stages of an ad could be juxtaposed and invite metaphorical interpretation as well.

Table 3.6 Examples of Juxtaposition

Ad	Duration	Scene 1	Scene 2
S22 ²⁰ Tommee Tippee Feeding Bottle	04-10s		
S40 ²¹ Siemens Dishwasher	08-10s		
E33 ²² Di Di	1'09s- 1'15s vs 1'41s- 1'43s		

20

http://www.tvcbook.com/showVideo.html?vid=70386&code=3af5MKotjdgM4uoyPB4z_qESdgZGArMK4axYhYkgjeqhoA

21

<http://www.tvcbook.com/showVideo.html?vid=70674&code=6040xQA17vRD8Wc0rSgqSZGatr9VTGjnuVv5b-71HUWVsQ>

22

http://www.tvcbook.com/showVideo.html?vid=72204&code=29fdh9_UQ54SnALQtwuzPgNtKxD3i5H6vpCTYsubmAtwdQ

3.4.2.5. Simultaneous Cueing of Different Modes

The term of simultaneous cueing of different modes speaks for itself that more than one modes of communication interact and create a metaphorical interpretation. However, it comes from research on multimodal metaphors, not a technical term in filmic techniques. It refers to synchronic combinations of multi-sensory elements, such as visuals, spoken language, written texts, and music. Metaphors could be created through such techniques that two different concepts are manifested in different modes that are introduced at the same time. For instance, in the ad for *Qi Pa Shuo*, a TV program in mainland China, the visuals showed a severely ill patient, whereas the accompanying spoken language demonstrated the TV program. The combination of visuals and the spoken language guided viewers to understand the program in terms of a severely ill patient. A feature of this technique is that normally no visual incongruity is presented (see Table 3.7). That is, if eliminating the other mode, visuals often are ordinary scenes and the metaphor does not exist anymore. Since there are always interactions of different modes in video ads, identifying this technique shall consider that no visual incongruity is created. Otherwise, it falls into any of the above four filmic techniques. Metaphor identified through this possibility is typical multimodal (Forceville, 2016). In print ads, since the only available modes are visuals and texts, metaphor under this possibility is called “verbo-pictorial metaphor” (Forceville, 2016, p. 249). This possibility can be extended to video ads where more modes are exploited to deliver meaning. Therefore, the possibility of simultaneous cueing of different modes shall be considered as long as there is more than one mode in the ad.

Table 3.7 Examples of Simultaneous Cueing of Different Modes

Ad	Scene	Verbal Language
E5 ²³ <i>Qi Pa Shuo</i> TV Program		抢救奇葩说 (T: Emergency Rescue for <i>Qi Pa Shuo</i>)

3.4.2.6 A Scheme to Detect the Five Filmic Techniques and Its Reliability

Identifying these filmic techniques requires the raters to identify segments that capture the essence of the technique. Since the aim of identifying these filmic techniques is to further determine whether the segment is metaphorical or not, the accuracy of the timespan is less significant than what techniques involved in the segment. Instead of developing a second to second identification of filmic techniques, which is unrealistic, it is feasible to mark down the segments that capture the techniques with a general timespan. Table 3.8 shows a scheme to detect the five filmic techniques.

²³ <https://v.qq.com/x/page/f0759d3ryn8.html>

Table 3.8 A Scheme to Detect the Five Filmic Techniques

Steps	Descriptions
Step 1	Watch the entire ad
Step 2	Scrutinize the ad and markdown every segment that contains any of the five filmic techniques and the timespan of each, according to the following descriptions.
A. Transformation of images	The timespan starts with visuals of the first entity or feature and ends at visuals of the entire new entity or feature. The segment involves the old and new entities and the process of transformation.
B Depicting non-existing gestalt	The timespan starts with visuals that the non-existing gestalt shows up and ends at the scene that this gestalt disappears. The segment clearly shows the whole entity of this gestalt and its show-time in the scene(s). If it shows more than one time, the actual times are counted.
C Replacement	The timespan starts with visuals of replacement shows up and ends with the disappearance of this visual. The segment clearly shows the whole duration of this replacement.
D Juxtaposition	If the juxtaposition shows in one shot, record the timespan of this shot. If not, the timespan stars with the beginning of the first shot and ends at the end of the second shot. It might be possible to have shots that are not placed together. In this case, each timespan for the shots that build up juxtaposition is recorded. The segment clearly shows the shots that are juxtaposed either in one shot or in several shots. When there is more than one juxtaposition, the coherence of the ad is helpful to do the segmentation.
E Simultaneous cueing of different modes	If there are more than two modes in the ad, this technique is marked with the timespan of the whole ad.

The scheme to detect these filmic techniques was explained and exemplified to the second rater during the process of calibrating understanding. When the second rater became confident about applying the scheme, the two raters annotated 20 video ads independently. Krippendorff's Alpha (Krippendorff, 2004) was performed to examine the agreement on the identified filmic techniques. Results ($\alpha = .78$) provided substantial evidence for the reliability (Krippendorff, 2004). Then the two raters discussed and

resolved disagreements on segmenting these 20 video ads.

3.5. Phase Two

Having extracted the filmic techniques in all 20 video ads, the research proceeds to the second phase of identifying creative metaphors. Phase two addresses research questions (3) and (4) by introducing steps of the procedure to identify creative metaphors and examining the interrater reliability. This section also provides ad examples of applying this procedure.

3.5.1. A Six-Step Procedure

The procedure of creative metaphor identification in video ads (C-MIPVA) has six steps (see Table 3.9 and Figure 3.3), each of which serves a specific aim, which collaboratively tackles the methodological challenge of metaphor identification. This procedure is developed for analysing multimodal discourse, without claims about how viewers process the information when watching a video ad.

Table 3.9 A Six-step Procedure to Identify Creative Metaphor in Video Ads

Steps	Descriptions
Step 1	Watch through the entire ad to have a general idea of the context and identify the product.
Step 2	Segment the video with reference to the scheme of detecting the five filmic techniques (see Table 3.8). These techniques are: A. Transformation of images B. Depicting Non-existing Gestalt C. Replacement D. Juxtaposition

	E. Simultaneous Cueing of Different Modes (without visual incongruity)
Step 3	<p>Within each segment, determine whether there are different concepts connected by the filmic technique and/or by the interactions of different modes.</p> <p>a. If ‘yes’, find out the concepts and proceed to step 4.</p> <p>b. If ‘no’, mark this segment as non-metaphorical and work on other segments from step 2.</p>
Step 4	<p>For each pair of concepts, determine under the context, whether there is any transfer of meaning from one concept to the other.</p> <p>a. If ‘yes’, proceed to step 5.</p> <p>b. If ‘no’, mark the segment contains this pair of concepts as non-metaphorical and work on other segments.</p>
Step 5	<p>Determine whether the transfer of meaning helps the annotator look at a concept in a different way.</p> <p>a. If ‘yes’, proceed to step 6.</p> <p>b. If ‘no’, mark this segment as non-metaphorical and work on other segments.</p>
Step 6	<p>Verbalise the metaphor as <i>A IS B</i> or <i>DOING A IS DOING B</i>, where the former (A or Doing A) is the concept that receives a new perspective to be viewed in step 5, and then work on other segments in the ad until all segments are annotated.</p>

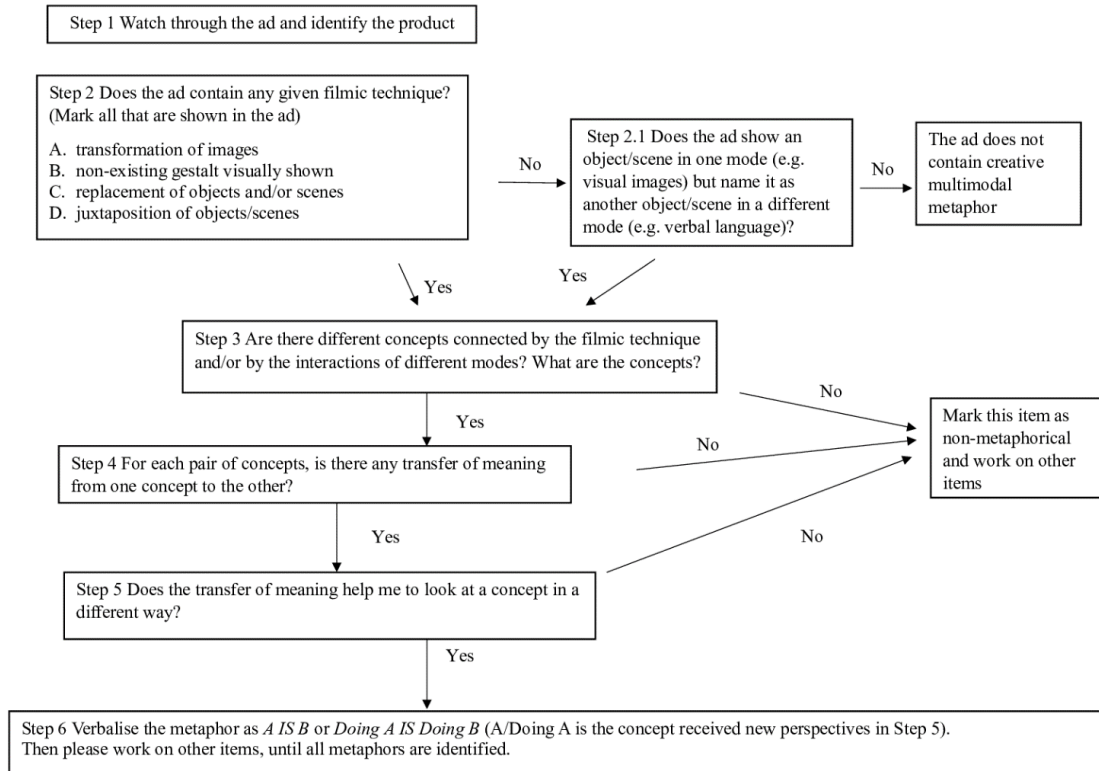


Figure 3.3 An Overview of C-MIPVA

3.5.1.1. Understanding the Context

This procedure starts with watching through the ad and identifying the product, which helps gain a general understanding of the context, i.e. the information about what is advertised, what features are emphasised, and in what ways. A general understanding of the advertising messages is indispensable for further scrutiny. On the one hand, it is necessary to have an overview of the ad's content as a common viewer. On the other hand, the overall impression helps signal some prominent potential metaphorical segments by intuition first, if no strong cultural barriers involved. A similar step is involved as an initial step in MIP, MIPVU and VISMIP.

3.5.1.2. The Analytical Unit

After identifying the product and having a general understanding of the context, the identifier moves on to segmenting the video by identifying the aforementioned filmic techniques by the scheme in Phase One. The filmic techniques of transformations of images, depicting non-existing gestalt, replacement, and juxtaposition created visual incongruity, whereas the simultaneous cueing of different modes seldom display incongruent visuals. When there is a visual incongruity, the first four techniques shall be considered. The analyst shall mark a segment about the technique of ‘simultaneous cueing of different modes’ whenever there is more than one mode involved in the ad. These filmic techniques are distinct from each other, considering the visual effect created. An ad could contain more than one filmic techniques of interest and each segment shall contain one filmic technique. But each segment can have more than one pair of different concepts. Therefore, the analytical unit is each pair of concepts in segments.

3.5.1.3. The Verbalisation of Concepts

For each segment, which normally is a short span (approximately one to two seconds) that is temporal and dynamic, interactions of different modes within this segment normally highlight certain concepts with explicit cues, i.e. the explicatures of the segment are salient and observable. When working on each segment, step 3 requires analysts to identify pairs of concepts, which are somehow connected. Identifying pairs of concepts follows defining metaphor as a relationship between two different things (Black, 1977; Forceville, 2016). It is theoretically possible, however, to have more than one pair of concepts in the same segment, although analysing current corpus has

revealed that such cases are rare.

This study takes the view from Leezenberg (2001, p. 252) that “a concept means what is expressed by a symbol” and regards different concepts as concepts belong to different ontological categories. In a video, the way we perceive objects in moving pictures is the same as how we identify real objects (Whittock, 1990). Although there are multi-sensory elements in a video, we generally have “one image of a moving car, not three (car, sound, motion)” (Whittock, 1990, p. 21). In this way, the interaction of images, sound and verbal language might altogether construct one entity that belongs to a concept. For example, the images of ‘a flying bird’ and ‘a sleeping bird’ signal the same concept of ‘bird’. But the images of ‘a flying bird’ and ‘a swimming bird’ signal two different concepts, i.e. the concept of ‘bird’ and the concept of ‘swimming creatures’, as ‘swimming’ is not a fact of ‘bird’ in our epistemological knowledge.

Verbalising a concept could be challenging, especially when it comes to non-verbal elements and when the interpretation normally jumped into minds as a result of human nature. There is no universal solution to this issue. The current working criteria for verbalisation are to identify the explicit cues in the ad, considering what has been stated rather than inventing concepts that is of personal preference. For instance, an image of lips shall be recorded as the concept of ‘lips’ rather than the concept of ‘kiss’ or ‘eating’, if no any verbal cues could be found. When there is verbal language in the segment stating that ‘lips’ stand for ‘kiss’ or the movement of lips clearly demonstrating that they performed the action of ‘kiss’, which is recognisable to the general viewers, the concept of ‘kiss’ is recorded. Following research inspired by Conceptual Metaphor Theory (Bobrova, 2015; Forceville, 2016; Forceville & Paling, 2018), nouns (something) or actions (doing something) are recommended to verbalize concepts in a

metaphor. When there is a lack of linguistic anchor for an ambiguous non-verbal element, it is also acceptable to label it as an ambiguous concept about X. Using the explicit cues in verbalising the concepts is the working criterion in this procedure. The purpose is to be consensus with the ad design and to achieve the internal consistency for the verbalisation. While the criterion compromises the reflection of interpreting the content, it does not deny the possibilities of diverse inferences towards explicit cues, as the procedure does not claim mental activities when viewers process video ads.

A replicable examination of the procedure requires a discussion on the wording of verbalisation prior to quantifying the agreement, as different wordings might refer to the same concept. The discussion on the wording of verbalisation shall not resolve any disagreement when different wordings do not refer to the same concept. For instance, when no other kinds of birds were shown in a segment, the expressions of ‘birds’ and ‘pigeons’ could be considered as the same concept. The concept of ‘birds’ is recorded in this case, since the purpose of identifying different concepts is to detect metaphorical relations where the two different concepts shall from different domains to form a metaphor. Concepts with horizontal relationships, such as ‘pigeons’ and ‘swans’, are different concepts that can be easily distinguished either in visual or verbal cues. In another example, the expressions of ‘birds’ and ‘phone’ clearly refer to different concepts. Expressions for different concepts should be kept without discussing exactly why these concepts were identified and which one was more appropriate. Reasons and resolutions for the different identification should be discussed after quantifying the agreement.

3.5.1.4. Determining a Metaphor

The determination of a metaphor takes place for each pair of different concepts identified in Step 3. Since the essence of a metaphor is to “understand and experience one thing in terms of another” (Lakoff & Johnson, 1980, p. 5), analysts shall judge whether there is any meaning transfer between these two concepts. If yes, it proceeds to judge whether the transfer of meaning invites a new perspective to look at any concept. A confirmed answer to this leads to the determination of a metaphor. When a concept received a new angle to be perceived, it is determined as the target of the metaphor. The other concept serves as the source.

Creative metaphors under investigation in this thesis are at the level of multimodal discourse, which are temporal and dynamic, with possibilities to be underpinned by conventional conceptual metaphors. The verbalisation shall differentiate it with the underlying conceptual metaphors which were the interest of many case studies (Fahlenbrach, 2016b; Forceville & Paling, 2018; Yu, 2011; Zhang & Xu, 2018) and are in the form of A IS B or DOING A IS DOING B. The differentiation between creative metaphors at the discourse level and the conceptual level was seldom addressed in research on static images. This might be due to the intrinsic difference between static images and moving images, where metaphors at the two levels in static images appear to be closer than those in moving images as there are comparatively more opportunities to introduce metaphors in a narrative plot which may not be directly linked to the target conceptual metaphors. The dynamic traits of metaphors have been addressed by research on linguistic communication (Cameron et al., 2009) and films (C. Müller, 2009). As an attempt inspired by Conceptual Metaphor Theory, this thesis advances that a creative metaphor in video ads can occur at the multimodal level as well as the

conceptual level. Creative metaphors focused by this thesis are those salient ones at the discourse level and can be labelled in the form of *A IS B* or *DOING A IS DOING B*. This form considers both the dynamic nature and the conceptual nature of creative metaphors in video ads at the multimodal discourse level.

3.5.2. Applying the Procedure into Video Ads

In this section, I will exemplify the aforementioned principles and criteria for C-MIPVA through identifying creative metaphors from six video ads. They all together initiate the five filmic techniques and major possibilities that how these techniques could work independently or in combinations to assist in building metaphorical scenarios. Three of them are experience products (Mei Tuan Wai Mai, Jing Dong Coffers, and Mi Gu Shan Pao) and the others are search products (Tommee Tippee's Feeding Bottle, Wan Mei Eye Cream, and Leng Suan Ling Toothpaste). The analysis focuses on how C-MIPVA can be deployed to video ads rather than interpretations of the created metaphors and explanations about why they are constructed for a certain ad, although concise interpretations and explanations towards the meaning will be introduced to provide a plausible way to understand the Ad. Within the analytical framework of RT, the analysis in this section is carried out at the level of explicatures but reserves thorough depictions of implicatures. Since the aim of the analysis here is to exemplify C-MIPVA, details of how the analytical framework of RT could be applied to video ads will be elaborated in Chapter Four which contains comprehensive analyses of identified metaphors and how they contribute to advertising the product or service.

3.5.2.1. *Mei Tuan Wai Mai*

The first step of C-MIPVA is to watch through the ad and identify the product. This step enables analysts to have a general understanding of the ad content, including elements, figures, music, and verbal languages involved. This ad for *Mei Tuan Wai Mai*²⁴ starts with an upper part of a pretty woman in fish suits shouting “好快啊 (T: So fast)” and moving her arms like swimming. Then she stops and the scene shows that she is on the back seat of a motorcycle which has been stopped by the driver. The driver wears a helmet and the uniform of *Mei Tuan*. The background song rises at this moment, stating that “美团外卖送啥都快 (T: *Mei Tuan Wai Mai* is fast to deliver anything)”. The woman complains the time is too short and tries to slip away. The driver then grasps the woman and at the moment that he grasps her arm, she transforms to a paper bag labelled as ‘*Mei Tuan Wai Mai*’ (see Figure 3.4).

The driver then hands the bag to a group of people who seem to just finish their online orders and says “您的美团外卖到了 (T: Here is your ordered food through *Mei Tuan Wai Mai*)”. The background song again emphasises “美团外卖送啥都快 (T: *Mei Tuan Wai Mai* is fast to deliver anything)” with the scene that the pretty woman in fish suits dances. The product being advertised is *Mei Tuan Wai Mai*, a food delivery service.

²⁴ <https://v.qq.com/x/page/z0347usvkdr.html>



(a)

(b)

(c)

Figure 3.4 Screenshots from Mei Tuan Wai Mai

The second step is to identify segments that contain any of the five filmic techniques and mark down the timespan. It is eye-catching when the woman transforms into a paper bag of Mei Tuan Wai Mai during a short period (07'-08' s).The whole entity of the woman changes to a paper bag with the assistance of filmic techniques. The transformation of images happens between two entities in the same background. Since there is more than one mode involved in this ad, a segment of simultaneous cueing shall be marked as well. The timespan for simultaneous cueing is the whole ad.

The third step is to identify a pair of different concepts in segments marked by step 2. Detecting concepts requires consideration of explicit cues exploited in the ad. When there are verbal cues to label something, the verbal label is adopted so that the identification is in consensus with the original ad design. For non-verbal elements, native speaker's intuition is helpful to determine the verbalisation, especially when it comes to cultural and social routines that are specified to the target audience. Apart from nouns, it is possible to have actions as concepts as well, subjecting to how viewers perceive the ad. Here, the paper bag is labelled as 'Mei Tuan Wai Mai' and the pretty woman in fish suits is a typical visualisation of 'Mermaid'. Therefore, 'Mei Tuan Wai Mai' and 'Mermaid' are two concepts detected from this segment. There is no related pair of concepts detected from the segment of simultaneous cueing.

The fourth step is to decide whether there is a transfer of meaning between any pair of concepts detected from the third step. This step requires to be judged within the context. A general understanding of the ad is sufficient to judge whether there is such a relationship. To generate quantifiable results, analysts only need to mark ‘yes’ or ‘no’, rather than writing down details of mapping features between these concepts as the interpretation towards what are the transferred meanings might differ strongly across individuals. For the concepts of ‘Mei Tuan Wai Mai’ and ‘Mermaid’, there is a transfer of meaning between them. Considering that the mermaid appears to be energetic and pretty in this ad, it seems to suggest that the efficiency of their service keeps the food fresh and tasty.

The fifth step is to decide whether the transfer of meaning gives a new perspective to a concept discussed before. This step is in alignment with the essence of metaphor that is “understanding and experiencing one thing in terms of another” (Lakoff & Johnson, 1980, p. 5). Again, annotators only need to mark ‘yes’ or ‘no’ rather than pointing out what is the new perspective and how it helps advertise the product. By linking the concepts of ‘Mei Tuan Wai Mai’ and ‘Mermaid’, viewers are invited to look at ‘Mei Tuan Wai Mai’ in terms of ‘Mermaid’.

The last step is to verbalise the metaphor in the form of *A IS B* or *DOING A IS DOING B*. Concept A or Doing A is the one that receives a new perspective in step 5. The perspective shall be in alignment with advertising the product or service. This step is crucial to determine the target and the source of the metaphor. A caveat for analysts is that in the temporal discourse, causal relationships might be developed easily. For instance, it might be common to the public to generate a metaphor that *MERMAID IS MEI TUAN WAI MAI* as an influence of their sequence in the ad. Since viewers appear to wonder

about ‘what is the next’ and ‘what are the relationships between them’ when they watch moving images (Verstraten, 2009), the first encountered concept, especially when it appears as an incongruent element, is easy to be the topical issue to be resolved. This thesis takes the stance that the two subjects of a metaphor are not reversible (Forceville, 2016) and holds the criterion that only the concept that receives a new perspective which is in alignment with the ultimate purpose of advertising shall be considered as the target of a metaphor. This ad aims to advertise its food delivery service and the feature which is repeatedly emphasised is their efficiency. The construction of the metaphor serves for advertising how fast their service could be and how this could benefit their customers (e.g. keeping food fresh in this ad). Therefore, the metaphor shall be verbalised as *MEI TUAN WAI MAI IS MERMAID*. An overview of the metaphor identification by C-MIPVA can be found in Table 3.10.

Table 3.10 Creative Metaphors Identification in the Ad for Mei Tuan Wai Mai

No.	Product	Step 2	Concept1	Concept2	Transfer of meaning (Y/N)	Metaphor (Y/N)	Metaphor
	美团外卖 Mei Tuan Wai Mai’		美人鱼 Mermaid	美团外卖 Mei Tuan Wai Mai’			美团外卖是美人鱼 <i>MEI TUAN WAI MAI IS MERMAID</i>
E1		A 07-08s 2.1	N.A.	N.A.	Y N.A.	Y N.A.	<i>TUAN WAI MAI IS MERMAID</i> N.A.

3.5.2.2. *Jing Dong Coffers*

The first step of the procedure shows that this ad is for *Jing Dong Coffers*²⁵, a financial product. The video unfolds four stories in which the product fulfils dreams of the characters. The written language states their identities, i.e. a young father, a student, a clerk, and a traveller. The second step reveals that there are five segments of interest, see Table 3.11. Three segments contain the filmic technique of Depicting Non-existing gestalts with the assistance of animations (see Figure 3.5). One segment contains transformation of images. And there is a segment that contains simultaneous cueing of different modes. Step three is to work on each segment and identify explicitly cued different concepts. In the first segment, the concept of ‘Astroboy’ is explicitly stated by spoken language and visuals. The written text in this segment demonstrates the concept of A ‘Young Father’. The visuals depict a hybrid of the ‘Astroboy’ and the ‘Young Father’. There is a transfer of meaning between them and the young father receives a new perspective in the context. This metaphor is *A YOUNG FATHER IS THE ASTROBOY*. Following the same process, metaphors identified from other segments are *A YOUNG FATHER IS AN ATM*, *A HARD-WORKING PERSON IS THE GOD OF WEALTH*, *JING DONG COFFERS IS THE COIN* and *COFFERS ARE BAGS*.

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https://v.youku.com/v_show/id_XMTg3NTYxODc2MA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2

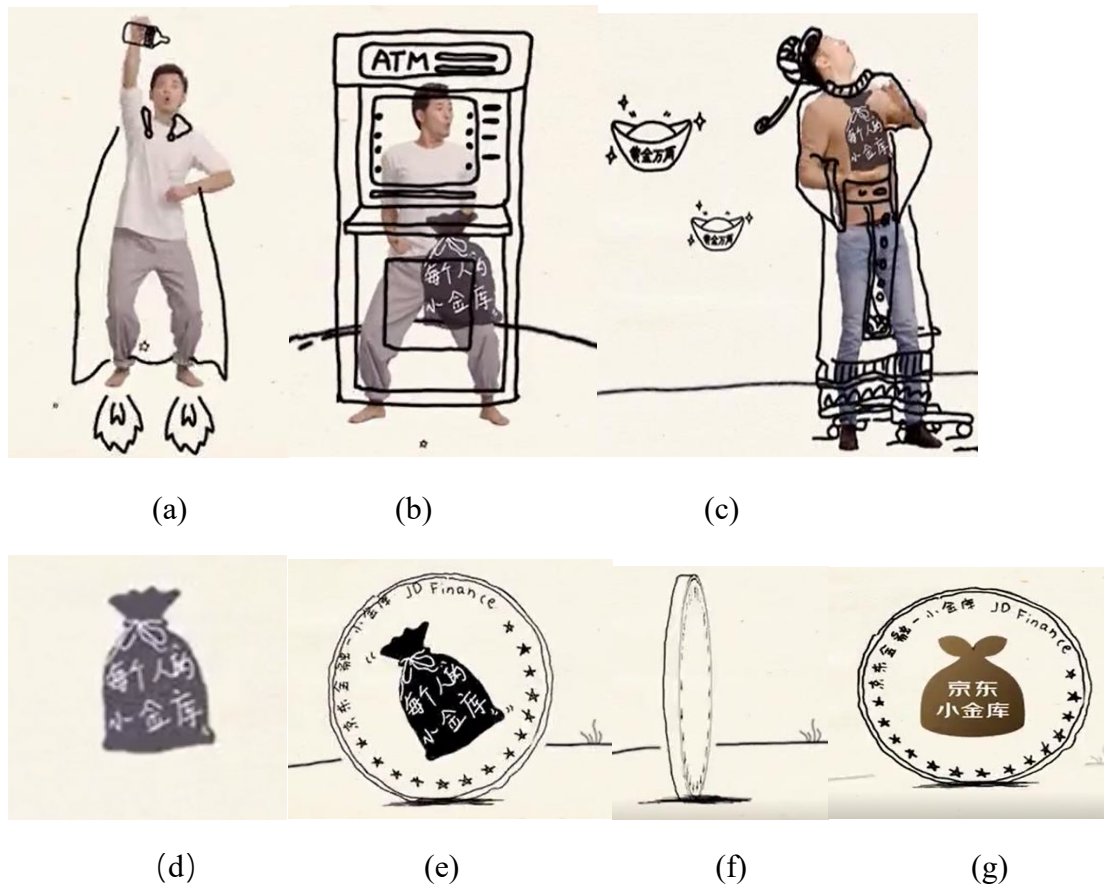


Figure 3.5 Screenshots from Jing Dong Coffers

Table 3.11 Creative Metaphors Identification in the Ad for Jing Dong Coffers

No.	Product	Step 2	Concept1	Concept2	Transfer meaning (Y/N)	of Metaphor (Y/N)	Metaphor
E27	Jing Dong Coffers	B 01-05s	阿童木 Astroboy	奶爸 Young Father	Y	Y	奶爸是阿童木 A YOUNG FATHER IS THE ASTROBOY.

			奶爸			奶爸是ATM
B 08-11s	ATM	Young Father	Y	Y		A YOUNG FATHER IS AN ATM
			奋斗者			
	A	Hard-				奋斗者是财神
	working	财神				A HARD-WORKING PERSON
B 34-43s	Person	God of Wealth	Y	Y		IS THE GOD OF WEALTH
			京东小金库			京东小金库是硬币 JING
	硬币	Jing Dong				DONG COFFERS IS THE
A 55s-1'	Coin	Coffers	Y	Y		COIN
			袋子			小金库是袋子
2.1	BAGS	COFFERS	Y	Y		COFFERS ARE BAGS

3.5.2.3. *Mi Gu Shan Pao App*

Watching through the ad reveals that *Mi Gu Shan Pao App*²⁶ is advertised through scenarios of running and fitness training. Models in the ad are all young people, implying the target audience of this App. Since there is no visual incongruity created, only a segment of simultaneous cueing is marked as more than one mode is exploited. Within the segment, there are four pairs of different concepts identified (see Table 3.12). For each pair of concept, there is a transfer of meaning between them. The concepts related to exercising receive new perspectives through connecting with other concepts. In this ad, the sources of all creative metaphors are constructed in spoken language and the targets are cued by visuals. If the verbal language is eliminated, these metaphors will disappear. Figure 3.6 displays the screenshot for the metaphor *A PERSON IS A SEED*,

²⁶ <https://www.digitaling.com/projects/23692.html>

where the visual displays the target and the verbal language states the concept of *SEED*.



Figure 3.6 Screenshots from Mi Gu Shan Pao

Table 3.12 Creative Metaphor Identification in the ad for Mi Gu Shan Pao

No.	Product	Step 2	Concept1	Concept2	Transfer Meaning (Y/N)	of Metaphor (Y/N)	Metaphor	
E43	Mi Gu Shan Pao	2.1	咪咕善跑				锻炼是燃烧	
			锻炼	燃烧			EXERCISING	IS
			Exercising	Burning	Y	Y	BURNING	
			人	种子			人是种子	
			A Person	A Seed	Y	Y	A PERSON IS A SEED	
			腿	马达			腿是马达	
			Legs	Motors	Y	Y	LEGS ARE MOTORS	
			跑者	战士			跑者是战士	
			A Runner	A Fighter	Y	Y	A RUNNER IS A FIGHTER	

3.5.2.4. Tommee Tippee's Feeding Bottle

Aforementioned ads are experience products whose prominent attributes are intangible and abstract. The application of identification procedure in ads for search products whose prominent attributes are tangible and concrete does not differ regarding the procedural guidance and principal criteria.

The analyst first watches through the video and identify the product. In this ad²⁷, the product being advertised is the Feeding Bottle with the brand of Tommee Tippee. The ad introduces the origin and age of the brand and the essential features of the feeding bottles through a series of scenarios. Step 2 is to segment the video by identifying filmic techniques of interest. Ten segments were identified from this video, (see Table 3.13). Nine of them contain the technique of juxtaposition where a part of the product is juxtaposed with something else. A segment with simultaneous cueing of different modes is also included. Step 3 works on identifying different concepts with explicit cues within each segment. For example, Figure 3.7 (a) shows a juxtaposition of the bottle and a guard. The accompanying verbal language (both in spoken and written) claims that the bottle will keep company with the baby like a guard, pointing out the concepts of 'guard' and 'the feeding bottle' as well as the mapping features between them. The explicit demonstrations of mapping features confirm the answers for step 4 and 5, which are both 'yes'. The feeding bottle is the target of this metaphor.

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http://www.tvbook.com/showVideo.html?vid=70386&code=3af5MKotjdgM4uoyPB4z_qESdgZGArMK4axYhYkgjeqhoA

Similarly, other creative metaphors can be found, as shown in Table 3.13. In the segment of simultaneous cueing, the spoken language across the video introduces the feeding bottle using the tone of the first person, constructing the feeding bottle as human (see Figure 3.7 b, verbal language: 我就是来自英国的 Tommee Tippee, T: I'm Tommee Tippee from the UK).



Figure 3.7 Screenshots from Tommee Tippee’s Feeding Bottles

Table 3.13 Creative Metaphor Identification in the ad for Tommee Tippee’s Feeding Bottles

No.	Product	Step 2	Concept1	Concept2	Transfer of Meaning (Y/N)	Metaphor (Y/N)	Metaphor
S22	汤美星奶瓶 Tommee Tippee’s Feeding Bottles	D 04-05s	英国大本钟 Big Ben	奶瓶 The Feeding Bottle	Y	Y	奶瓶是英国大 笨钟 <i>THE FEEDING BOTTLE IS BIG</i>

						<i>BEN</i>
		奶瓶				奶瓶是桥墩
	桥墩	The Feeding				<i>THE FEEDING</i>
D 07-09s	Bridge Piers	Bottle	Y	Y		<i>BOTTLE IS BRIDGE PIERS</i>
		奶瓶 The				
		Feeding				奶瓶是权杖
		Bottle				<i>THE FEEDING</i>
	权杖	The Feeding				<i>BOTTLE IS A</i>
D 11-13s	A Scepter	Bottle	Y	Y		<i>SCEPTER</i>
		奶瓶				奶瓶是地铁
	地铁	The Feeding				<i>THE FEEDING</i>
D 15s	Underground	Bottle	Y	Y		<i>BOTTLE IS UNDERGROUND</i>
		奶瓶				奶瓶是卫兵
	卫兵	The Feeding				<i>THE FEEDING</i>
D 18-20s	A Guard	Bottle	Y	Y		<i>BOTTLE IS A GUARD</i>
		奶瓶				奶瓶是巴士
	巴士	The Feeding				<i>THE FEEDING</i>
D 21-23s	Bus	Bottle	Y	Y		<i>BOTTLE IS BUS</i>
		奶瓶				奶瓶是摩天轮
	摩天轮	The Feeding				<i>THE FEEDING</i>
D 27-29s	Ferris Wheel	Bottle	Y	Y		<i>BOTTLE IS FERRIS WHEEL</i>
		奶瓶				奶瓶是摇滚乐
	摇滚乐	The Feeding				<i>THE FEEDING</i>
D 31-32s	Rock Music	Bottle	Y	Y		<i>BOTTLE IS ROCK</i>

					<i>MUSIC</i>
					奶瓶是建筑物
		奶瓶			<i>THE FEEDING</i>
	建筑物	The Feeding			<i>BOTTLE IS A</i>
D 42s	A Building	Bottle	Y	Y	<i>BUILDING</i>
					奶瓶是人
		奶瓶			<i>THE FEEDING</i>
	人	The Feeding			<i>BOTTLE IS A</i>
2.1	A Person	Bottle	Y	Y	<i>PERSON</i>

3.5.2.5. *Wan Mei* Eye Cream

Completing the first step reveals that this ad is for a search product, *Wan Mei* Eye Cream. The second step yields four segments with two of them containing the technique of Depicting Non-existing Gestalt, one of them containing the technique of replacement, and one segment containing simultaneous cueing of different modes, see Table 3.14. The third step requires analysts to identify different concepts from each segment. In the first segments, the visuals depict black shadow of hands chasing a woman in a white dress (see Figure 3.8 a). The spoken language attaches the concept of “老化 (Aging)” to the shadow. There is a transfer of meaning between them and the concept of ‘ageing’ gains vivid illustrations. The creative metaphor in this segment can be phrased as *AGEING IS BLACK SHADOW OF HANDS*. The second segment presents the same metaphor through the same way of depictions. In the third segment, the stamens of a white blossoming flower are replaced by the woman in white, implying that using the product keeping a woman beautiful (see Figure 3.8 b). The creative metaphor *WOMEN ARE STAMENS* is constructed in this segment. There are no connected concepts identified in

the last segment.



Figure 3.8 Screenshots from Wan Mei Eye Cream

Table 3.14 Creative Metaphor Identification in the ad for Wan Mei Eye Cream

No.	Product	Step 2	Concept1	Concept2	Transfer Meaning (Y/N)	of Metaphor (Y/N)	Metaphor
S16	完美眼霜 WAN MEI Eye Cream	B 01-09s	老化	黑影手	Y	Y	老化是黑影手 AGEING IS BLACK SHADOW OF HANDS
			Ageing	Hands			
		B 19-20s	老化	黑影手	Y	Y	老化是黑影手 AGING IS BLACK SHADOW OF HANDS
			Aging	Hands			
		C 21-23s	女人	花蕊	Y	Y	女人是花蕊
			Women	Stamens			WOMEN ARE STAMENS
		2.1	N.A.	N.A.	N.A.	N.A.	N.A.

3.5.2.6. *Leng Suan Ling* Toothpaste

The first step of the procedure generates the product is *Leng Suan Ling* Toothpaste²⁸, which is helpful for sensitive teeth, especially for curing the pain caused by hot, cold or sugary foods. The ad tells a story about how the toothpaste rescues a young man who is punished by a tooth fairy as he drinks icy water when he has sensitive teeth. The second step yields three segments, with one segment containing Depicting Non-existing Gestalt, one segment containing Replacement, and the other one containing Simultaneous Cueing of Different Modes (see Table 3.15). In the first segment, the visuals show a fairy in black (see Figure 3.9 a) and the spoken language states that she “代表牙齿 (T: Represents teeth)”. The two different concepts are ‘A Dark Fairy’ and ‘Teeth’, which are connected by interactions of visuals and spoken language in this segment. A transfer of meaning between them gives ‘teeth’ new associations that they will punish a person if they behave carelessly. The creative metaphor *TEETH IS A DARK FAIRY* is constructed in this segment. The second segment delineates a scenario where the young man is shot down and rescued by a filling machine with a tag of *Leng Suan Ling*. The shot focuses on the machine whose tube has been put on the young man (see Figure 3.9 b). Immediately, the young man stands up and eats ice happily. The concept of ‘*Leng Suan Ling* Toothpaste’ and ‘Fuel’ can be detected as in the scenario of the filling station, the fuel is replaced by the product. This segment illustrates that the product helps the man to be energetic again. In this context, there is a transfer of

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<http://www.tvcbook.com/showVideo.html?vid=71633&code=c6efGcrCdfelU4RRiPkqGbquYW7iD4pF-DnWCg7t-uG5zw> (session 1)

meaning from the ‘Fuel’ to ‘Leng Suan Ling Toothpaste’. This segment contains the creative metaphor *LENG SUAN LING TOOTHPASTE IS FUEL*. The last segment does not show connections of different concepts.

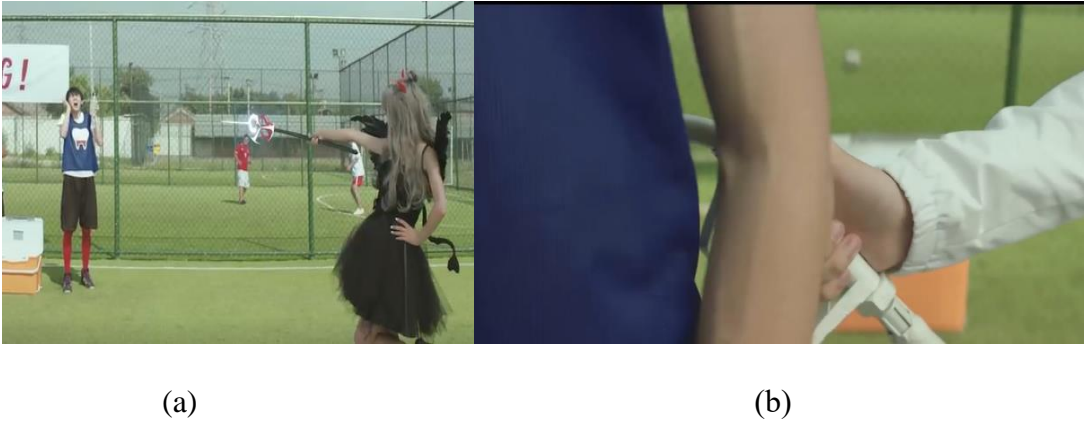


Figure 3.9 Screenshots from Leng Suan Ling

Table 3.15 Creative Metaphor Identification in the ad for Leng Suan Ling Toothpaste

No.	Product	Step 2	Concept1	Concept2	Transfer Meaning (Y/N)	of Metaphor (Y/N)	Metaphor
S37	冷酸灵牙膏 Leng Suan Ling Toothpaste	B 12-16s	小魔女 A Dark Fairy	牙齿 Teeth	Y	Y	牙齿是小魔女 TEETH IS A DARK FAIRY
			冷酸灵牙膏 Leng Suan Ling Toothpaste	燃料 Fuel	Y	Y	冷酸灵牙膏是 燃料 LENG SUAN LING TOOTHPASTE IS FUEL
		C 22-29s					
		2.1	N.A.	N.A.	N.A.	N.A.	N.A.

3.5.3. Discussion

The application of C-MIPVA reveals that the five filmic techniques discussed in this thesis can either work independently or function in collaboration in a single ad. The ad can exploit either different filmic techniques or the same technique several times. The filmic techniques exploited seems to depend on the traits of metaphorical scenarios. Scenarios that are close to people's lives, such as those in *Mi Gu Shan Pao*, appear to exploit different filmic techniques with scenarios of fancy imaginations, such as *Wan Mei Eye Cream*. The design of certain filmic techniques appears to be diverse. For instance, the visual effect of replacement, which fills a schema slot unexpectedly, can be created through both fancy filmic techniques (like in the ad for *Wan Mei Eye Cream*) and ordinary life scenarios (like in the ad for TMALL).

The traits of video ads generate several characteristics of creative metaphors. One feature is that the source of a creative metaphor may not be necessarily more concrete and familiar to viewers than the target. For instance, in the ad for *Leng Suan Ling Toothpaste*, the concept of 'teeth' is more common than the concept of 'dark fairy' which is an imaginary figure and does not exist. Its features and attributes depend on how the ad links it to the target. This could be a creative process that designers shall invent novel and appropriate connections to advertise attributes of products (which are more ordinary and familiar to the public). Advertising the target through delineating novel links between another concept is in line with increasing the dimension of sophistication and excitement when it comes to building brand personality (Aaker, 1997).

Identifying this metaphor, however, might experience challenges brought by the temporal discourse. When there is visual incongruity created by filmic techniques, it is easy for viewers to have enquiry towards the first concept they encounter. For instance, when the dark fairy shows up with the assistance of fancy techniques, viewers might wonder that 'who is she', 'why does she show up here', and 'what will she do'. After knowing that she punishes the man on behalf of teeth, viewers know the answers that 'she is teeth'. This is a natural process of comprehending elements in temporal discourse. However, this process might influence the identification of metaphors, especially when it comes to verbalisation. The source ('dark fairy' in this case) might be regarded as the target. Determining which is the target in an ad shall consider the ultimate aim of advertising, which is to associate the product with positive attributes. The concept of 'teeth' here is metonymically linked to the product. Considering the consistency of meaning, it is more suitable to regard 'teeth' as the target in this metaphor. The sequence of showing the source before the target has been identified as a pattern of metaphors in Dutch TV commercials as well (Forceville, 2007, 2008).

When mapping features are provided in verbal language, it is more ascertained to determine the creative metaphor than those whose mapping features are in visuals or need to be inferred within the context. For instance, the identification of creative metaphors in the ad for Tommee Tippee's Feeding Bottles might generate higher reliability than those in the Ad for Jing Dong Coffers where mappings between pairs of concepts are not elaborated in verbal language. The more elaboration by verbal language, the higher chances there might be to have reliable identification.

3.5.4. Interrater Reliability Test Results

Interrater Reliability Examinations were carried out among six annotators on 20 video ads, with 10 video ads selected randomly from each category of product types. These videos were segmented in Phase One. Before identifying creative metaphors from the 20 video ads, the author demonstrated C-MIPVA to other annotators through another 15 video ads from the corpus to calibrate understanding of the procedure. Then all annotators worked independently on identifying creative metaphors in each segment with C-MIPVA. Raw data for analysis could be found at

https://osf.io/js2ya/?view_only=69443beed0d242d6b23ae31ad4703d86.

The examinations were performed at two levels. Firstly, Fleiss' Kappa was calculated to examine the agreement on whether an analytical unit is metaphorical or not (Step 5 in C-MIPVA). Results from Fleiss' Kappa ($k = .72$) provided substantial evidence supporting the reliability of the procedure (Fleiss, 1971) (see Table 3.16). The Kappa value from this study is within the similar range of that for Metaphor Identification Procedure (0.72 for news, 0.62 for conversations) and Metaphor Identification Procedure VU University Amsterdam (0.78 for conversation, 0.79 for academic, 0.96 for news, 0.85 for the average). The relatively lower score of kappa might be due to the nature of materials, as Steen et al. (2010) detected that when there were less clear cases of metaphors, the value of kappa dropped.

Secondly, Percentage Agreement was calculated to generate the extent to which the content of metaphor is the same across six annotators. Results from Percentage Agreements signalled that the agreements among three trained annotators and that among three novice annotators were substantially reliable (see Table 3.16). However,

the overall agreement on the content of metaphors among six raters was comparatively low. A view of the different cases detected that trained annotators and novice annotators seem to be in dispute with metaphors signalled by simultaneous cueing which did not display visual incongruity. This type of metaphors was easy to be overlooked by novice annotators but was captured by trained annotators who have a research background in metaphors.

Table 3.16 Results from Reliability Examinations

	All Six annotators	Trained annotators (N=3)	Novice annotators (N=3)
Metaphors in total	68	65	59
Fleiss' Kappa (Step 5)	.72	.78	.77
The same metaphors (Step 6)	44	52	48
Different metaphors (Step 6)	24	13	11
Percentage agreement on the same metaphors (Step 6)	64.70%	80%	81.36%

Meanwhile, the agreement for six annotators on metaphors identified from ads for experience products was 66.67% and the agreement on metaphors identified from ads for search products was 71.43%. It signalled that metaphors in ads for search products generated fewer disagreements than those in ads for experience products. A glance at the metaphors identified in the corpus signalled that metaphors are shown in ads for search products usually involve the product as its target, whereas metaphors in ads for

experience products have more diversities. For instance, consumers or things metonymically linked to the product rather than the product itself can also be designed as the target of a metaphor, such as ‘Young Father’ in the ad for *Jing Dong* Coffers and ‘Teeth’ in the ad for *Leng Suan Ling* Toothpaste. This leads to questions about how metaphors assist in advertising, i.e. how the content of metaphors contributes to the content of ads. Product types, then, appear to influence the characteristics of metaphors. If metaphors are designed differently for different types of products, more specific questions about the design would be in what ways the uses link to the manifestation of a metaphor for different types of products. All of these questions require a systematic investigation on the content of metaphors, i.e. the target, the source, and the mapping features.

After quantifying the agreements, these six annotators finally had discussions to resolve disagreements under the guiding principles of the consistency of the whole ad and contribution to the promotion. Two major reasons for 21 cases of disagreements were omitting the unit of semantic incongruity and individual difference in interpreting non-verbal elements. There were 11 cases where the typical multimodal metaphors were omitted by some annotators and recognised during the discussion. Resolutions for other cases were recorded and attached in Appendix A.

3.6. Chapter Conclusion

This Chapter illustrated how the methodological challenges of identifying creative metaphors with a reliable and replicable procedure can be resolved by a six-step procedure. The essence of this procedure was to utilise concrete filmic techniques as metaphor signalling devices to detect potential metaphorical units. There were five

filmic techniques of interest as a result of applying an existing procedure (Bobrova, 2015) to the corpus. I also presented a scheme to detect these filmic techniques and illustrated its reliability. The procedure for creative metaphor identification in video ads (C-MIPVA) specified criteria towards decoding the meaning of multi-sensory elements, analytical units, and most importantly, how to determine the phenomenon as metaphors in a replicable way. The metaphor identification was underpinned by the assumption that metaphor recognition is not necessarily embedded with metaphor analysis (Šorm & Steen, 2018) and this chapter provided substantial evidence to demonstrate the extent to which such a procedure is reliable.

Applying C-MIPVA into the video corpus has signalled some features of creative metaphors in video ads. The source of a creative metaphor in video ads tends to show up prior to the target (Forceville, 2007) and it is not necessarily more concrete or familiar than the target. Considering the aim of an ad is to generate positive associations with the product, it makes sense to use more abstract or unfamiliar source to stimulate imaginations towards the target, which is often the product or something metonymically linked to the product. This implies that characteristics of linguistic metaphors might not be applicable to creative metaphors in video ads. The target of a creative metaphor is not necessarily the product. Problems or needs of consumers can also be the target. For instance, in the ad for *Wan Mei* Eye Cream, the concept ‘ageing’ is visualised as shadows of hands. The product is introduced as a solution to fulfil the consumer’s needs. This suggests that creative metaphors might be used in diverse ways to assist in advertising a product.

The identification completed by novice raters who had little knowledge towards metaphors showed that creative metaphors associated with visual incongruity were salient to general viewers. But creative metaphors which did not display visual incongruity and were only cued by different modes were easy to be overlooked or generated more diverse identification and interpretations. All of these generate questions towards how creative metaphors are signalled for different purposes of using when they assist in advertising different types of products. Further content analysis (in the next chapter) will investigate creative metaphors regarding their uses and associations among uses, signals, and product types.

Chapter 4. Uses of Creative Metaphors in Video Ads

4.1. Chapter Introduction

In Chapter Three, we have investigated how metaphors are signalled in video ads and detected that metaphors might be used differently when the product type changes. In this chapter, I first review existing findings of how metaphor assists in advertising and then introduce methodology adopted for content analysis. I then analyse the content of metaphors identified from the corpus, extracting their major uses when contributing to the advertising based on the analytical lens of an adapted version of Relevance Theory (Sperber & Wilson, 1995). Specifically, I demonstrate how crucial analytical lens of RT as the analytical framework can be applied to metaphor analysis in video advertising. Through analysing 66 metaphorical video ads identified from the corpus, I extract three major uses of creative metaphors and major patterns of how an ad could exploit different uses of creative metaphors. I also show other possibilities of making use of different uses with ad examples from the corpus.

While the diverse possibilities can be from discourse analysis, the latent variances among different uses of metaphors, metaphor signals, and the types of products can hardly be reflected through case studies. I then explore how the major uses of creative metaphors vary along different metaphor signals and product types by carrying out a set of categorical data analytics (i.e. Log-Linear Analysis, Multiple Correspondence Analysis, Chi-square Test of Independence, and Bayesian Contingency Tables Tests). These tests make the convergent effort in examining the underlying associations from overall relationships between the three variables to variances among two specific variables, providing a picture for the structural traits of metaphor uses.

4.2. Literature Review

This review includes research on advertising discourse that focuses on how information is organised to deliver the content of ads and studies on metaphors in advertisements, generating existing issues on analysing uses of metaphors in video ads.

4.2.1. Advertising Discourse

A pragmatic view towards advertising discourse articulated a distinction between *reason* advertisements, which emphasises a motive or reason for purchase, and *tickle* advertisements, which appeals to emotional responses (Bernstein, 1974). Further investigations elaborated this distinction and attempted to develop theoretical models by taking into account the communicative-cognitive dimension (Simpson, 2001) and revisiting the fundamental constitutes of two types of ads (Martínez-Camino & Pérez-Saiz, 2012). In their study, it was found that about 40% of ads in their corpus of 200 Mexican ads fall into the categories of prototypical reason advertising and prototypical tickle advertising, others were hybrid types of ads (Martínez-Camino & Pérez-Saiz, 2012). The various types of advertising discourse require a structural analysis of arguments to extract the focus of advertising. A generic argumentation structure of advertising showed that the final claim, i.e. buy the product/service, could be achieved by practical reasoning where arguments evaluated the product's features and/or delineated desirable events after purchasing the product (Pollaroli & Rocci, 2015, p. 163). We can postulate that ads can focus on advertising product's features or emphasise desirable benefits deriving from purchasing. Pollaroli and Rocci's (2015) analysed 16 print ads also revealed that through providing relevant categories and the locus of analogy, pictorial or multimodal metaphors can guide the inferences towards

arguments. However, the extent to which these findings from print ads can be extended to metaphors in video ads awaits further investigation.

4.2.2. Uses of Metaphors in Ads

The pioneering work of pictorial and multimodal metaphor in print ads has spurred research into metaphors in multimodal discourse (Fahlenbrach, 2016b; Forceville, 2017b; Forceville & Paling, 2018; C. Müller, 2009; C. Müller & Schmitt, 2015; Pérez-Sobrino, Littlemore, & Houghton, 2018; Sweetser, 2017; Zhang & Xu, 2018), where metaphor as a conceptual phenomenon can be manifested in any mode of communication. These studies collectively provide empirical evidence for research on multimodal metaphors by demonstrating how non-verbal language and multimodal interactions contribute to the construction of metaphors. Video ads is a genre among such investigations. By advertising a product or a service through mass media in the form of video clips, the genre of video ads provides creative metaphors with a context where the construction is dynamic and is motivated by an ultimate commercial purpose. Studies about metaphors in video ads have probed into some crucial aspects, such as parameters of creative conceptual metaphors (Forceville, 2007, 2008), roles of conventionalized conceptual metaphors in argumentation (Zhang & Xu, 2017, 2018), and interactions of metaphors and metonymy in video ads (Sweetser, 2017; Yu, 2011). Nevertheless, most of these studies are limited to qualitative analyses of a few cases, which are difficult to generate the structural traits of metaphors, leading to limited insights into the variation of metaphor's uses when they advertise different types of products.

Studies about metaphor in commercial ads signal that the content of metaphor, i.e. the target, the source, and the mapping can be used strategically to assisting in promoting the product (Forceville, 2007, 2008). But the uses of metaphors might vary across product types. Normally, the target of a metaphor is the product or its competitor. However, when the product is a service rather than a tangible product, metaphor's target does not relate to the product or its competitor. The observation is from only one ad for service among nine TV ads. It is, therefore, postulated that metaphors in ads for service work differently with those appearing in ads for goods (Forceville, 2008, p. 200). This could be due to the intrinsic differences of brand personality perception between different types of products, where utilitarian products which target customers' practical needs were perceived to be more sincere and competent but less sophisticated and exciting than symbolic products which mainly aim at fulfilling customers' spiritual needs (Ang & Lim, 2006). Differences in brand personality perceptions require ads to adjust the focus of advertising according to the product's type in order to achieve the best influence potential. A number of research has suggested that the choices of metaphors should also consider the type of products (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013). In other words, product types influence the uses of metaphors, as information for different types of products might require different ways of packaging.

In linguistic discourse, metaphors are often signposted by signalling or tuning devices (Cameron & Deignan, 2003), such as sort of, like, in a way, which contributes to the coherence and pragmatic understanding of discourse. The filmic techniques discussed in Chapter Three play the role of metaphor signalling devices in video ads. Intrinsic differences between video ads as a type of multimodal discourse and linguistic discourse should be recognised, although the concepts of metaphor signals are similar.

In the first place, the manifestation of multi-sensory appeals in temporal dynamic discourse requires careful investigation within the context. Subjectivity and ambiguity are unavoidable considering sensitivity to capture different sensory-modes and interpretation towards non-verbal modes vary across individuals. That is, even for the same concrete filmic techniques, there could be different interpretations from individuals. In a temporal discourse, certain filmic techniques have chances to be overlooked, especially when viewers' attention is distracted. Since video ads are often displayed with limited time on TV or websites and are generally being watched with little intention, the chances of being overlooked and skipped are higher than other temporal dynamic discourse, such as films and documentary, which were with volition. Therefore, it is important to select appropriate signals for a metaphor to best capture viewers' attention or to fulfil the contribution that a metaphor is supposed to make towards advertising the products. A systematic examination of a large corpus will help reveal the choices of metaphor signals by using metaphors for advertising different types of products.

Investigating aforementioned issues could be unfolded from analysing how the content and manifestation of creative metaphors relate to advertising the products in the corpus of video ads and further proceeding to examine the associations between uses of metaphors, metaphor signals, and product types.

Research questions addressed are:

- (1) How are creative metaphors used to assist in advertising products in video ads?

- (2) How are the content and manifestation of creative metaphors relevant to their uses?
- (3) How do the major uses of creative metaphors vary along different metaphor signals and product types?

4.3. Methodology

In this section, I introduce materials for content analysis, the analytical framework adopted in the qualitative investigation, coding schemes for metaphor uses developed from the analysis with reliability examinations, and data analytics performed in the quantitative investigation.

4.3.1. Corpus for Content Analysis

Following C-MIPVA and the agreed criteria from raters' discussions, I identified metaphors in the remaining 80 Chinese video ads. It turned out that 66 video ads contained at least one metaphor. Content analysis was carried out on these 66 metaphorical ads. Ad examples with English subtitles could be found at <https://drive.google.com/drive/folders/1k1dOXRjGMReIQy4r3j8mmKNuMstW80mp?usp=sharing>. Raw data for statistical analysis could be accessed by https://osf.io/wcq8v/?view_only=958e7367d29a41f09fe3715cce5b5b95.

4.3.2. Analytical Framework for Uses of Metaphors

The qualitative discourse analysis on the content of creative metaphors was grounded in Relevance Theory (RT) (Sperber & Wilson, 1995), whose claims are consistent with findings from psycholinguistics of metaphor studies (Raymond W Gibbs & Tendahl, 2006). Empirical evidence demonstrated a non-systematic relationship between cognitive effort and cognitive effects when understanding metaphors (Raymond W Gibbs & Tendahl, 2006). The extent to which RT can be applied to analysing multimodal data has been demonstrated by a few studies (Abdel-Raheem, 2017, 2018; Braun, 2016; Forceville & Clark, 2014). While the inferences towards metaphors in video ads are subject to the analyst's interpretation, the analytical lens of RT are identical. Analyses of an Ad can start with depictions of explicatures and move towards implicatures, with considerations of relevance to an individual in mass-audience, communicative and informative intention, and effect and effort.

Take Figure 4.1 as an example. Explicatures of this ad can be derived as spraying Poett on the beach by a hand in a day with blue sky and white clouds. The sea in the ad is replaced by the spray from the product Poett. The replacement of the sea with spray constructs a metaphor SPRAY IS SEA (Retrieved from <http://www.vismet.org/VisMet/display.php>). The communicative intention is to advertise good attributes or properties of the product. Recognising above explicatures requires knowledge towards spray products, including the appeals of a bottle and ways of using it and knowledge about sea and beach, which shall not cost too much cognitive effort for general viewers. When it comes to interpreting the exact attribute that is advertised in this ad, the individual difference could generate divergent interpretation, subject to personal experience. One possible metaphorical inference is the feeling of

fresh suggested by the colour of blue in terms of the spray and the sea. That is, using the product might provide customers with an enjoyable experience which is similar to refreshing oneself at the seaside. Viewers who are addicted to seaside activities might appreciate the metaphorical transfer of freshness from the sea to the spray and find this product relevant to them. For these viewers, the positive cognitive effect has been yielded when they recognise the positive attribute of this product. When viewers understand the content of the ad, the informative intention of the ad will be achieved.



Figure 4.1 An Ad for Poett²⁹

Analysing video ads could follow a similar path that how multi-sensory elements contribute to meaning-making can be detected from explicatures at the multimodal discourse level. Inferences could be derived subject to personal interpretation of the explicatures. It should be noticed that textual analyses could only postulate required cognitive effort and effect based on interpretation rather than affirming or testing them with empirical evidence. The difference lies at more potential ambiguities when depicting explicatures conveyed by video ads as a result of experiencing the temporal

²⁹ <http://www.vismet.org/VisMet/display.php>

discourse, where cognitive effort might be limited to prominent meanings constructed by interactions of multi-sensory elements within a short time span. Content analyses of metaphors in this chapter will start with depicting creative metaphors shown in an ad. Then it proceeds to interpreting metaphorical scenarios regarding contributions to advertising the products and postulating relevant target audience and potential cognitive effort and effect.

4.3.3. A Coding Scheme of Metaphor Uses

A coding scheme of uses of creative metaphors was developed from content analyses. The author and a doctoral student worked on 14 video ads, which were randomly selected from metaphorical ads in the corpus and included 65 creative metaphors, which accounted for 36% proportion of the total number of creative metaphors. They went through a process of calibrating understanding of the coding scheme, independent annotations, the measurement of the degree of agreement, and discussions to resolve disagreements. After resolving disagreements from independent coding, the author used the agreed criteria to code the rest of creative metaphors. Table 4.1 shows the coding scheme for the uses of creative metaphors. Results from Cohen's Kappa illustrated a substantial agreement of coding ($k = .74$) (Cohen, 1968).

Table 4.1 A Coding Scheme for Creative Metaphors' Uses

Steps	Descriptions
Step1	Watch the whole ad and get to know the context of each metaphor. For each metaphor,
Step 2	Judge whether the metaphor's target or source is the product. If yes, mark it as Features-Highlighting Metaphor. If no, go to step 3.
Step 3	Judge the relationship between the claim of this metaphor (conveyed by two terms and mapping) and the claim of the product.

-
- A. If the ad contains a central metaphor, consider whether this metaphor provides sub-mappings to support the metaphorical scenario lead by the Features-Highlighting Metaphor.
 - B. If yes, mark it as Supporting Metaphor.
If no, consider the following possibilities.
 - C. The metaphor's claim is in alignment with the claim of the product.
It provides more details of the product's traits.
Mark it as Supporting Metaphor.
 - D. The metaphor contributes to a problematic scenario, which needs a solution. The product can be a solution to the problem. Mark it as Needs-Highlighting Metaphor (D).
 - E. The metaphor contributes to a beneficial scenario where the product can be a platform/motive to achieve the benefits. Mark it as Needs-Highlighting Metaphor (E).
 - F. There is no clear relationship between the metaphor and the product. But the metaphor is eye-catching/entertaining/fancy. Mark it as Needs-Highlighting Metaphor (F).
-

4.3.4. Statistical Analysis

A set of categorical data analytics was performed to investigate the corpus from a quantitative approach. First, to explore the frequency of creative metaphor in real-world ads, I performed Chi-Square Goodness of Fit Test to examine the extent to which the observed distribution of metaphorical ads and literal ads fitted the expected probability distribution. Then, I focused on the associations between categorical variables of metaphor uses, metaphor signals, and product types in the corpus of 66 metaphorical ads. The Log-Linear Analysis (Christensen, 1990; Tay, 2018a) is helpful to examine the overall associations between multiple categories, which will generate statistical results for significant relationships. Then, I performed Multiple Correspondence Analysis (MCA) (Le Roux & Rouanet, 2010; Tay, 2020) to have a geometrical view of the overall associations. MCA added the visualization of underlying associations to the statistical

analysis and pointed out the contribution of the individual case to the variance explained. To further explore the details of associations between any two variables, I performed Chi-square Test of Independence (McHugh, 2013; Tay, 2018a) and Bayesian Contingency Tables Tests (Lindley, 1964). The Bayesian approach derives details about the likelihood ratio of the alternative hypothesis on given data, as a supplementary component to Chi-square Test of Independence which is from the frequentist approach. Table 4.2 displays the purpose of each test applied in this study.

Table 4.2 A Summary of Categorical Data Analytics and Purposes

Tests	Purposes
Chi-Square Goodness of Fit	The frequency of Creative Metaphors
Log-Linear Analysis	Statistical results of overall associations among three categories: metaphor uses, metaphor signals, and product types
Multiple Correspondence Analysis	Visualization of the underlying associations among three categories: metaphor uses, metaphor signals, and product types and the contribution of individual cases
Chi-square Test of Independence	Statistical results of binary associations
Bayesian Contingency Tables Tests	Statistical results of binary associations from the Bayesian approach

4.4. Major uses of creative metaphors

I analysed 66 metaphorical video ads identified through C-MIPVA in Chapter 3 and extracted three major uses of creative metaphors. Considering how the metaphor assists in delivering the communicative intention of the ads, they can be labelled as features-highlighting metaphors, supporting metaphors, and needs-highlighting metaphors. Details of the overall corpus in this thesis are in Section 3.3.1.

4.4.1. Features-Highlighting Metaphors and Supporting Metaphors

A features-highlighting metaphor delivers a core claim about the product, aims to impress the target audience with positive attributes of the product, including appeals, ingredients, and functions. Content analysis reveals that the product normally is the target of it. Positive associations towards the products are normally generated through metaphorical inferences. In video ads, a features-highlighting metaphor normally involves the product as its target and works with several supporting metaphors, whose targets and sources are metonymically linked to the target and the source of the features-highlighting metaphor. Supporting metaphors normally appear before a features-highlighting metaphor and build up a metaphorical scenario, which normally unfolds by instilling relevant mappings related to the products. Here, I exemplify how features-highlighting metaphors work together with supporting metaphors by analysing two ads, one for an experience product and the other one for a search product.

Ad for QQ Reading APP

A video ad³⁰ themed as ‘The Library of Liberty’ advertises QQ Reading App, which is an experience product whose attributes are mainly abstract. The communicative intention is to claim that QQ Reading App has access to a rich collection of books online. Visuals, spoken language, and non-verbal music are deployed to introduce a boy’s adventure of finding a special book. Six creative metaphors are constructed in a magical setting, where visual effects are created by filmic techniques throughout the video. The first metaphor *THE LIBRARY OF LIBERTY IS A MAGIC SCHOOL* is constructed when visuals of a magical library and spoken language of ‘welcome to The Library of Liberty’ interact

³⁰ <https://v.qq.com/x/page/g05524826aw.html>

(see Figure 4.2). The combination of these two modes activates viewers' impressions of the magical school in *HARRY POTTER*, which is popular and impressive to viewers who are familiar with the film scenes in *HARRY POTTER*. The second metaphor *BOOKS ARE BIRDS* is constructed by visual effects that opening books are flying around. Only books are depicted visually, but the concept of birds is signalled by the motion of flying and the accompanying sounds of birds' singing. Similarly, the creative metaphor *BOOKS ARE NOTES* can be identified, especially when books fly in a pace which is similar to the rhythm. The creative metaphor of *PHONE IS BOOK* is constructed when a phone transforms into a book visually. The creative metaphor of *PHONE IS BIRD NEST* is signalled by the virtual effect that all books fly into the phone. The common knowledge is necessary to infer the concept of birds' nest. In the end, visuals of the library of liberty transformed into the logo of the QQ Reading APP, which constructs the creative metaphor *QQ READING APP IS THE LIBRARY OF LIBERTY*.

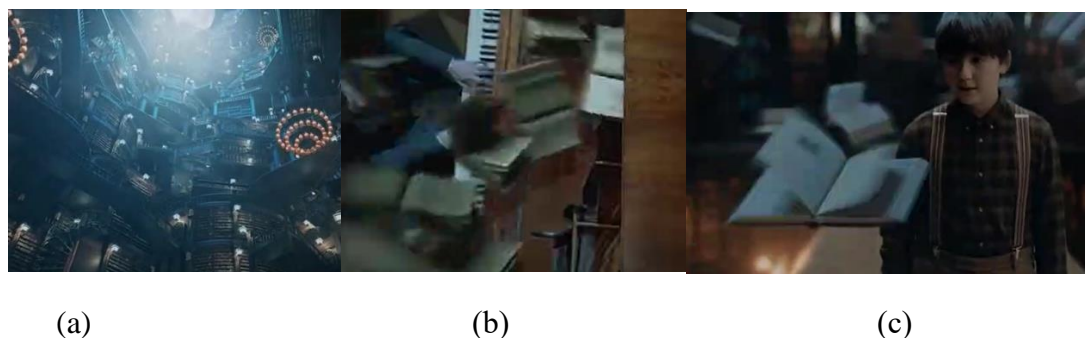


Figure 4.2 Screenshots from QQ Reading App

The ad advances an overarching claim that QQ Reading App enables users to read whatever books they like without restrictions, as reading is a matter of freedom. This claim targets children and people who have limited choices in reading, other than textbooks and books of professional knowledge. The product is introduced as a Library of Liberty, where the extensive collection of books provide more choices. More

importantly, given the metaphorical wall of accessing information due to political policies in certain areas, the emphasis of freedom could attract readers who are longing for more international resources other than those within the metaphorical wall. Sources of birds and musical notes carry the connotation of freedom that reinforces the emphasis of liberty. Nevertheless, recognising the informative intention of this video might require more cognitive effort when processing the virtual effect created by filmic techniques and background knowledge, as recognising scenes in *HARRY POTTER* and the restriction of metaphorical walls in terms of retrieving knowledge from any books are not universal.

It can be discerned that the last metaphor *QQ READING APP IS THE LIBRARY OF LIBERTY* carries the major claim of the product, while the first five creative metaphors elaborate its mappings by preparing the metaphorical plot and instilling details of similarities between the product and a library of liberty (see Table 4.3). The last metaphor could be, therefore, regarded as a metaphor highlighting the special features or attributes of the product that is features-highlighting metaphors. Other metaphors function as building up the metaphorical scenario and providing support for the features-highlighting metaphors by elaborating its mappings and adding persuasion of it.

Table 4.3 Creative Metaphors in the Ad for QQ Reading APP

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings	of
E13	可口可乐 Coca Cola	Replacement	图书馆是魔法	Supporting	Visuals	Inferred Visuals Music	from and	Visuals
			学 校					
			LIBRARY					
			LIBERTY IS A					
			MAGIC SCHOOL					
			书是鸟					
			BOOKS ARE BIRDS					
			书是音符					
			BOOKS ARE					
			NOTES					
			手机是书					
			PHONE IS BOOK					
			手机是鸟巢					
		Replacement	PHONE IS BIRD	Supporting	Visuals	Visuals	Spoken Language	Visuals
			NEST					
			QQ阅读是自由					
			图书馆					
			QQ READING APP					
			IS THE LIBRARY					
			OF LIBERTY					

Ad for ‘Wow Black Pizza’ from Pizza Hut

This video advertises ‘wow black pizza’ from Pizza Hut³¹, which is a concrete and tangible product. Multi-sensory modes utilised in this video include visuals, spoken language, written language, and non-verbal music. The communicative intention is to

³¹ <https://www.digitaling.com/projects/23739.html>

advertise a newly released taste of pizza, which has a black base. Following C-MIPVA introduced in Chapter Three, three creative metaphors are identified. The first metaphorical segment shows at the beginning stage of the video, where the context of the video is established by motivational claims to the young generation. Spoken language conveys opinions of “年轻不怕黑，就怕不出彩 (T: Young generation should not be afraid of *Hei*, i.e. the dark colour, but not shining)”, “备足料，人生才能惊艳 (T: Prepare well, and life will be amazing and colourful)”. Visuals display juxtapositions of scenes of the young model in black and scenes of the product and its ingredients (see Figure 4.3). The creative metaphor *PRODUCT IS A PERSON* is constructed. The source is signalled by both visuals and spoken language, whereas the target is depicted visually. The second creative metaphor *FIRES ARE TESTS* appears when the spoken language states “考验过 (T: After being tested)” and the visuals display virtue fires alongside the young model. Then the spoken language states “就更有味道 (It has better flavours)”, with the visuals of the product, followed by the visuals of the young model. The interactions of spoken language and the visuals again advance the creative metaphor *PRODUCT IS A PERSON*, whose target and source are also depicted visually. The spoken language invites semantic connections between the two terms. The vibrant background music assists in shifting scenes and claims by changing its tones and rhythm.



(a)

(b)

(c)



(d)

(e) Text: Prepare well

(f) Text: Life will be amazing

Figure 4.3 Screenshots from 'Wow Black Pizza' from Pizza Hut

The whole ad, therefore, invites viewers to look at the product with a black pizza base as a young person who will inevitably encounter bleak periods of life. With good preparations, his life will be amazing, which indicates that the pizza is rich in well-prepared ingredients. Harsh tests in life make a young person more mature, which suggests that the pizza after cooked with strong fires is tastier. It can be discerned that the first and the third creative metaphors involve the product as the target, and conveys a central claim of the ad, i.e. the pizza has gone through a wonderful journey during preparation as a young person will be successful eventually. The second creative metaphor points to a specific aspect of mapping which contributes to the central metaphorical scenario (see Table 4.4). The target (fire) and the source (tests) of the second creative metaphor metonymically link to the target (product) and the source (person) of the metaphor *PRODUCT IS A PERSON*. The whole ad elaborates the attributes of the product by metaphorizing the pizza as a young person, whose inferences might exert empathy of the young generation which are undergoing uncertainty and difficulties during the life journey. The metaphorical inferences depict promising futures although current life could be bleak. Another cultural motivation is that the base colour of black in the video is a way of attracting people who want to be mysterious and special. Therefore, the young generation especially who are ambitious and enjoy

being mysterious will recognise the informative intention and mark this ad as relevant to them.

Table 4.4 Creative Metaphors in the Ad for ‘Wow Black Pizza’ from Pizza Hut

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings	of
S45	Black Pizza’ from Pizza Hut	Juxtaposition	必胜客烤肉黑披萨是人	Features- Highlighting	Visuals	Visuals	Visuals	&
							Spoken	
							Language	
S45	Black Pizza’ from Pizza Hut	Non-existing Gestalt	火是考验	Supporting	Visuals	Spoken	Spoken	&
							Language	
S45	Black Pizza’ from Pizza Hut	Juxtaposition	必胜客烤肉黑披萨是人	Features- Highlighting	Visuals	Visuals	Visuals	&
							Spoken	
							Language	

4.4.2. Needs-Highlighting Metaphors

Another use of creative metaphors in video ads behaves differently in terms of how the product is related to the metaphorical scenario. Instead of including the product into the metaphorical scenario, it is often the case that the product is introduced at the last stage as a final solution or motive for the metaphorical scenario. These ads focus on the benefits of users by solving practical problems or delineating desirable effects. These metaphors, accordingly, depict scenarios that aim at eliciting empathy of target audience and highlight their needs. Mappings of these metaphors are not necessarily positive attributes as features-highlighting metaphors or supporting metaphors, since metaphorizing the practical problems could reinforce the negative appeals as well.

Content analyses detected that interpreting the contribution of needs-highlighting metaphors normally are indispensable of including other figurative tropes, especially metonymy. Analyses of two ads, one for an experience product, the other one for a search product, are presented to illustrate the use of needs-highlighting metaphors.

Ad for TMALL

This ad³² is an online video ad themed as “*大胆爱新欢* (T: Brave to new love)”, with five sub-stories of breaking up moments of leaving current relationships. Five creative metaphors are identified from each story with the signal of replacement. The first creative metaphor *A PHONE IS A PARTNER* depicts a story that a man states he agrees with breaking up, as he does not want to listen to “*你的声音* (T: Your voice)”. Then the following scene shows a broken phone soaked in water, which is supposed to be his girlfriend suggested by the context. The punchline appears then as “*天猫新风尚，大胆爱新欢* (T: TMALL New fashion, be brave to new love)”. The second story is constructed by the creative metaphor *A COLLECTION OF COSMETICS IS A PARTNER*, where a girl cries to a direction in heavy rain and states that she wants to break up and she does not like ‘you’ for a long time. Then the scenes show a box of used cosmetics, which is supposed to be her boyfriend, followed by the same punchline again. Similarly, other metaphors are detected with signals of replacement. The metaphor *PYJAMAS IS A PARTNER* illustrates mappings by spoken language that “*和你躺在一块儿都没感觉了，没新鲜感了，都腻了* (T: I have been sick of lying together with you. No freshness.

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<https://www.tvbook.com/showVideo.html?vid=939242&code=55f4TGaIdjzLa9TPSRS4bjL4ohi3uIA93I3BKpgqakDk9Ydv0hQR>

Tired.)” The visual scenes first depict a man in his bedroom, complaining about the relationship, then focus on a set of pyjamas on the bed. The metaphor *BABY CLOTHES IS THE GIRLFRIEND OF ONE’S SON* points out mappings as “你是为我儿子付出了很多，但我儿子，你已经配不上他了 (T: Although you have done a lot for my son but now you are not good enough for him)” from a young and well-dressed lady having afternoon tea in a good restaurant. The metaphor *A PAIR OF HIGH HEELS IS A PARTNER* tells a story that a young girl finally decides to break up, as “我们真的不合适 (T: Indeed, we are not in good fit)”. The communicative intention of this themed ad is to encourage customers to search for new products from their online shops. Recognising above explicatures is not difficult for people who have experience and knowledge of relationships and shall not cost much cognitive effort.

These metaphors behave differently to other metaphors in video ads which normally transfer positive attributes to the target. Mappings from the source partner to the target are negative associations appeared in relationships. These metaphors invite viewers to exploit their embodied experience of relationship to look at products, where negative associations towards unsatisfactory partners are employed as mapping features. Since people do not necessarily struggle in a difficult relationship, this ad introduces such a perspective to goods as well. Its punchline encourages people to be brave to new love, i.e., new products that could be found through their online service. The targets of these creative metaphors are metonymically linked to the advertised service (see Table 4.5). Similar findings were discussed in print ads where the products from competitors or opponents are normally negatively constructed by metaphors (Forceville, 2016). Video ads provide more space for constructing more than one such metaphors and elaborating more negative associations, which helps reinforce the contrast between negative appeals of opponents and positive appeals of products or service that is

advertised. Empathy could also be elicited during the problematic metaphorical scenario where the target audience could relate the delineated scenes with their situations.

Table 4.5 Creative Metaphors in the Ad for TMALL

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings
E32	TMALL	Replacement	手机是对象	Needs- Highlighting	Visuals	Spoken Language	Spoken Language
			<i>A PHONE IS A PARTNER</i>	Needs- Highlighting			Spoken Language
			化妆品是对象				Spoken Language
		Replacement	<i>A COLLECTION OF COSMETICS IS A PARTNER</i>	Visuals	Spoken Language	Spoken Language	
			睡衣是对象			Needs- Highlighting	Spoken Language
			<i>PYJAMAS IS A PARTNER</i>			Spoken Language	
		Replacement	婴儿用品是儿子女友	Needs- Highlighting	Visuals	Spoken Language	Spoken Language
			<i>BABY CLOTHES IS THE GIRLFRIEND OF ONE'S SON</i>	Spoken Language			
			女士皮鞋是对象	Needs- Highlighting			Spoken Language
		Replacement	<i>PAIR OF HIGH HEELS IS A PARTNER</i>	Visuals	Spoken Language	Spoken Language	
						Spoken Language	
						Spoken Language	

This ad targets young adults, suggested by the story plots and the scenes. Most actors are young adults in scenes of bars, apartments, and campus, except a mum in a restaurant. But the scenes of having afternoon tea with son's partner and trying to interfere their relationship appear normally in novels of campus love, which is familiar to young adults. The list of used products includes phone, pyjamas, cosmetics, baby's clothes, and high heels, which are commodities that are generally interesting to young

people. At the same time, young adults tend to have an unstable relationship and might find the plot of breaking up relevant to them. The informative intention will be recognised when the target audience regards the metaphorical scenarios as interesting and relevant to them.

Ad for Olay Body Wash

Olay body wash³³ is a search product whose major attributes are tangible and objective. The communicative intention is to advertise the product as being helpful to refresh mentality other than merely washing one's body. The ad starts with the interior monologue of an after 90s girl, who is a workplace freshman and encounters various negative comments from others. The plot describes how the negative comments influence her as markings on the skin and how the product washes out these markings and help her be herself again. The criticisms are constructed by filmic techniques as markings that spread throughout the girl's skin (see Figure 4.4). Creative metaphors of *CRITICISMS ARE MARKINGS ON THE SKIN* are constructed five times in the video (see Table 4.6). Spoken language plays the role of signalling the concept of criticisms. Visuals present these criticisms as eye-catching markings. Repetitions of displaying this metaphor make it prominent, reinforcing the degree of harm that is brought by criticisms. The product is advertised as a solution to this problem. Metaphorical inferences from the context are relevant to workplace newbies who undergo challenges and endure emotional difficulties from work every day.

³³ <http://www.tvbook.com/showVideo.html?vid=47779&code=b841OwXwQHM-%20bYQTdIbOvrGHYWaWCHuW05ZJX48PAFKvyw>

	Needs-	Spoken	Not Stated
评语是皮肤印记	Highlighting	Language &	
Depicting Non- <i>CRITICISMS ARE MARKINGS</i>		Written	
existing Gestalt <i>ON THE SKIN</i>		Language	Visuals

4.4.3. Occurrences of Different Uses

The occurrences of how creative metaphors are used to assist in advertising displayed several possibilities, apart from aforementioned major patterns that features-highlighting metaphors often work with supporting metaphors to build a scenario that the product is of central attention, whereas needs-highlighting metaphors often depict metaphorical scenarios by several mappings that do not include the product. The analysis of the video corpus revealed that there were also other possibilities to exploit different uses of creative metaphors. Here, I will discuss the flexibility of using creative metaphors by some cases of such occurrence.

4.4.3.1. Features-Highlighting Metaphors Only

An ad can exploit several features-highlighting metaphors to emphasise different dimensions or functions of the product. For instance, in the ad for Tommee Tippee's Feeding Bottle, at the level of explicatures, ten creative metaphors are created (see Table 4.7). They all together demonstrate the crucial features of the product. The ad begins with a first-person narrative, guiding viewers to perceive the product as a person. The spoken language that invites viewers to think of a person is designed to broadcast prior to the visuals of the product which shows up shortly following the narration. The ad then appears to be a self-introduction of the product. The connections between a person and the product in this ad, are realized by interactions of two different modes within a very short temporal segment. The mappings between these two concepts are

not stated in the ad. However, it is a convention in the field of marketing that a product represents a brand which has unique characteristics that distinguish itself from others. The unique characteristics of a brand form brand personality (Aaker, 1997). While an ad tries to demonstrate a brand personality effectively, it is up to the viewers to infer the brand personality after watching an ad (Ang & Lim, 2006). The concept of brand personality invites a personification metaphor which is exactly exemplified by this case, where Tommee Tippee's Feeding Bottle is introduced with a first person tone. This can also be realized in some print ads when person related pronouns are exploited. A video ad has the advantage of extending such metaphorical scenarios to the end of the ad and combining with more metaphors within a coherent plot.

The ad for Tommee Tippee's Feeding Bottle³⁴ is such a diverse combination. Within the self-introduction scenario, there are nine more creative metaphors cued by interactions of multi-sensory elements. Table 4.7 shows what are these metaphors and how each metaphor is cued by multi-sensory elements. The nine metaphors are all signalled by juxtaposition with each segment of juxtaposition targets a dimension of the product. Starting from introducing the birthplace and time, the narrative invites viewers to associate the product with exotic culture (the United Kingdom) and background. It then demonstrates its importance and quality through connecting it with piers of the Tower Bridge and a sceptre, which are also typical of British culture. The narrative moves to the journey of the feeding bottle by juxtaposing it with the underground, implying it is nationally famous in the UK. So far, both the target and the source are manifested as visuals. The following scenarios add spoken language to the

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http://www.tvbook.com/showVideo.html?vid=70386&code=3af5MKotjdgM4uoyPB4z_qESdgZGArMK4axYhYkgjeqhoA

visuals of the source and emphasise the intended mapping features with a linguistic simile. More features of the product are unfolded. The loyalty of a guard suggests that the product is trustworthy with durable quality. The punctuality of a bus promises the functions of heating the milk. The source of ferris wheel shifts the focus of concrete functions to abstract spiritual associations that the feeding bottle is always there to make babies happy. The next metaphor extends the joyful atmosphere by metaphorizing the feeding bottle as rock music. Then the last metaphor returns to the design of the bottle, which is sexy and fashion. The final part of the ad states that the product is available in the Chinese market with the personification metaphor across the whole ad.

It can be discerned that the target of each metaphor, i.e. the product in this ad, is cued by visuals, including images in one shot or motions. The visuals depict a feeding bottle with its brand in daily scenarios of using it. The sources of these metaphors are all cued by visuals. Some sources are pointed out by spoken language as well. It can be found that apart from the metaphor signals of juxtaposition, spoken language delineates mapping features for viewers to comprehend the metaphor. For example, when illustrating the metaphor *THE FEEDING BOTTLE IS ROCK MUSIC*, the visuals juxtaposed a guitar with the feeding bottle and the written text together with the spoken language explaining the intended transferred meaning (see Figure 4.5). Looking into details, analysts can extract a loose hybrid form that the upper half of the guitar is replaced by that of a feeding bottle in a different scenario. Since the technique of replacement discussed in this thesis often occurs in the same scenario, the technique of juxtaposition is more appropriate when two scenes were put side by side. The effect of juxtaposition invites viewers to perceive a hybrid gestalt as well, as the overall shape of the new gestalt is similar to a feeding bottle. However, this interpretation can only be recognised by some viewers when they are interested in scrutinising the ad. The intended concept

of ‘Rock Music’ is explicitly stated in spoken language. The visuals of guitar, therefore, represents ‘Rock Music’ as metonymy in this ad. This phenomenon can also be labelled as metaphonymy in print ads (Pérez-Sobrino, 2017), as metonymy is exploited to activate the target of the metaphor. This implies that after identifying a creative metaphor, a detailed analysis of how it is constructed could lead to a further categorization. Although this thesis does not aim to address the issue of identifying other rhetorical tropes, the analysis here suggests possible explanations for unsatisfactory interrater reliability of identifying metonymy in print ads ($k = .45$) (Pérez-Sobrino et al., 2019). The metaphoric complexes discussed by Pérez-Sobrino (2017) might reside in the implicatures of an ad which require detailed interpretation and vary across individuals. Mappable features from Rock Music to the product are demonstrated with the written text ‘feeding with fun’ and the spoken language ‘enable babies to release vitality’, providing justifications for the creative metaphorical scenario and guiding viewers to imagine the feeding bottle as rock music.



Figure 4.5 Screenshots from Tommee Tippee’s Feeding Bottle. Translation of the Text: Enable babies to release vitality like rock music.

Table 4.7 Creative Metaphors in the ad for Tommee Tippee's Feeding Bottle

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings
S22	汤美星奶瓶 Tommee Tippee's Feeding Bottles	Simultaneous Cueing of Different Modes	奶瓶是人 <i>THE FEEDING BOTTLE IS A PERSON</i>	Features- Highlighting	Visuals	Spoken Language	Not Stated
		Juxtaposition	奶瓶是英国大笨钟 <i>THE FEEDING BOTTLE IS BIG BEN</i>	Features- Highlighting			Visuals & Spoken Language
			奶瓶是桥墩 <i>THE FEEDING BOTTLE IS BRIDGE</i>	Features- Highlighting			Visuals & Spoken Language
			奶瓶是权杖 <i>THE FEEDING BOTTLE IS A SCEPTRE</i>	Features- Highlighting			Visuals & Spoken Language
			奶瓶是地铁 <i>THE FEEDING BOTTLE IS UNDERGROUND</i>	Features- Highlighting			Visuals & Spoken Language
		Juxtaposition	奶瓶是卫兵 <i>THE FEEDING BOTTLE IS A GUARD</i>	Features- Highlighting	Visuals	Visuals Visuals & Spoken Spoken Language	Visuals & Spoken Language
		Juxtaposition	奶瓶是巴士 <i>THE FEEDING BOTTLE IS THE BUS</i>	Features- Highlighting			Visuals & Spoken Language
		Juxtaposition					

	奶 瓶 是 摩 天 轮	Features- Highlighting	Visuals	&
	<i>THE FEEDING</i>		Spoken	
	<i>BOTTLE IS FERRIS</i>		Visuals & Spoken	
Juxtaposition	<i>WHEEL</i>	Visuals	Language	
	奶 瓶 是 摇 滚 乐	Features- Highlighting	Visuals	&
	<i>THE FEEDING</i>		Visuals & Spoken	
	<i>BOTTLE IS ROCK</i>		Spoken	Language
Juxtaposition	<i>MUSIC</i>	Visuals	Language	
	奶 瓶 是 建 筑 物	Features- Highlighting	Visuals	&
	<i>THE FEEDING</i>		Visuals & Spoken	
	<i>BOTTLE IS A</i>		Spoken	Language
Juxtaposition	<i>BUILDING</i>	Visuals	Language	

This ad shows how several features-highlighting creative metaphors are created and how they work together to introduce essential dimensions of a product at the level of explicatures. Some mapping features are also demonstrated as explicatures that viewers appear to utilise these delineated features to make sense of the creative metaphorical scenarios. The interpretation towards the mapping features, however, have space to be extended further. For instance, the selection of rock music might lead to associations with popular bands like Coldplay or the Beatles from the UK and related personal affections. The ad presents explicatures for viewers to relate them with their personal experience and derive related implicatures. The communicative intention in this ad is salient that using the product to feed babies can bring young mothers good experience. While the informative intention is unambiguous under scrutiny, it is often not the way that the general public watch an ad. It is up to the time, place, and attention of viewers to capture all provided explicatures and recognise the informative intention fully.

4.4.3.2. Supporting Metaphors Only

It is also possible to have only supporting metaphors that convey positive claims about the product or its brand. The targets of the supporting metaphors normally are metonymically associated with the product. For instance, in an ad for Coca Cola³⁵, two dolls on the bottle of the product are called out by a boy and they decorate the room through creating artefacts for Chinese New Year (CNY) with the fancy visual effect, bringing joyfulness to a family (see Figure 4.6). The dolls then return to the cover of the bottle. As a part of the product, these two dolls are metonymically linked to the product. They look similar to the typical fortune dolls in Chinese Culture, implying that they will bring fortune and good luck to a family. That is, Coca Cola's dolls are metaphorically linked to some concepts about happiness for viewers who have knowledge of Chinese culture. Their appearance and behaviour of creating fancy decorations for CNY are easy to activate the concept of happiness. Utilizing the concept of happiness, it is easy for viewers to make sense of the dolls and what the product can bring people with.



Figure 4.6 Screenshots from Coca Cola

³⁵ <https://v.qq.com/x/page/d00159ncf9q.html>

This is a typical case where only the target associated with the product rather than the target itself is metaphorized as something else. The delineation of a happy family celebrating CNY is in line with the brand spirit of Coca Cola that their products normally show up in family reunion, targeting the joyous and sweet family relationship. It is a marketing strategy to emphasise attributes associated with the product and create a vivid brand personality (Aaker, 1997). This metaphor, therefore, assists in advertising such abstract associations.

The construction of this metaphor, however, relies more on non-verbal elements. While the target concept ‘Dolls of Coca Cola’ is visualized vividly, the source can only be inferred from the context in light of knowledge towards Chinese culture. Following the criteria of verbalisation in Chapter 3, the source can be verbalized as ambiguous concepts about happiness and the metaphor can be verbalized as *DOLLS OF COCA COLA ARE AMBIGUOUS CONCEPTS ABOUT HAPPINESS* (see Table 4.8). The mapping features can be inferred from motions and background music, but not stated with verbal language. Underpinned by culture, this metaphor could be conventional for its target audience (Chinese families). But the manifestation of it is eye-catching and noticeable, demonstrating again that conventional metaphors can be designed in creative forms and attract viewers attention.

The explicatures in this ad, as illustrated through the analysis, are predominantly non-verbal elements, increasing the ambiguity in decoding the meaning and the difficulty in receiving the in-depth informative intention by viewers without Chinese culture. It has been pointed out that a native speaker of a certain culture seems to derive more specific details that assist in associating with non-verbal elements, whereas a non-native speaker appears to receive a general idea with a cultural specific non-verbal element (Guan & Forceville, 2020).

Table 4.8 Creative Metaphors in the Ad for Coca Cola

No.	Product Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings
			Supporting			Visuals
		可乐娃娃是关于 喜庆的模糊概念				
S25	可口可 乐	<i>DOLLS OF COCA COLA ARE</i>				
	Coca Cola	<i>AMBIGUOUS CONCEPTS ABOUT HAPPINESS</i>			Inferred from	
	Depicting existing Gestalt	Non-		Visuals	Visuals	

4.4.3.3. Combinations of Features-Highlighting Metaphors and Needs-Highlighting Metaphors

Apart from the salient pattern that features-highlighting metaphors work with supporting metaphors to build a metaphorical scenario about the product, there are chances that features-highlighting metaphors work with needs-highlighting metaphors to build such a scenario. An ad for Disney Juicy Candy³⁶ is an example of this possibility. The ad starts with scenes that two girls demonstrating how tasty the candy is. The special visual effect is created through filmic techniques and highlight the feature of juiciness through metaphors *DISNEY JUICY CANDY IS GRAPE*, *DISNEY JUICY CANDY IS STRAWBERRY*, and *DISNEY JUICY CANDY IS PEACH*. In the later part of the ad, hundreds of fruits fall from the sky, with cheers from children, delineating a metaphor *FRUITS ARE RAINDROPS* (see Figure 4.7). A peach from the sky transformed to the product when it touches the hand of a boy, creating a metaphor *DISNEY JUICY CANDY IS PEACH*. The

³⁶ <https://v.qq.com/x/page/j0131u27o6a.html> (version of 15s)
<https://www.bilibili.com/video/av200770319/> (original version of 30s in analysis)

punchline states again that “一粒就像一个美味的水果 (T: each candy is like a kind of tasty fruit)”, constructing the metaphor *DISNEY JUICY CANDIES ARE FRUITS*.



Figure 4.7 Screenshots from *Disney Juicy Candy*

Five of the six metaphors involve the product as the target, highlighting the tasty and juicy traits of the candy. The metaphor *FRUITS ARE RAINDROPS*, however, does not directly link to the product if considering its target and source out of this particular context. This metaphor does not support other features-highlighting metaphors regarding the content. When scrutinizing it within the context, a prominent point about the scenes created is how joyful the children are, implying that fruits falling from the sky make children happy. Either children or their parents are supposed to be the target audience for this product. By depicting a joyful scene of children, it highlights the spiritual needs of the target audience. This metaphor also contributes to the consistency of the plot that the next scene switches to how a peach as a raindrop transforms to the product with magical effect. The ad ends with another features-highlighting metaphor and summarises its claim that each candy tastes like a kind of juicy fruit.

The manifestations of these metaphors show that the first and the last metaphor utilise all possible modes to cue the target constructions of these metaphors, which is the product (see Table 4.9). The targets in other metaphors are cued by visuals only. Metaphors prior to the needs-highlighting one manifest their sources in both spoken language and visuals and pointing out their mappings through spoken language. The needs-highlighting metaphor and a subsequent metaphor manifest their sources only in visuals without prompts about the mapping features. The last metaphor manifests its source and mapping features in the spoken language only. While two metaphors only manifest themselves in the mode of visuals, they are easy to be recognised and understood in the given context, matching a crucial claim when adapting RT into analysing multimodal discourse that visuals can express salient meanings which can be regarded as explicatures as well (Forceville, 2014; Forceville & Clark, 2014).

Table 4.9 Creative Metaphors in the Ad for Disney Juicy Candy

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings
S1	滨崎果汁糖果		滨崎果汁糖果是提子	Features-Highlighting	Spoken Language & Written Language & Visuals	Spoken Language & Visuals	Spoken Language
	Disney Juicy Candy		DISNEY JUICY CANDY IS GRAPE				
		Juxtaposition	滨崎果汁糖果是草莓	Features-Highlighting	Visuals	Spoken Language & Visuals	Spoken Language
			DISNEY JUICY CANDY IS STRAWBERRY				
		Juxtaposition					

		滨崎果汁糖	Features-	Visuals	Spoken	Spoken
		果是水蜜桃	Highlighting		Language	Language
		DISNEY JUICY			& Visuals	
Juxtaposition		CANDY IS				
		PEACH				
			Needs-	Visuals	Visuals	Not Stated
Replacement			Highlighting			
		水果是雨				
		FRUITS ARE				
Transformation of Images		RAINDROPS				
		滨崎果汁糖	Features-	Visuals	Visuals	Not Stated
		果是水蜜桃	Highlighting			
Simultaneous Cueing of Different Modes		DISNEY JUICY				
		CANDY IS				
		PEACH				
		滨崎果汁糖	Features-	Spoken	Spoken	Spoken
		果是水果	Highlighting	Language	Language	Language
		DISNEY JUICY		& Visuals		
		CANDIES ARE				
		FRUITS				

4.4.3.4. Co-occurrence of Three Uses

Another possible combination is to exploit all uses of creative metaphors in a single ad. The ad for Jing Dong Coffers³⁷ makes full use of creative metaphors in this way. As Table 4.10 displays, it starts with needs-highlighting metaphors that attract different groups of the target audience, creating eye-catching visuals. The supporting metaphor shows up at the end of each story to visually demonstrate how coffer enables different groups of people to realize their dreams. At the end of the story, the name of the coffer transformed into the product. Metaphors in this ad manifest their targets in at least one

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https://v.youku.com/v_show/id_XMTg3NTYxODc2MA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2

mode of communication, combining the verbal language with the non-verbal ones. The first two metaphors manifest their sources in both visuals and verbal language. The last two metaphors manifest their sources in visuals only, without cues about mappings. The metaphor *A HARD-WORKING PERSON IS THE GOD OF WEALTH* can only be recognised when the viewer is familiar with the typical construction of ‘the god of wealth’ in Chinese culture. The concept of ‘the god of wealth’ is not verbally demonstrated but can be inferred from the interactions of background music and the visuals.

Table 4.10 Creative Metaphors in the Ad for Jing Dong Coffers

No.	Product	Signal	Metaphor	Uses	Cues of Target	Cues of Source	Cues of Mappings
E27	京东金融 Jing Dong Coffers	Depicting Non-existing Gestalt	奶爸是阿童木 <i>A YOUNG FATHER IS THE ASTROBOY.</i>	Needs-Highlighting	Spoken Language & Written Language & Visuals	Spoken Language & Visuals	Not Stated
			奶爸是ATM <i>A YOUNG FATHER IS AN ATM</i>	Needs-Highlighting	Spoken Language & Written Language & Visuals	Spoken Language & Written Language & Visuals	Visuals
			奋斗者是财神 <i>A HARD-WORKING PERSON IS THE GOD OF WEALTH</i>	Needs-Highlighting	Written Language & Visuals	Inferred from Visuals & Music	Visuals
		Depicting Non-existing Gestalt					

		京东小金库	Features-	Spoken	Visuals	Not Stated
		是硬币 JING	Highlighting	Language		
		DONG		& Written		
Transformation	of	COFFERS IS		Language		
Images		THE COIN		& Visuals		
			Supporting	Written	Visuals	Not Stated
		小金库是袋子		Language		
Simultaneous		子		& Spoken		
Cueing of Different		COFFERS ARE		Language		
Modes		BAGS				

Aforementioned examples have illustrated that there could be a continuum between addressing consumers' needs and advertising features of products, needs-highlighting metaphors and features-highlighting metaphors shall reside at the two extremes of the continuum. Supporting metaphors are inclined to advertising the features of products by introducing mappings between something relevant to the product. Although users of a product is also closely related to a product in a general sense, there are differences in terms of perspectives towards claims when analysing in details. Ambiguity during determination is by no means avoidable, leading to a necessity to carry out interrater reliability examinations when determining the uses of a creative metaphor. It is theoretically possible to have combinations of supporting metaphors and needs-highlighting metaphors as well. Nevertheless, no such case has been found in the corpus under investigation by this thesis.

4.5. Results from Statistical Analysis

Although these case studies have shown detailed characteristics of how creative metaphors are used for different types of products and how they are signalled within the context, the overall associations remain unclear. Different uses of creative metaphors appear to occur in both experience products and search product with equal chances. The signals exploited appear to be diverse and random regarding either the uses of metaphors or the types of products. Above analysis can only show details under the context but can hardly unpack the underlying associations and variability among the variables of metaphor signals, product types, and metaphor uses. Such insights could be generated through statistical analysis that provides complementary strengths to discourse analysis.

There were 197 creative metaphors in total identified by C-MIPVA from 66 metaphorical ads. All metaphors were coded in terms of their uses and product type. The coding schemes of uses of metaphors were developed from content analysis, with examinations of inter-rater reliability, as reported in Section 4.3.3. Statistical tests included Chi-Square Test of Goodness of Fit, Log-Linear Analysis, Multiple Correspondence Analysis (MCA), Chi-square Test of Independence, and Bayesian Contingency Tables Tests. The analytical unit was each metaphorical item.

4.5.1. *Metaphor Frequency*

In the whole corpus of 100 Chinese video ads, 66 ads contained at least one creative metaphor. The 100 Chinese video ads were collected through stratified random sampling. Chi-Square Goodness of Fit test was calculated to compare the occurrence of metaphorical ads and literal ads. Results showed a statistically significant difference,

$\chi^2 (1) = 10.24, p = 0.001$, suggesting that creative metaphors were used significantly frequent in Chinese video ads.

4.5.2. Overview of Associations

The associations between the uses of creative metaphors (U), metaphor signals (S), and product types (PT) were first explored by Log-linear analysis. Results showed a non-significant three-way interaction between three variables ($p = .30$), but three significant bivariate interactions (i.e. USES * PRODUCT TYPE, USES * SIGNALS, PRODUCT TYPE * SIGNALS). Cross-classified frequencies were shown in Table 4.11. A good fit of this model was illustrated by the likelihood ratio, $\chi^2 (8) = 14.08, p = .08$. Although there was a lack of three-way interaction, the underlying structure of overall associations could be further explored by MCA, especially through the plots which visualize the associations as geometrical distance.

Table 4.11 Three-way Contingency Table

Product Type			Observed		Expected	
(PT)	Uses (U)	Signals(S)	Count ^a	%	Count	%
Experience	Features-H	Transformation	7.500	3.8%	7.500	3.8%
		Replacement	2.500	1.3%	2.500	1.3%
		Juxtaposition	5.500	2.8%	5.500	2.8%
		Simultaneous cueing	5.500	2.8%	5.500	2.8%
		Non-existing gestalt	1.500	0.8%	1.500	0.8%
	Supporting	Transformation	3.500	1.8%	3.500	1.8%
		Replacement	9.500	4.8%	9.500	4.8%
		Juxtaposition	.500	0.3%	.500	0.3%
		Simultaneous cueing	8.500	4.3%	8.500	4.3%
		Non-existing gestalt	.500	0.3%	.500	0.3%
	Needs-H	Transformation	.500	0.3%	.500	0.3%
		Replacement	9.500	4.8%	9.500	4.8%
		Juxtaposition	14.500	7.4%	14.500	7.4%
		Simultaneous cueing	12.500	6.4%	12.500	6.3%

		Non-existing gestalt	13.500	6.9%	13.500	6.8%
Search	Features-H	Transformation	1.500	0.8%	1.500	0.8%
		Replacement	9.500	4.8%	10.500	5.3%
		Juxtaposition	21.500	11.0%	22.500	11.3%
		Simultaneous cueing	9.500	4.8%	10.500	5.3%
		Non-existing gestalt	5.500	2.8%	5.500	2.8%
	Supporting	Transformation	1.500	0.8%	1.500	0.8%
		Replacement	7.500	3.8%	7.500	3.8%
		Juxtaposition	4.500	2.3%	4.500	2.3%
		Simultaneous cueing	11.500	5.9%	11.500	5.8%
		Non-existing gestalt	4.500	2.3%	4.500	2.3%
	Needs-H	Transformation	.500	0.3%	.500	0.3%
		Replacement	12.500	6.3%	12.500	6.3%
		Juxtaposition	6.500	3.3%	6.500	3.3%
		Simultaneous cueing	8.500	4.3%	8.500	4.3%
		Non-existing gestalt	11.500	5.9%	11.500	5.8%

a. For saturated models, .500 has been added to all observed cells.

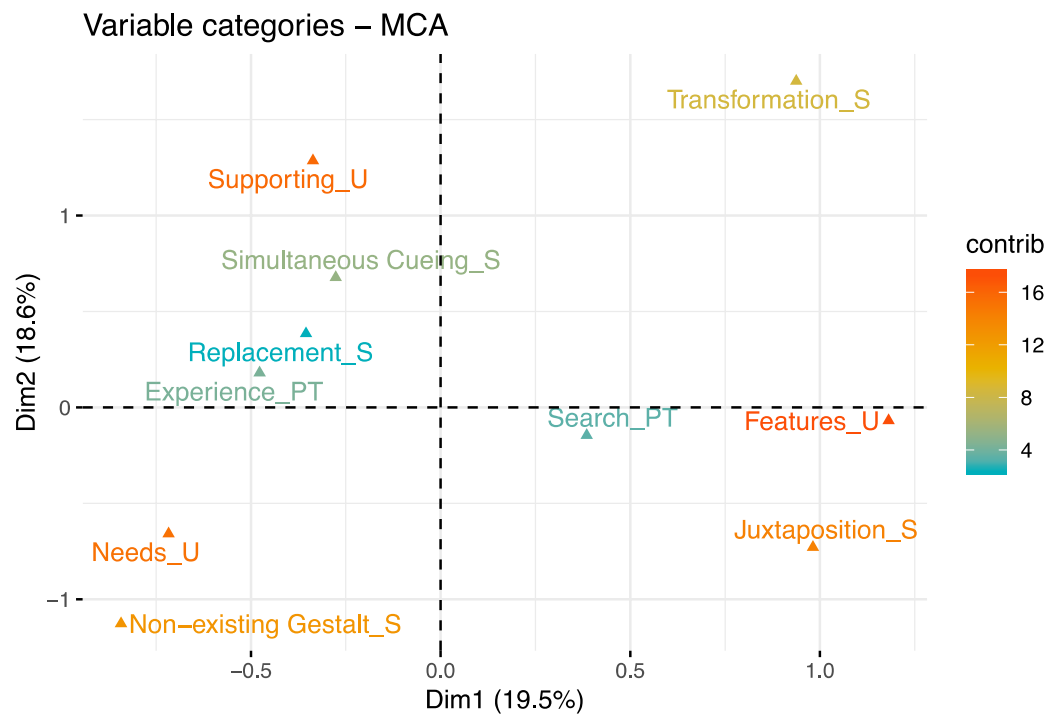


Figure 4.8 MCA Map for Variable Categories

MCA visualizes associations among multiple variables as clouds of points in a multidimensional Euclidean space, i.e. describing the patterns by locating each unit of analysis as a point in a low-dimensional space and grouping variable categories regarding their distribution (Le Roux & Rouanet, 2010). The more similar categories are in distribution, the closer distance is between points on the geographic map. Each dimension represents a linear combination of variables. The first two dimensions suggested in MCA normally represent the most important two underlying dimensions that best capture the variance in the data (Costa et al., 2013; Tay, 2020). In this map (Figure 4.8), the first accounted for 19.5% of the variance and the second for 18.6%, yielding a total variance of 38.1%. The degree of closeness of variables regarding their angles from the origin and variables in the same quadrant shows the geographic relations between these variables (Higgs, 1991). It could be discerned that Search Product is clustered with Features-Highlighting use and Juxtaposition, whereas Experience Product seems to be closer to the use of highlighting Needs and the signals of Replacement and Simultaneous Cueing.

A close distance from the origin implies a small deviation from the expected proportions (Nenadic & Greenacre, 2007). The map visualizes the degree of contribution by colours, where the more contribution (in percentage) the variable makes, the warmer the colour is. The cold colour of a variable indicates a small contribution to the variance. It could be seen that variables around the origin were in cold colours, whereas variables that were far from the origin were in warm colours. The map showed that some metaphor signals, such as Juxtaposition, Transformation and Non-existing gestalt, were discriminating from other variables and made major contributions to the significant associations between metaphor signals and other variables. The map also showed that three uses of creative metaphors were in red and were far from the origin,

implying that bivariate associations between uses and other variables could be strong. It should be noticed that both Search and Experience types of products were close to the origin and dimension 2, implying that product type does not contribute much to the current two dimensions. Figure 4.9 and Figure 4.10 illustrated how individual cases grouped at different levels for each variable, where bigger dots represented more cases. Figure 4.11 displayed MCA map for individuals, which pinpointed how specific case of metaphors groups and contributes to the variance.

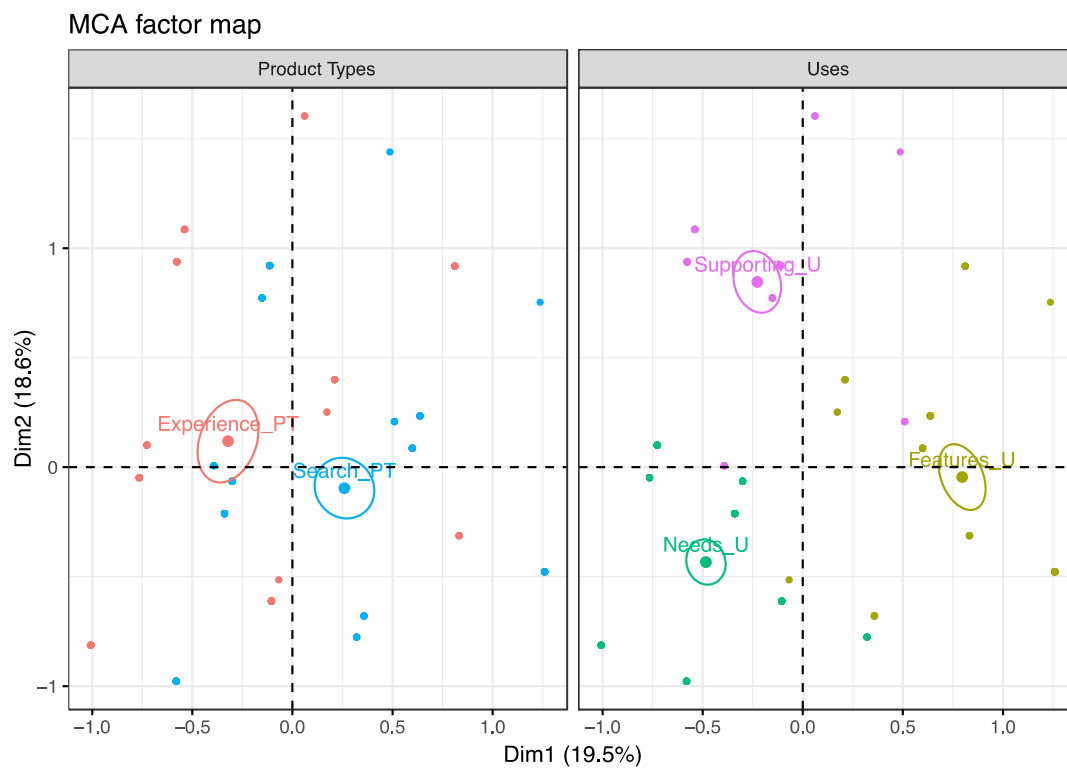


Figure 4.9 MCA Factor Maps for Product Type and Uses

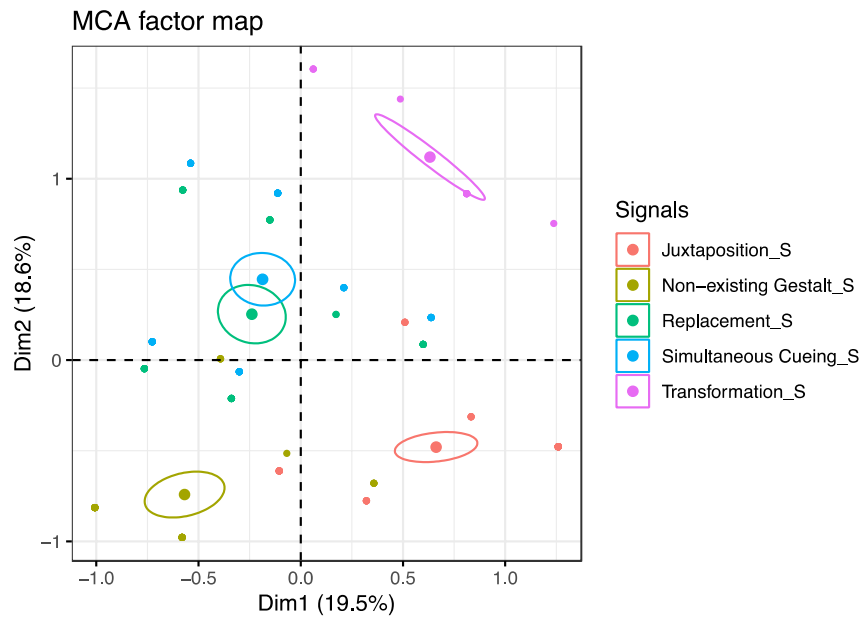


Figure 4.10 MCA Factor Maps for Signals

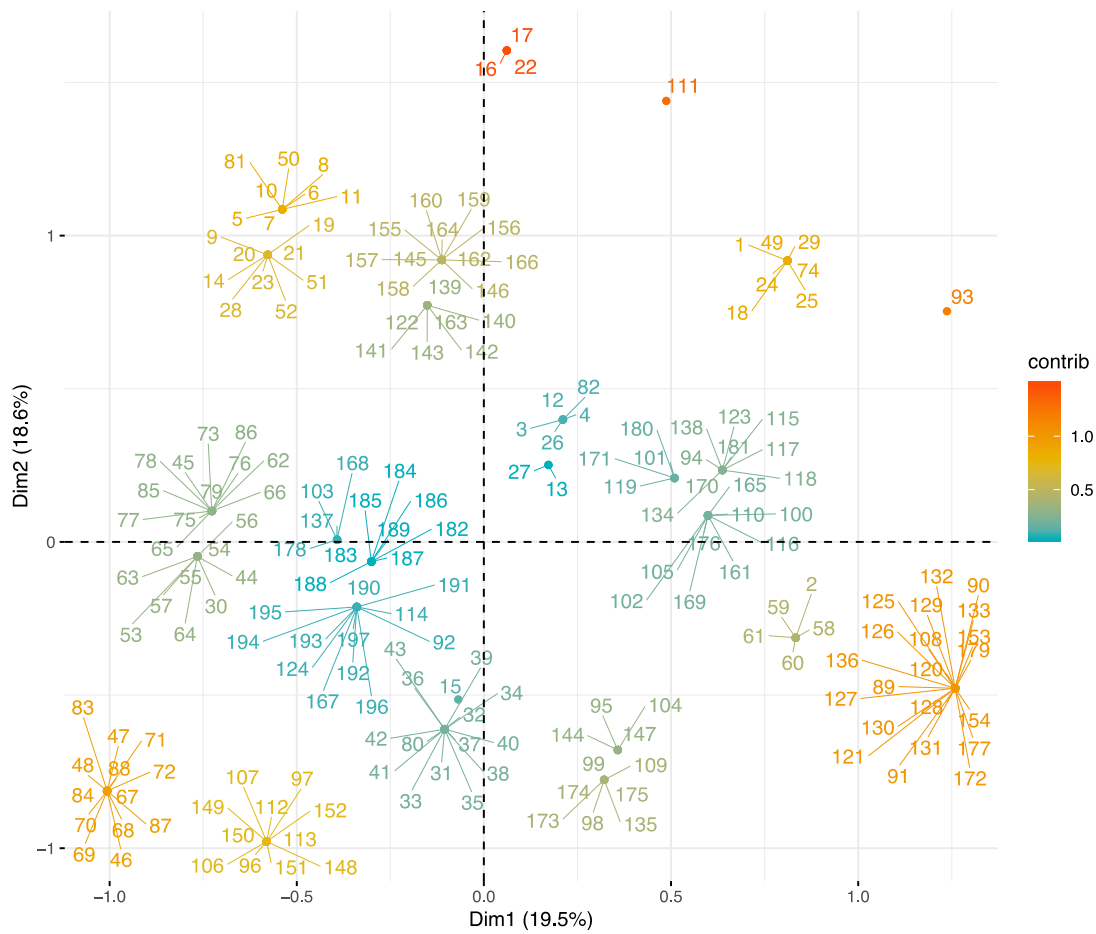


Figure 4.11 MCA Map for Individual Case

4.5.3 The Relationship Between *PRODUCT TYPE* and *USES*

MCA analyses provide a reader-friendly visualisation of the overall associations. Details of bivariate interactions could be retrieved by Chi-square Test of Independence, as a lack of three-way interaction in log-linear analysis suggested that bivariate interactions are straightforward and do not change along with another variable (Tay, 2018a).

*Table 4.12 Product Type * Uses Crosstabulation*

			Uses			
			Features-H	Supporting	Needs-H	Total
Product Type	Experience	Count	20	20	48	88
		Adjusted Residual	** -2.7	-.3	**2.9	
	Search	Count	48	27	37	109
		Adjusted Residual	**2.7	.3	**-2.9	
Total		Count	65	47	85	197

** $p < .01$

A Chi-Square Test of Independence was performed in order to compare the frequency of the three uses of metaphor in ads for experience products and ads for search products. Results indicated a significant relationship between the uses of metaphor and the product type, $X^2 = (2, N = 197) = 9.96, p = .007$, Cramer's $V = .23$. The effect size reveals a moderate tendency (Cohen, 1988). As Table 4.12 shows, the adjusted residual reveals the frequency that contributes to the significance (i.e. adjusted residuals ± 2.0). The green cells represent pairs that appear more frequently than expected. The red cells refer to the opposite condition. Specifically, Needs-highlighting metaphors are used proportionally more frequent than expected for experience products but the opposite

for search products. In contrast, Features-highlighting metaphors are distributed more frequent than expected for search products rather than experience products. There is no strong tendency for the frequency of supporting metaphors in terms of product type.

A Bayesian Contingency Tables Test generated a Bayes factor $BF_{10} = 6.6$, indicating that the data is in favour of the alternative hypothesis with moderate evidence (Jeffreys, 1961). That is, the distribution is 6.6 times more likely to occur under the alternative hypothesis rather than the null hypothesis, regarding the distribution of frequencies.

4.5.4 *The Relationship Between USES and SIGNALS*

Chi-square test was performed to examine the relationship between the uses of metaphor and signals of metaphor which were discussed in Chapter Three. Test results showed a significant association between the two variables, $X^2 = (8, N = 197) = 38.59$, $p < .001$, Cramer's $V = .31$, which illustrated that the choices of metaphor's signals for different uses were unlikely to be random by chance. There was a medium to the large association between the uses of metaphor and signals of metaphor, showed by the effect size (Cohen, 1988).

Table 4.13 Uses * Signals Crosstabulation

		Signals						
			Transform	Replace-	Juxtapo-	Non-	Simultaneous	
			-ation	ment	sition	Existing	Cueing	Total
Uses	Features-H	Count	8	11	26	6	14	65
		Adjusted	***2.6	-1.7	***3.3	***-2.1	-1.2	
		Residual						
	Supporting	Count	4	16	4	4	19	47
		Adjusted	.8	1.8	***-3.0	-1.8	***2.4	
		Residual						
	Needs-H	Count	0	21	20	24	20	85
		Adjusted	***-3.1	.1	-.5	***3.6	-.9	
		Residual						
Total		Count	12	48	50	34	53	197

*** $p < .001$

As Table 4.13 shows, results pointed out that transformation of images and juxtaposition were used proportionally frequent for features-highlighting metaphors, compared with the proportion of frequency for needs-highlighting metaphors and supporting metaphors, respectively. The replacement showed a tendency to signal supporting metaphors, but not at a statistical significant level. Depicting non-existing gestalt was used more frequently to signal needs-highlighting metaphors and was avoided by other uses. It is also noticed that simultaneous cueing of different modes had a strong tendency to signal supporting metaphors and avoided features-highlighting metaphors.

Bayesian Contingency Tables Tests suggested that the data were 24554.73: 1 in favour of the alternative hypothesis rather than the null hypothesis, providing decisive statistical evidence for the hypothesis that the choices of signals for different uses were not random by chance (Jeffreys, 1961).

4.5.5 The Relationship Between *PRODUCT TYPES* and *SIGNALS*

Table 4.14 Product Type * Signals Crosstabulation

			Signals					
			Transfor-	Replac	Juxtapo-	Non-	Simultaneous	
			mation	-ement	sition	existing	Cueing	Total
Product Type	Experience	Count	10	20	19	14	25	88
		Adjusted	*2.8	-.5	-1.1	-.5	.4	
		Residual						
	Search	Count	2	28	31	20	28	109
		Adjusted	*-2.8	.5	1.1	.5	-.4	
		Residual						
Total		Count	12	48	50	34	53	197

* $p < .1$

A Chi-square test was performed to extract the frequency of metaphor signals in ads designed for both search product and experience product. As illustrated by Table 4.14, the occurrence of transformation displayed a preference for experience products and a lack of using for search products (adjusted residual ± 2.0). There was no obvious tendency found for other signals. Overall speaking, these frequencies were not significantly different, $X^2 = (4, N = 197) = 8.63, p = .07$ Cramer's $V = .21$. These results implied that the overall associations between metaphor signals and product types are weak at a marginally significant level. Transformation of images contributed to the

majority of the significance.

Bayesian Contingency Tables Tests demonstrated that the data was 3.08:1 in favour of the null hypothesis rather than the alternative hypothesis, indicating that the results were 3.08 times more likely to happen in a model without assuming different frequencies rather than a model with it. These results were in consensus with the overall marginal significant associations found in the Chi-square test. That is, there was inconclusive statistical evidence for associations between metaphor signals and product types.

4.6. Discussion

Content analyses have revealed three major uses of creative metaphors and their associations with metaphor signals and product types. The major uses of creative metaphors in video ads have distinct features from metaphors in print ads regarding their manifestation, frequency, and contribution to advertising different types of products.

When the product is involved as the target or the source of a creative metaphor, it is often used to deliver a claim about the properties of the product, highlighting its features and functions. There can be more than one such metaphor in a single ad, as more than one aspect of a product could be metaphorized with multiple sources in a temporal dynamic discourse. Even for the same source, mapping features can also be various so as to elaborate positive attributes of the product. For the purpose of creating a coherent and plausible metaphorical scenario, there can be a few other metaphors designed to support the scenario. These supporting metaphors normally metonymically

link to features-highlighting metaphors regarding sources and targets. They can instil mappings about positive attributes of the products and bridge the understandings of features-highlighting metaphors. There are also supporting metaphors in the absence of features-highlighting metaphors, whose mappings are generally in consensus with major claims made towards the product by other means. Features-highlighting metaphors and supporting metaphors might work together or in separation to elaborate the positive attributes of the products, such as appeals, ingredients, and functions, forming arguments in a way that ‘You should buy it due to its fantastic features’ (Pollaroli & Rocci, 2015).

Creative metaphors can also work to assist in forming arguments like ‘You should buy it because it addresses your needs’ (Pollaroli & Rocci, 2015) by creating a metaphorical scenario to highlight the needs of consumers, where the product is designed as a solution or a motive. These metaphors do not necessarily transfer positive meanings from the source to the target. They might metonymically link to the product. The difference between needs-highlighting metaphors and supporting metaphors lies in their way to approach consumers. Needs-highlighting metaphors can work alone or work together with several needs-highlighting metaphors to reinforce practical problems or envisaged fancy situations that are relevant to consumers and arouse empathy that motivates good attitudes towards the product. Supporting metaphors normally direct people’s attention to the favourable attributes of the products with less emphasis on consumers. Since ambiguity is inevitable when differentiating certain cases, inter-rater reliability examinations are necessary when coding uses of creative metaphors.

Since video ads are temporal and dynamic, segmenting videos according to filmic techniques of metaphor signals helps identify metaphorical units. Metaphor signals as parts of the manifestation are found to be significantly associated with metaphor uses, indicating that selecting signals for using metaphors for different purposes is not random by chance. The preference of depicting non-existing gestalt for needs-highlighting metaphor points out potential emotional influences, as non-existing gestalt normally creates salient visual incongruity. The preferences of transformation and juxtaposition for features-highlighting metaphors signal emphasises on products, as both transformation and juxtaposition visually present two concepts, inviting comparisons between them. The preferences of simultaneous cueing for supporting metaphors might consider the naturalness of building up the metaphorical scenario. The significant associations between metaphor signals and uses can be referred to as prominent patterns detected from real-world video ads. Nevertheless, the identification of metaphor is within the dynamic unit, rather than being deduced to individual sensory-element. It is also possible that more than one technique work together to construct the metaphor but the salient technique plays the role of signalling. The manifestation of metaphor may contribute to fancy forms of design but does not necessarily block the comprehension in video ads, as most rhetorical tropes designed in video ads have been found to be easy to understand (Enschot et al., 2010; Enschoot & Hoeken, 2015). This is also in consensus with the genre of video ads that designers have more choices to enhance the transparency of meaning-making through multi-sensory elements and create ostensive stimuli with their best effort.

Product type is a historically interesting variable in marketing research, as it exerts influences on perceptions of the effectiveness of ads (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013). Insignificant associations between product type and

metaphor signals suggest that there is no preference for certain metaphor signals regarding product types. This makes sense when it comes to a temporal and dynamic discourse where the product normally is introduced at the last stage of the ads. It can be flexible to construct meaning through any filmic techniques before introducing the product. Content analyses also reveal that frequencies of different uses of metaphors in ads for search products and experience products are not random by chance. That is, metaphors are employed in different ways to advertising different types of products. Search products are often associated with features-highlighting metaphors, whereas experience products are often associated with needs-highlighting metaphors. Considering the relatively more concrete and objective attributes of search products, it might be easier to advertise its properties than experience products, which are more abstract and subjective. The associations reflect prominent patterns from the real world ads, which brings ad designers an overall referential picture of metaphors' design. Nevertheless, it remains to be examined with regard to the extent to which the patterns of associating different uses of metaphors and product types are effective from the perspective of viewers.

4.7. Chapter Conclusion

This chapter has aimed at exploring the uses of creative metaphors systematically with consideration of its manifestation and types of product. Taking a perspective from cognitive pragmatics, the analysis of how metaphor behaves in mass communication has benefited from the theoretical lens of RT. To summarise, as a type of ostensive communication which is normally carried out with a strong purpose, video ads can be regarded as the manifestation of how designers intend to attract their envisaged audience. Different from face to face communication, mass communication can hardly

alter the stimuli or content that they produce in real time. What they have to consider is how to make their stimuli as relevant as possible for a wider audience. Creative metaphors have been found as a typical strategy to pack information in video ads and a systematic analysis of it can start with explicatures conveyed by observable multi-sensory elements in video ads and moves to implicatures that could be derived from mappings and choices of sources for a particular product or brand under a specific culture. Although some explicatures are salient to the general public, it is still up to the individual to derive the relevance based on their personal experience. The communicative intention is much easier to be derived than the intensive intention for a video ad, as an ad always reveals its ultimate purpose at the end but it is up to the viewer to decide how much attention they would like to pay on the content. Applying RT into video ads also points out possible explanations for existing issues in researching figurative rhetoric in the multimodal discourse, where the metaphoric complex is experiencing methodological challenges for reliable identification (Pérez-Sobrino, 2017; Pérez-Sobrino et al., 2019). Possible solutions might be found considering the extent to which some rhetorical figures manifest at the explicatures level which might undergo fewer variances than implicatures.

The statistical examinations have pointed out how creative metaphors can be used differently to assist in advertising when the product type changes. The metaphor signals have been found to vary significantly across different metaphor uses but not across product types, which implies that different types of products had approximately equal chances to exploit signals in metaphor design. These findings from real-world ads present an overview of potentially effective metaphor manifestation and uses for different types of products, which might reflect perspectives from ad designers. Nevertheless, the extent to which such associations can be perceived to be effective

from the perspective of the audience can never be revealed with only discourse analysis. On the one hand, the relevance of an ad is up to individual experience and judgements. On the other hand, too many variables from real-world ads constrain the strengths of analysis towards revealing potential effectiveness when comparing metaphor uses for a certain product. Interpreting the dimensions of effort and effect from RT based on qualitative analysis can hardly generate valid and replicable results for the public. Therefore, the enquiry towards whether ads with creative metaphors are effective or not can only be addressed with experimental studies which control certain variables for minimising the variances and collect data from the general public. Chapter 5 is such a survey-based experiment that investigates the effectiveness of creative metaphors in video ads with empirical evidence.

Chapter 5. The Effectiveness of Creative Metaphors in Video Ads

5.1. Chapter Introduction

This chapter addresses the extent to which creative metaphors effectively help advertising products in video ads, regarding influences on perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention, which are of theoretical interest when it comes to decision making for consumers (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013; Jeong, 2008; Kim et al., 2012; McQuarrie & Mick, 1999). Since the majority of such research in marketing-related field were carried out on print ads, the extent to which creative metaphors in video ads contribute to the effectiveness of advertising remains underexplored until this study. This could be due to the high complexity to control variables in moving images and the limited theoretical development for creative metaphors in such a genre. This thesis has explored crucial characteristics of creative metaphors when they assist in advertising in Chapter 3 and 4, particularly the diverse manifestation and flexible uses for different types of products, laying the ground for designing experimental stimuli that replicate real-world ads.

Carrying out an experimental study, in turn, provides empirical evidence for postulations from discourse analysis, verifying claims generated from observational data. For instance, it has been detected that in real-world ads, search products often exploit features-highlighting metaphors and supporting metaphors to advertise properties of a product rather than using needs-highlighting metaphors to reinforce consumers' needs. The extent to which the frequently occurring pattern outperforms other patterns can only be judged by viewers under a controlled situation. More

importantly, the frequent occurrence of creative metaphors in real-world video ads does not assert that ads with creative metaphors are perceived to be more effective than non-metaphorical ads. Experimental studies help address the theoretical assumptions from an empirical perspective.

In this chapter, I report a survey-based experimental study with the sequential explanatory design, where ratings from viewers ($N = 299$) on ads under six conditions are collected first to examine the extent to which creative metaphors contribute to advertising video ads, followed by semi-structured interviews that enable viewers to elaborate their reasons for scoring different ads and report their understanding and experience towards ads in different conditions. I also carry out an exploratory Skin Conductance Analysis (Boucsein, 1992; Dawson et al., 2007; Tay, 2019) by measuring Electrodermal activities (Salahshour) of 29 participants when they watch ads in different conditions. Skin Conductance Analysis has been carried out in several Advertising studies to collect non-volitional data of emotional responses (Caruelle, Gustafsson, Shams, & Lervik-Olsen, 2019; Micu & Plummer, 2010). Due to the practical constraints of collecting such data with large sample size, Skin Conductance Analysis is only exploratory in this thesis. To control influences of potential variables and prevent associations with real-world brands, experimental stimuli are constructed on anti-depressant and counselling services which have been seldom advertised in mainland China but have been receiving increasing attention in recent years. The experimental stimuli undergo norming studies prior to being used in surveys.

In this chapter, I first review existing literature and build hypotheses about the effectiveness of creative metaphors in video ads. Then, I introduce details of the methodology, including the design of experiment, stimuli, instruments, participants,

and procedure, followed by statistical tests' results and findings from interviews. I conclude the chapter by summarising the overall insights.

5.2. Literature Review

Research has shown that metaphors assist in advertising by positively influencing viewers' perceptions of ads, including perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention (Ang & Lim, 2006; Burgers et al., 2015; Chang et al., 2018; Delbaere et al., 2011; Pérez-Sobrino et al., 2019). A number of studies have demonstrated how metaphors work differently when the product type changes (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013). However, the majority of findings were gained from print ads as experimental stimuli, leaving the extent to which these findings apply to video ads underexplored. Since video ads enhance viewers' multi-sensory experience, the ways metaphors influence responses to ads can be different from those in print ads.

5.2.1. The Influences of Metaphors on Responses to Ads

Research has found that in print ads, metaphors enhance attitudes towards the ad and purchase intention by mediating perceived complexity and enhancing cognitive elaboration and affective elaboration (Burgers et al., 2015; Jeong, 2008; Kim et al., 2012; Lagerwerf & Meijers, 2008; McQuarrie & Mick, 1996; Mulken, Pair, & Forceville, 2010; Pérez-Sobrino et al., 2019; Phillips & McQuarrie, 2009). When an Ad has an optimal design, processing of which balances the cost of cognitive effort and gain from the elaboration, receivers normally respond with greater ad appreciation and

brand liking. Metaphors can play an important role in achieving the desired effects as a prominent strategy to package information in ads.

Research on the effects of metaphors considers a wide range of metaphorical conditions, such as novel metaphors versus conventional metaphors (Burgers et al., 2015), and visual metaphors with different appeals (Chang et al., 2018; Chang & Yen, 2013; Mulken et al., 2010; Pérez-Sobrino et al., 2019). Since most of these research use print ads as stimuli, the classifications of metaphorical conditions are normally based on their manifestations, such as verbal or pictorial (Delbaere et al., 2011; Jeong, 2008; Kim et al., 2012), being explicit with a big size in depiction or implicit with a small size (Chang & Yen, 2013), a replacement pictorial metaphor or a juxtaposition pictorial metaphor (Chang et al., 2018). The focus on the manifestation of metaphors might be underpinned by the significance of perceived complexity to ad comprehension and appreciation. Complexity refers to the variety contributed by numbers of elements, similarities of elements, and diverse forms of arranging elements in the rhetorical work (Berlyne, 1970; McQuarrie & Mick, 1996).

Research has divergent findings of the effects of metaphors on perceived complexities (Burgers et al., 2015; McQuarrie & Mick, 1996; Mulken et al., 2010; Pérez-Sobrino et al., 2019). Metaphorical print ads in business-related research were generally perceived to be more complex than literal print ads (Chang et al., 2018; Chang & Yen, 2013; Phillips & McQuarrie, 2004, 2009). A metaphorical ad could be effective when metaphors were comprehensible by individuals, as resolving the puzzles released tension and generates pleasure (Phillips & McQuarrie, 2009). However, if understanding a metaphor cost too much effort or if the metaphor was too difficult to make sense, the ad was at the risk of generating negative attitudes (McQuarrie & Mick,

1999). Research has shown that comprehension and appreciation of ads follow an inverted U-curved relationship, where the intermediate difficulty in comprehension results in better appreciation than both too easy and too difficult conditions (McQuarrie & Mick, 1999, 2003; Mulken et al., 2010; Phillips, 2000). Metaphorical ads were generally rated as more complicated than literal ads, but received better scores of attitude and purchase intention (McQuarrie & Mick, 1999, 2003; Mulken et al., 2010). The explanations for the effects of metaphors in these research rooted in the extra effort spent on working out puzzles created by metaphors, which were defined as artful deviations in this paradigm (McQuarrie & Mick, 1996, 1999).

The equivalent linguistic phenomena of artful deviations are termed as novel metaphors which are processed by comparisons. The Career of Metaphor Theory (Bowdle & Gentner, 2005) claimed that novel metaphors will be gradually conventionalised after the invention and be processed by categorizations rather than comparisons. Empirical evidence showed that people automatically understood the metaphorical meaning without accessing the literal meaning first (Raymond W Gibbs, 2006; Raymond W Gibbs et al., 1997; Raymond W Gibbs & Chen, 2018). In the context of advertising, Burgers et al. (2015) demonstrated that conventional metaphors in texts decreased the perceived complexity of print ads but still yielded higher ratings of creativity and ad appreciation than literal ads. Findings from Pérez-Sobrino et al. (2019) illustrated that the ads with complexed figurative operations, such as metonymic chain, metaphonymy, and metaphoric complex, were comprehended faster than ads with simple figurative operations, such as metaphor and metonymy, regardless of the cultural background of participants. These divergent findings highlight the diverse possibilities brought by metaphors regarding influences on perceived complexity. That is, an effective metaphor may not necessarily increase perceived complexity of the ad but can

still generate favourable responses toward the ad.

The aforementioned possibility of decreasing perceived complexity by metaphors are supported by a few large-scale research on Dutch TV commercials (Enschot et al., 2010; van Enschoot & Hoeken, 2015). Systematic content analyses of a large scale of TV commercials ($N = 200$) illustrated that rhetorical tropes which were predominantly investigated in print ads were also prevalent in TV ads. Different from rhetorical tropes in print ads which seldom had anchoring information to assist in the intended meaning, the majority of rhetorical tropes in TV ads provided anchoring information, making the rhetorical meaning transparent (Enschot et al., 2010; van Enschoot & Hoeken, 2015). Data of Consumer responses collected from online surveys convergently demonstrated that rhetorical tropes in TV commercials were easy to understand and received greater ad appreciation (Enschot et al., 2010; van Enschoot & Hoeken, 2015). But the likability of commercials with rhetorical tropes increased when the comprehensibility increased, suggesting that highly difficult rhetorical tropes might lead to low ad appreciation (Enschot et al., 2010; van Enschoot & Hoeken, 2015). While non-experimental data were analysed, these studies probe into rhetorical tropes in video ads by systematically investigating their occurrence and effects. This thesis works on details of the effect of metaphor as a prominent trope in video ads. Due to the divergent findings in the literature, hypotheses about perceived complexity and cognitive elaboration are formed as:

H1: Metaphor conditions will have an influence on (a) perceived complexity and (b) cognitive elaboration of video ads.

Research on the emotional influence by metaphors in commercial advertising is comparatively limited (Jeong, 2008; Kim et al., 2012), although discussions on how metaphors shape emotional expressions and engage human communications (Boeynaems, Burgers, Konijn, & Steen, 2017; Citron & Goldberg, 2014; Tay, 2019; Tay, Huang, & Zeng, 2019) and how emotional responses relate to effective advertising are not scarce (Caruelle et al., 2019; Holbrook & Batra, 1987; Micu & Plummer, 2010; Poels & Dewitte, 2006). Discourse analyses concern how metaphors are exploited to communicate various types of emotional experiences across different cultures (Geeraerts & Grondelaers, 1995; Lakoff & Kövecses, 1987). Cognitive linguists claimed that people can consciously communicate emotional experience by using metaphors (Kövecses, 2000). For instance, Conceptual Metaphors such as EMOTIONS AS TEMPERATURE underpin the linguistic expressions, such as *I am boiling with anger; I am cold-hearted; That leaves me cold* (Kövecses, 2000). Concepts of emotions involved in discourse analyses under cognitive linguistic framework include anger, fear, happiness, sadness, love, lust, pride, shame, and surprise (Kövecses, 2000). Empirical evidence also showed that metaphorical communication in psychotherapy elicited more elaboration and greater intensity of emotional responses than talks without metaphors (Tay, 2019; Tay et al., 2019).

Research in marketing-related context put much more effort in how to capture emotional responses with replicable and accurate measures (Caruelle et al., 2019; Holbrook & Batra, 1987; Hupp, Gröppel-Klein, Dieckmann, Broeckelmann, & Walter, 2008; Micu & Plummer, 2010; Poels & Dewitte, 2006; Weibel et al., 2019). Approaches to investigating emotional responses include self-report measures, such as verbal self-report (Olney, Holbrook, & Batra, 1991; Russell & Mehrabian, 1977), and visual self-report (Morris, 1995; Morris & McMullen, 1994), and autonomic measures, such as

tracking heart rate (Lang, 1990), facial expressions (Derbaix, 1995), and skin conductance (LaBarbera & Tucciarone, 1995). There are intrinsic differences between self-report measures and autonomic measures. Instruments, such as Pleasure, Arousal, and Dominance (PAD) (Olney et al., 1991; Russell & Mehrabian, 1977) and Self-Assessment Manikin (Lang, 1990; Morris, 1995), are developed as self-report measures, which are specialized in measuring the types of emotions by conscious self-evaluations. Autonomic measures, however, capture the unconscious moment to moment emotional responses by physical signals (Caruelle et al., 2019). Skin conductance is a useful way to measure arousal when researching emotional responses towards ads but the application of it with careful design is scarce (Poels & Dewitte, 2006). While the majority of research adopts a measure consistently in their research trajectory for methodological convenience, a combination of self-report measures with autonomic measures are promising to reveal nuanced insights into emotional responses (Micu & Plummer, 2010; Tay, 2019). Such a research has demonstrated that the physiological, self-report, and symbolic measures yielded complementary findings when measuring emotions towards TV ads (Micu & Plummer, 2010).

Another direction of exploring emotions in ads is the responses towards message appeals, with attention on rational appeals versus emotional appeals (Gong & Cummins, 2020; Hornik, Ofir, & Rachamim, 2017; Kang & Lee, 2019). Emotional appeals in advertising generally include positive appeals (e.g. warmth, friendship, or love) or negative appeals (e.g., guilt, shame, or fear), which are considered to be effective in strengthening responses to ads (Bolls, Lang, & Potter, 2001; Moore & Harris, 1996; Reeves, Newhagen, Maibach, Basil, & Kurz, 1991). Experimental data illustrated that consumers tend to show better attitude towards TV ads with strongly positive messages than ads with strong negative messages and ads with non-emotional ads (Moore &

Harris, 1996). TV ads with negative appeals elicited less attention than positive appeals but were remembered better (Moore & Harris, 1996). Nevertheless, fear appeals in social marketing of health communication have received considerable scholarly attention with divergent claims and empirical findings (Chen, 2016; LaTour & Pitts, 1989; Tannenbaum et al., 2015). Fear appeals are often used in health communication ads to persuade viewers to change their behaviours by illustrating potential dangers and harms with fearful messages, such as uses of images of impeded lungs in ads of cigarettes, or showing car crash scenes in road-safety ads (Dillard, Plotnick, Godbold, Freimuth, & Edgar, 1996; Lewis, Watson, & White, 2008). Research claimed that fear appeals in ads were not effective in terms of message appreciation and behaviour changes (O'Neill & Nicholson-Cole, 2009) and they were even harmful when viewers' psychological defence was activated (Kessels, Ruiter, Wouters, & Jansma, 2014). A meta-analysis on 127 empirical studies, however, revealed that fear appeals could positively influence attitude, intention, and behaviours, especially when efficacy statements were included in ads (Tannenbaum et al., 2015). An efficacy statement assured viewers by either claiming their capability of adopting recommended actions or depicting desirable outcomes from the recommended actions (Tannenbaum et al., 2015).

Metaphors in Ads could also influence emotional responses, as demonstrated by a few studies that affective elaboration were enhanced as well as cognitive elaboration by metaphors in print ads (Jeong, 2008; Kim et al., 2012). Theoretical claims underpinning these studies highlighted the pleasure brought by making sense of metaphors (McQuarrie & Mick, 1996, 1999). However, this thesis argues that the mechanisms underlying the emotional responses towards metaphors in video ads are different from those in print ads. On the one hand, the pleasure of resolving puzzles

creative by metaphors in video ads might not be as pivotal as those in print ads, due to assistance of rich contextual anchoring information. On the other hand, metaphors that highlight the needs of consumers may not necessarily show in positive appeals. Content analysis in Chapter Four has illustrated that a major use of metaphor in video ads is to create a problematic scenario where the product is designed as the solution at the last stage of an Ad. Another major use of metaphor is to highlight features of products, which are normally in positive appeals. That is, metaphors can reinforce negative appeals as well as positive appeals in video ads. The negative appeals reinforced by metaphors in video ads discussed in this thesis are different from fear appeals in health communication ads in terms of purposes. Negative appeals in commercials aim to assist in advertising the products or services by arousing empathy of customers, whereas fear appeals in health communication aim to prohibit harmful actions. We can postulate that the reinforced negative emotions are helpful in generating desires for the products/services with a good attitude towards the ads when introducing products is deemed as a type of efficacy statements. Due to the divergent findings of people's preference for emotional appeals in ads (Chen, 2016; LaTour & Pitts, 1989; Moore & Harris, 1996; O'Neill & Nicholson-Cole, 2009; Reeves et al., 1991; Tannenbaum et al., 2015), this thesis hypothesizes that metaphorical conditions can enhance affective elaboration, but the issue of which type of metaphors is more effective remains unclear.

H2: Metaphor conditions will have an influence on affective elaboration of video ads.

5.2.2. The Influences of Product Types on Responses to Ads

Product type is a crucial variable when investigating effective advertising, as consumers look for different information when product types change (Franke, Huhmann, & Mothersbaugh, 2004; Guiltinan, 1987; Huang et al., 2009). Categorization of product types can be various considering the millions of products existing in the real world. The economics of information (EOI) (Bloom, 1989; Ford et al., 1990; Rubin, 2000) focuses on the information interplay between consumers and marketers, as effective advertising lies on the interaction between advertising messages from marketers and information accessible to consumers. Products under EOI are distinguished by how consumers evaluate critical attributes. A search product has predominately attributes that can be produced with a standard and be evaluated before purchase (Bloom & Reve, 1990; Guiltinan, 1987; Jiménez & Mendoza, 2013), such as paper towels, masks, and protective suits. An experience product can only be evaluated effectively after the purchase of it (Bloom & Reve, 1990; Guiltinan, 1987; Jiménez & Mendoza, 2013), such as haircuts, restaurant meals, and hotel services. Search products are more tangible and objective. Research claimed that the Internet has blurred distinctions between search products and experience products by enabling consumers to collect information and reviews (Huang et al., 2009; Klein, 1998). Empirical research showed that consumers did spend a similar amount of time in looking for information to evaluate both types of products before purchase (Huang et al., 2009). However, differences were revealed in terms of how information about the two types of products was evaluated (Huang et al., 2009; Jiménez & Mendoza, 2013). Consumers focused more on the depth of reviews than the number of reviews for experienced products (Jiménez & Mendoza, 2013). Reviews including detailed information of a search product were associated with good credibility, whereas reviews showed consensus on evaluating an experience

product were deemed as credible (Jiménez & Mendoza, 2013). These empirical findings convergently support the distinction between search product and experience product in contemporary marketing. Ads for experience products, which contained less information about concrete and tangible attributes due to the idiosyncratic nature of experience, were perceived to be more abstract than ads for search products. Hypothesis about the product type is formed as:

H3: Product types will have an influence on (a) perceived complexity and (b) cognitive elaboration of video ads.

5.2.3. Influences of Metaphor Types and Product Types on Responses to Ads

The interaction effects of metaphors and product types are of interest in a number of marketing-related research (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013; Pérez-Sobrino, 2017), where the effect of metaphorical appeals varies across product types. Research has elucidated that metaphors generally enhanced perceptions of sophistication and excitement of a brand (Ang & Lim, 2006). Products with tangible and concrete attributes were generally considered less sophisticated and exciting (Ang & Lim, 2006). The use of metaphors, therefore, will benefit the search products by enhancing emotional responses and adding perceptions of sophistication and excitement. Uses of metaphors for experience products, however, should be more cautious, as the experience products were generally perceived to be sophisticated and less sincere (Chang et al., 2018). Information about the product itself helps address the interest of consumers. Research illustrated that placing the product next to the metaphor in print ads was more effective for experience products than for search products (Chang

et al., 2018). That is, appropriate using of metaphors for different types of products increases the effectiveness of print ads.

H4: There will be an interaction effect between metaphor conditions and product types on (a) perceived complexity, (b) attitudes towards the ad, and (c) purchase intention.

Considering the tangible attributes of search products, features-highlighting metaphors for search products invite receivers to compare two concrete concepts. Features-highlighting metaphors for experience products, however, have more chances to exploit a more concrete concept to understand an abstract concept. Since needs-highlighting metaphors emphasise the problem to be resolved, the concreteness of target and source can be more flexible than features-highlighting metaphors. The concreteness of target and source is crucial to understand metaphors (Gentner, 1983; Glucksberg, McGlone, & Manfredi, 1997; Katz, 1989). Studies have found that participants tended to employ personal experience to interpret metaphors and gave higher ratings to metaphors with an abstract target in terms of similarities between the target and the source (Wiemer-Hastings & Xu, 2005). This could be due to similarities introduced between two concrete concepts had objective attributes that restrict inferring similarities (Xu, 2010). However, similarities of two abstract concepts were tended to be extracted through thematic relations, including spatial proximity, causal relation, and temporal contingency (Barsalou & Wiemer-Hastings, 2005). Research also found that people derived more similarities for metaphors with abstract topics than metaphors with concrete topics (Xu, 2010). When problems to be resolved in an ad or needs to be addressed by a product/service is abstract, needs-highlighting metaphors tend to have an abstract target. This thesis, therefore, postulates that in video ads, metaphors with an abstract concept will elicit more cognitive elaboration than metaphors with a concrete concept.

H5: There will be an interaction effect between metaphor conditions and product types on cognitive elaboration of video ads.

To summarise, the existing literature has pointed out potential effects of metaphor conditions and product types on the effectiveness of ads, regarding perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention (Ang & Lim, 2006; Burgers et al., 2015; Chang et al., 2018; Chang & Yen, 2013; Jeong, 2008; Kim et al., 2012; Mulken et al., 2010; Pérez-Sobrino et al., 2019). Nevertheless, the majority of the literature was conducted on print ads, leaving to what extent the findings can be generated to video ads unknown. Since video ads have intrinsic differences with print ads results from differences between temporal discourse and static discourse, this thesis postulates that mechanisms underlying the effectiveness of creative metaphors are different from those underpinning metaphors in print ads. This thesis, therefore, designed a within-subject experiment to (1) examine the effectiveness of creative metaphors in video ads, (2) exploring viewers' experience of creative metaphors under different conditions for different types of products. Research questions to be addressed are:

- (a) To what extent do creative metaphors influence the effectiveness of video ads for different types of products?
- (b) How do creative metaphors influence the experience of viewers?

Hypotheses to address the effectiveness of creative metaphors are:

H1: Metaphor conditions will have an influence on (a) perceived complexity and (b) cognitive elaboration of video ads.

H2: Metaphor conditions will have an influence on affective elaboration of video ads.

H3: Product types will have an influence on (a) perceived complexity and (b) cognitive elaboration of video ads.

H4: There will be an interaction effect between metaphor conditions and product types on (a) perceived complexity, (b) attitudes towards the ad, and (c) purchase intention.

H5: There will be an interaction effect between metaphor conditions and product types on cognitive elaboration of video ads.

5.3. Method

Following an explanatory sequential research design, a 3 (metaphor uses: features-highlighting metaphors versus needs-highlighting metaphors versus literal) x 2 (product types: search products versus experience products) within-subjects experiment was conducted. Quantitative data were collected from surveys and Skin conductance to examine the effectiveness of metaphors. Skin conductance response, also known as electrodermal responses, refers to the phenomenon that the skin conducts electricity momentarily while responding to physiologically arousing stimuli. It has been adopted in advertising research as a type of autonomic measures of emotional response (Caruelle et al., 2019; Micu & Plummer, 2010). Qualitative data were collected from semi-structured interviews to investigate the experience of metaphors. The literal condition of ads works as the control for comparing the effects of uses of metaphors on perceived complexity, cognitive elaboration, affective elaboration, attitudes towards ads, and purchase intention.

5.3.1. Stimulus Development

Stimulus materials were six video ads with fictitious brands about anti-depressants and counselling services in Chinese. The choice of products for depression was motivated by two considerations. First, this type of products had been seldom advertised in China, which reduced chances that participants associated the experimental stimuli with brands and products in real life. Second, the mental health issue of depression had been receiving increasing attention in mainland China since 2016 when the State Council issued a policy document that specifically took into account common mental health disorders such as depression and anxiety, and called for a multi-sectoral approach to addressing mental health disorders. In the same year, the national channel published a public video ad themed as *为D篇* (Depression)³⁸, calling for attention to depression. In 2019, Hua Chenyu, a Chinese singer who owns 36.32 million fans on Weibo (a social media platform in China which is similar to Twitter), released a song named *好想爱这个世界啊* (I'm Here)³⁹, aiming at arousing awareness of caring for people with depression. The effort on increasing attention to depression from multiple communities signalled that there would be increasing market potential for products treating depression in mainland China. Stimulus materials were created by an ad maker from an Ad company, following requirements about controlling details given by the researcher.

³⁸ <https://v.qq.com/x/page/c03921modxo.html>

³⁹ <https://www.youtube.com/watch?v=xqA3dfsqli3U>

Table 5.1 provided an overview of six conditions. Stimulus design was guided by findings from content analyses of creative metaphors in Chapter Four, including the dynamic traits of creative metaphors, associations between signals and uses, relationships between uses and product types. Details like ad content, lengths of videos, background music, narrators, and images were controlled to ensure the comparability of six conditions. Messages delivered by the verbal texts included a sentence about depression, a sentence about the product, and a punchline. Similar pictures were used under each type of product. The intervention lay at the metaphoricity of ads. In the condition of needs-highlighting metaphors, depression was depicted metaphorically through interactions of spoken language, written language, and moving images. In the condition of feature-highlighting metaphors, the product was introduced metaphorically, through interactions of spoken language, written language, and moving images. Metaphors about depression and the associated solutions were underpinned by conceptual metaphors DEPRESSION IS A DARK MONSTER, DEPRESSION IS A DARK CONFINING SPACE (Forceville & Paling, 2018) and representation of solutions to depression (Pan & Li, 2019, April). Table 5.2 displays the outline of the intervention. Punchlines for each type of product and associated images and background music were the same. A detailed design of specific elements, such as spoken text and pictures, can be found in Appendix B.

Table 5.1 An Overview of Six Conditions

	Search product	Experience product
	Name of the medicine: Lexin	Name of the service: Xinle
	Ad 1	Ad 4
Features-	Features-Highlighting Metaphor:	Features-Highlighting Metaphor:
Highlighting	<i>LEXIN IS A FRIEND</i>	<i>XINLE IS SUN</i>
Metaphors	Supporting Metaphors:	Supporting Metaphors:
	<i>SEROTONIN IMPROVEMENT IS ENCOURAGEMENT</i>	<i>COGNITIVE BEHAVIOUR THERAPY IS SUNSHINE</i>
	<i>ENHANCING SIGNALS BETWEEN CELLS IS CONSOLATION</i>	<i>DIALECTICAL BEHAVIOUR THERAPY IS SUNSHINE</i>
Needs-	Ad 2	Ad 5
Highlighting	Needs-Highlighting Metaphor:	Needs-Highlighting Metaphor:
Metaphors	<i>DEPRESSION IS A MONSTER</i>	<i>DEPRESSION IS LABYRINTH</i>
Literal	Ad 3 Non-metaphorical	Ad 6 Non-metaphorical

Table 5.2 Outline of the Intervention

Ads	Problem	Product	Punchline
Ad1 (Medicine)	Literal	Features-Highlighting Metaphor: <i>LEXIN IS A FRIEND</i> Supporting Metaphors: <i>SEROTONIN IMPROVEMENT IS</i> <i>ENCOURAGEMENT</i> <i>ENHANCING SIGNALS BETWEEN CELLS</i> <i>IS CONSOLATION</i>	Literal
Ad2 (Medicine)	Needs-Highlighting Metaphor: <i>DEPRESSION IS A MONSTER</i>	Literal	Literal
Ad3 (Medicine)	Literal	Literal	Literal
Ad4 (Service)	Literal	Features-Highlighting Metaphor: <i>XINLE IS SUN</i> Supporting Metaphors: <i>COGNITIVE BEHAVIOR THERAPY IS</i> <i>SUNSHINE</i> <i>DIALECTICAL BEHAVIOUR THERAPY IS</i> <i>SUNSHINE</i>	Literal
Ad5 (Service)	Needs-Highlighting Metaphor: <i>DEPRESSION IS</i> <i>LABYRINTH</i>	Literal	Literal
Ad6 (Service)	Literal	Literal	Literal

These video stimuli underwent several adjustments based on suggestions from a pilot study where 8 native speakers of Chinese (excluded from the norming study and the main study) viewed them and gave suggestions. Adjustments included aspects of duration (which had been shortened from 21 seconds to 16 seconds), consistency of

filmic techniques, and volume and pace of background music. The final version of stimulus underwent a norming study, where 20 native speakers rated the six videos for understandability (UND), metaphoricity (MET), naturalness (NAT), familiarity (FAM), and similarity (SIM) along a 7-point Likert Scale (Cardillo, Schmidt, Kranjec, & Chatterjee, 2010). UND Since product type (PT) is a variable under investigation, the degree of experience/search value was included for two types of products (Chang et al., 2018). Understandability is also called interpretability, which means how easy a clear meaning can be derived. Metaphoricity refers to the extent to which an ad is metaphorical. Naturalness refers to the likelihood that a native speaker might spontaneously produce an ad in a particular manner. Familiarity is a factor that accounts for the novelty of stimuli, i.e. the extent to which the stimuli is created in novel ways that are different from ads in the public. Similarity refers to the extent to which the core messages conveyed by different stimuli are the same. Comparable experimental stimuli have to be significantly different in terms of metaphoricity but non-significantly different in terms of Experimental stimuli with good validity shall be significantly different in dimensions of understandability (UND), naturalness (NAT), and familiarity (FAM). The mean score for similarity (SIM) has to be 5.0 or above along a 7-point scale (Cardillo et al., 2010; Citron & Goldberg, 2014; Tay, 2019).

Results from the norming study showed that the stimuli were equivalent in dimensions of UND, NAT, FAM, and SIM, but differ in MET and PT. Table 5.3 displayed the results for UND, NAT, FAM, and MET across six conditions (One-Way Repeated Measures ANOVA). Statistical significance was found in ratings of metaphoricity, $F(5, 120) = 32.6, p < .001, \eta_p^2 = .58$. Post-hoc tests illustrated that literal conditions were perceived to be less metaphorical than metaphorical conditions for both search products and experience products, $p < .001$. Ratings of SIM was above 5.0, ($M=$

6.14, $SD = 0.98$). An anti-depressant framed as search product ($M = 4.62$, $SD = 2.16$) was rated higher on the scale of experience/search value (i.e., 1 = ‘can be determined only after purchase’ to 7 = ‘can be easily determined prior to purchase’) than an counselling service framed as an experience product ($M = 1.9$, $SD = 1.09$) at a significant level ($t(20) = 5.11$, $p < .001$, $d = 1.59$) (see Table 5.3).

Table 5.3 Statistics for Norming Study

	UND	NAT	FAM	MET
<i>P</i> -values	$p = .87$	$p = .44$	$p = .49$	$p < .001$
Ad1 Search Product with Features-Highlighting Metaphors	$Mean = 6.55$, $SD = 0.92$	$Mean = 5.76$, $SD = 1.22$	$Mean = 5.57$, $SD = 1.33$	$Mean = 4.11$, $SD = 1.45$
Ad2 Search Product with Features-Highlighting Metaphors	$Mean = 6.38$, $SD = 0.96$	$Mean = 5.29$, $SD = 1.49$	$Mean = 5.67$, $SD = 1.11$	$Mean = 4.60$, $SD = 1.10$
Ad3 Search Product Without Metaphors	$Mean = 6.31$, $SD = 0.96$	$Mean = 5.26$, $SD = 1.32$	$Mean = 5.48$, $SD = 1.29$	$Mean = 2.21$, $SD = 1.11$
Ad4 Experience Product with Features-Highlighting Metaphors	$Mean = 6.40$, $SD = 1.02$	$Mean = 5.67$, $SD = 1.24$	$Mean = 5.26$, $SD = 1.39$	$Mean = 5.02$, $SD = 1.31$
Ad5 Experience Product with Needs-Highlighting Metaphors	$Mean = 6.60$, $SD = 0.87$	$Mean = 5.67$, $SD = 1.20$	$Mean = 5.62$, $SD = 1.32$	$Mean = 5.63$, $SD = 1.20$
Ad6 Experience Product Without Metaphors	$Mean = 6.26$, $SD = 1.17$	$Mean = 5.05$, $SD = 1.53$	$Mean = 6.05$, $SD = 1.12$	$Mean = 2.00$, $SD = 1.00$

5.3.2 Measures

Dependent variables were perceived complexity, cognitive elaboration, affective elaboration, attitude towards the ad, and purchase intention. These variables were measured by a set of Likert scales (see Table 5.4). All items were original in English and were translated into Mandarin in the survey. The author did the translation and a bilingual researcher who is native in English checked the translation to ensure the equivalence of meaning.

Perceived complexity: Items about perceived complexity from Mulken et al. (2010) were used to measure perceived complexity. Participants rated on a seven-point scale in terms of to what extent they agree with the statements regarding the stimuli.

Cognitive elaboration: Items of cognitive elaboration were incorporated from Kim et al. (2012). The two, seven-point scale measures the degree of elaboration rather than qualitative details of content, which is not the focus of the design.

Affective elaboration: The measure of affective elaboration in surveys was interested in the intensity/degree of emotional arousal rather than a specific type of emotions. Considering the influence of participant fatigue that might arise from watching six video ads, the items of measures have to be minimized. Therefore, we use two items from Kim et al. (2012) which aim at measuring the degree of elaboration, rather than the 18-items PAD emotional scale by Mehrabian and Russell (1974). Apart from the survey questions which measure the conscious reflection of emotional responses, equipment for measuring Electrodermal activity (Salahshour) was exploited to measure the non-volitional skin conductance responses. Skin conductance refers to the ability of

the skin to conduct electricity during physiological arousal. It is a useful method to detect affective responses in advertising (Caruelle et al., 2019).

Attitude towards the ad: Participants were asked to comment the ad on three, seven-point scale questions. They rated to what extent they agree that the ad is ‘good’, ‘favourable’, and ‘pleasant’ (MacKenzie & Lutz, 1989).

Purchase intention: The three, seven-point disagree/agree items developed by Maheswaran and Meyers-Levy (1990) were used to measure purchase intentions. Three items are the worthiness of the product, the willing of purchasing it and the probability of recommending it to family or friends.

After the survey, semi-structured interviews were designed to explore the understanding and experience of video ads in different conditions. Questions were asked regarding the content of cognitive elaboration, directions of affective elaboration, explanations for ratings, and experience of metaphors.

Table 5.4 Variables and Measures in Surveys

Variables	Measures	Cronbach's α
Perceived Complexity	1. I think this ad is clear and straightforward 2. I think this ad is easy to understand (Mulken et al., 2010)	$\alpha = .89$
Cognitive Elaboration	3. I have many thoughts in response to the ad 4. The ad elicited lots of thinking (Kim et al., 2012)	$\alpha = .94$
Affective Elaboration	5. I had many feelings in response to the ad 6. The ad elicited a lot of feelings (Kim et al., 2012)	$\alpha = .92$

Attitudes Towards the Ad	7. This ad is good	$\alpha = .94$
	8. This ad is favourable	
	9. This ad is pleasant	
	(MacKenzie & Lutz, 1989)	
Purchase Intention	10. This product is of worth	$\alpha = .92$
	11. I'm willing to buy this product	
	12. I'm willing to recommend this product to my family or friends	
	(Maheswaran & Meyers-Levy, 1990)	

5.3.3. Participants and Procedure

Table 5.5 An Overview of Age and Gender

Age		Gender		Valid	Excluded	Total
		Male	Female			
Online Surveys	Mean = 25.9, SD = 7.69	91	208	299	24	323
EDA & Interview	Mean = 25.3, SD = 3.68	9	20	29	3	32

Table 5.5 showed an overview of the age and gender of participants in this experiment. A total of 323 native speakers of Chinese took part in the experiment through a convenience sampling. The author and five of her friends together forwarded links of online surveys to their colleagues, friends, and students. There were six versions of surveys in total and each person managed to collect data for one version. The six versions of surveys differed in the sequence of videos (see Table 5.6), as a result of controlling the order effects. Links of the six surveys can be found in Appendix C. Each participant watched all ads under six conditions following a sequence randomly selected from A to F. By adopting a balanced Latin Square shown in Table 5.6, every single condition of stimulus follows every other condition once.

Table 5.6 The Balanced Latin Square for Six Conditions

Subjects	The Sequence of Six Conditions					
A	1	2	6	3	5	4
B	2	3	1	4	6	5
C	3	4	2	5	1	6
D	4	5	3	6	2	1
E	5	6	4	1	3	2
F	6	1	5	2	4	3

The survey experiments were carried out through an online platform. The first part of this survey addressed the information of this research and the consent of participating in the research. The second part was the experimental part, where each video ad was followed by 12 items of the 7-point Likert scale. The last part was to obtain compensation of 20 RMB through the online platform after checked by researchers. Surveys that did not obtain consent or displayed the same answer for all questions were excluded. In the end, there were 299 valid surveys collected.

The EDA study was exploratory due to the practical constraints of measuring every participant. In this study, 32 participants took part in the EDA study and semi-structured interviews. The EDA device was set at 40 Hz with two Ag/AgCL electrodes to measure skin conductance level (SCL) and response (SCR) continuously. Participants received standard instructions while wearing the device on their index finger of the non-dominant hand, such as normal breathing and avoiding excessive movements of the hand. They had a 2-minute habituation period before starting the experiment. The participants first watched six video ads following any sequence in Table 5.6 while wearing the device. There was a break of 30 seconds after each video to minimize the carry-over effect on skin conductance responses. Then they completed the associated

online surveys during which they could watch any video again. Finally, they completed the follow-up interviews. Each of them received 50 RMB as compensations. EDA data from three participants were excluded due to missing value caused by technical problems.

5.3.4 Analysis

Factorial repeated-measures ANOVAs were conducted to examine the main effect of two independent variables (metaphor conditions, product types) and their interaction effect on five dependent variables (perceived complexity, affective elaboration, cognitive elaboration, attitudes towards the ad, and purchase intentions), respectively. Results collected from EDA were first corrected by the equation $SCL_{corrected} = (SCL_{observed} - SCL_{minimum}) / (SCL_{maximum} - SCL_{minimum})$ to ensure that the value reflected a ratio of the person's SCL range (Dawson, Schell, & Filion, 2017; Tay, 2019). The corrected values were analysed by Two-way Analysis of Variance with assumptions checked. Terms of Factorial repeated-measures ANOVA and two-way analysis of variance would be used interchangeably in this thesis. Raw data for statistical analysis could be retrieved from https://osf.io/v7py4/?view_only=6ed558e7da054bd0917cbda9998cd757

Assumptions of two-way repeated ANOVA were checked first. Skewness and Kurtosis suggested that the survey and EDA data distributed approximately normal. Statistical details and histograms would be shown in the section of results of each dependent variable for easier reading (see Section 5.4). Mauchly's Test of Sphericity tested the extent to which the variances of difference between all combinations of related groups were equal. Since the assumptions of sphericity had been violated, Greenhouse-Geisser estimates of sphericity were adopted for correcting degrees of

freedom.

The data were also analysed by estimating a Bayes factor with Bayesian Information Criteria (Wagenmakers, 2007) as a supplementary component to compare the extent to which the data fit the null hypothesis and the alternative hypothesis. Bayesian repeated-measures ANOVAs were carried out on data from surveys and EDA study. Bayesian analysis provides useful statistical evidence for decision-making studies by considering the likelihood ratio of the alternative hypothesis on the given data (Wagenmakers, 2007).

Data collected from the semi-structured interview were transcribed and analyses were guided by Grounded Theory (Charmaz & Belgrave, 2002), exploring the five dimensions of perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention.

5.4 Statistical Results

Hypotheses about the influences of metaphors on perceived complexity, cognitive elaboration, affective elaboration, attitudes towards the ad and purchase intention were tested and reported accordingly based on statistical results.

5.4.1 Perceived Complexity

Table 5.7 and Figure 5.1 show descriptive details about the data for perceived complexity, including ratings for ads in the literal condition for experience products (COMLE), the condition containing needs-highlighting metaphors for search products (COMNS), the condition containing needs-highlighting metaphors for experience

products (COMNE), the condition containing features-highlighting metaphors for experience products (COMFE), the condition containing features-highlighting metaphors for search products (COMFS), and the literal condition for search products (COMLS). These descriptive statistics gave an overview of the range of ratings for each condition regarding perceived complexity and suggested that the distribution of ratings for each condition were normal through values of Skewness and Kurtosis, fulfilling the assumption of normal distribution for a Repeated-Measures ANOVA. Figure 5.2 displays the descriptive plot summarising the trends of perceived complexity across product types and metaphor conditions. The descriptive plot (Figure 5.2) showed the comparison of the mean and the associated standard deviation of each condition.

Table 5.7 Descriptive Statistics of Perceived Complexity

	COMLE	COMNS	COMNE	COMFE	COMFS	COMLS
Valid	299	299	299	299	299	299
Missing	0	0	0	0	0	0
Mean	2.630	2.533	2.600	2.515	2.584	2.441
Std. Deviation	1.286	1.288	1.272	1.257	1.238	1.307
Skewness	0.763	0.680	0.609	0.640	0.726	0.940
Std. Error of Skewness	0.141	0.141	0.141	0.141	0.141	0.141
Kurtosis	0.448	-0.042	-0.057	-0.065	0.404	0.714
Std. Error of Kurtosis	0.281	0.281	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	7.000	7.000	7.000	6.500	7.000	7.000

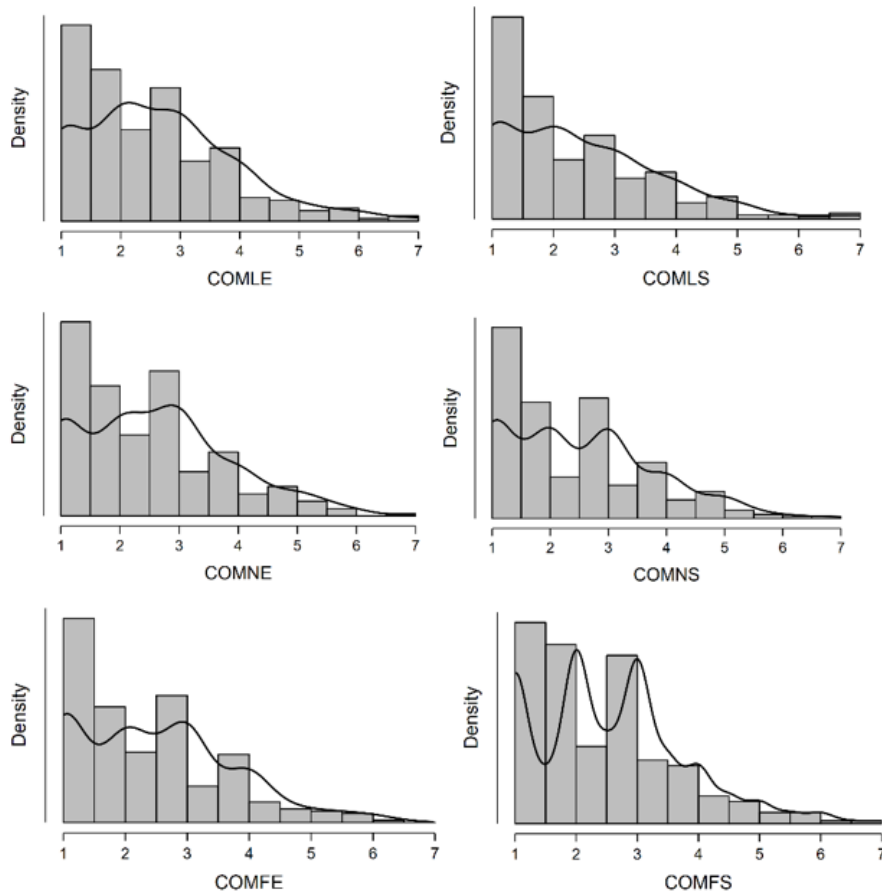


Figure 5.1 Distribution Plots for Ratings of Perceived Complexity

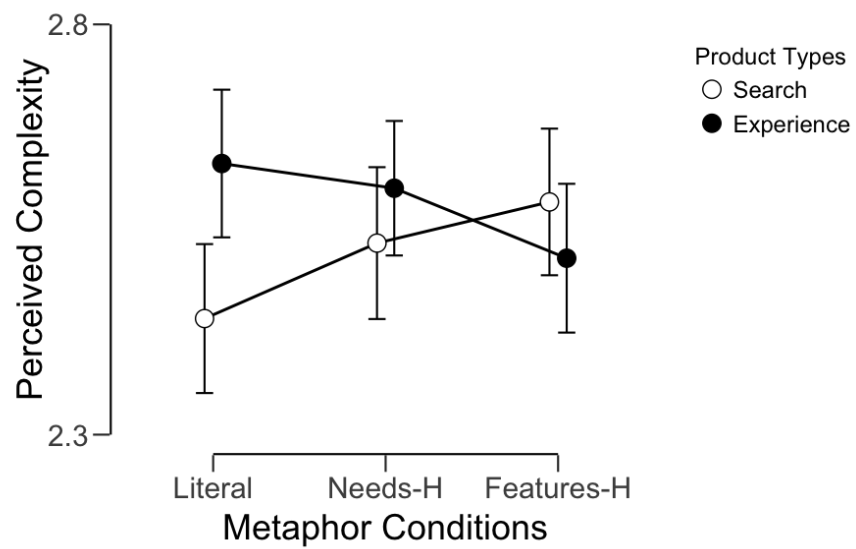


Figure 5.2 Descriptive Plot - Perceived Complexity

Results from Factorial ANOVA test showed a statistically significant interaction effect between metaphor conditions and product types, $F(1.91, 569.69) = 17.09, p = 0.006, \eta_p^2 = .03$, but the main effects of metaphor conditions and product types on perceived complexity were non-significant (see Table 5.8). Simple main effect analysis revealed a statistical significant difference between non-metaphorical ads for search product and non-metaphorical ads for experience product, $F(1, 7.592) = 17.09, p = 0.006, \eta_p^2 = .03$, signalling that non-metaphorical ads for experience product ($M = 2.63, SD = 1.29$) were perceived as more complicated than non-metaphorical ads for search product ($M = 2.44, SD = 1.31$) with a small effect size (see Table 5.9). These results supported H4 (a) that there was an interaction effect between metaphor conditions and product types, but rejected H1(a) and H3(a) by showing that neither main effect of metaphor conditions nor the main effect of product types influenced the perceived complexity.

Table 5.8 Within Subjects Effects - Perceived Complexity

	Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η_p^2
Metaphor Conditions	None	0.288	^a 2.000	^a 0.144	^a 0.282	^a 0.754	^a 0.001
	Greenhouse-Geisser	0.288	^a 1.935	^a 0.149	^a 0.282	^a 0.747	^a 0.001
Residual	None	303.712	596.000	0.510			
	Greenhouse-Geisser	303.712	576.629	0.527			
Product Types	None	1.748	1.000	1.748	2.303	0.130	0.008
	Greenhouse-Geisser	1.748	1.000	1.748	2.303	0.130	0.008
Residual	None	226.169	298.000	0.759			

	Sphericity Correction	Sum Squares	of df	Mean Square	F	p	η_p^2
	Greenhouse- Geisser	226.169	298.000	0.759			
Metaphor Conditions * Product Types	None	4.962	^a 2.000	^a 2.481	^a 3.822	^a 0.022	^a 0.013
	Greenhouse- Geisser	4.962	^a 1.912	^a 2.596	^a 3.822	^a 0.024	^a 0.013
Residual	None	386.872	596.000	0.649			
	Greenhouse- Geisser	386.872	569.686	0.679			

Note. Type III Sum of Squares

^a Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Table 5.9 Simple Main Effects - Product Types-Perceived Complexity

Level of Metaphor Conditions	Sum of Squares	df	Mean Square	F	p
Literal	5.338	1	5.338	7.592	0.006
Needs-H	0.669	1	0.669	0.955	0.329
Features-H	0.703	1	0.703	1.076	0.300

It was detected that metaphors seem to play the role of mediating perceived complexity, as shown in Figure 5.2. For search products, ads with features-highlighting metaphors ($M = 2.58$, $SD = 1.24$) were perceived to be more complicated than ads with needs-highlighting metaphors ($M = 2.53$, $SD = 1.29$) and non-metaphorical ads ($M = 2.44$, $SD = 1.31$). That is, metaphors increased the perceived complexity of ads for search products, making the delivered meaning less transparent than non-metaphorical ads. Features-highlighting metaphors generated higher ratings of perceived complexity than

needs-highlighting metaphors. For experience products, ads with features-highlighting metaphors ($M = 2.52$, $SD = 1.26$) were perceived to be less complicated than ads with needs-highlighting metaphors ($M = 2.60$, $SD = 1.27$) and non-metaphorical ads ($M = 2.63$, $SD = 1.29$). That is, metaphors decreased the perceived complexity of ads for experience products. However, the simple main effects of metaphors at each product level were non-significant, implying that metaphors mediated the perceived complexity, but not at a statistically significant level.

A Bayesian Repeated Measures ANOVA was performed on the data. Instead of suggesting rejecting the null hypothesis or not, Bayesian analysis provides information about how likely the data is in favour of the alternative hypothesis, compared with the null hypothesis. An estimated Bayes factors (null/alternative) for metaphor conditions suggested that the data were 122.44:1 in favour of the null hypothesis, or rather, 122.44 times more likely to occur under a model without the effect of metaphor, rather than a model including it (see Table 5.10). The Bayes factors (null/alternative) for product types suggested that the data were 4.71:1 in favour of the null hypothesis, or rather, 4.71 times more likely to occur under a model without the effect of product types, rather than a model with it. An estimated Bayes factors (null/alternative) for the interaction of metaphor conditions and product types showed that the data were 1.62:1 in favour of the null hypothesis, or rather, 1.62 times more likely to occur under a model without the interaction effect of metaphor conditions and product types. These results showed the statistical evidence that changes in the perceived complexity were less likely to be shown in models including metaphor conditions, product types, and interactions between them. These results were in accordance with findings from null hypothesis significance testing (NHST) that neither metaphor conditions nor product types exerted influences on perceived complexity. The interaction effect between metaphor

conditions and product types, according to Bayes factors, was very weak (Lee & Wagenmakers, 2013; Raftery, 1995).

Table 5.10 Model Comparison - Perceived Complexity

Models	P(M)	P(M data)	BF_M	BF₀₁	error %
Null model (incl. subject)	0.200	0.817	17.910	1.000	
Metaphor Conditions	0.200	0.007	0.027	122.436	1.199
Product Types	0.200	0.174	0.840	4.710	1.396
Metaphor Conditions + Product Types	0.200	0.001	0.006	570.243	1.704
Metaphor Conditions + Product Types + Metaphor Conditions * Product Types	0.200	8.859e-4	0.004	922.732	2.084

Note. All models include subject.

5.4.2. Cognitive Elaboration

Table 5.11 and Figure 5.3 shows descriptive details about the data for cognitive elaboration. The descriptive details illustrated information of ratings for cognitive elaboration in each condition. The values of Skewness and Kurtosis from each condition suggested the normal distribution of the ratings. Figure 5.4 shows the descriptive plot, displaying the trends of cognitive elaboration for different metaphor conditions and product types, by illustrating the mean and the standard deviation of each condition.

Table 5.11 Descriptive Statistics of Cognitive Elaboration

	COGLE	COGNS	COGNE	COGFE	COGFS	COGLS
Valid	299	299	299	299	299	299
Missing	0	0	0	0	0	0
Mean	3.413	3.724	3.709	3.799	3.388	3.467
Std. Deviation	1.578	1.616	1.535	1.536	1.527	1.580
Skewness	0.182	0.006	0.041	-0.081	0.109	0.118
Std. Error of Skewness	0.141	0.141	0.141	0.141	0.141	0.141
Kurtosis	-0.814	-0.762	-0.548	-0.647	-0.792	-0.679
Std. Error of Kurtosis	0.281	0.281	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	7.000	7.000	7.000	7.000	7.000	7.000

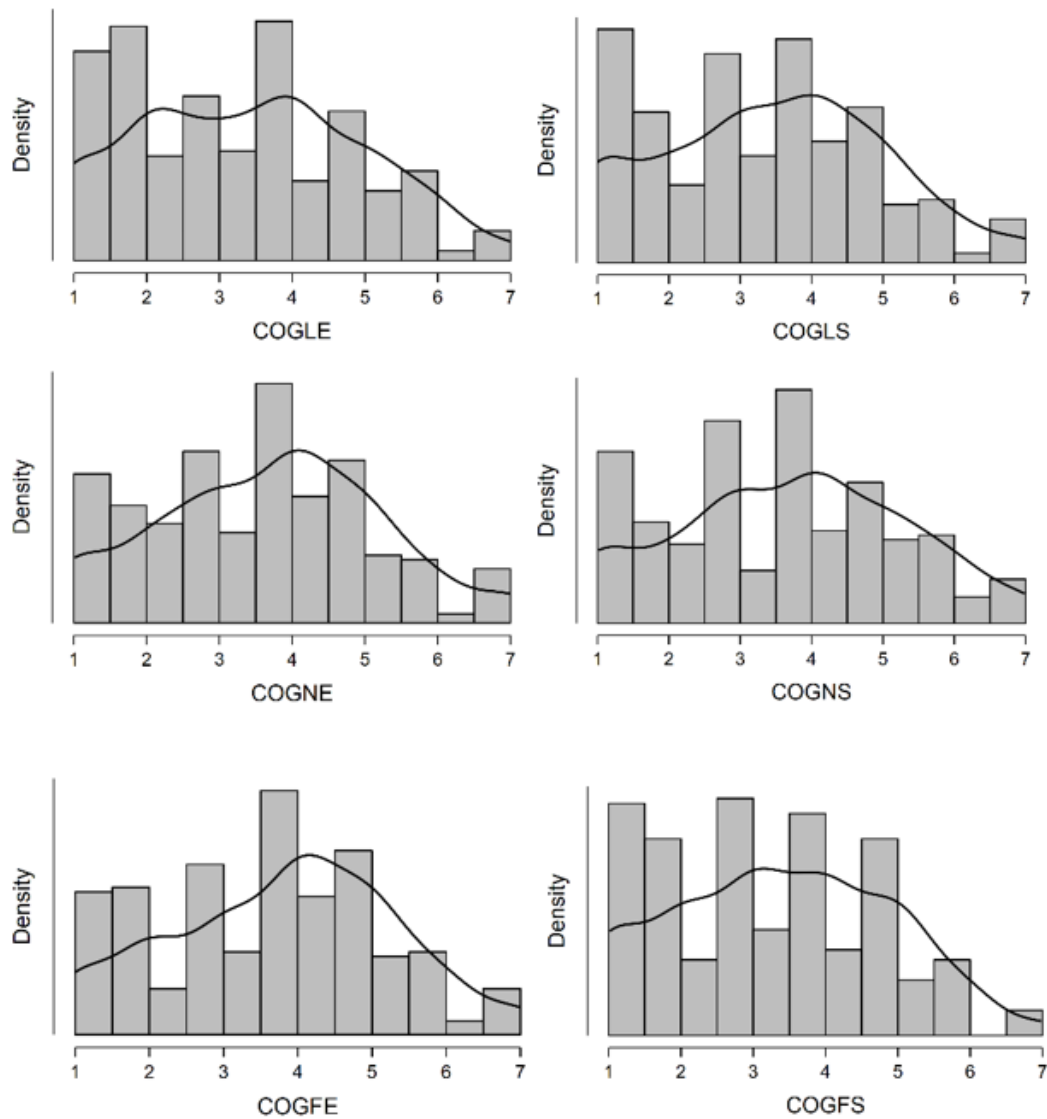


Figure 5.3 Distribution Plots for Ratings of Cognitive Elaboration

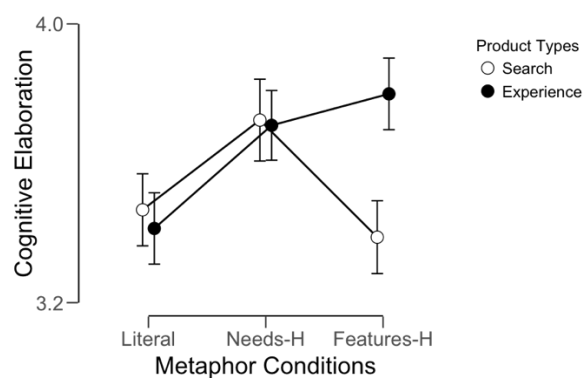


Figure 5.4 Descriptive Plot - Cognitive Elaboration

Results from two-way ANOVA revealed that the main effect of metaphor conditions yielded an F ratio of $F(1.96, 584.09) = 15.458, p < .001, \eta_p^2 = .05$ (see Table 5.12). The main effect of product type generated an F ratio of $F(1, 298) = 6.52, p = .01, \eta_p^2 = .02$. There was a significant interaction effect between metaphor conditions and product types, $F(1.93, 575.37) = 10.53, p < .001, \eta_p^2 = .03$. These results provided evidence for H1(b), H3(b), and H(5), that both metaphor conditions and product types influenced cognitive elaboration and there was an interaction effect as well.

Table 5.12 Within Subjects Effects - Cognitive Elaboration

	Sphericity Correction	Sum Squares	df	Mean Square	F	p	η_p^2
Metaphor Conditions	None	22.997	^a 2.000	^a 11.498	^a 15.458	^a < .001	^a 0.049
	Greenhouse-Geisser	22.997	^a 1.960	^a 11.733	^a 15.458	^a < .001	^a 0.049
Residual	None	443.336	596.000	0.744			
	Greenhouse-Geisser	443.336	584.090	0.759			
Product Types	None	5.856	1.000	5.856	6.520	0.011	0.021
	Greenhouse-Geisser	5.856	1.000	5.856	6.520	0.011	0.021
Residual	None	267.685	298.000	0.898			
	Greenhouse-Geisser	267.685	298.000	0.898			
Metaphor Conditions * Product Types	None	19.905	^a 2.000	^a 9.952	^a 10.528	^a < .001	^a 0.034
	Greenhouse-Geisser	19.905	^a 1.931	^a 10.309	^a 10.528	^a < .001	^a 0.034
Residual	None	563.428	596.000	0.945			

	Sphericity Correction	Sum Squares	of df	Mean Square	F	p	η_p^2
	Greenhouse- Geisser	563.428	575.368	0.979			

Note. Type III Sum of Squares

^a Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Simple main effects analyses of metaphor conditions showed that for search products, ads with needs-highlighting metaphors ($M = 3.72$, $SD = 1.62$) elicited more cognitive elaboration than non-metaphorical ads ($M = 3.47$, $SD = 1.58$) and ads with features-highlighting metaphors ($M = 3.39$, $SD = 1.53$), at a significant level, $F(2, 596) = 10.10$, $p < .001$, $\eta_p^2 = .03$ (see Table 5.13). For experience products, ads with features-highlighting metaphors ($M = 3.80$, $SD = 1.54$) and ads with needs-highlighting metaphors ($M = 3.71$, $SD = 1.54$) elicited more cognitive elaboration than non-metaphorical ads ($M = 3.41$, $SD = 1.58$), at a significant level, $F(2, 596) = 15.763$, $p < .001$, $\eta_p^2 = .05$. These results implied that ads with metaphors elicit more cognitive elaboration than literal ads, regardless of product types.

Table 5.13 Simple Main Effects-Metaphor Conditions-Cognitive Elaboration

Level of Product Types	Sum of Squares	df	Mean Square	F	p
Search	18.486	2	9.243	10.104	< .001
Experience	24.416	2	12.208	15.763	< .001

Simple main effects analyses of product types revealed that the main effect was significant only at the condition of features-highlighting metaphors, where ads with features-highlighting metaphors for experience products elicited more cognitive elaboration than the counterpart for search products, $F(1, 298) = 28.11, p < .001, \eta_p^2 = .09$ (see Table 5.14). These results suggested that experience products advertised with features-highlighting metaphors yielded more ideas than search products advertised by features-highlighting metaphors.

Table 5.14 Simple Main Effects-Product Types-Cognitive Elaboration

Level of Metaphor Conditions	Sum of Squares	df	Mean Square	F	p
Literal	0.428	1	0.428	0.465	0.496
Needs-H	0.034	1	0.034	0.035	0.852
Features-H	25.299	1	25.299	28.110	< .001

The interaction of metaphor conditions and product types illustrated that the effect of metaphors on cognitive elaboration varies across product types, where ads with feature-highlighting metaphors generated a greater impact for experience products but not for search products. However, ads with needs-highlighting metaphors performed significantly better than literal ads, regardless of product types. An overview of the results can be found in Figure 5.4.

A Bayesian Repeated Measures ANOVA found statistical evidence for the main effect of metaphor conditions ($BF_{10} = 2531.84$), the main effect of product types ($BF_{10} = 1.43$), and the interaction effect ($BF_{10} = 947.26$) (see Table 5.15). When only considering the effect of metaphors, the results suggested that the data were 2531.84 times likely to occur under a model including it, rather than a model without it. When

only considering the effect of product types, the results suggested that the data were 1.43 times more likely to occur under a model with effects of product types, rather than a model without it. When it comes to the interaction effect between the two variables, the results suggested that the data were 947.26 times more likely to occur under a model with it. These results implied that the cognitive elaboration was more likely to appear with influences of metaphor conditions, product types, and interactions between them. Specifically, Bayes factors showed strong evidence for the main effect of metaphor conditions and the interaction effect, but weak evidence for the main effect of product types (Lee & Wagenmakers, 2013; Raftery, 1995).

Table 5.15 Model Comparison - Cognitive Elaboration

Models	P(M)	P(M data)	BF_M	BF₁₀	error %
Null model (incl. subject)	0.200	2.830e-7	1.132e-6	1.000	
Metaphor Conditions	0.200	7.165e-4	0.003	2531.842	1.039
Product Types	0.200	4.055e-7	1.622e-6	1.433	3.500
Metaphor Conditions + Product Types	0.200	0.001	0.004	3723.371	2.219
Metaphor Conditions + Product Types + Metaphor Conditions * Product Types	0.200	0.998	2254.716	3.527e+6	2.260

Note. All models include subject.

5.4.3. Affective Elaboration

This section reported results from self-report surveys and the exploratory EDA study.

5.4.3.1. Results for Surveys

Table 5.16 and Figure 5.5 shows descriptive details about self-reported affective elaboration. From these statistics, we understood the range of rating and the normal distribution of ratings for self-report affective elaboration in each condition.

Figure 5.6 shows the descriptive plot to have an overview of the changes of affective elaboration across six conditions, by showing the mean and the associated standard deviation of each condition.

Table 5.16 Descriptive Statistics for Affective Elaboration_Surveys

	AFFELE	AFFENS	AFFENE	AFFFE	AFFFS	AFFLS
Valid	299	299	299	299	299	299
Missing	0	0	0	0	0	0
Mean	3.482	3.883	3.763	3.953	3.478	3.545
Std. Deviation	1.548	1.550	1.539	1.519	1.535	1.576
Skewness	0.078	-0.077	0.039	-0.160	0.074	0.123
Std. Error of Skewness	0.141	0.141	0.141	0.141	0.141	0.141
Kurtosis	-0.831	-0.586	-0.536	-0.601	-0.757	-0.716
Std. Error of Kurtosis	0.281	0.281	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	7.000	7.000	7.000	7.000	7.000	7.000

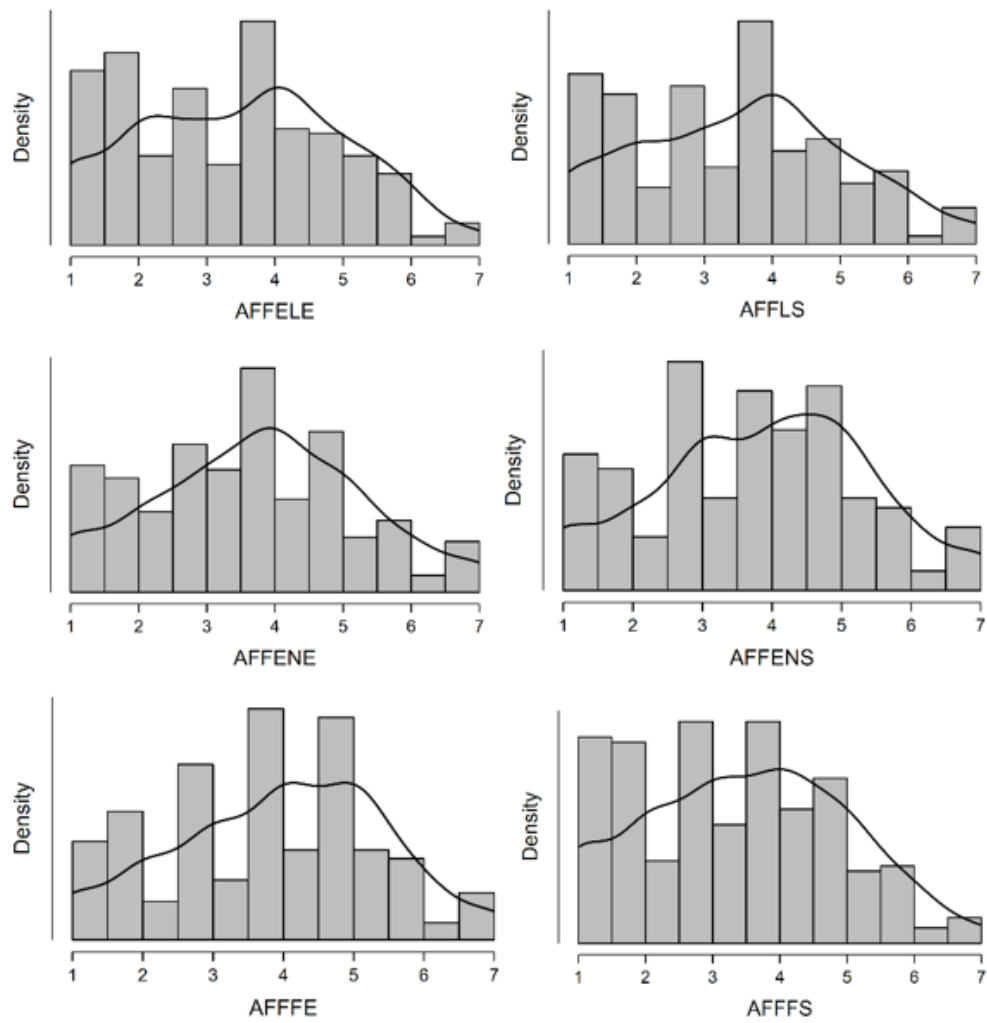


Figure 5.5 Distribution Plots for Ratings of Affective Elaboration

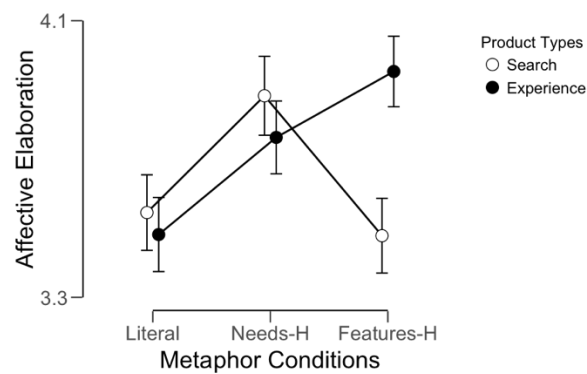


Figure 5.6 Descriptive Plot - Affective Elaboration - Surveys

Data collected from surveys were analysed by two-way analysis of variance to examine the effect of metaphor conditions and product types on self-reported affective elaboration. Results showed statistical significance with regard to the main effect of metaphor conditions, $F(1.95, 581.85) = 19.99, p < .001, \eta_p^2 = .06$, the main effect of product types, $F(1, 298) = 4.7, p = .03, \eta_p^2 = .02$, and interaction effect between metaphor conditions and product types, $F(1.94, 579.43) = 15.37, p < .001, \eta_p^2 = .05$, (see Table 5.17). Hypothesis 2 predicted that metaphor conditions will have an influence on affective elaboration of video ads. These results supported H2 and further revealed a main effect of product type and an interaction effect.

Table 5.17 Within Subjects Effects - Affective Elaboration - Surveys

	Sphericity Correction	Sum Squares	of df	Mean Square	F	p	η_p^2
Metaphor Conditions	None	29.522	^a 2.000	^a 14.761	^a 19.988	^a < .001	^a 0.063
	Greenhouse-Geisser	29.522	^a 1.953	^a 15.120	^a 19.988	^a < .001	^a 0.063
Residual	None	440.145	596.000	0.738			
	Greenhouse-Geisser	440.145	581.849	0.756			
Product Types	None	4.219	1.000	4.219	4.700	0.031	0.016
	Greenhouse-Geisser	4.219	1.000	4.219	4.700	0.031	0.016
Residual	None	267.531	298.000	0.898			
	Greenhouse-Geisser	267.531	298.000	0.898			
Metaphor Conditions * Product Types	None	32.271	^a 2.000	^a 16.135	^a 15.369	^a < .001	^a 0.049
	Greenhouse-Geisser	32.271	^a 1.944	^a 16.597	^a 15.369	^a < .001	^a 0.049
Residual	None	625.729	596.000	1.050			

	Sphericity Correction	Sum Squares	of df	Mean Square	F	p	η_p^2
	Greenhouse- Geisser	625.729	579.425	1.080			

Note. Type III Sum of Squares

Simple main effect analyses of metaphor conditions revealed statistical significant differences for both search products, $F(2, 596) = 14.75, p < .001, \eta_p^2 = .05$, and experience products, $F(2, 596) = 20.16, p < .001, \eta_p^2 = .06$ (see Table 5.18). For search products, ads with needs-highlighting metaphors ($M = 3.88, SD = 1.55$) elicited greater emotional responses than non-metaphorical ads ($M = 3.55, SD = 1.53$) and ads with features-highlighting metaphors ($M = 3.48, SD = 1.54$). For experience products, ads with features-highlighting metaphors ($M = 3.95, SD = 1.52$) and ads with needs-highlighting metaphors ($M = 3.76, SD = 1.54$) yielded more affective elaboration than non-metaphorical ads ($M = 3.48, SD = 1.55$).

Table 5.18 Simple Main Effects - Metaphor Conditions - Affective Elaboration - Surveys

Level of Product Types	Sum of Squares	df	Mean Square	F	p
Search	28.140	2	14.070	14.754	< .001
Experience	33.652	2	16.826	20.157	< .001

Simple main effect analyses of product types showed a statistical significance for conditions of features-highlighting metaphors, $F(1, 298) = 35.01, p < .001, \eta_p^2 = .11$ (see Table 5.19). Features-highlighting metaphors for experience products ($M = 3.95, SD = 1.52$) generated much higher ratings of affective elaboration than that for search products ($M = 3.48, SD = 1.54$). Figure 5.6 displayed an overview of the results.

Table 5.19 Simple Main Effects - Product Types - Affective Elaboration - Surveys

Level of Metaphor Conditions	Sum of Squares	df	Mean Square	F	p
Literal	0.604	1	0.604	0.573	0.450
Needs-H	2.167	1	2.167	2.209	0.138
Features-H	33.719	1	33.719	35.008	< .001

Results from Bayesian analysis showed statistical evidence for the main effect of metaphor conditions ($BF_{10} = 40729.80$), and the interaction effect between metaphor conditions and product types ($BF_{10} = 407955.46$), indicating that the affective elaboration were 40729.8 times more likely to occur under a model with the effect of metaphor rather than without it, and 407955.46 times more likely to occur under a model with the interaction effect of metaphor conditions and product types (see Table 5.20). Analysis of the main effect of product types showed that the data were 0.48 times more likely to occur under the model including the effect of product types, compared with the null hypothesis. These results implied that self-reported affective elaboration were more likely to be influenced by the main effect of metaphor conditions and the interaction effect of metaphor conditions and product types with strong evidence, but less likely to be influenced by the main effect of product types.

Table 5.20 Model Comparison - Affective Elaboration – Surveys

Models	P(M)	P(M data)	BF _M	BF ₁₀	error %
Null model (incl. subject)	0.200	1.151e ⁻¹⁰	-4.605e ⁻¹⁰	1.000	
Metaphor Conditions	0.200	4.689e ⁻⁶	1.876e ⁻⁵	40729.796	0.832
Product Types	0.200	5.553e ⁻¹¹	2.221e ⁻¹⁰	0.482	0.963
Metaphor Conditions + Product Types	0.200	2.451e ⁻⁶	9.804e ⁻⁶	21289.089	2.558
Metaphor Conditions + Product Types + Metaphor Conditions * Product Types	0.200	1.000	560170.686	8.685e ⁺⁹	2.185

Note. All models include subject.

5.4.3.2. Results for Skin Conductance

Table 5.21 and Figure 5.7 shows descriptive details about skin conductance levels in response to different conditions. These descriptive details illustrated the range and the normal distribution of skin conductance levels among participants for each condition. Figure 5.8 shows the descriptive plot of the trends by showing the mean across six conditions.

Table 5.21 Descriptive Statistics_EDA

	SCLLE	SCLNS	SCLNE	SCLFE	SCLFS	SCLLS
Valid	29	29	29	29	29	29
Missing	0	0	0	0	0	0
Mean	0.377	0.403	0.404	0.427	0.457	0.440
Std. Deviation	0.239	0.213	0.202	0.238	0.157	0.187
Skewness	0.304	-0.473	0.238	0.449	0.294	-0.340
Std. Error of Skewness	0.434	0.434	0.434	0.434	0.434	0.434
Kurtosis	-1.155	-0.763	-0.028	-0.344	-0.233	-0.637
Std. Error of Kurtosis	0.845	0.845	0.845	0.845	0.845	0.845
Minimum	0.030	0.010	0.020	0.040	0.170	0.040

	SCLLE	SCLNS	SCLNE	SCLFE	SCLFS	SCLLS
Maximum	0.830	0.740	0.830	0.990	0.780	0.780

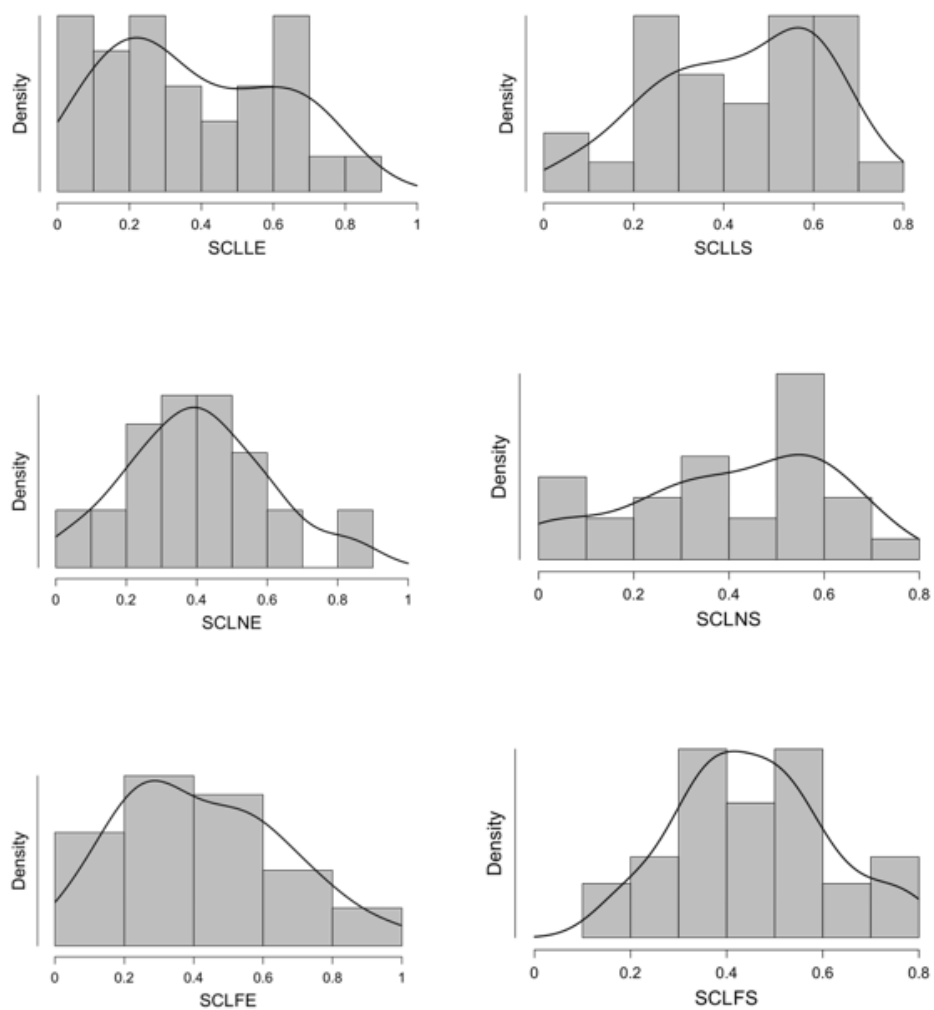


Figure 5.7 Distribution Plots for EDA

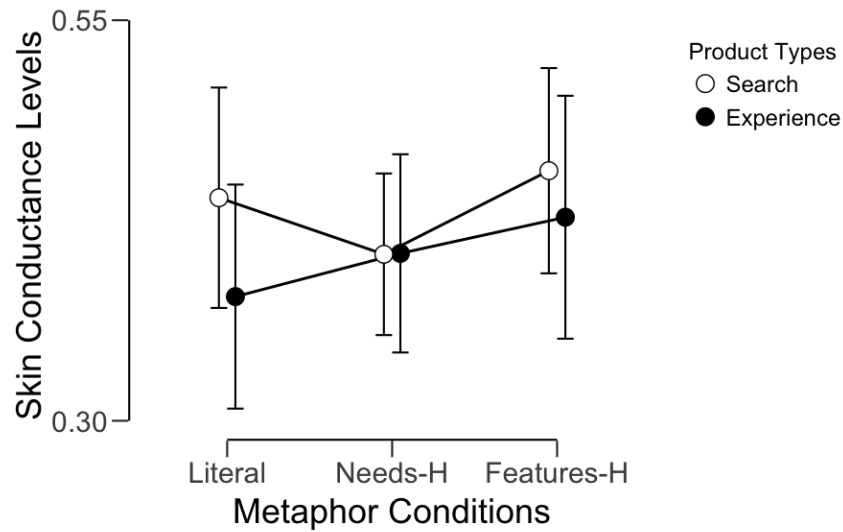


Figure 5.8 Descriptive Plot - Affective Elaboration - EDA

Data collected from EDA captured the unconscious emotional responses and were analysed by two-way analysis of variance. Although results depicted different trends of emotional responses as displayed by Figure 5.8, all effect of metaphor conditions and product types were non-significant. The trends revealed that for search products, ads with features-highlighting metaphors ($M = 0.46$, $SD = 0.16$) elicited greater arousals than literal ads ($M = 0.44$, $SD = 0.19$) and ads with needs-highlighting metaphors ($M = 0.40$, $SD = 0.21$) (see Table 5.22). For experience products, ads with features-highlighting metaphors ($M = 0.43$, $SD = 0.24$) elicited greater arousals than ads with needs-highlighting metaphors ($M = 0.40$, $SD = 0.20$) and literal ads ($M = 0.38$, $SD = 0.24$).

Table 5.22 Within Subjects Effects - Affective Elaboration – EDA

	Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η_p^2
Metaphor Condition	Greenhouse-Geisser	0.0486	1.85	0.0264	1.204	0.306	0.007
Residual	Greenhouse-Geisser	1.1314	51.66	0.0219			

Product Type	Greenhouse-Geisser	0.0393	1.00	0.0393	1.659	0.208	0.005
Residual	Greenhouse-Geisser	0.6634	28.00	0.0237			
Metaphor Condition							
* Product Type	Greenhouse-Geisser	0.0281	1.94	0.0145	0.332	0.712	0.004
Residual	Greenhouse-Geisser	2.3723	54.26	0.0437			

Results from Bayesian analysis revealed that in terms of the effect of metaphor, the data were 8.49:1 in favour of the null hypothesis (see Table 5.23). That is, the data were 8.49 times more likely to occur under the model without the main effect of metaphor conditions, rather than a model with it. With regard to the effect of product types, the data were 3.3:1 in favour of the null hypothesis. With regard to the interaction effect of metaphor conditions and product types, the data were 5.76 times more likely to occur in the model without it, compared with the model including it. Bayesian analyses showed moderate evidence for the null hypothesis (Lee & Wagenmakers, 2013; Raftery, 1995), regarding the SCL responses.

Table 5.23 Model Comparison - Affective Elaboration - EDA

Models	P(M)	P(M data)	BF _M	BF ₀₁	error %
Null model (incl. subject)	0.200	0.683	8.615	1.000	
Metaphor Conditions	0.200	0.080	0.350	8.493	0.799
Product Types	0.200	0.207	1.043	3.303	1.244
Metaphor Conditions + Product Types	0.200	0.025	0.105	26.806	3.297

Models						P(M)	P(M data)	BF _M	BF ₀₁	error %	
Metaphor	Conditions	+	Product	Types	+	Metaphor	0.200	0.004	0.018	154.394	15.757
Conditions * Product Types											

Note. All models include subject.

The SCL trend detected for search products was controversial to self-reported ratings regarding affective elaboration, where ads with needs-highlighting metaphors were reported as eliciting greater affective elaboration than other two conditions. This could be due to the intrinsic difference between self-report measures and autonomic measures. The data from EDA cannot reflect the direction of affective elaboration (Dawson et al., 2007), whereas conscious ratings have the potential to be influenced by subjective feelings. A participant might give high scores to a favoured ad without a strong increase in skin conductance response. It could also be possible that metaphors take time to elicit emotional responses (Tay, 2019). Given the small sample size of the EDA study, the SCL results were inconclusive.

5.4.4 Attitude Towards the ad

Table 5.24 and Figure 5.9 shows descriptive details about ratings of attitudes towards the ad, illustrating the range and normal distribution of ratings for attitudes in response to each condition. Figure 5.10 shows the descriptive plot for changes of attitude across six conditions, illustrating the mean and associated standard deviation of each condition.

Table 5.24 Descriptive Statistics for Attitude

	ATTLE	ATTNS	ATTNE	ATTFE	ATTFS	ATTLS
Valid	299	299	299	299	299	299
Missing	0	0	0	0	0	0
Mean	3.804	3.842	3.979	4.246	3.625	3.715
Std. Deviation	1.484	1.557	1.471	1.477	1.516	1.585
Skewness	-0.004	-0.007	-0.134	-0.247	0.109	0.039
Std. Error of Skewness	0.141	0.141	0.141	0.141	0.141	0.141
Kurtosis	-0.436	-0.769	-0.444	-0.367	-0.567	-0.711
Std. Error of Kurtosis	0.281	0.281	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	7.000	7.000	7.000	7.000	7.000	7.000

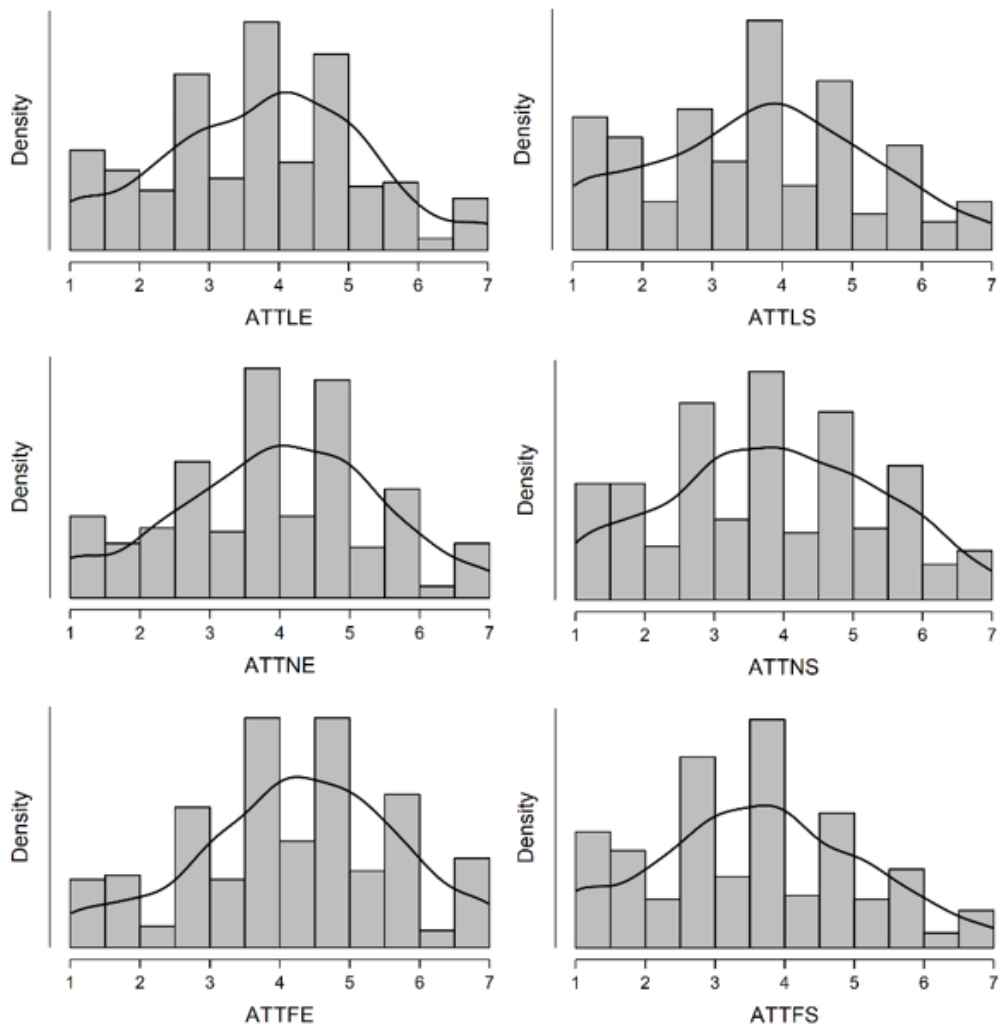


Figure 5.9 Distribution Plots for Ratings of Attitude

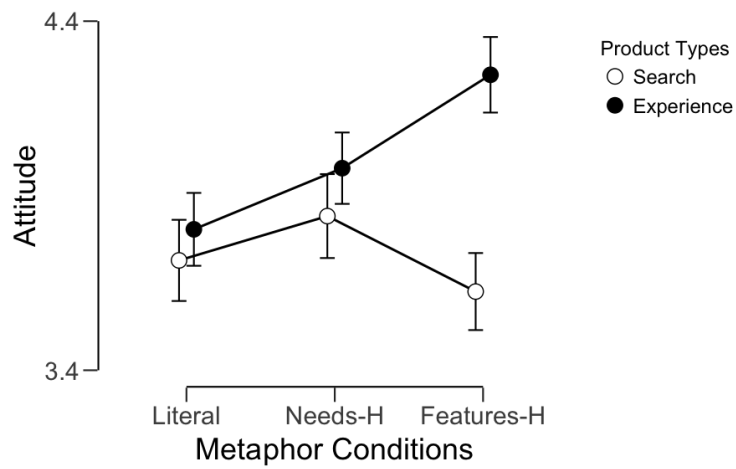


Figure 5.10 Descriptive Plot - Attitude

Results from a two-way analysis of variance revealed that the main effect of metaphor conditions yielded an F ratio of $F(1.95, 581.94) = 6.95, p = .001, \eta_p^2 = .02$ (see Table 5.25). The main effect of product types generated an F ratio of $F(1, 298) = 6.95, p < .001, \eta_p^2 = .09$. The interaction effect was significant, $F(1.95, 581.99) = 13.25, p < .001, \eta_p^2 = .04$, indicating that the effect of metaphor conditions on attitudes varied across product types. Figure 5.10 displayed an overview of the results. Hypothesis 4(b) postulated an interaction effect between metaphor conditions and product types on attitudes towards the video ads. Results supported H4(b) and further showed the main effects of both metaphor conditions and product types.

Table 5.25 Within Subjects Effects - Attitude

	Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η_p^2
Metaphor Conditions	None	10.907	^a 2.000	^a 5.454	^a 6.948	^a 0.001	^a 0.023
	Greenhouse-Geisser	10.907	^a 1.953	^a 5.585	^a 6.948	^a 0.001	^a 0.023
Residual	None	467.815	596.000	0.785			
	Greenhouse-Geisser	467.815	581.939	0.804			
Product Types	None	35.761	1.000	35.761	30.118	< .001	0.092
	Greenhouse-Geisser	35.761	1.000	35.761	30.118	< .001	0.092
Residual	None	353.834	298.000	1.187			
	Greenhouse-Geisser	353.834	298.000	1.187			
Metaphor Conditions * Product Types	None	25.883	^a 2.000	^a 12.942	^a 13.253	^a < .001	^a 0.043
	Greenhouse-Geisser	25.883	^a 1.953	^a 13.256	^a 13.253	^a < .001	^a 0.043
Residual	None	581.997	596.000	0.977			
	Greenhouse-Geisser	581.997	581.880	1.000			

	Sphericity Correction	Sum Squares	of df	Mean Square	F	p	η_p^2
	Geisser						

Note. Type III Sum of Squares

^a Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Simple main effect analyses of metaphor conditions showed that there was a statistical significance at the level of search product, $F(2, 596) = 3.55, p = .029, \eta_p^2 = .01$, and the level of experience product, $F(2, 596) = 19.38, p < .001, \eta_p^2 = .06$ (see Table 5.26). Specifically, for search products, ads with needs-highlighting metaphors ($M = 3.84, SD = 1.56$) generated better attitudes than literal ads ($M = 3.72, SD = 1.59$) and ads with features-highlighting metaphors ($M = 3.63, SD = 1.52$). For experience products, ads with features-highlighting metaphors ($M = 4.25, SD = 1.48$) and ads with needs-highlighting metaphors ($M = 3.98, SD = 1.47$) generated better attitudes than literal ads ($M = 3.80, SD = 1.48$).

Table 5.26 Simple Main Effects - Metaphor Conditions - Attitude

Level of Product Types	Sum of Squares	df	Mean Square	F	p
Search	7.060	2	3.530	3.550	0.029
Experience	29.730	2	14.865	19.383	< .001

Simple main effect analyses of product types revealed a statistical significance for ads with features-highlighting metaphors, $F(1, 298) = 57.11, p < .001, \eta_p^2 = .16$ (see Table 5.27). Ads with features-highlighting metaphors for experience products ($M = 4.25, SD = 1.48$) generated higher ratings of attitude than those for search products ($M = 3.63, SD = 1.52$).

Table 5.27 Simple Main Effects - Product Types - Attitude

Level of Metaphor Conditions	Sum of Squares	df	Mean Square	F	p
Literal	1.183	1	1.183	1.056	0.305
Needs-H	2.814	1	2.814	2.784	0.096
Features-H	57.648	1	57.648	57.111	< .001

Bayesian analysis revealed statistical evidence for the main effect of metaphor conditions, product types, and the interaction effect. For the main effect of metaphor conditions, the data were 1.48:1 in favour of the alternative hypothesis (see Table 5.28). That is, the data is 1.48 times more likely to appear under the model of including the effect of metaphor, comparing with the model without it. For the main effect of product types, the data were 4180000 times more likely to occur under the model of with the effect, rather than without it. The interaction effect of metaphor conditions and product types generated the results, $BF_{10} = 6848.45$, suggesting that the results is 6848.45 times more likely to occur with the alternative hypothesis rather than the null hypothesis. These results demonstrated that the attitude towards the ads were more likely to be influenced by the metaphor conditions, product types, and their interactions. Bayes factors further disclosed weak evidence for the main effect of metaphor conditions, but strong evidence for the main effect of product types and interaction effects (Lee & Wagenmakers, 2013; Raftery, 1995).

Table 5.28 Model Comparison - Attitude

Models	P(M)	P(M data)	BF _M	BF ₁₀	error %
Null model (incl. subject)	0.200	2.095e - 11	8.381e -11	1.000	
Metaphor Conditions	0.200	3.102e - 11	1.241e - 10	1.480	0.638
Product Types	0.200	8.760e -5	3.504e -4	4.181e +6	2.288
Metaphor Conditions + Product Types	0.200	1.460e -4	5.840e -4	6.968e +6	1.703
Metaphor Conditions + Product Types + Metaphor Conditions * Product Types	0.200	1.000	17120.336	4.772e +10	1.856

Note. All models include subject.

5.4.5 Purchase Intention

Table 5.29 and Figure 5.11 shows descriptive details about purchase intention, illustrating the range and the normal distribution of ratings for purchase intention. Figure 5.12 shows the descriptive plot for changes of purchase intention across six conditions on the basis of means of each condition.

Table 5.29 Descriptive Statistics for Purchase Intention

	PURLE	PURNS	PURNE	PURFE	PURFS	PURLS
Valid	299	299	299	299	299	299
Missing	0	0	0	0	0	0
Mean	3.765	3.856	3.892	4.038	3.641	3.801
Std. Deviation	1.536	1.529	1.521	1.492	1.527	1.587
Skewness	0.033	-0.002	-0.025	-0.082	0.196	0.108
Std. Error of Skewness	0.141	0.141	0.141	0.141	0.141	0.141
Kurtosis	-0.673	-0.762	-0.640	-0.537	-0.593	-0.765
Std. Error of Kurtosis	0.281	0.281	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	7.000	7.000	7.000	7.000	7.000	7.000

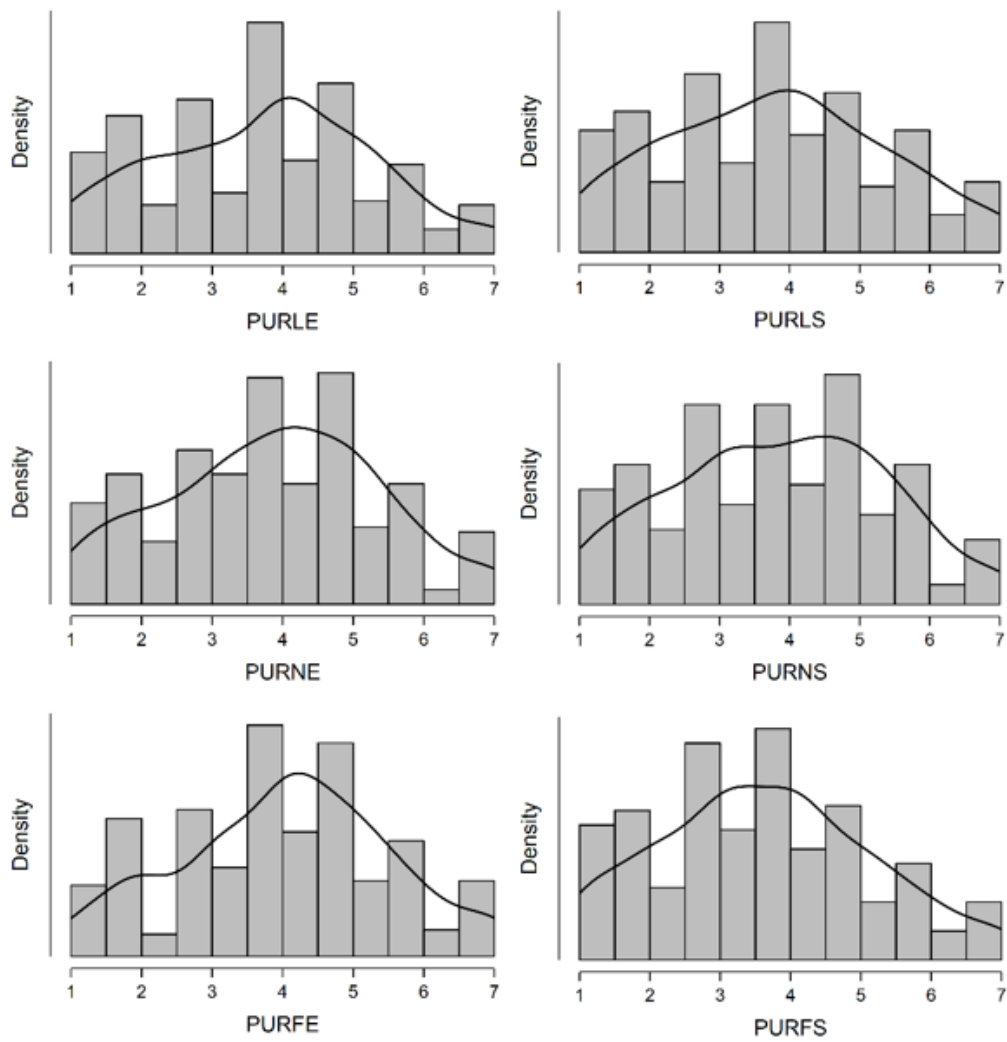


Figure 5.11 Distribution Plots for Ratings of Purchase Intention

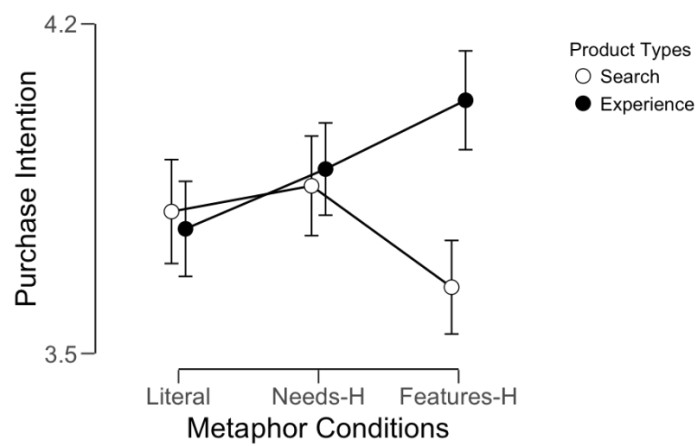


Figure 5.12 Descriptive Plot - Purchase Intention

Results from two-way ANOVA revealed that there was a non-significant main effect of metaphor conditions on purchase intentions, $F(1.94, 579.62) = 1.81, p = .17, \eta_p^2 = .006$ (see Table 5.30). The main effect of product yielded an F ratio of $F(1, 298) = 6.92, p = .009, \eta_p^2 = .02$, indicating that the type of products influenced viewers' purchase intentions. There was a significant interaction effect on purchase intentions, $F(1.99, 591.65) = 10.09, p < .001, \eta_p^2 = .03$, suggesting the effect of product types vary across metaphor conditions. Hypothesis 4(c) that predicted an interaction effect between metaphor conditions and product types was warranted with empirical evidence. The results also revealed a significant main effect of product types.

Table 5.30 Within Subjects Effects - Purchase Intention

	Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η_p^2
Metaphor Conditions	None	2.513	2.000	1.256	1.809	.165	.006
	Greenhouse-Geisser	2.513	1.945	1.292	1.809	.166	.006
Residual	None	413.893	596.000	0.694			
	Greenhouse-Geisser	413.893	579.622	0.714			
Product Types	None	7.814	1.000	7.814	6.917	.009	.023
	Greenhouse-Geisser	7.814	1.000	7.814	6.917	.009	.023
Residual	None	336.672	298.000	1.130			
	Greenhouse-Geisser	336.672	298.000	1.130			
Metaphor Conditions * Product Types	None	16.143	2.000	8.072	10.085	< .001	.033
	Greenhouse-Geisser	16.143	1.985	8.131	10.085	< .001	.033
Residual	None	477.008	596.000	0.800			

Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η_p^2
Greenhouse-Geisser	477.008	591.645	0.806			

Note. Type III Sum of Squares

^a Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Simple main effect analysis of product types revealed a statistical significance for features-highlighting metaphors, $F(1, 298) = 29.227$, $p < .001$, $\eta_p^2 = .09$ (see Table 5.31). It was found that under the condition of features-highlighting metaphors, ads for experience products ($M = 4.04$, $SD = 1.49$) yielded higher purchase intention than ads for search products ($M = 3.64$, $SD = 1.53$).

Table 5.31 Simple Main Effects - Product Types - Purchase Intention

Level of Metaphor Conditions	Sum of Squares	df	Mean Square	F	p
Literal	0.202	1	0.202	0.195	0.659
Needs-H	0.190	1	0.190	0.214	0.644
Features-H	23.565	1	23.565	29.227	< .001

Although the main effect of metaphor conditions was insignificant, simple main effect analysis of metaphor conditions showed statistical significances at the level of search products, $F(2, 596) = 4.76$, $p = .009$, $\eta_p^2 = .02$, and the level of experience products, $F(2, 596) = 7.88$, $p < .001$, $\eta_p^2 = .03$ (see Table 5.32). For search products, ads with needs-highlighting metaphors ($M = 3.86$, $SD = 1.53$) and literal ads ($M = 3.80$, $SD = 1.59$) generated higher purchase intention than features-highlighting metaphors ($M = 3.64$, $SD = 1.53$). For experience products, ads with features-highlighting metaphors ($M = 4.04$, $SD = 1.49$) and ads with needs-highlighting metaphors ($M = 3.89$, $SD = 1.52$)

generated higher purchase intention than literal ads ($M = 3.77$, $SD = 1.54$). The cross-over trends of scores might lead to the overall non-significant main effect of metaphor conditions (see Figure 5.12).

Table 5.32 Simple Main Effects - Metaphor Conditions - Purchase Intention

Level of Product Types	Sum of Squares	df	Mean Square	F	p
Search	7.489	2	3.745	4.762	0.009
Experience	11.166	2	5.583	7.881	< .001

Bayesian Repeated Measures ANOVA showed that for metaphor conditions, the data were 0.028:1 in favour of the null hypothesis (see Table 5.33). For product types, the data were 5.27:1 in favour of the alternative hypothesis. For the interaction effect, the data were 150.88 times more likely to occur under a model including it. Results from Bayesian analysis provided strong evidence for the interaction effect, moderate evidence for the main effect of product type, and strong evidence for a null hypothesis when it comes to the main effect of metaphor conditions (Lee & Wagenmakers, 2013; Raftery, 1995).

Table 5.33 Model Comparison - Purchase Intention

Models	P(M)	P(M data)	BF _M	BF ₁₀	error %
Null model (incl. subject)	0.200	0.033	0.136	1.000	
Metaphor Conditions	0.200	9.319e -4	0.004	0.028	1.095
Product Types	0.200	0.173	0.838	5.274	0.914
Metaphor Conditions + Product Types	0.200	0.005	0.021	0.159	2.810
Metaphor Conditions + Product Types + Metaphor Conditions * Product Types	0.200	0.788	14.851	23.989	2.559

Note. All models include subject.

To summarise, results from the surveys and Skin conductance overall demonstrated the positive influence of creative metaphors on cognitive elaboration, affective elaboration, attitudes towards the ad, and purchase intention, but not the perceived complexity. Table 5.34 summarises results of testing hypotheses in this thesis.

Table 5.34 Results of Hypotheses Testing

Hypotheses	Results
H1(a) Metaphor conditions will have an influence on the perceived complexity of video ads.	Rejected
H1(b) Metaphor conditions will have an influence on (b) cognitive elaboration of video ads.	Accepted
H2: Metaphor conditions will have an influence on affective elaboration of video ads.	Accepted
H3(a): Product types will have an influence on perceived complexity.	Rejected
H3(b): Product types will have an influence on cognitive elaboration of video ads.	Accepted
H4(a): There will be an interaction effect between metaphor conditions and product types on perceived complexity.	Accepted
H4(b): There will be an interaction effect between metaphor conditions and product types on attitudes towards the ad.	Accepted
H4(c): There will be an interaction effect between metaphor conditions and product types on purchase intention.	Accepted
H5: There will be an interaction effect between metaphor conditions and product types on cognitive elaboration of video ads.	Accepted

5.5 Findings from Interviews

Semi-structured interviews were carried out with 32 participants. The major aim of the interviews was to investigate the underlying reasons for ratings in surveys. Specifically, how viewers experienced ads in different conditions in terms of their influences on

perceived complexity, affective elaboration, cognitive elaboration, attitudes towards the ad, and purchase intention. Guiding Questions for the interviews were about (1) impressive ads and reasons, and (2) comparisons with other ads and reasons (3) recognised metaphorical ads (4) preference for different types of products in life. It was found that interviewees tended to describe the influence of ads on their cognitive environment and comment from the extent to which the messages delivered by ads echoing or clashing their personal experience and existing knowledge. Creative metaphors generally played roles of easing understanding, activating mental images, eliciting strong emotions, and mediating the persuasive power of messages.

5.5.1. Perceived Complexity

Through analysing the interview transcriptions, we found that participants appear to give comments on perceived complexity from dimensions of appeals and content. Some participants gave comments on the multimodal appeals, such as the effect of packing multi-sensory elements or exploiting filmic techniques. For example, a participant described the extent to which different modes of communication leave an impression in Extract 1. She pointed out that texts in spoken language were easier to remember than written texts on moving images, which could hardly be noticed (see Turn 1). She then elaborated the underlying reasons that moving images with human grasped nearly all attention, leaving scarce chances to notice written texts, especially when there are several lines in a short time span from Turn 5 to Turn 7. This could be due to the limitation of cognitive effort that could be assigned to multi-sensory elements synchronically. Attention on multimodal appeals is in consensus with the design of visual metaphors in print ads, such as pictorial or verbal (Jeong, 2008), juxtaposition or

replacement (Chang et al., 2018), and explicit or implicit (Chang & Yen, 2013).

Extract 1 (*Turns of the interviewer are in Italics*)

T1: 它如果没有说的话，我根本就不太能记得住。

T2: *就是你觉得它如果讲出来，你会有印象。*

T3: 对

T4: *它没有讲你就觉得.....*

T5: 看画面的话，人的话，它很快，我可能就注意到，看画面。这个字，我就没太注意看。

T6: *嗯，就没太注意看。*

T7: 对，而且它好几行(字)，它这个画面又是 1 秒钟，很快就过去了，根本就没注意到字。

T1: If it is not in the spoken language, I would not remember it at all.

T2: *So, if it is spoken language, you will have an impression.*

T3: Yes.

T4: *If it is not spoken, you feel like...*

T5: If looking at the images, when there are human, it's very fast. I might only notice watching images. I didn't pay much attention to the written text.

T6: *Hmm, so you didn't notice (the written text).*

T7: Yes. And there are several lines. The images passed quickly in 1 second. I didn't notice the written text at all.

Some participants compared comprehensibility of given messages and attributed good attitudes to easier understanding. For instance, Turn 2 in Extract 2 showed a case where a participant compared the difficulties between understanding a metaphorical ad and a literal ad, which both include technical terms about therapy methods adopted by the counselling service. However, as claimed by the viewer, the sources of metaphors generated a better understanding of the counselling service.

T1: 跟另一个广告 (*literal*) 比起来, 你对它的态度为什么会好一些?

T2: 这个 (太阳) 用到了比喻。就是抑郁症患者的阳光太阳, 照亮你的世界, 温暖这些字眼。另一个疗法的词, 我不懂。这种术语还是有药理的感觉。但是阳光啊, 太阳啊, 比较好理解, 也不会觉得自己是病人, 就更轻松一点, 没有一种我在给你看病, 这种感觉。

T1: *Compared with another ad (literal condition), why do you have a better attitude towards this ad?*

T2: This ad uses metaphors. The sunlight and sun of depressed patients. Words such as illuminating your world and warmth. Words about therapy used in another ad, I don't understand. This kind of technical terms gives people a pharmacological feeling. But sunlight and sun are easier to understand. I won't feel I'm a patient and will feel more relaxed. It won't feel like being treated by doctors.

Nevertheless, metaphors might not always ease the comprehension. A participant expressed confusion caused by supporting metaphors (see Extract 3). She questioned the links between the targets and the sources of supporting metaphors (*SEROTONIN IMPROVEMENT IS ENCOURAGEMENT, ENHANCING SIGNALS BETWEEN CELLS IS CONSOLATION*) that were associated with a features-highlighting metaphor for the product (*LEXIN IS A FRIEND*). The viewer appeared to sense that targets and sources are 'two things', but the mapping features were unclear. More explanations about the transferred meaning were expected. The block of comprehending a metaphor is in line with research on multimodal metaphors (Forceville, 2016) and Relevance Theory (Forceville, 2014; Wilson & Sperber, 2002) that the interpretations of a metaphor relate to personal experience and the extent to which a message in mass communication is relevant shall be considered at the individual level. These illustrated that metaphors might increase perceived complexity when they do not make sense to viewers. The dimension of ad content is reflected by existing measures about perceived complexity (Burgers et al.,

2015; McQuarrie & Mick, 1999; Mulken et al., 2010).

Extract 3

T1: 对于“药是你的朋友”看的时候，会想什么

T2: 我在想这个鼓励安慰和血清素怎么结合起来。因为它这个画面上的字和读的东西有一种 gap 的感觉。就是似乎在说两件事。就是给你鼓励和安慰，和图要结合起来吧。我不太懂，怎么连接起来。至少要给一些解释吧，就是鼓励安慰跟提高血清素是怎么连接。

T1: What were you thinking when you watched "Medicine is your friend"?

T2: I was thinking about how the encouragement and serotonin combined. Because there is a gap between written text and spoken language. Seems that there are two things. Like how to connect giving you encouragement and the images. I don't quite understand how to connect them. At least some explanations are needed, that is, how encouragement and comfort are linked to increasing serotonin.

In Extract 1, 2, and 3, all participants seem to comment on to what extent the ad is It straightforward and comprehensible. Extract 1, however, showed a case where the participant pointed out the ways of packaging the information in different modes, i.e. how the appeals were perceived. This is different from descriptions on the meaning delivered by the ad as what has been illustrated by participants who produced Extract 2 and 3. Commenting on multimodal appeals and content makes sense in video ads as the temporal experience of a short clip could highlight certain elements and suppress others (Verstraten, 2009). Although designers are supposed to use ostensive stimuli to maximize the relevance to the public, it is up to the individual viewer to capture the information. Individual difference in terms of processing different modes is inevitable in mass communication.

While the dimension of appeals is independent of the dimension of content, the difference can hardly be reflected in existing measures of perceived complexity (Burgers et al., 2015; McQuarrie & Mick, 1999; Mulken et al., 2010), which seems to limit the scaled questions to the dimension of content only. This issue could be due to the scope of the majority research that the measures were developed on perceptions of print ads, where the form and the content were more tightly combined as a whole piece to comprehend than that of moving images. The dimension of multimodal appeals is worth considering when investigating the complexity of an ad in future studies.

5.5.2. Cognitive Elaboration

Surveys showed that metaphorical ads elicited more cognitive elaboration than literal ads. The interviews then probed into the content of cognitive elaboration and detected that cognitive elaboration was normally described from dimensions of activating mental images of sources, associations with bodily experience, mental images of bodily actions, and evaluations of messages.

A crucial influence by metaphorical verbal language was eliciting vivid mental images of the source, according to some participants. For instance, a participant described how metaphors aroused imaginations of vivid images and actions (see Turn 2 in Extract 4). Although a visual of the source was presented at the same time, he claimed that another scene was activated in his mind. Godzilla as the monster in his mind performed actions that ruined people's lives, which was not originally presented in the video but elaborated by the viewer himself. This is in accordance with the findings that metaphorical language activates the mental images (Raymond W Gibbs,

2006; Raymond W Gibbs et al., 1997; Raymond W Gibbs & Chen, 2018) and that people tend to use the subjective experience to interpret abstract concepts (Xu, 2010).

Extract 4

T1: 为什么挺好呢

T2: 就是首先，从文字的角度来说，非常非常的形象，生动。

就是抑郁这头怪兽，这头怪，是不是，你脑袋里立马就能想到一个画面，就是什么，比如我想到的就是哥斯拉在破坏城市，那种感觉了。对，然后破坏了，它会使你的生活黯然无光。然后这是一个 **background**,就为后面的做了一个铺垫吧，就先让人欲扬先抑。

T1: Why is it good?

T2: First of all, from the perspective of words, it is very, very vivid and vivid.

That is, the monster of depression, this monster, isn't it... you can immediately think of a picture in your mind...like... I think of (the scene) that Godzilla is destroying the city. That kind of feeling. Yes, and then (it) ruined the city. It makes your life dim. This is the background, preparing for the following content. That is, to make people feel negative before introducing positive outcomes.

Metaphorical videos could echo with some participants' personal experience when common things in life scenarios were exploited as sources of metaphors. For instance, a participant reported that the metaphorical video about counselling service reminded him of his daily experience of basking the sun. The viewer described his working environment and his way of dealing with sadness in Turn 2 and reinforced his favour of plants and sunshine in the following turns. It is in line with research on multimodal metaphors under the framework of Relevance Theory (Forceville, 2014) that the relevance of metaphor in mass communication is relevant at the individual level, signalling that the effectiveness of metaphor is subject to the relevance of the source to personal experience.

Extract 5

T1：这个视频你为什么喜欢呢？你看的时候在想什么？

T2：因为……香港办公室都很小很窄。很多房间都没有窗。像我自己，包括我难过的时候，我就会到天台，屋顶去晒晒太阳。然后晒晒太阳就舒服一些，心情好一点。我自己都是这样。

T3：所以你是说，你看到那个时候，你会想到自己这些，日常的这种经历，自己晒太阳的经历？

T4：对啊。是的，是的。我觉得看到一些植物，看到一些阳光，会让我心情放松一些。

T1: *Why do you like this video? What were you thinking when you watched it?*

T2: Because... Offices in Hong Kong are small and narrow. Many rooms don't have windows. Myself, when I am sad, I go to the rooftop and the roof to bask in the sun. I'll feel better. This is what I do.

T3: *So you mean when you watched that, you thought about your daily experience of basking the sun?*

T4: Right. Yes. Yes. I think to see some plants and seeing some sunshine help me relax.

Another possible response towards metaphorical videos we found was to perform bodily simulations during comprehension. Extract 6 illustrated a case where the participant appeared to put herself into the scene and imagined the feeling of being depressed and being cured. In Turn 2, the viewer appeared to explain her emotional fluctuation by elaborating her thoughts when watched the metaphorical ad of the labyrinth. By imagining being stuck in a cage, she extended the provided metaphorical scene of a labyrinth to a scene of being locked in a cage. This is similar to extending the scene of a given monster to a specific monster discussed in Extract 4. By connecting the scene of a cage and the product, the viewer performed bodily actions of being trapped and working out of the cage in her mind, as confirmed by Turn 3 and 4.

Extract 6

T1: 你给了五分，我想先问一下你，这个时候的你觉得你的情绪波动是一个什么样的波动？

T2: 情绪的波动是一开始，我觉得我困在牢笼里面走不出去，然后他突然就带我出去了，所以我就觉得有一点情绪的波动。

T3: 是说从消极到积极吗？也就是说你看的时候，其实你真的在想自己困在这个里面，你其实是已经自己代入到这个画面里面？

T4: 是的。

T5: 然后他带你走出去，你就有一些从消极到积极这样一个变化？

T6: 是的。

T7: ...你还记得你当时看的时候是什么样的感想或者思考？

T8: 我的感想就是思考真正得抑郁症的人真的是有这种感觉吗？他们真的会觉得自己困在牢笼里面，然后思考还有就是，这个药真的能带出我们，走出抑郁症吗？这是一种什么样的体验呢？

T9: 就说你在评价.....

T10: 它的这个服务，真的能带着我们，认知疗法真的能带着我们走出迷宫吗？

T11: 好的。

T1: You gave five points. I want to ask you first. What kind of fluctuation of emotions do you think?

T2: The fluctuation of emotions.. at first, I felt that I was stuck in a cage and couldn't get out. Then it suddenly took me out. So I felt little changes of mood.

T3: Is it from negative to positive? You mean, when you watched it, you really imagined being trapped into it and you imagined that you were in the picture yourself?

T4: Yes.

T5: Then it took you out so that you have some emotional changes, like from negative to positive?

T6: Yes.

T7: ... do you remember what thoughts do you have during watching?

T8: My thoughts are that do depressed people feel in this way as well? Do they really feel like

being trapped in a cage? And thoughts about can this medicine take us out of depression. What kind of experience it will be?

T9: You mean, you are evaluating

T10: Can this service take us to. Can cognitive behaviour therapy really take us out of the labyrinth?

T11: OK.

Evaluations towards the messages were also elicited as cognitive elaboration (see Turn 8 and Turn 10 in Extract 6), as consumers were normally sceptical towards messages in ads (Calfee & Ringold, 1988). The scepticism towards messages in ads (Calfee & Ringold, 1988; Ford et al., 1990) might increase the criticism towards metaphors in videos. It was detected that viewers tended to evaluate the extent to which the messages were in consensus with their existing knowledge or previous experience during watching. On the one hand, evaluating messages by personal experience could elaborate more details of mappings that were not depicted in the video, like discussed in Extract 4 and Extract 6; on the other hand, the provided mappings in videos had high chances to be rejected once clashed with viewers' existing knowledge. For instance, Extract 7 reported a case where a metaphor is criticized due to the clash with personal experience. The criticism towards metaphor yielded low scores on comprehensibility (see Turn 1 and 4). The viewer elaborated reasons for poor acceptance of the metaphor from Turn 6 to Turn 12, where she disagreed to connect depression with the labyrinth as her childhood experience of a labyrinth was enjoyable but her perception of depression was negative.

Extract 7

T1: 这第四个就是刚刚迷宫的这里，你给的，前两个是问广告容不容易懂。前两个你给它的打分是比其他要低很多的。

T2: 对。

T3: 这个是什么原因呢？就是说像迷宫啊，你觉得？

T4: 我不喜欢这个比喻啊！

T5: 你不喜欢它的原因是？

T6: 因为迷宫这个东西很，我认为它不是一个坏的事情。

T7: 什么不是坏的事情？

T8: 迷宫，但是抑郁症是一个坏的事情，迷宫很好玩。小的时候去文化宫的时候经常去走迷宫。

T9: 所以你就觉得这个广告有点看不懂？

T10: 它会让人产生误解吧。

T11: 误解是指就你觉得他本来应该不是坏的，但是放在这里，但抑郁症是坏的，他们俩绑在一块...你本身是喜欢迷宫的？

T12: 对。

T1: *The fourth one is about the labyrinth. The first two items ask the extent to which the ad is comprehensible. Scores here are much lower than the others.*

T2: Yes.

T3: *What is the reason for this? What do you think when it says like a labyrinth?*

T4: I don't like this metaphor.

T5: *Why?*

T6: Because the labyrinth is very...I don't think it is a bad thing.

T7: *What is not bad?*

T8: Labyrinth, but depression is a bad thing. Labyrinth is fun. When I was young, I often walked through the labyrinth when I went to the Palace of Culture.

T9: *So you think this advertisement is a bit confusing?*

T10: It can be misleading.

T11: *Misleading means that you think it (labyrinth) should not be a bad thing. But here, depression is a bad thing. Putting them together... You like the labyrinth.*

T12: Right.

Another similar example of rejecting a metaphor due to such clash can be found in Extract 8 where a participant commented on the metaphor *LEXIN IS A FRIEND* as unclear (Turn 1 & 2) and strange (Turn 4). The justification the viewer provided in Turn 2 pointed out that no metonymic associations could be found between the product of medicine and the source (friend). In Turn 4, the viewer commented on the metaphor as virtual, abstract, and strange, as no sensible imaginations of connecting the two concepts could be brought to mind. It could be detected that the viewer emphasised the difficulty of making sense of the metaphor from embodied experience, which leads to low acceptance of this metaphor. The comments implied that the metaphor of medicine and friend might not be extended from a conventionalized metaphor and thus generated limited engagement. The criticisms of the goodness and appropriateness of metaphors generally yielded a poor attitude towards the ad and a low purchase intention. It might worthwhile considering how different types of creative metaphors influence the comprehension and effectiveness in future studies.

Extract 8

T1 : 就不太清楚?

T2 : 对对对，就，方法是什么？因为它毕竟不是一个人，他给我鼓励和安慰，它不是一个咨询师，他给我鼓励和安慰，如果是一个药的话，就有可能.....

T3 : 所以，它即便说我们的药是你忠实的朋友，你也没有办法，接受它这样一种，表达的信息。

T4 : 对，可能就觉得，比较得虚，抽象。就是不太能调动去人设身处地地想，哦我有一个朋友是一个药？好像，就是，这个表述让我觉得有点奇怪。

T1: Not very clear?

T2: Right, right, what is the method? Because after all, it is not a person who can give me encouragement and comfort. It is not a consultant who can give me encouragement and comfort. If it is a medicine, it may be ...

T3: So, even if it says that our medicine is your faithful friend, you cannot accept the messages delivered.

T4: Yes, I may think that it is more virtual and abstract. It cannot activate imaginations that oh, I have a friend who is a medicine? It seems, that is, this expression to me is a bit strange.

5.5.3. Affective Elaboration

Survey results about affective elaboration can hardly reflect the direction of emotional responses. Interviews illustrated that both features-highlighting metaphors and needs-highlighting metaphors could reinforce the changes of emotions from negative to positive, which was designed as the base changes of emotions in all stimuli. Reinforcing negative appeals tended to generate negative emotions, such as lonely, depressed, and fears (see Extract 9). A few viewers reported psychological defence when they saw the reinforced negative appeals, making them hoped to skip the ad. The psychological defence generally yielded low attitudes towards the ad.

Extract 9

P: 对，我第二个就是喜欢开头。对，就感觉这段很抑郁，但是很符合抑郁的心情的那种感觉，就很孤僻，然后像迷宫也很贴切，感觉思绪很乱，走不出去的那种感觉。

P: Yes. I like the beginning of the second ad. Yes. This part seems to be very depressed, but it matches the feeling of being depressed. That is, very lonely. And very accurate to say '(depression) is like *labyrinth*'. Confusing thoughts and the feeling that I cannot walk out.

Reinforcing positive appeals, however, worked differently for search products and experience products. When the ad for experience products reinforced positive appeals, viewers tended to report positive feelings, such as happy, warm, and bright, such as Turn 2 in Extract 10. The participant appeared to be surprised at the sudden changes in emotional appeals, which turned out to be her favourite elements. The abrupt changes

and visualization of sunflowers brightened her mood. The participant described her emotional changes by explaining her understanding and expectations of the ad, implying that emotional responses are closely linked to cognitive elaboration.

Extract 10

T1: 这里你的情绪波动比较多得是五和六，也算是比刚刚给分要高一些了，为什么？什么样的波动？

T2: 本来是他一开始广告的开头就是说抑郁症会怎么样怎么样，对吧？突然出现个向日葵 which is 我很喜欢的图像，然后又很灿烂，然后就觉得感觉心情，哎呀，豁然开朗。

T1: Affective elaboration here scored 5 or 6, higher than other ads. Why? What kind of elaboration?

T2: The ad began with describing depression, right? Suddenly there was an image of sunflowers, which is my favourite image, and it was very bright. Then I felt my mood, ah, suddenly become bright and happy.

However, viewers seldom reported such changes when they watched ads for search products even when positive appeals were reinforced by metaphors. The reasons seemed to relate to the cognitive elaboration yielded by sources of metaphors. Extract 11 showed explanations given by a participant that the images of friends were less impressive than that of sunlight in the ad for experience products. The participant claimed that she could imagine how sunlight fulfilled one's mind but had little impression of friends in the ad for search products. This signalled a direction for future research that whether sources of human and sources of non-human would yield different emotional responses when both of them are exploited to reinforce the same kind of emotional appeals. Although research on personification visual metaphors in print ads demonstrated that they generated more positive emotions and greater brand liking (Delbaere et al., 2011), findings from this research seem to be contradictory. It could be due to the reason that all products advertised in their stimuli were search

products (moisturizer, a snack bar, a snack mix, and bleach) (Delbaere et al., 2011). Designs of experiments in this thesis compared how metaphors exerted emotional responses on different types of products.

Extract 11

T1: 我有一个问题，比如说刚刚那个朋友广告跟他们其实前面都没有对抑郁症做出太多的渲染，他们其实是一样的，前面的内容是一模一样的，为什么朋友就没有什么太大的情感波动，但是这个你就觉得？

T2: 可能是因为图像的问题，我对于朋友的 image，因为是不不知道为什么就感觉印象不是特别的深刻，但是看到阳光充满心灵，就感觉我能想象出那幅画面一样。

T1: I have a question. For example, the ad about friends didn't reinforce much about the negative appeals. They are same at this point. The first part is exactly the same. Why the ad about friends didn't elicit much affective elaboration, but this one does?

T2: It maybe because of the images. I don't know why I don't have much impression about images of friends, but when I see the sunshine fills in one's mind, I think I could imagine this picture.

5.5.4 Attitudes Towards the Ad and Purchase Intention

The influences of metaphors on cognitive elaboration and affective elaboration generally shaped the attitudes towards the ad and purchase intention (Kim et al., 2012). However, results from surveys could hardly explain why certain conditions could be persuasive than others. The interviews detected that for experience products, empathy generated by needs-highlighting metaphors and reinforced positive emotions generated by features-highlighting metaphors contributed to the persuasion of ads, whereas for search products, only needs-highlighting metaphors took effect and features-highlighting metaphors raised concerns when viewers evaluated it. A match between

metaphors and personal experience generally led to good attitudes towards the Ad and high purchase intention.

When metaphors were in consensus with viewers' personal experience or existing knowledge, they tend to be evaluated as vivid and impressive, increasing the persuasive power of the whole ad. In Extract 12, a participant emphasised that the first and foremost reason for believing the product lay at how the content of a metaphor echoed with his life experience (see Turn 2). This again showed that the relevance of mass communication was at the individual level that if the claims of an ad happened to be contrasted with the viewers' life experience, the viewer might be less likely to accept such an ad. This could be a niche for using a metaphor that the crafted selections of sources and mappings and how the metaphor could be manifested could provide more opportunities to interact with viewers, such as activating their mental images or their daily experiences, increasing the chances for viewers to derive relevance from the ad.

Extract 12

T1: 你为什么认可这个药？

T2: 就刚刚说了嘛，它先做比喻，它讲的那种内容，跟我的生活经验的理解比较契合。另外一个它是它讲的时候，它的这个药的主要的机理是什么，就是说要提高血清素强化什么呀。所以我认为这样会让我觉得更可信。

T1: Why do you trust this medicine?

T2: Like what I said just now, it showed a metaphor first, and the content of metaphor matches my understanding of life experience. Another reason is that it introduced the mechanism underlying medicine, like increasing serotonin. So I think these will make me feel it is trustworthy.

Reinforced positive emotional appeals of experience products could contribute to the persuasion as well. Extract 13 showed a case where a participant explained that after experiencing the emotional changes from negative to positive, she appeared to develop affection towards the product and believed that the counselling service would bring the same effect to her (see Turn 2). This case showed how emotional changes elicited by metaphors influenced the cognitive elaboration and increased the persuasion of an ad. While existing studies provided caveat on using metaphors on experience products which were perceived to be more sophisticated and excited (Ang & Lim, 2006), the report from participants has shown that metaphors could increase the preference of experience products as well.

Extract 13

T1: 豁然开朗是说你本来是觉得是有一点消极的状态，然后看到这个又变成了积极吗？

T2: 对，因为一开始说到这个广告的，他一开始说抑郁症会怎么样怎么样，我们本来 suppose 是很沉重的话题，突然出现个向日葵，我就觉得我会把这个产品疗效，跟他的药物，就是咨询联系咨询对跟咨询联系在一起，我就觉得他咨询也会给我带来这样的效果。

T1: *Being bright and happy means the changes in emotion from negative to positive after seeing this?*

T2: Yes. Because the ad started with descriptions about depression. We supposed it is a heavy topic. Suddenly a sunflower appeared. I think I will connect the effectiveness of the product, the medicine, I mean, the counselling service, yes, connect with the counselling service. I think counselling will bring me the same effect.

Reinforced negative emotional appeals, however, appeared to have diverse interpretations and generated different effect. Some participants reported that they would like to skip the negative part when it was reinforced, yielding poor attitudes and purchase intention towards the ad. Extract 14 illustrated a case of how a participant

responded towards reinforced negative appeals. The participant appeared to have experience of depression and felt uncomfortable when he sawed the monster. He seemed to be very angry at the depiction of the monster and interpreted it as death, which, in his opinions, was a bad outcome and should not be shown to depressed people (see Turn 3 and Turn 5).

Extract 14

T1：因为我第一眼看到这个骷髅，我第一反应就是，想到吸烟、禁毒、禁烟那些广告。然后觉得没什么意思。没有想到是抑郁症。然后它说是抑郁症。说抑郁症我会想到我自己经历了，然后我看到这个会让我更加难受。我觉得。

T2：嗯。

T3：好像你在说我们得了病的人，这是我们最终的结局吗？就是这个（指向魔鬼画面）。

T4：就是你会有一种反对的，*Argue* 的感觉。

T5：对啊。你不能把这种坏的结果展现给我们。你给我们展现好的结果。

T6：嗯，明白。

T1: Because the first time I saw this skeleton, my first reaction was to think of advertisements about smoking, anti-drug, and no smoking. Then I think it's boring. I did not expect it to be depression. Then it said depression. Speaking of depression, I think of my own experience. And when I saw this, it makes me more uncomfortable. I think.

T2: Yeah.

T3: It sounds like you are saying... Is this the final outcome of us sick people? This one (pointing to the image of monster).

T4: *Seems you are opposed to or argue with it.*

T5: Yes! You can't show us this bad result. You shall show us good results.

T6: *Yeah, I see.*

Some participants reported that although needs-highlighting metaphors reinforced the negative appeals, the ad seemed to address their issues and elicit empathy when they reflect their own situations. Extract 15 showed a case where a participant gave higher scores to an ad due to the empathy aroused by the ad. The participant appeared to be

attracted by the descriptions of how depression influenced people's lives and agreed with the ad content by reflecting on her own situation. Then she started to think about whether the product could be worth trying or not. This is in accordance with findings from existing research that empathy plays an important role in increasing the persuasion of ads (Escalas & Stern, 2003).

Extract 15

T1: 比如说我愿意把它推荐给朋友或家人，这个就明显比其他的要高很多...为什么你要给他的就是要分数要比别的要多一些？

T2: 可能是共鸣。

T3: 共鸣。

T4: 对。让我觉得说它好像 focus 到了我的情况，所以我就..

T5: 你有这种感觉。

T6: 对。想说是不是真的有效，才会想到这一层。

T7: 明白，好的。

T1: *For example, I am willing to recommend it to friends or family members. This is obviously much higher than the others. Why do you give it higher scores than others?*

T2: Maybe due to empathy.

T3: *Empathy.*

T4: Right. (It) Makes me feel that its focus captures my situation, so I...

T5: *You feel this way.*

T6: Yes, I want to know whether it is really effective or not.

T7: *Understand. Okay.*

Metaphors that contrasted with viewers' personal experience or existing knowledge seemed to be declined, yielding low scores of attitudes and purchase intention as discussed in Extract 7. Some participants also reported that while they recognised metaphors, they thought metaphors were too general to provide information of interest.

Extract 16 illustrated a case where a participant commented that a metaphorical ad was similar to what he came across with through TV channels but too broad to guide attention on methods of therapy, which to him, appeared to be practical and crucial information (see Turn 2). Some participants also commented that sources of metaphors seemed to be universal to any other products, hiding the unique features of the target products. When viewers kept a sceptical perspective towards an ad, it was easy to develop doubts towards the metaphors exploited, especially when the metaphors illustrated functions of products, which could only be evaluated effectively after purchasing to some participants.

Extract 16

T1: 然后我们看一下最后没有讨论到的，因为这里你给他打分其实算是比较低的一个，跟其他比起来都是蛮低的。我们看看一下，你看这个广告是什么感觉？

T2: 这个比较符合于现在电视上放的那些广告。就是一些，就说的其实挺那个什么，就是说像患者的太阳什么那些东西，其实他那个疗法它是用字写出来了，但是可能对我来说，我更关注的是那个，而不是说，你像太阳一样怎么样。因为可能我更关注是一些比较实际的东西。

T1: Let's look at the last ad that we haven't discussed. Here you gave it relatively low scores, which are lower than other ads. What do you feel when you watch this ad?

T2: This one is more like ads showing on TV. Like some...sounds quite... Such as descriptions of 'like the sun of patients'. Actually, the therapy methods are shown as written texts. But to me, I care more about that (methods), not things like 'how you can be the sun'. Because maybe I care more about practical things.

5.6 Discussion

Statistical results and interview findings convergently demonstrate that (1) creative metaphors do not always increase the perceived complexity of video ads; (2) creative metaphors can elicit various of emotions by reinforcing both positive emotional appeals and/or negative emotional appeals of video ads; (3) creative metaphors assist in promoting different types of products by achieving optimal relevance to personal interest; (4) metaphors in persuasive messages face strict evaluations during the comprehension; and (5) prevalent designs of creative metaphors for different types of metaphors may not be the most effective combinations from perspectives of viewers.

The findings that creative metaphor can mediate the perceived complexity is in contrast with studies with print ads, where metaphors normally increased the complexity, compared with a literal ad (McQuarrie & Mick, 1999). This thesis has found that creative metaphors in video ads were easy to understand and can help ease understanding, especially for experience products. This could be due to the intrinsic differences between print ads and video ads, where video ads normally provide anchoring information to explain the intention (Enschoet et al., 2010; Enschoet & Hoeken, 2015) but it is rare for print ads to elaborate metaphors due to limited space. Interactions of multi-sensory elements in video ads also enhance viewers' experience which might be easier to generate resonance than print ads. The important role of personal experience in evaluating metaphors during comprehension may also contribute to the decreased perceived complexity of ads for experience products, where metaphors have abstract targets. Participants were found to exploit their subjective experience to judge metaphors with abstract concepts and derived more similarities from these metaphors than those with concrete concepts as targets, according to their studies (Wiemer-

Hastings & Xu, 2005).

This thesis has demonstrated that emotional responses towards creative metaphors in video ads were various, including fears, avoidance, dominance, warmth, and positive, rather than merely happiness due to releasing pressures of resolving metaphorical puzzles, which was the focus of source suggested by existing research on print ads (Kim et al., 2012; McQuarrie & Mick, 1999). Since video ads provide metaphors with a rich temporal context, metaphors have more chances to convey meanings and emotional valence in a transparent way. Metaphors in video ads, therefore, can be an effective strategy to influence emotional responses by reinforcing positive and/or negative emotional appeals. This thesis shows that for experience products, reinforcing positive emotional appeals and negative emotional appeals elicit better attitude than literal ads, whereas for search products, only reinforcing negative emotional appeals is perceived as effective. These findings are in consensus with existing studies that fear appeals are generally effective although resistance might occur due to individual differences (Tannenbaum et al., 2015). A comparison between the self-report measure of affective elaboration and EDA as an autonomic measure illustrated that ads for search products in literal condition and the condition of features-highlighting metaphors yielded strongest SCL, which is contradictory to self-report ratings. Ads for experience products displayed a similar SCL trend with self-report ratings. It makes sense to observe different SCL patterns when product types change, as the EDA measures not only arousal but also attention, memory and other mental works (Dawson et al., 2007). Search products have more tangible and objective attributes to focus on than experience products. It is also in consensus with the literature that the intrinsic differences between self-report measures and autonomic measures generate complementary details (Micu & Plummer, 2010).

Personal experience not only plays an important role in comprehending creative metaphors but also in evaluating the goodness of metaphors and the persuasiveness of ads. This thesis has found that metaphors in video ads were experienced as well as being evaluated the extent to which the choices of sources and the mappings matched viewers' personal experience and existing knowledge, that is, their cognitive environment. The interviews also revealed that viewers were searching for relevant messages during watching video ads, which is in consensus with RT during messages understanding (Forceville, 2014; Sperber & Wilson, 1995). However, messages that weaken assumptions that viewers held face the risks of being rejected in the context of ads. This might due to the unequal status between customers and companies that consumers were the party to be pleased to purchase the products, which is different from the general face to face daily communication.

Last but not least, this thesis revealed an important point that there is a discrepancy between viewers' perceptions and designers' preference regarding the using of metaphors for different types of products. Chapter four has demonstrated frequently occurring patterns from real-world ads that experience products are often associated with needs-highlighting metaphors but not features-highlighting metaphors. This experiment illustrated that although both metaphor conditions outperformed the literal condition, features-highlighting metaphors work better than its counterparts for experience products. On the contrary, the frequently occurring patterns for search products showed that features-highlighting metaphors were often designed to advertise their concrete properties. This association was perceived to be having similar effect as that of the literal condition, whereas needs-highlighting metaphors were much more effective for search products. On the one hand, these findings reflect the traits of mass

communication that although producers choose ostensive stimuli to maximize the relevance of their ads to their audience, the appreciation from perceivers subject to the personal experience of an individual (Forceville, 2014; Sperber & Wilson, 1995). On the other hand, these findings again demonstrate the necessity of validating postulations from discourse analysis with empirical evidence, as the frequency derived from discourse analysis might not be equivalent to their influences.

5.7 Chapter Conclusion

This chapter examined the effectiveness of creative metaphors in video ads through a survey-based experiment, with supplementary evidence from an EDA study and semi-structured interviews. Results from surveys demonstrated that although creative metaphors appeared to mediate the degree of perceived complexity for ads in different conditions, the differences were not statistically significant, implying that these video ads perceived to be roughly similar regarding complexity. This is consistent with findings from research on rhetorical tropes in TV commercials that figurative operations were perceived to be easy to understand in videos (Enschot et al., 2010; Enschoot & Hoeken, 2015). Different trends of perceived complexity when product type changes signalled that metaphor in ads might not necessarily increase the perceived complexity, as claimed by existing research (Jeong, 2008; Kim et al., 2012; McQuarrie & Mick, 1999). A cross-cultural experiment also showed that viewers could derive meaning much easier from complex figurative operations than simple figurative operations in print ads (Pérez-Sobrino et al., 2019). This might be due to the number of cues provided in the context to help viewers recognise the informative intention of an ad.

Results also showed that ads with needs-highlighting metaphors outperformed literal ads regarding cognitive elaboration, affective elaboration, attitudes towards ads, and purchase intention, regardless of product types. Ads with features-highlighting and supporting metaphors, however, received divergent opinions for different types of products. Experience products with intangible and abstract attributes benefited the most from features-highlighting metaphors compared with other conditions, regarding all four dimensions. However, the ad with features-highlighting and supporting metaphors for search products received similar scores with their literal counterpart. Chapter 4 revealed that in real-world ads, needs-highlighting metaphors often occurred in ads for experience products, whereas features-highlighting metaphors and supporting metaphors often occurred in ads for search products. Survey findings demonstrated that there were discrepancies between patterns extracted from discourse analysis and the most effective combinations from perceptions of viewers. First, needs-highlighting metaphors contributed more to effective advertising than their metaphorical and literal counterparts, regardless of product types. Second, features-highlighting and supporting metaphors exerted greater influences than needs-highlighting metaphors for experience products. Third, features-highlighting and supporting metaphors exerted limited influences on effective advertising of search products in this experiment.

Findings from the EDA study showed that trends of emotional responses were different from that in self-reported surveys, although the small number of participants in this part led to inconclusive results. The discrepancies between trends in EDA and surveys could be due to the intrinsic difference between autonomic measures and self-report measures, where subjective judgements were involved in self-report surveys. It could be possible that viewers gave high scores to an ad due to favour when they did not experience many physical changes. Divergent findings could also be due to the

influences of creative metaphors as conceptual phenomena that emotional responses might be elicited after comprehending and experiencing the ad rather than during the comprehending process. Research showed that metaphors took time to elicit emotional responses during face to face communication (Tay, 2019).

Findings from semi-structured interviews provided complementary insights into the effectiveness of creative metaphors. First, the existing measures (Burgers et al., 2015; McQuarrie & Mick, 1999; Mulken et al., 2010) on perceived complexity appeared to fail in capturing viewers' attention on multimodal appeals, which was different from the content of ads. Second, a variety of emotions might be elicited by metaphors, extending the scope of emotional responses from the feeling of being relaxed and joy after resolving metaphorical puzzles (Jeong, 2008; Kim et al., 2012; McQuarrie & Mick, 1999) to a wider range of feelings, such as fear, avoidance, warmth, and happy. Third, creative metaphors took effect by easing comprehension, activating mental images, bodily simulation, and associating with personal experience, increasing chances for viewers to find relevance in an ad, which is crucial to yield positive attitudes and high purchase intention.

Chapter 6. Conclusion, Critical Reflections, and Future Directions

6.1. Chapter Introduction

Having systematically investigated the manifestation, uses, and effectiveness of creative metaphors in video ads, I would like to close the thesis by reemphasising how each component of this thesis contributes to metaphor theories and video ads. Figure 6.1 summarises the logic underpinning this thesis and the crucial dimensions of findings. This chapter will elaborate details from each component with discussions on critical reflections and potential future directions.

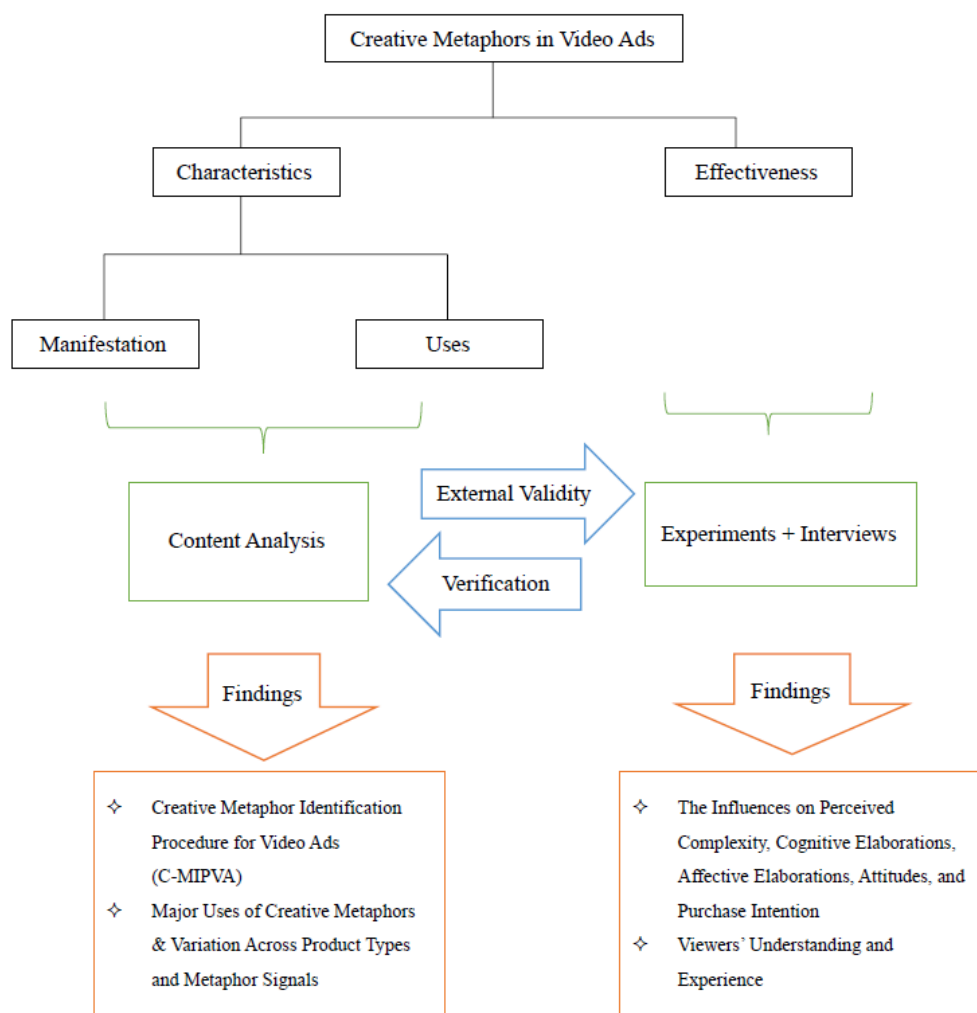


Figure 6.1 A Summary of this Thesis

6.2. Creative Metaphor Identification Procedure in Video Ads

One significant characteristic of creative metaphors in video ads is how they manifest in multi-sensory elements. Studying the manifestation systematically requires a replicable procedure to identify them at the initial stage, which is a research gap in the current development of metaphor in multimodal discourse. This thesis has tackled this issue by introducing a six-step procedure with instantiations and reliability examinations. In this section, I will summarise the progress made in this thesis and point out limitations that can be addressed by future research in the field of multimodality.

6.2.1. Progress of Tackling the Methodological Challenge by this Thesis

This thesis resolved the methodological challenge of identifying creative metaphors in video ads by proposing a replicable and reliable procedure, C-MIPVA. It utilised concrete filmic techniques and explicit cues which were observable and less ambiguous to detect potential metaphorical phenomena. The determination of metaphor required judgements within the context which was close to the data and reserved variances from an individual interpretation that might lead to inconclusive results for reliability examinations. Principal criteria for segmenting the video, verbalizing concepts, and determining the content of metaphor were offered as well. Since the segmentation of videos was critically significant in identifying potential pairs of concepts in moving images, I developed a scheme to detect five filmic techniques that could work as metaphor signalling devices in video ads. The scheme focused on the essential features of each technique, providing a general guideline for segmenting a video.

Apart from theorising plausible procedures to resolve the methodological challenge, this thesis also exemplified proposed procedures with real-world video ads from Chinese platforms and provided substantial evidence for their reliability. A corpus of video ads was built through stratified random sampling that considered potential differences between ads for search products and experience products. The reliability of procedures was examined through the appropriate process of calibrating understanding, independent coding, quantifying results, and discussions to resolve disagreements. Videos annotated in reliability examinations were randomly selected and accounted for 20% of the corpus. The selection of annotators involved novice annotators who had little knowledge towards metaphor but were close to the public regarding the way they viewed metaphorical phenomena in video ads. Substantial interrater reliability among all raters in terms of determining metaphorical units demonstrated that although C-MIPVA was developed by metaphor analysts, it was also friendly to non-linguists. More importantly, the substantial agreements between all raters further demonstrated that metaphor recognition in video ads could be replicable, although individual difference towards decoding the meaning of multi-sensory elements could influence the identification to some extent. The agreement on the content of metaphor (i.e. the target and the source) experienced a difference between novice annotators and trained annotators. Trained annotators detected more metaphors than novice annotators and had less variance in phrasing the content of metaphors, which makes sense when considering the influence of linguistic background on perceptions of what are the target and the source in the formula of metaphors. The proposal and examinations of C-MIPVA laid the methodological ground for systematic investigation when it comes to exploring creative metaphors in a large corpus.

6.2.2. Critical Reflections on Limitations

Limitations of developing C-MIPVA could be discussed in several dimensions. In the first place, this procedure particularly dealt with creative metaphors and did not address other rhetorical tropes, such as metonymy, irony, and hyperbole. Considering the limited work on other rhetorical tropes had been done in the multimodal discourse, it seemed to be infeasible at current stage to develop a procedure capturing all of them in video ads, whose traits were more complex than static images. Also, the difference between the tropes themselves (e.g. metonymy vs. metaphor) is still debatable to date. Secondly, this procedure was developed based on a corpus of Chinese video ads, which might have cultural difference with video ads from other cultures. The cultural difference could influence what signals were exploited as metaphor signalling devices and might also influence the extent to which a creative metaphor could be salient for their target audience. For instance, the filmic technique of depicting non-existing gestalt built by animations was seldom found in the examples discussed by Bobrova (2015) which were designed for the audience in America. This might be as a result of cultural influences that Japanese anime is influential in Asia but not in America. Thirdly, the criteria for detecting the technique of simultaneous cueing of different modes appear to be broad as suggested by the reliability tests. Including novice annotators of metaphors signalled that when metaphor was created through simultaneous cueing of different modes, novice annotators tended to overlook them, whereas trained annotators had higher chances to identify these metaphors which did not display visual incongruity but created through semantic incongruity. Since video ads showed more chances to create metaphors without visual incongruity through interactions of multi-sensory elements, the criteria for identifying this type of metaphor could be specified further.

6.2.3. Future Directions

The aforementioned limitations suggest future directions for research. First, it will be very interesting to investigate how rhetorical tropes other than metaphors manifest in video ads and extrapolate principal parameters for procedural identification. Whether the identification of rhetorical tropes in video ads shall be carried out independently or not requires sufficient evidence for how different rhetorical tropes manifest and work in an ad. The frequency of occurrence in a large corpus will assist in generating insights towards how different rhetorical tropes are exploited.

It is also worthwhile to consider applying C-MIPVA to a large corpus of non-Chinese video ads to investigate the extent to which this procedure is applicable to ads from other cultures. The comparison might yield contributions to methodological developments in research on metaphors in the multimodal discourse, regarding how metaphors are signalled and constructed to assist in advertising for a different group of target audience. Applying C-MIPVA by novice annotators has signalled the least reliable type of metaphor is the one only signalled by simultaneous cueing of different modes, which does not display visual incongruity. Further research can work on specifying the guidance for identifying this type of metaphor, by investigating major possibilities of interactions in video ads, such as simultaneous cueing of non-verbal sound and visuals, and simultaneous cueing of written text and spoken language. More specific guidance for the identification could be generated. It will be also interesting to apply C-MIPVA by annotators from different cultural background, seeking potential variables that contribute to or impede reliable identifications for video ads.

6.3. Major Uses of Creative Metaphor in Video Ads

The uses of creative metaphors in video ads are of theoretical and practical value for understanding the characteristics of metaphors and the contribution they can make to real-world discourse. Given the high complexity of video ads as temporal and dynamic discourse and the diversity of variables that included in designing effective ads, this thesis focused on the major functions that creative metaphors could have in relation to advertising a product and the structural traits that creative metaphors manifested when considering the interplay with other variables, such as product types. This thesis first carried out discourse analysis based on the analytical framework of RT (Sperber & Wilson, 1995) and discussed major uses of creative metaphors and possibilities for an ad to exploit different uses with a number of cases. It then proceeded to statistical analysis of associations between metaphor uses, metaphor signals, and product types, generating results that contribute to an overall view of latent relationships.

6.3.1. Findings from this Thesis

Content analysis on 67 metaphorical video ads showed that creative metaphors can be exploited as features-highlighting metaphors, supporting metaphors, and needs-highlighting metaphors. A features-highlighting metaphor normally involved the product as its target and conveyed positive mappings from the source to the target. The mappings could be about the functions and features of the product or positive associations with the brand. Instead of directly involving the product as the target, a supporting metaphor normally targeted something that was metonymically linked to the product, conveying positive mappings from the source to the target as well. When there

was a features-highlighting metaphor in the same ad, it was often the case that a supporting metaphor exploited something metonymically linked to the source of the features-highlighting metaphor as its source, providing supports for the metaphorical scenario. For instance, when an aeroplane was the source of a features-highlighting metaphor, the airport and travellers might be used as the sources of supporting metaphors in the same ad to maintain the consistency of the metaphorical scenario. Supporting metaphors appeared to show up before features-highlighting metaphors if they co-occurred in the same ad.

A needs-highlighting metaphor behaved differently with other metaphors regarding their ways of advertising the product. Instead of metaphorising the product as something else, the target was often the issue that the product could help resolve. The mappings from the source to the target were not necessarily positive in this case. Negative mappings were constructed quite often. A needs-highlighting metaphor seemed to reinforce the issues to be resolved, through which addressed the needs of the target audience. Several needs-highlighting metaphors might work together to attract different groups of audience. An ad could exploit different uses of creative metaphors flexibly, although typical patterns detected were that features-highlighting metaphors often worked together with supporting metaphors, and several needs-highlighting metaphors often worked to build metaphorical scenarios to reinforce different needs of diverse groups.

Statistical examinations demonstrated that features-highlighting metaphors and supporting metaphors occurred more frequently than expected by chance in ads for search products, whose attributes were predominantly tangible and objective, whereas needs-highlighting metaphors occurred more frequently in ads for experience products,

whose properties were predominantly intangible and abstract. This could be due to the difficulty in video designs generated by the intrinsic difference of the product types. Tangible products were more easy to be visualised than intangible products. Results also showed that features-highlighting metaphors often associated with metaphor signals of juxtaposition and transformation of images, whereas needs-highlighting metaphors often associated with the signal of depicting non-existing gestalt. Supporting metaphors tended to associate with simultaneous cueing of different modes but avoid juxtaposition. Associations between metaphor signals and product types were not statistically significant, implying that there were equal chances for different types of products to exploit metaphor signals. These statistical results pointed out existing frequent patterns of using metaphors in real-world video ads but whether the patterns were effective to viewers could only be revealed by experimental studies.

Content analysis in this chapter investigated the manifestation and uses of creative metaphors through a systematic analytical framework and statistical examinations that yielded an overview of the latent associations among variables of interest. Analysing creative metaphors also demonstrated how the analytical lens of RT could be applied to video ads, which had not been addressed in existing research. This chapter, therefore, contributed to both the development of metaphor theories and RT in multimodal discourse.

6.3.2. Critical Reflections on Limitations

Limitations of content analysis lie at the scope of investigating multi-sensory elements. Since video ads compress verbal elements (including written texts and spoken language) and non-verbal elements (including non-verbal music and sound, pictures, motions, and

gestures) into short clips, analysis of how each element contributes to meaning-making with their unique input might be expected from researchers who aim for developing theories on multimodality. This thesis did not aim to develop such a comprehensive theory accounting for video ads. Instead of scrutinising each possible sensory-element to detect metaphorical phenomenon, this thesis took a perspective that in such temporal and dynamic discourse, analysing what is constructed as an outcome was closer to the way we perceive moving images (Whittock, 1990). A creative metaphor could be recognisable due to the interactions of different elements. The issue of how these elements contributed to metaphorical meaning making could be illuminated after the metaphor identification. That is, any element that contributed to metaphorical meaning-making could be analysed within the context after the identification of a metaphor. While this perspective compromised the insights into every type of multi-sensory element, it kept the openness to the rich possibilities in which metaphor could manifest itself.

The approach to defining modes could be another limitation as there were divergent definitions of modes in multimodality. Instead of taking nuanced ways to define mode, this thesis followed a pioneering work from Forceville (2009) that using distinctive elements as modes of communication in order to carry out systematic investigations with rigorous base. The selection of such an approach might compromise nuanced insights into creative metaphors when considering the input from semiotics. For instance, a cognitive semiotic approach to visual metaphors (Stampoulidis et al., 2019) articulated a two-layer framework towards decoding multimodal meaning, combining sensory approach with semiotics approach and emphasising the situational emerging meaning with consideration of how viewers might interact with the artefacts. However, the possible interactions discussed in their study (Stampoulidis et al., 2019)

included taking photos or posting certain gestures with metaphorical graffiti, which could hardly be extended to video ads. Meanwhile, the focus of content analysis of this thesis is to unpack the characteristics of creative metaphors within the context of video ads rather than possible interactions between the video ads and viewers. Using distinctive elements as modes of communication contributed to the replicability and internal consistency when studying the multimodal discourse.

6.3.3. Future Directions

Future studies can explore further on how a certain mode contributes to making metaphorical meaning. For instance, the frequency of gestures in ads with models and how gestures elicit creative or conventional metaphorical perceptions. The differences between verbal-language and non-verbal language regarding ambiguity is a further possible direction for creating or maintaining the uncertainty of creative metaphors. Within the context of advertising, it is worth considering that the extent to which a metaphor is designed to be ambiguous in terms of identification and interpretation can best assist in fulfilling their roles in advertising. It remains unknown whether the degree of uncertainty structurally link to different uses of creative metaphors and how different modes of communication contribute to creating ambiguity.

Another future direction for extending the research is to analyse other figurative devices in video ads, such as metonymy, irony, hyperbole, and potential interactions between them. This thesis has demonstrated how the analytical lens of RT can be applied to analysing creative metaphors in video ads. The analytical framework can be extended to other figurative devices when they manifest themselves in multi-sensory

elements.

6.4. The Effectiveness of Creative Metaphor in Video Ads

While ample claims have been made about the effectiveness of metaphors in video ads (Forceville, 2008; Forceville & Urios-Aparisi, 2009b; Yu, 2011; Zhang & Xu, 2018), there is a lack of empirical evidence to support how metaphors contribute to effective advertising. Focusing on the manifestation and uses of creative metaphors in the real-world discourse, a cognitive pragmatics perspective towards content analysis provides a theoretical base for valid stimuli design which is crucial regarding the ecological validity that the experimental stimuli represent patterns from the real world ads, offering a trade-off between experimental manipulation and naturally occurred phenomenon. The experimental studies, in turn, shed light on the extent to which creative metaphors generate positive influences and on what dimensions that are of interest to marketing, results from which help verify theoretical postulations from discourse analysis.

6.4.1. Findings from this Thesis

Experimental studies carried out in this thesis demonstrated four crucial dimensions that creative metaphors exerted positive influences on cognitive elaboration, affective elaboration, attitudes towards ads, and purchase intention. Perceived complexity, as a theoretically interesting variable in print ads, however, did not receive statistically different ratings in this thesis. This might be due to the reason that anchoring information in video ads eased the comprehension of ads. The effect of creative metaphors was found to be different when the product type changed. For experience

products whose major attributes were intangible and abstract, ads in metaphorical conditions generated significantly higher scores than the literal ad, with a combination of features-highlighting and supporting metaphors outperformed needs-highlighting metaphors. For search products whose major attributes were tangible and object, only when ads using needs-highlighting metaphors could the advertising perceived to be effective. These findings are consistent with findings from marketing-related research that metaphors exerted different influences for different types of products (Ang & Lim, 2006; Chang et al., 2018; Chang & Yen, 2013). The emotional responses compared by the EDA study and the survey study signalled that results from autonomic measures and self-report measures were not necessarily consistent. For instance, the ad with features-highlighting and supporting metaphors for the search product received the lowest scores when reporting emotional responses in surveys but elicited the strongest emotional responses when being measured by EDA equipment.

Semi-structured interviews probed into explanations for survey scores and elaborated the metaphorical experience of viewers, which could never be gauged by surveys only. This thesis found that viewers tended to exploit their personal experience to interpret the ads and gave high scores when they derived relevance from the ad. Since needs-highlighting metaphors reinforced the issues that to be resolved, viewers were easy to derive how the issue could potentially relate to their own situation and even developed empathy when they engaged in the metaphorical scenarios. This could be the reason why ads with needs-highlighting metaphors outperformed literal counterparts regardless of product types. This thesis also found that when metaphorical scenarios clash with personal experience, viewers tended to be sceptical towards the ad and could hardly generate similarities between the target and the source. Existing research showed that people found more similarities in metaphors with abstract targets

than metaphors with concrete targets because concrete targets restricted imaginations within its own appearance and objective attributes (Wiemer-Hastings & Xu, 2005). When an ad used features-highlighting metaphors, the target was the concrete product, which might limit associations with the source. However, a features-highlighting metaphor for experience products might stimulate imaginations towards how to connect a concrete source with an abstract target. Different from the caveat that products with abstract attributes should be careful about using metaphors (Ang & Lim, 2006), results from this thesis demonstrated that experience products with abstract properties benefited more from using creative metaphors.

Metaphorical experience from viewers also illustrated that the emotional responses elicited by creative metaphors did not restrict to happiness from resolving metaphorical puzzles (Jeong, 2008; Kim et al., 2012; McQuarrie & Mick, 1999). Negative emotions, such as fear, anxiety, confusion (to name a few), could also be elicited when creative metaphor reinforced the issues to be resolved. This was similar to fear appeals in public advertising but unique in the context of persuading a consumer to purchase a product.

6.4.2. Critical Reflections on Limitations

Several limitations could be pointed out regarding the design and operation of the experiments. First, while the sample size was relatively large compared to many other studies, the convenience sampling was used due to practical constraints, limiting the extent to which these findings could be generalised to the whole population. The convenience sampling also restricted investigation of consumer individual differences,

such as how consumers of different ages perceived the same ads. Second, the selections of anti-depressant and counselling service as the target product and service did not go through a selection process by viewers which were common in marketing-related research that the product normally underwent a process of being rated from a pool. The choices of products and service against depression were made by the researcher with consideration of their uniqueness and potential marketing space in mainland China, as more and more attention had been paid on depression in recent years. Third, the measures adopted in surveys were predominantly developed from examining the effectiveness of metaphors in print ads (Burgers et al., 2015; Kim et al., 2012; Mulken et al., 2010), which might not thoroughly capture the characteristics of metaphors in video ads. As revealed by the interviews, existing measures of perceived complexity failed to examine the dimension of multimodal appeals. Given the limited research on how metaphors took effect in video ads, this thesis adopted existing measures rather than developing new measures due to methodological constraints and the purpose of maintaining rigorous designs. Another limitation could be exploiting EDA as the autonomic measure of affective elaboration rather than the autonomic measure of the effectiveness of video ads. The decision was following suggestions from existing advertising research where Skin Conductance was typically regarded as a type of physiological measures of emotional reactions, especially a good indicator of arousal (Caruelle et al., 2019; Micu & Plummer, 2010; Poels & Dewitte, 2006). Nevertheless, research that was not limited to the context of advertising demonstrated that changes of EDA could be substantially related to mental efforts, such as mental images and memory, rather than being restricted to emotional responses (Dawson et al., 2007).

6.4.3. Future Directions

Future investigation on the effectiveness of metaphors could be developed from representative sampling, more types of products, and new measures for video ads. More variables related to consumers and individual differences could be taken into consideration, such as gender, ages, previous experiences etc. Random sampling is recommended to add the representativeness of the data and the generalizability of the research. It is also recommended to expand the sample size for the EDA study, which might generate interesting comparisons between self-reported emotional responses and non-volitional emotional responses towards creative metaphors in multimodal discourse. Another possible attempt is to regard Skin Conductance as an equivalent measure to the effectiveness of the video ads, not just emotional responses, which might require more supplementary data from other measures, such as verbal-reports to analyse the complex cognitive and affective changes involved.

The types of products can be changed to other categories if considering concerns that people generally have towards medicine. But the function of different types of products in an experiment shall be comparable. For instance, sticky notes can hardly be comparable with pens but they are comparable with memo Apps. A product pool for selecting such appropriate matched pairs of products can be set up for ratings from viewers in future studies. Since current measures were incorporated from existing research on print ads, future studies could develop new measures that fit metaphors in video ads to maintain the consistency between measures and target phenomenon.

Another possible direction is to systematically investigate how viewers phrase metaphorical phenomena in video ads, including the extent to which they recognise the phenomena and how they describe them in language. This direction might generate practical insights into metaphor theories regarding external validity.

6.5. Chapter Conclusion

In closing, this thesis bore theoretical, methodological, and practical significance. It started with refining the definition of creative metaphors within the context of video ads, pointing out its dynamic and temporal traits that do not follow definitions developed from linguistic novel metaphors. Motivated by the aim of systematic investigation, this thesis developed a replicable and reliable procedure to identify creative metaphors in video ads and demonstrated how crucial analytical lens from RT could be applied with video ads when investigating characteristics of creative metaphors. Through combining case studies and statistical examinations of a large corpus, this thesis proposed major uses of creative metaphors to assist in advertising different types and products, diverse possibilities that an ad can exploit different uses, and latent associations between metaphor uses, metaphor signals, and product types, contributing to the understanding of the creative metaphorical phenomenon in the genre of temporal and dynamic promotional discourse. This thesis also provided empirical evidence for the extent to which creative metaphors exert positive influences on perceived complexity, cognitive elaboration, affective elaboration, attitudes towards ads, and purchase intention, illuminating effective uses of creative metaphors for different types of products for practitioners.

Limitations of this thesis can be summarised as the scope of investigating regarding the selection of theoretical approaches, data sources, and sampling devices in experiments, which can be developed respectively in future studies.

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Appendix A Solutions to Disagreed Metaphors

Ad	Step2	Metaphor	Solution
E13 QQ 阅读	C 45-56s	图书馆是魔法学校	Agree: This metaphor will contribute to the promotion of the product which is advertised as "a library which gives you freedom" from the aspect that it might provide some magical and exciting experience.
	C 1'43s-1'44s	手机是鸟巢/手机是图书馆/飞是下载	The first metaphor is adopted as four annotators agreed on it and it is consistent with metaphors in previous segments
	A 1'48s-1'50s	QQ 阅读是自由图书馆/QQ 阅读是魔法师	The metaphor QQ READING IS LIBRARY is adopted as a magician could be a character in the library. This metaphor is consistent with other metaphors from this ad.
E26 陌陌	D 48-50s	人是鱼	Agree: This is a metaphor that is consistent with the theme of the ad
	2.1	人是小松鼠	Agree: This is a personification multimodal metaphor that is consistent with the theme of the ad.
	2.1	人是动物	Agree: This could be a theme metaphor in this ad
E27 京东理	D 35-42s	奋斗者是财神	Agree: The visual elements show a prototype of Master of Fortune in Chinese

财			culture
	2.1	梦想是气球	Disagree: This is a general understanding of dream but in the context, dreams are visualized as objects, not balloons
S18	2.1	洁净是享受	Disagree: no metaphorical mapping between these two concepts
优然美			
洁面泡			
沫			
S34	2.1	音效是雨声	Disagree: no metaphorical mappings between these two concepts.
联想笔			
记本			

Appendix B Design for Six Video Ads (Original in Chinese)

Translation of Scripts:

Search products: Features-highlighting metaphors

Depression can seriously affect people's lives. Don't be afraid. Lexin will give you encouragement and comfort. Le Xin, your faithful friend! Treat depression with Lexin!

Search products: Needs-highlighting metaphors

The color of the world is being swallowed by the monster of depression. Don't be afraid. There is Lexin to adjust mood. Treat depression with Lexin!

Search products: Literal ad

Depression can seriously affect people's lives. Don't be afraid. Lexin can scientifically and effectively adjust people's mood through increasing serotonin and strengthening the signal levels between nerve cells. Treat depression with Lexin!

Experience products: Features-highlighting metaphors

Depression can seriously affect people's lives. Xinle Counseling, warm sun for patients with depression. Illuminate the dark and cold world with warmth and sunlight. Come to Xinle, warm and happy!

Experience products: Needs-highlighting metaphors

Are you stuck in the dark labyrinth of depression? Xinle Counselling uses cognitive behavioral therapy and dialectical behavioral therapy to help you out of the labyrinth. Come to Xinle, warm and happy!

Experience products: Literal ads

Depression can seriously affect people's lives. Xinle Consulting adopts cognitive behavioral therapy and dialectical behavioral therapy to treat depression scientifically and effectively! Come to Xinle, warm and happy!

剧本 1 标题：忠实的朋友

正文（人声及字幕）：抑郁症会严重影响人的生活。别怕，乐馨给你鼓励和安慰。乐馨，你忠实的朋友！ 治疗抑郁，用乐馨！

脚本：

画面*	人声	音乐/ 音效	字幕	画面文字	时间
自然世界画面 （由彩色渐变为黑白）	抑郁症会严重影响人的生活。		抑郁症会严重影响人的生活。	失眠、头晕不适	0-3s
（鼓掌等鼓励性画面）& 服药画面 （juxtaposition）	别怕，乐馨给你鼓励		乐馨会给你鼓励	提高血清素	4-6s
拍背等鼓励性画面&疗效 （juxtaposition）	和安慰		和安慰	强化神经细胞之间的信号水平	7-8s
世界图片（变为彩色）	乐馨，你忠实的朋友！		乐馨，你忠实		9-11s

			的朋 友！		
世界图片（变为 彩色）	治疗抑郁，用乐馨！		治疗抑 郁，用 乐馨！		12-16s

*画面：拍摄或使用网上视频素材

剧本 2

标题：抑郁怪兽

正文：

世界的色彩在被抑郁这头怪兽慢慢吞噬？别怕，有乐馨来调节情绪。治疗抑郁，用乐馨！

脚本：

画面	人声	音乐/ 音效	字幕	画面文字	时间
世界（有巨大阴影使图画由彩色渐变黑白）	世界的色彩在被抑郁这头怪兽慢慢吞噬？		世界的色彩在被抑郁这头怪兽慢慢吞噬？	失眠、头晕 不适	0-6s
吃药图片，药效图片	别怕，有乐馨来调节情绪		别怕，有乐馨来调节情绪	提高血清素， 强化神经细胞之间的信号水平	7-11s
鼓励等画面 产品（彩色）	治疗抑郁，用乐馨！		治疗抑郁，用乐馨！		12-16s

剧本3 标题：乐馨的功能介绍

正文：

抑郁症会严重影响人的生活。别怕，乐馨通过提高血清素，强化神经细胞之间的信号水平,科学有效地调节人的情绪。治疗抑郁，用乐馨！

脚本：

画面	人声	音乐/音效	字幕	画面文字	时间
自然世界画面（由彩色渐变为黑白）	抑郁症会严重影响人的生活。		抑郁症会严重影响人的生活。	失眠、头晕不适	0-3s
吃药图片	别怕，乐馨通过提高血清素，		别怕，乐馨通过提高血清素，	提高血清素	4-6s
药效图片	强化神经细胞之间的信号水平，		强化神经细胞之间的信号水平，	强化	7-8s
药效图片	科学有效地调节人的情绪。		科学有效地调节人的情绪。		9-11s
鼓掌等鼓励性画面	治疗抑郁，用乐馨！		治疗抑郁，用乐馨！		12-16s

剧本 4

标题：暖阳

正文：

抑郁症会严重影响人的生活。欣乐咨询，抑郁症患者的暖阳。用温暖和阳光照亮漆黑、冰冷的世界。来欣乐，温馨，快乐。

脚本：

画面	人声	音乐/ 音效	字幕	画面文字	时间
黑暗的封闭空间	抑郁症会严重影响人的生活。		抑郁症	失眠、头晕 不适	0-3s
有太阳的自然画面	欣乐咨询，抑郁症患者的太阳。		欣乐咨询， 抑郁症患者的暖阳。	欣乐咨询	4-6s
治疗等画面可与阳光画面 juxtaposition	用温暖的阳光		用温暖的阳光，	认知行为疗法 辩证行为疗法	7-8s
世界等自然画面 (由黑白到彩色)	照亮漆黑冰冷的世界。		温暖和照亮 漆黑冰冷的世界。	黑白褪去	9-11s
鼓掌等鼓励性画面	来欣乐，温馨，快乐！		来欣乐，温馨，快乐！		12-16s

剧本 5

标题：迷宫

正文： 你是否被牢牢困在抑郁这座黑暗的迷宫里？欣乐咨询，采用认知行为疗法和辨证行为疗法，帮你走出迷宫。来欣乐，温馨，快乐！

脚本：

画面	人声	音乐/音效	字幕	画面文字	时间
黑暗的封闭空间	你是否被牢牢困在抑郁这座黑暗的迷宫里？		你是否被牢牢困在抑郁这座黑暗的迷宫里？	失眠、头晕	1-4s
治疗图片	欣乐咨询，采用认知行为疗法和辨证行为疗法		欣乐咨询，采用认知行为疗法和辨证行为疗法		5-9s
世界等自然画面 (由黑白到彩色)	帮你走出迷宫。		帮你走出迷宫。	抑郁(随色彩消失)	10-11s
鼓掌等鼓励性画面	来欣乐，温馨，快乐！		来欣乐，温馨，快乐！		12-16s

剧本 6 标题：欣乐咨询

正文：抑郁症会严重影响人的生活。欣乐咨询，采用认知行为疗法和辩证行为疗法，科学有效地治疗抑郁症！来欣乐，温馨，快乐！

脚本：

画面	人声	音乐/音效	字幕	画面文字	时间
黑暗的封闭空间	抑郁症会严重影响人的生活。		抑郁症会严重影响人的生活。	失眠、头晕	0-3s
治疗画面	欣乐咨询，采用认知行为疗法和辩证行为疗法		欣乐咨询，采用认知行为疗法和辩证行为疗法		4-8s
世界等自然画面 (由黑白到彩色)	科学有效地治愈抑郁症！		科学有效地治愈抑郁症！		9-11s
鼓励性人群画面 (彩色)	来欣乐，温馨，快乐！		来欣乐，温馨，快乐！		12-16s

Resources adopted in visuals:

https://www.youtube.com/watch?v=A_8qQH1gXXQ

<https://www.youtube.com/watch?v=JcZY6Sn7G4E>

Appendix C Links of Surveys

Sequence A:

<https://wj.qq.com/s2/3684006/bfaa/>

Sequence B:

<https://wj.qq.com/s2/3684192/027b/>

Sequence C:

<https://wj.qq.com/s2/3684230/6076/>

Sequence D:

<https://wj.qq.com/s2/3543169/257f/>

Sequence E:

<https://wj.qq.com/s2/3543299/1c27/>

Sequence F:

<https://wj.qq.com/s2/3543463/f8bf/>

Appendix D Data for Statistical Analysis

Chapter 3

https://osf.io/js2ya/?view_only=69443beed0d242d6b23ae31ad4703d86

Chapter 4

https://osf.io/wcq8v/?view_only=958e7367d29a41f09fe3715cce5b5b95

Chapter 5

https://osf.io/v7py4/?view_only=6ed558e7da054bd0917cbda9998cd757

Appendix E Links to Ads in the Corpus

Online Platforms and Product Types_Links for Chinese Video Ads

	Experience Products	Search Products
腾讯视频频	<p>E1 美团外卖 https://v.qq.com/x/page/z0347usvkdr.html</p> <p>E5 奇葩说 https://v.qq.com/x/page/f0759d3ryn8.html</p> <p>E11 第六感 https://v.qq.com/x/page/g0562d5ipk6.html</p> <p>E12 德邦快递 https://v.qq.com/x/page/n0015w0r6ex.html</p> <p>E13 QQ 阅读 https://v.qq.com/x/page/g05524826aw.html</p> <p>E14 知乎 https://v.qq.com/x/page/y01957ll6us.html</p>	<p>S1 滨崎果汁糖果 https://v.qq.com/x/page/j0131u27o6a.html</p> <p>S8 Adidas https://v.qq.com/x/page/d0569i0kavz.html</p> <p>S12 宝马 https://v.qq.com/x/cover/uil9pichh74fyz8/t0024yl687w.html</p> <p>S14 味全乳酸菌 https://v.qq.com/x/page/b05537suyro.html</p> <p>S15 养乐多 https://v.qq.com/x/page/x0307tg3rf1.html</p> <p>S16 丸美眼霜 https://v.qq.com/x/page/r0146rntgp7.html</p>

<p>E15 网易云音乐</p> <p>https://v.qq.com/x/page/r05348nczaf.html</p> <p>E16 前程无忧</p> <p>https://v.qq.com/x/page/t01321phjhv.html</p> <p>E17 网易严选</p> <p>https://v.qq.com/x/page/t0510nqixqe.html</p> <p>E18 腾讯视频</p> <p>https://v.qq.com/x/cover/948f5vz1ou6tnlj/p0025kqw8al.html</p>	<p>S17 英皇卫浴</p> <p>https://v.qq.com/x/page/z0512w5ecqy.html</p> <p>S19 宜家吊灯</p> <p>https://v.qq.com/x/page/c018034ujz1.html?new=1</p> <p>S25 可口可乐</p> <p>https://v.qq.com/x/page/d00159ncf9q.html</p> <p>S35 方太油烟机 (航空)</p> <p>https://v.qq.com/x/page/q0628rrjd6u.html</p>
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爱 奇 艺	E2 哦懂了 http://www.iqiyi.com/w_19rv51jp3x.html	S2 三全炫彩小汤圆 http://www.iqiyi.com/w_19rtc85i5p.html
	E3 天天 P 图 http://www.iqiyi.com/w_19rv1j5f21.html	S3 步步高点读机 http://www.iqiyi.com/w_19rrrp5qk1.html
	E4 掌上电力 http://www.iqiyi.com/w_19rt0gskjd.html	S4 旺仔小馒头 http://www.iqiyi.com/w_19rs48q0yp.html
	E6 蛮荒搜神记 http://www.iqiyi.com/w_19ruzqivkp.html	S5 奥利奥 http://www.iqiyi.com/w_19ruglsc2x.html
	E7 我主良缘 http://www.iqiyi.com/w_19rvdj1jxd.html	S6 小天才电话手表 http://www.iqiyi.com/w_19rt0yj5rt.html
	E8 肯德基超级 APP http://www.iqiyi.com/v_19reo8oq4.html	S7 脉动 http://www.iqiyi.com/w_19ru19x42p.html
	E9 遇见 APP http://www.iqiyi.com/w_19rsm0lpx5.html	S9 脑白金 http://www.iqiyi.com/w_19rtctptsd.html
	E 10 猎豹清理大师 http://www.iqiyi.com/v_19rr92q548.html#vfrm=2-4-0-1	

	<p>E26 陌陌</p> <p>https://www.iqiyi.com/v_19raepbkk.html</p> <p>E20 支付宝</p> <p>https://www.iqiyi.com/v_19rna6j84.html</p>	<p>S10 手机</p> <p>http://www.iqiyi.com/w_19run6jwhl.html</p> <p>S20 佳洁士</p> <p>http://www.iqiyi.com/v_19rdqjfy.s.html</p> <p>S28 好多鱼</p> <p>http://www.iqiyi.com/w_19rs9kp6l.html</p>
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优酷	<p>E19 奈瑞儿美容</p> <p>https://v.youku.com/v_show/id_XMzYxODM1MjI4.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E21 赶集网</p> <p>https://v.youku.com/v_show/id_XMjQ4NjkyMDQ4.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E22 爱奇艺客户需求版</p> <p>https://v.youku.com/v_show/id_XNzQ1ODU1Mzky.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E23 天涯社区</p> <p>https://v.youku.com/v_show/id_XMzAwOTY4ODgyOA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E24 顶呱呱信贷</p> <p>https://v.youku.com/v_show/id_XMTY0MTk5MjQ2MA==.html?spm=a2h0c.8166622.PhoneSokuUgc_1.dtitle</p> <p>E25 淘票票</p> <p>https://v.youku.com/v_show/id_XMjAwNDI5ODU3Ng==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p>	<p>S11 战狼世家</p> <p>https://v.youku.com/v_show/id_XMjg5MDQzMDI0NA==.html?spm=a2h0c.8166622.PhoneSokuUgc_2.dtitle</p> <p>S18 优然美洗面奶</p> <p>https://v.youku.com/v_show/id_XMjY2Njc0ODcyMA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S21 滴眼液</p> <p>https://v.youku.com/v_show/id_XNDgwMjM4MDky.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S23 家居</p> <p>https://v.youku.com/v_show/id_XMzEzNTQ3NzIyMA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S24 山楂树下饮料</p> <p>https://v.youku.com/v_show/id_XMjgzOTEwNDczNg==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p>
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<p>E27 京东小金库</p> <p>https://v.youku.com/v_show/id_XMTg3NTYxODc2MA==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E28 网易云音乐</p> <p>https://v.youku.com/v_show/id_XOTMzOTY5NzE2.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E29 EMS section 3</p> <p>https://v.youku.com/v_show/id_XNzc0NzgWNDky.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>E30 友邦保险</p> <p>http://v.youku.com/v_show/id_XMTc1NDczMjQ4.html?spm=a2h0j.8191423.module_basic_relation.5~5!2~5~5!7~5!2~1~3~A</p>	<p>S26 手机</p> <p>https://v.youku.com/v_show/id_XMjc1NTU0Mzk1Ng==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S27 Vivo</p> <p>https://v.youku.com/v_show/id_XMjk5MDAzMDMxNg==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S29 男装</p> <p>https://v.youku.com/v_show/id_XMjkzMTU0Mjc5Ng==.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S30 鄂尔多斯</p> <p>https://v.youku.com/v_show/id_XMzMxMDIwNzk2.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p> <p>S32 酒</p> <p>https://v.youku.com/v_show/id_XODMzODk5ODY0.html?spm=a2h0k.8191407.0.0&from=s1.8-1-1.2</p>
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T V C	<p>E31 阳光金融保险</p> <p>http://www.tvcbook.com/showVideo.html?vid=71564&code=ea54NTXzcdJvirI41xvgFNZVDO-o5fkZ47YA2Lxj9U3ehA</p> <p>E32 天猫购物</p> <p>https://www.tvcbook.com/showVideo.html?vid=939242&code=55f4TGaIdjzLa9TPSRS4bjL4ohi3uIA93I3BKpggakDk9Ydv0hQR</p> <p>E33 滴滴出行</p> <p>www.tvcbook.com/showVideo.html?vid=72204&code=29fdh9_UQ54SnALQtwuzPgNtKxD3i5H6vpCTYsubmAtwdQ</p> <p>E34 成都不夜城</p> <p>http://www.tvcbook.com/showVideo.html?vid=33156&code=d96545_22XsaI9GtFG01VGLGFMU-Opjj5DJZTPyC5tpNvg</p> <p>E35 KEEP APP_</p> <p>www.tvcbook.com/showVideo.html?vid=47057&code=77f8kwKBvoxgyogyidkPBXgkfGb2EZ0aIFhEFsLqrshAYA</p> <p>E36 唯品会</p>	<p>S13 BASS 音箱</p> <p>https://www.tvcbook.com/showVideo.html?vid=104007&code=529cOMylOtBA5EiGlbRa0mPFnNfDaSDMAI3mFCqLktnzxOIwAVjJ</p> <p>S22 奶瓶</p> <p>http://www.tvcbook.com/showVideo.html?vid=70386&code=3af5MKotjdgM4uoyPB4z_qESdgZGArMK4axYhYkgjeqhoA</p> <p>S31 飞利浦净水器</p> <p>http://www.tvcbook.com/showVideo.html?vid=70796&code=35e7A8mooM2RUBwdpd1cbxmAdENBIaKpiyc5aebOOfz3Dg</p> <p>S33 沐浴</p> <p>http://www.tvcbook.com/showVideo.html?vid=47779&code=b841OwXwQHM-bYQTdIbOvrGHYWaWCHuW05ZJX48PAFKvyw</p> <p>S34 联想 Lenovo Yoga</p> <p>www.tvcbook.com/showVideo.html?vid=33131&code=d7a8wAnX1n6H7vXqWPBLZItsFVCKVJsS-ykPTPbJrz3KfA</p>
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<p>http://www.tvcbok.com/showVideo.html?vid=70848&code=b410mCbICNbytGnj2BP1tnG-JAJ9GArS6IDiT4IfT52saQ</p> <p>E38 美美咨询</p> <p>http://www.tvcbok.com/showVideo.html?vid=72187&code=53b9oCUVBFITyEwCb1M2KLgDQ3Aclw-3Y4Mm-3-MF2uxTg</p> <p>E40 嘉定新城</p> <p>www.tvcbok.com/showVideo.html?vid=33276&code=af11jtHYAwLfpmODvJCc_1ureJQ3lMn1QQK1c1jZcuu8ew</p> <p>E46 瑞丰银行</p> <p>www.tvcbok.com/showVideo.html?vid=72141&code=f109Sp8UQe0cw8YFsLPh5zKRx1ORW0_Gxr9mVFCxB4IHZQ</p> <p>E47 新东方百日行动</p> <p>https://www.tvcbok.com/showVideo.html?vid=72223&code=a586gh1FBcG682T5TtMeH6gNA4CU_-NK47dXuherwU55ia3XqUg</p>	<p>S36 霍尼韦尔空气净化器</p> <p>http://www.tvcbok.com/showVideo.html?vid=72191&code=84948Wqbt9a3ckpU7wTC2lwaFxE-srpkaiv1TuXagTOZZQ</p> <p>S37 冷酸灵</p> <p>http://www.tvcbok.com/showVideo.html?vid=71633&code=c6efGcrCdfelU4RRiPkqGbquYW7iD4pF-DnWCg7t-uG5zw</p> <p>S38 讴歌</p> <p>http://www.tvcbok.com/showVideo.html?vid=56001&code=9e9blCefQ-GqloV8E6Qp5dQJ5hrLmAlIFPX3NMJLUwpZA</p> <p>S39 九仙尊</p> <p>www.tvcbok.com/showVideo.html?vid=72186&code=6a5c79yumIuSjcAbIaUsJBw51eEyM8fVGU3GVdPhmXRLVg</p> <p>S40 西门子清洁</p> <p>http://www.tvcbok.com/showVideo.html?vid=70674&code=6040xQA17vRD8Wc0rSgqSZGatr9VTGjnuVv5b-71HUWVsQ</p>
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数 英 项 目	<p>E37 好现贷 (session 3 魔法师的远行) https://www.digitaling.com/projects/23821.html</p> <p>E39 饿了么 https://www.digitaling.com/projects/27286.html</p> <p>E41 阿里通信双 https://www.digitaling.com/projects/23764.html</p> <p>E42 百度网盘 https://www.digitaling.com/projects/24017.html</p> <p>E43 咪咕善跑 https://www.digitaling.com/projects/23692.html</p> <p>E44 侦探季 (session1)https://www.digitaling.com/projects/24681.html</p> <p>E45 天猫速写男装 https://www.digitaling.com/projects/23803.html</p>	<p>S41 小米空气净化器 https://www.digitaling.com/projects/24684.html</p> <p>S42 杰士邦 https://www.digitaling.com/projects/24650.html</p> <p>S43 Pokey 饼干 (session 1) https://www.digitaling.com/projects/23709.html</p> <p>S44 虫草奢养护肤品 https://www.digitaling.com/projects/23728.html</p> <p>S45 必胜客 烤肉黑披萨 https://www.digitaling.com/projects/23739.html</p> <p>S46 摩托罗拉 https://www.digitaling.com/projects/23734.html</p> <p>S47 苏泊尔极光保温杯 (session 3) https://www.digitaling.com/projects/23800.html</p>
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<p>E48 自如网</p> <p>https://www.digitaling.com/projects/24607.html</p> <p>E49 京东闪付</p> <p>https://www.digitaling.com/projects/24636.html</p> <p>E50 饿了么 北方篇</p> <p>https://www.digitaling.com/projects/24553.html</p>	<p>S48 贵人鸟</p> <p>https://www.digitaling.com/projects/23771.html</p> <p>S49 方太油烟机 (油烟情书)</p> <p>https://www.digitaling.com/projects/23818.html</p> <p>S50 华为手机</p> <p>https://www.digitaling.com/projects/23781.html</p>
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