

## The Cognitive Processes of Image Schema in Sino-American Economic News on *The Belt and Road*

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### Abstract

This contrastive study decodes the language applications employed in news reports through image schematization to reproduce the ‘cognitive map’ of news writers in their ways of perceiving the world and exerting influence on news readers’ ways of perception. By analysing American economic news (AEN) and Chinese economic news (CEN) on the issue of ‘The Belt and Road’ (B&R) from the perspective of cognitive linguistics, the authors uncover and sketch out the hidden epistemic cognitive patterns and processes of both the Chinese and American writers. The study demonstrates that the schematic images and their constructions are organized in the mind of an individual as a network, with both metaphorical and formulaic schemas at different schematic levels, presenting a different process of cognitive entrenchment through which, in news discourses, image schema is utilized as a projection lens, projecting the covert cognitive processes onto overt language use and function.

**Key words:** Cognitive process; Image schema; B&R; AEN; CEN

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### 1. INTRODUCTION

Cognitive linguistics, an interdisciplinary science, centres on the mind and its processes (Norman, 1980). The types of human mind processing, including attribution, perception, and stereotype, involve various language activities (Holtgraves and Yoshihisa, 2008). In many cases, language stands out as a vital tool in fulfilling and lubricating social cognitive activities (Semin, 2000), which can be acquired through the use of language (Holtgraves, 2002). However, the complicated relationship between the overt language and the covert cognitive process requires discourse consumers to actively participate in the decoding and apprehending of news discourses. In terms of news circulation, the mass media enjoys advantages about involving a wide range of discourse consumers, considering its broad coverage and rapid circulation. Surrounded by different values, beliefs, and institutions, news discourse producers intentionally or unintentionally exert influence on the cognitive processes of news discourse consumers toward objects, events, and phenomena (van Dijk, 1992). To analyse the relationship between language and cognitive processes in news discourses would offer new insights on cognitive frames and pragmatics in different cultures to unveil the covert relationship between the cognitive processes and language uses, and to probe into the cognitive mechanism revealed by news discourses. In this present study, the authors focus on image schemas identified in Sino-American economic news on ‘the Belt and Road’ (B&R) and their projected cognitive processes due to the diversion of language use. The contrastive analysis of both the Chinese and American news writers helps paint a preliminary picture of the two types of cognitive patterns semantically and textually, shedding light on the formation of different

media stances and their possible cognitive influences on the media readers and their perceptions of B&R in discourses.

## 2. RESEARCH BACKGROUND

### 2.1 News Discourse Studies

As a practical genre of media discourse, news discourse has attracted great attention and discussion from scholars around the world, who have offered various definitions of the subject. Applegate (2011, p.47) approaches it through the lens of journalism, claiming that ‘news is usually defined as information that is timely, relevant to the concerns of its audience, and presented in a form that is easy to grasp’. van Dijk (2008), from the perspective of social context, defines news discourse as the main source of human knowledge, attitudes, and ideologies. Sharing the same concept, Fowler (1991) describes news discourse as a social practice and product that discourse reporters produce based upon the news topics they choose to reflect their newsworthiness criteria. Nevertheless, media research problematizes processes of mediation and the media-audience relationship (Sidiropoulou, 2018), through which public views are shaped in various literacy situations.

For a protracted time, the incorporation of specific linguistic elements and social value has made news discourse an area of interest for many linguists. For instance, content analysis employs an approach that is systematic, objective, and qualitative. As a research method, content analysis was widely used in the period between 1930 and 1960, which can be traced back to World War II with the ultimate goal to understand the ideology guiding the development of news reports by mass media. Content analysis is multidisciplinary in nature and it provides analysis for the language employed in news discourse from a theoretical as well as a practical perspective (van Dijk, 1985). However, content analysis has certain limitations, such as its reliance on the qualitative analysis. A descriptive approach to news analysis leaves the interpretative aspect unexplored. As a result, the popularity of content analysis has diminished over time as its focus is widely put on understanding the historical expansion of discourse analysis, especially since the 1970s.

Differently, Bell (1991) explores news discourse from a socio-linguistic perspective, claiming that news is a product drawn from both sociolinguistics and linguistics. He studies the association between the linguistic elements in news articles and the sociocultural context within which the language employed. There are both merits and demerits in adopting the sociolinguistics approach. The advantage is that it gives due consideration to the concern of language as well as the social and interactive aspects of news discourses, which is not considered in

the content analysis. Accordingly, using sociolinguistics assists in providing an explanation as to why different social settings exhibit different uses of language styles. The disadvantage of this approach is that it takes a rather narrow perspective on the social facets of news discourse, thus failing to exemplify the systematic association between social settings and language used. Meanwhile, critical discourse analysis (CDA) emerged as another approach to news discourse analysis. This approach seeks to explore the syntactic structures of news discourse by attempting to reveal the power and fundamental ideologies therein. Fowler (1991) utilizes CDA to investigate the use of language in news discourse to identify the ideology embedded in the discourses, presenting the association between language and ideology construction.

### 2.2 Studies of Cognitive Image Schema in Discourses

The combination of discourse study and cognitive linguistics has given rise to an enormous upsurge of linguistic research interests, such as image schema in discourses. The image schema in discourses has often been closely related to polysemy exploration, dominated by studies on preposition. To define image schema, Johnson (1987, p.xiv) claims that ‘an image schema is a recurring, dynamic pattern of our perceptual interactions and motor programmes that gives coherence and structure to our experience’. According to him, dynamic patterns emerge as meaningful structures for us in our bodily movements through space, our manipulations of objects, and our perceptual interactions. Some of the image-schematic patterns argued by Johnson as being fundamental to our embodied experience are observed in spontaneous gestural behaviour (Roth & Lawless 2002). Lakoff (1987) agrees with Johnson’s point of view on image and argues that image schemas are relatively simple structures that constantly recur in our everyday bodily experience. As Gibbs and Colston (1995) see it, image schema is defined as a dynamic analogue representation of spatial relations and movements in space, while Turner (1996) proposes that image schema is a recurring frame in our daily experience, coming from perception and interaction. Similarly, Ungerer and Schmid (1996) hold that image schema is a basic and condensed cognitive model, originating from the interaction between human body and the external world and that image schema is not just an abstract semantic principle, but a mental picture, which is more elementary than both concrete categories and abstract principle.

As variable as the definitions are, the core tenets of image schema still reside in their recurring roles in our bodily experience and their connectivity to our daily activities with behaviours and thinking. Oakley (2004) argues that an image schema in a discourse is a condensed re-presentation of perpetual experience for the aim of mapping spatial structure onto the conceptual structure.

Semantically, Croft and Cruse (2004) propose that image schemas, by means of metaphor, subsume both human bodily experience and non-bodily experience. As Hedblometal (2015) sees it, image schema provides a ‘cognitive benefit’ in information transfer. That is, an image-schematic structure may be employed as a shortcut utilized in an analogical transfer from the spatial domain of the image schema to more abstract concepts, including concepts involving force, time, and emotions. Cienki (2005) adopts some image schemas, such as container, cycle, force, object, and path, when categorizing naturally observed conversations. The cycle image is fully illustrated in the work of Ladewig (2011), providing the basis to analyse gestures among German speakers involving a repeated circular hand movement. Cienki (2013) further provides a new way of thinking about some known phenomena of gesture via digging into ‘mimetic schemas’. Likewise, in China, many linguists are dedicated to introducing the concept of image schema so as to accelerate its pace of development to a new stage in Chinese cognitive studies. Some researchers try to extend the application of image schema into various fields, mostly in teaching, translation, and literature. Image schema is an abstract construction stemming from our physical activities in the outside world, epitomizing those activities with same features and thus assisting people to view the world more effectively and correctly. According to Hu (2011), image schema, as a recurring pattern of human perception and motor programme, gives coherence and structure to human bodily experience. Given the correlation between bodily experience and cognitive image schema, Yang et al. (2018, p.13) conduct a schematic discursual study of sports discourses and argue that ‘both news writer’s and reader’s discursive changes within the processes of cognition have generally been reasonably both concrete and metaphorical’.

**Table 1**  
**Hu’s optimized classification of image schemas (2011:134-135)**

<b>Categorizations</b>	<b>Descriptions</b>
Centre-Periphery	A physical or metaphorical centre and edge; degree of distance from the centre
Containment	A physical or metaphorical boundary, confined space
Cycle	Repetitive events or series of events
Force	A physical or metaphorical relation of cause and effect
Link	A physical or metaphorical bond between two or more entities
Part-Whole	A physical or metaphorical whole together with parts and an allocation of parts
Path	A physical or metaphorical movement in different places, subsuming a beginning point, a goal, and intermediate points
Scale	An augment or reduction of a physical or metaphorical amount
Verticality	A connection of Up and Down

Multi-scale studies vary in terms of classifications. Clausner and Croft (1999) summarize seven sets of image schemas to supply readers with a better understanding. The categories include: space, grade, containment, force, multiplicity, identity and existence. On account of the above primary studies on image schemas, Hu (2011), in the context of Chinese language, puts forward two characteristics possessed and shared by all image-schematic structures: 1) pre-conceptual schematic patterns originating from bodily engagement of human beings with the outside world, and 2) perpetual operating and processing in mortal cognitive interaction, bodily movement in space, and physical control of objects (see Table 1).

In the cognitive linguistic literature, image schemas are for the most part geometrical in practice. Anthropologists Alverson (1991) and Kimmel (2005) propose that the identification and categorization of image schemas and their related description and signal words provide a fair theoretical and analytical foundation for cognitive studies from a lexical perspective. In virtue of image schema providing a tool for humans to comprehend abstract notions based on the spatial domains of the image schemas interrelated to our bodily experience in the outside world, spatial preposition research stands out, especially on the preposition ‘over’. Lakoff (1987) establishes a semantic network on the basis of ‘over’, and puts forward that differed image schemas embody different senses of ‘over’, which means the prepositions can be linked and transformed by image schematic structures. Further research is carried out by Taylor (1989) who delves into the image schematic interpretations of the preposition ‘over’, by which Taylor obtains some major image schemas to explain ‘over’ in dynamics. Talmy (1988) further develops a few schema patterns, especially the force schema, putting forward force dynamic patterns. In Talmy’s opinion, the modes adopted in force dynamic patterns, including the basic steady-state dynamic pattern, the shifting force dynamic pattern, and the secondary steady-state dynamic pattern, are not only suggestive of physical force interaction, but also of the psychological and social forces with the help of metaphorical extension. Owing to the fact that schematic image studies focus on a recurring and dynamic pattern of our perceptual interaction and force programmes that give coherence and structure to our experience, interdisciplinary efforts to develop the cognitive schemas and their lexical manifestations have been sparse (Mandler & Canovas, 2014, Yang, 2020). In view of the experiential nature and origin of image schemas, this research will adopt Hu’s (2011) framework to conduct this analysis on B&R and its image schemas in Sino-American news discourses.

### 3. DATA AND RESEARCH METHODOLOGY

#### 3.1 Data

The data to be processed and analysed in this research was retrieved from two authentic and trustworthy news databases: LexisNexis Academic and Dow Jones Factiva, which was obtained with the multiple advanced searches, by scouring for key words, such as ‘the belt and road’, ‘Belt and Road’, ‘B&R’, ‘Silk Road’, ‘economic belt’. Filter items used were economic or business news and time restriction, dates ranging from March 13, 2015 to May 15, 2017. Among all the resulting news articles, the authors chose 30 pieces of news from American sources and 30 pieces of news from Chinese sources respectively (see Table 2).

**Table 2**  
**Data from Chinese and American news reports**

Country	Publication	Number of Articles
China	China Daily	12
	People’s Daily	10
	Global Times	8
	Total	30
America	The New York Times	9
	The Wall Street Journal	9
	Los Angeles Times	5
	The Washington Times	4
	Barron’s	3
	Total	30

Within the data, the 30 items of Chinese economic news on B&R were mainly obtained with their English versions to avoid subjectivity caused by authors’ translations. Chinese data was sourced from China Daily, People’s Daily, and Global Times, three influential state media outlets in China. The American news sources were The New York Times, Los Angeles Times, The Wall Street Journal, and The Washington Post.

#### 3.2 Research Method

Integrating the elaborations of image schema developed by Johnson (1987) and Hu (2011), the authors summarized and supplemented signal words under the categories of Centre-Periphery, Source-Path-Goal, Containment, Part-Whole, and Link, as shown in Table 3. Among the huge databases, only those signal words with the manifestation of image schemas, as shown in Table 3, were chosen as the lexical resources in discourses. The authors imported all the data into the AntConc Corpus, and then used concordance and file view functions combined with the signal words, and screen materials, so as to draw suitable data out for detailed image-schematic analysis.

After careful study and categorization of the list of subjects and main contents, the authors classified Chinese economic news (CEN) and American economic news (AEN) related to B&R into five image schema glossaries. In this way, during the analysis of each category of image schemas, the cognitive process hidden behind the

news discourse was reproduced and represented in the circulation of upgrading and replacing.

**Table 3**  
**Image schema and signal words**

Image schematic structures	Signal words
Centre-Periphery	Middle, centre, centrum, heart, kernel, core, hub, mid-; surrounding, around, round, periphery, margin, edge, fringe, border, boundary, etc.
Source-Path-Goal	Head for, leave for, move to, depart from/for, proceed from, start from, set out from, from....., lead to, to....., toward....., follow, go after, come after, etc.
Containment	In, inside, include, involve, interior, cover, contain, encompass, embed, out, outside, exclude, exterior, etc.
Part-Whole	Part, whole, consist, constitute, form, make up, compose, comprise, join, united; divide, separate, isolate, detach, apart, split, unpack, uncouple, deliver, break up, decollate, disjoin, distribute, rupture, etc.
Link	Link, connect, bridge, bind, bond, joint, coupling, .....together, tie, combine, associate, conjunct, merge, chain, etc.

### 4. SCHEMATIC ANALYSIS OF SINO-AMERICAN ECONOMIC NEWS ON B&R

#### 4.1 Image-Schematic Analysis on LINK

Little or huge, things are all connected, structuring a world of connectivity. By means of LINK schema, as Guo (2010) claims, we ‘build bridges between our bodily experience and the abstract concepts so as to illustrate and construe them’ (p. 105). The significance of connectivity urges people to hold a linked and connected view when confronted with different issues.

##### 4.1.1 The Image Schema of LINK in CEN on B&R

The connectivity or linking force of B&R is given much significance in CEN reports, centring on the construction of both hard and soft connection words associated with B&R. Such a connectivity or linkage positions B&R as a coupling shaft, projecting the development roads taken by different countries at various levels.

Example 1 (CEN text 11)

*Within the framework of the initiative, the BCIM Economic Corridor will **connect** India’s northeast, Bangladesh, Myanmar and southwest China’s Yunnan Province through a network of roads, railways, waterways, and airways. It seeks to improve **connectivity**, infrastructure, energy resources, agriculture, trade and investment in South Asia. (Belt and Road Initiative to change landscape of economic cooperation in South Asia, China Daily, 14<sup>th</sup> October, 2016)*

The core pursuit of B&R initiative rests on connectivity, linking the countries alongside the ‘Roads’ and their ‘network’ in Example 1, connecting infrastructure development, tying the nations’ common economic growth and wealth, giving opportunities for better improvement, and bridging partnership, friendship,

and love. In CEN reports, B&R is fashioned into a coupling shaft, which connects China with over sixty countries and sixty-five economies, making a great contribution to the global trade blossom and infrastructure construction, particularly in Southern Asia. The image of B&R constructed here is not a one-way expanding plan of China imposed on the countries around the route, but a win-win strategy provided by China, aiming to link the common growth of those countries. The role of the Chinese B&R initiative is more like a lubricant and guide, enabling the smooth progress of common development and providing ways for dreams to be realized, the LINK schema is shown in Figure 1.



**Figure 1**  
The image schema of LINK in CEN on B&R

Example 2 (CEN text 23)

If the **'hard connection'** of the Belt and Road draws countries geographically closer, then the **'soft connection'** brings people together. (China's Belt and Road Initiative promotes connectivity, development along ancient route, *China Daily*, 2<sup>nd</sup> January, 2017)

Example 3 (CEN text 23)

According to Chinese ambassador to Greece Zou Xiaoli, Piraeus was not merely an economic project, but also a **bridge to connect** the peoples of Greece and China. (China's Belt and Road Initiative promotes connectivity, development along ancient route, *China Daily*, 2<sup>nd</sup> January, 2017).

The indispensable stance of B&R resides in linking China and Europe both materially and spiritually, in other words, bringing both hard and soft connections. In Example 2, following the proposal and promotion of B&R Initiative, 'hard connection' includes energy and infrastructure programmes, such as geographic connections among countries alongside B&R. This 'hard connection' brings about numerous outstanding achievements in economy and finance, which inspires the better development of nations along ancient route. Besides, an economic initiative, as B&R claims to be, does bridge the cultural gap between China and European countries (in Example 3) by means of accelerating the pace of cross-cultural communication. In building this connection, the initiative of B&R doubly connects the development of nations alongside the route and helps to build a world of common wealth and understanding. In CEN reports, B&R not only links the regional development between China and countries along B&R, but also connects the regions with China's transformation. This connection reveals the trend that the future of China and other countries are

intertwined, echoing and reiterating the concept of win-win. The acknowledgment of economic community positions B&R initiative as a mutually beneficial strategy, emphasizing the joint growth of all countries.

#### 4.1.2 The Image Schema of LINK in AEN on B&R

The schematic portrait of B&R in forms of LINK in AEN reports consists of two states: the *'claimed to be'* and *'the realistic one'*. The two states reveal mass media's acknowledgment of the uncertainty of positive connecting influence brought by B&R, which spares no efforts in fashioning it as an illusory and controlling tool used by China.

Example 4 (AEN text 27)

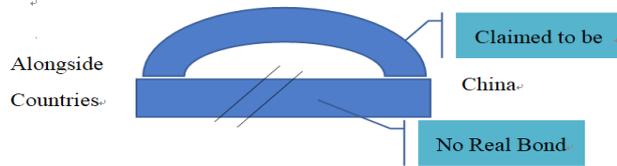
Ever since President Xi Jinping gave speeches on regional development in 2013, China has heralded plans to lay networks of infrastructure to **better connect** its economy with the rest of Asia, Africa, the Middle East and Europe. (China Lays Out Path to Silk Road, *The Washington Post* 28<sup>th</sup> March 2016)

Since the B&R initiative was proposed 2013 by President Xi, American scholars and mass media have directed their heated discussions toward the issue, who have hammered at presenting multi-dimensional interpretations, among which a few rational and objective voices could be heard. In Example 4, 'better connect' is employed to describe the bond between China and countries along the Road, which acknowledges the close bond of joint economic community built on the initiative. That is, B&R is objectively viewed as a connecting project, which links the markets of China and other nations in terms of economic development.

Example 5 (AEN text 12)

Its aim is to better **connect** the Chinese economy with the rest of Asia, Africa, the Middle East and Europe, but its form is more reminiscent of old-style investment-led growth than reform. (China crafts a blueprint for overhauls --- Party gathering will test Beijing's current appetite for bold economic changes, *The Wall Street Journal*, 26<sup>th</sup> October, 2015)

In AEN reports on B&R, although B&R is conveyed as a connective strategy, associating China with the rest of Asia, Africa, the Middle East, and Europe, the connection or bond is literally accepted as a claim (e.g. *'claimed to be'*) or existing in name only. This portrayal of the connection as nothing more than a claim suggests negative attitudes toward B&R carried by the American news writers. In Example 5, B&R is depicted as *'more reminiscent of old-style investment-led growth than reform'*, which reveals that the initiative is an old-style investment and could never contribute to any real changes economically or culturally. Sharing the same opinion, many AEN writers emphasize that the initiative on B&R is a disappointing proposal since Myanmar, the so-called project partner, shows none of the passion expected by the Chinese government (see Figure 2).



**Figure 2**  
**The image schema of ‘Claimed to be’ LINK in AEN on B&R**

Example 6 (AEN text 28)

*Nevertheless, experts agree that China’s Silk Road plan has immeasurably more clout than the American New Silk Road plan advanced by then-Secretary of State Hillary Clinton in 2011 that was meant to **bind** Afghanistan to Central Asia but that barely got off the ground, or Russia’s own pivot to Asia, mired in economic woes and bureaucratic inertia. (In Central Asia, Chinese inroads in Russia’s back yard, *The Washington Post*, 27<sup>th</sup> December, 2015)*

LINK schema employed in Example 6 states the connective relation between Afghanistan and Central Asia advocated by the American New Silk Road, which overlaps with B&R in the region of central Asia and thus triggered ‘a war’. The comparison between China’s B&R initiative and American New Silk Road that barely makes any progress projects an image of the antagonistic Sino-American relations. The preliminary perception of the connection of American New Silk Road with the central Asian region might face potential challenges that China is ‘taking the cake’ of central Asia from the US.

#### 4.2 Image-Schematic Analysis on PART-WHOLE

The authors notice that three structural elements together make up the image schema of PART-WHOLE: a whole, parts, and a configuration. Wholeness and partiality construct and enrich the world we live in, which stresses the importance of grasp of the dialectical relationship between the whole and parts in our lives, and explicates the social tendency to employ PART-WHOLE in language use.

##### 4.2.1 The Image Schema of PART-WHOLE in CEN on B&R

The strategy of B&R is presented with a strong drive to improve the prosperity of the whole world, which is represented and consolidated by the employment of PART-WHOLE in CEN texts to emphasize its crucial role for the blossoming of the world economy.

Example 7 (CEN text 1)

*In the light of this, the Belt and Road Initiative (the Silk Road Economic Belt and 21st Century Maritime Silk Road), potentially the world’s largest economic corridor, is **part** of a new trend and an innovative contribution to global governance. (A shared vision for Belt and Road Initiative, *China Daily*, 10<sup>th</sup> November, 2016)*

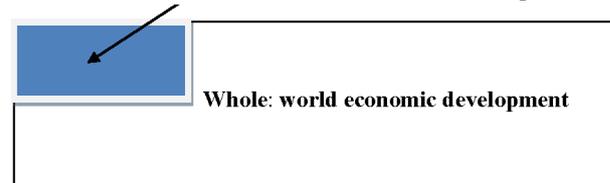
Example 8 (CEN text 12)

*The Marshall Plan for post-World War II reconstruction in Europe was **part** of the Western attempts*

*to contain the expansion of the Soviet Union. The Cold War mentality and bipolar structure, however, have found no resonance with the Belt and Road Initiative. (Can we equate Marshall Plan with Belt and Road Initiative? *Global Times*, 13<sup>th</sup> May, 2017)*

As depicted in Example 7, the construction of B&R Initiative is ‘part of the new trend’ which illustrates the necessity of the initiative as a response to the regional economic development and also explains the relationship between B&R and global governance as part and whole. The blueprint of B&R appeals to the trend of global economic growth, and plays an important role in global governance, suggesting its crucial meaning in driving the world to progress as an economic ‘whole’. Ever since the initiative was launched, the controversy of its ‘comparability’ to the previous American policy of Marshall Plan has swirled and circulated among people who hardly have spare time to learn the basic information about B&R initiative in China. The B&R initiative is unlike the Marshall Plan, which is put forward with the intention to deter the Soviet expansion, described as ‘part of the Western attempts to contain the expansion of the Soviet Union’ in Example 8, and to win more advantages for the US during the period of the Cold War. Conversely, B&R initiative is proposed with the vision of offering the convenience of infrastructure, transport, trade, and investment facilitation measures under the principle of shared resource and common wealth.

**Part:** China’s role in world economic development



**Figure 3**  
**The image schema of PART-WHOLE in CEN on B&R**

Instead of being a part of excuses for building up the political power of a country, virtual resemblance or relation with the expansion motive has never been found within B&R as an important role for world economic development (see Figure 3), which reiterates its determination to promote peaceful development.

##### 4.2.2 The Image Schema of PART-WHOLE in AEN on B&R

B&R initiative is viewed as more of a blow to the wholeness built up and led by America than a motive to construct a common beneficial whole claimed by it. Most AEN sources voice for this opinion as revealed in the animated reproduction of PART-WHOLE adopted in the following two examples.

Example 9 (AEN text 1)

*The announcement on Tuesday by Germany, France and Italy that they would follow Britain and **join** the Chinese-led venture delivered a stinging rebuke to*

Washington from some of its closest allies. (3 European powers say they will join China-led bank, *The New York Times*, 18<sup>th</sup> March, 2015)

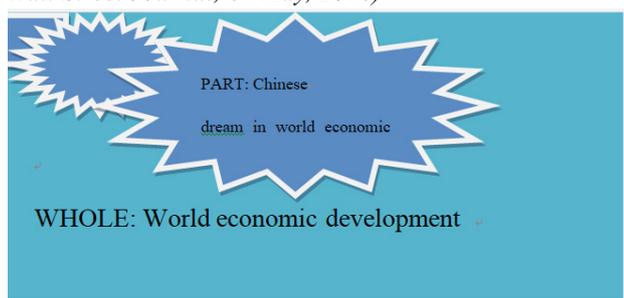
Example 10 (AEN text 1)

China, she said, is offering a *'whole'* economic and political package that provides an alternative to the creaking international structures shaped by the U.S. in the post-war period.' The United States lobbied its allies not to *join* the new China-based bank. (3 European powers say they will join China-led bank, *The New York Times*, 18<sup>th</sup> March, 2015)

The initiative of B&R is perceived in Example 9 as a *'stinging rebuke'* to the dominance of the US in the world, which will disrupt the order proposed by the US and also considered as *'an alternative to the creaking international structure'* in Example 10, challenging the seemingly *'whole'* situation led by the US. The threat of B&R, to some extent, puts America into the inferior position, leaving it to play the role of defender. The fact of Germany, France, and Italy's participation in the Asian Infrastructure Investment Bank (AIIB) led by China, and the action of *'lobbying its allies'* to disjoin it, imply that the previous stances of America and China as the seemingly whole and part will be exchanged under the influence of the economic package of B&R. In this case, B&R is depicted as a tool for China to pursue a growing and leading position while dealing a heavy blow to the international economic and financial system dominated by the US.

Example 11 (AEN text 19)

China State Construction has accelerated its international contracting jobs in recent years, building stadiums, housing apartments, roads, highways, hotels and bridges in Africa, the Middle East and other *parts* of Asia. (Egypt China backs \$45 billion capital project, *The Wall Street Journal*, 4<sup>th</sup> May, 2016)



**Figure 4**  
**The image schema of PART-WHOLE in AEN on B&R**

Except for applying the negative attitudes against B&R, American news agencies use antagonistic voices concerning the public perceptions of B&R and its economic motives, including the transport programme of China's High Speed Rail and infrastructure projects on constructions. In Example 11, the relation between infrastructure projects and the Silk Road Initiative as part and whole is revealed in a dynamic pattern, highlighting the nation's ambitious act in pursuing economic and

financial achievements and realizing its dream of great rejuvenation in many other countries as well, known as the Chinese Dream. The image schema of PART-WHOLE can be sketched as: (see Figure 4).

### 4.3 Image-Schematic Analysis on CONTAINMENT

The image-schematic pattern of containment is one of the most pervasive experiences through which the Chinese interact with the outside world. It is inevitable that the Chinese will encounter the experience of treating or being treated as containers, and giving readers' the feeling of confinement in daily activities, which endows them with the ability to consciously or unconsciously map the experience of spatial domains onto non-spatial ones. Both CEN and AEN reports on B&R show a high preference of employing the image schema of CONTAINMENT in news discourses.

#### 4.3.1 The Image Schema of CONTAINMENT in CEN on B&R

CONTAINMENT, adopted in Chinese samples, underlines the notion of the inclusiveness, comprehensiveness, and compatibility of B&R. The involvement of horizontal and vertical coverage in B&R reflects and emphasizes the schematic representation of containment or coverage in Chinese news samples.

Example 12 (CEN text 22)

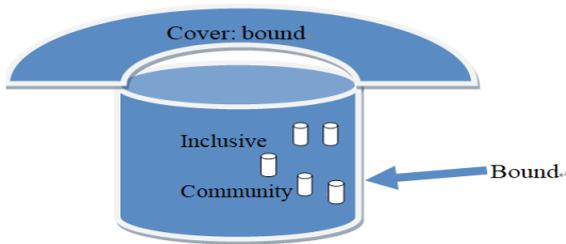
Put forward by Chinese President Xi Jinping during his overseas visits in 2013, the initiatives *include* the Silk Road Economic Belt -- from China via Central Asia and Russia to Europe, and the 21st Century Maritime Silk Road -- through the Strait of Malacca to India, the Middle East and East Africa. (China's 'Road and Belt' initiatives to bring new momentum to world growth, *Global Times*, 14<sup>th</sup> April March, 201)

The economic initiative of B&R embodies the main idea of full coverage, or connectivity, including both the developed and the under-developed countries along the road, and covering the Central Asia and Russian and European countries. The economic cooperation with Malacca and the coverage of other additional countries underline and reiterate the concept of B&R as containment and compatibility by using *'include'* in Example 12. The act of including other regions in the great cause of B&R displays it as a huge container, emphasizing its fundamental role on the way toward joint and mutual advancement.

Example 13 (CEN text 4)

*Covering* 9 per cent of the global landmass, the corridor was first discussed in 1999 by specialists and academics at a meeting in Kunming, Yunnan. (Belt and Road Initiative to change landscape of economic cooperation in South Asia, *China Daily*, 14<sup>th</sup> October, 2016)

The discipline of comprehensiveness or compatibility shows itself in the way of the schematic structure of CONTAINMENT, revealed by the semantic adoption of *'cover'* (Example 13).



**Figure 5**  
**The image schema of CONTAINMENT in CEN on B&R**

The concept of the ‘inclusiveness’ of B&R initiative, particularly the features shown in its all-embracing economic proposal to cover the large proportion of global landmass declared in 1999, strongly protrudes the Chinese endeavour and commitment in reaching out to cooperate with other entities so as to build up an inclusive community for sharing development and benefit within a containment (see Figure 5). Apart from its horizontal extension displaying its comprehensive trait, the B&R initiative also behaves as a vertical blueprint concerned with a long-term mission. The initiative also attempts to boost the sustainable social and economic development in the coming decades or even centuries. The wide-ranging as well as long-ranging characteristics of B&R clarify substantial devotion of B&R as a grand platform or container for holding up all kinds of progress.

#### 4.3.2 The Image Schema of CONTAINMENT in AEN on B&R

Inclusiveness and its opposite facet ‘exclusiveness’ together compound the schematic structure of CONTAINMENT in American news samples, exposing a stark contrast between the exclusiveness revealed by B&R and the inclusiveness suggested by Trans-Pacific Partnership Agreement (TPP) supported by American closest allies as a counterpart of B&R. The contradictory representation of CONTAINMENT is shown in the detailed analysis.

Example 14 (AEN text 10)

*But the administration suffered a humiliating diplomatic defeat last spring when most of its closest allies signed up for the bank, including Britain, Germany, Australia and South Korea. Altogether 57 countries have joined, leaving the United States and Japan on the outside. (Beijing’s rival to World Bank moves forward without U.S., The New York Times, 5<sup>th</sup> December, 2015)*

Along with the initiative of B&R, other forms of economic policies and tools have also emerged, particularly the innovation programme in the financial field, the establishment of the AIIB, which aims at providing financial support for the development of B&R and countries alongside the Silk Road. However, B&R, and especially the institution of AIIB within its framework, inferred by the adoption of an anti-containment schema, is regarded as an aggressive act of China to include diverse countries, particularly the friends

of America, while excluding or elbowing out America and its closest ally, Japan. The phrase ‘*leaving the United States and Japan on the outside*’ in Example 14 seems to try to alienate the US with its former alliances. Following those descriptions, the AEN report on B&R portrays China or the initiative as a possible measure of forming its own circle of allies to snatch the leading position currently held by the US.

In many cases, the US looks upon B&R Initiative of China as a competitive or challenging threat to its global plan of extension and dominance, and the US has spared no effort to strike China through enhancing its own alliances under the economic framework of TPP (see Figure 6).



**Figure 6**  
**The image schema of CONTAINMENT in AEN on B&R**

The exclusiveness indicated by isolating China seems to be in stark contrast with the core principle of inclusiveness advocated by B&R, an economic initiative of Silk Road, which accounts for the differences between these two proposals: the agreement of TPP and B&R Initiative. Hence, it might be more accurate to argue that CEN discourses mainly portray inclusiveness and a positive image of B&R, suggesting a cooperative mind-set, while the AEN discourses predominantly demonstrate exclusion and a negative image on B&R, presenting a competitive mind-set.

#### 4.4 Image-schematic analysis on SOURCE-PATH-GOAL

Any movement of human bodies involves three elements: departure place, direction of the road taken, and destination, which together can also be described as source, path, and goal, making up the image schema of SOURCE-PATH-GOAL.

##### 4.4.1 The image schema of SOURCE-PATH-GOAL in CEN on B&R

According to the Chinese media, B&R is more of a path taken by all countries riding on China’s economic prosperity toward the goal of common development than a self-care blossom plan. This focus is clearly outlined in the wielding of SOURCE-PATH-GOAL in the Chinese news texts.

Example 15 (CEN text 21)

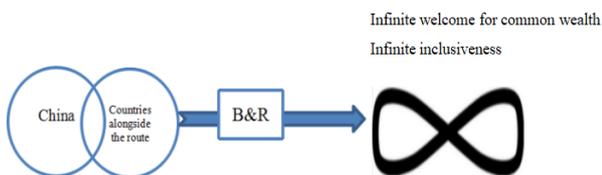
*‘Chinese foreign policy is geared toward*

*multilateralism, openness of market and free trade.*' (China's decisions influence world, *China Daily*, 4<sup>th</sup> March, 2017)

Example 16 (CEN text 21)

*'The Chinese government's encouragement of its entrepreneurs to go global should **lead to** an expansion in Chinese foreign investment in Asia, Africa and Europe,' he said, adding that banks such as the Asian Infrastructure Investment Bank and the Export-Import Bank of China will continue to finance projects in various countries. (China's decisions influence world, *China Daily*, 4<sup>th</sup> March, 2017)*

In Example 15, the path taken by China on B&R leads China 'toward' the goal, i.e. the openness of the market and freedom in trade. Moving toward to the goal conforms to China's purpose as commonly exploring the market and reaping the economic harvest together. The design of B&R takes the gist of common growth into consideration, setting off from different countries' development needs and steering at the aim of mutual economic gain, which describes B&R as a path or traveling tool for countries along the B&R to pursue their own national dreams. In Example 16, departing from the fundamental realities of China, or the initiator of B&R, and countries alongside the route, or the participants in B&R, the path chosen as B&R 'should lead to' the infinite progress for economic growth toward higher quality and inclusiveness. In other words, the B&R initiative is marching toward an infinitely evolving stage of common wealth, condensed and sketched out in the following (see Figure 7).



**Figure 7**  
The image schema of PATH in CEN on B&R

The road shared by the developmental community on B&R works as a high-speed running express driven by China's rapid economic growth, offering others the convenience of economic products, which provides a piece of forceful evidence against the dispute that China has long been the boon receiver rather than the active donor. By means of encouraging Chinese entrepreneurs to go global to finance projects in various countries, the B&R initiative demonstrates the shift of the economic stance of China in the international stage and shows its dedication in shouldering more responsibility and efforts in promoting common development.

#### 4.4.2 The image schema of SOURCE-PATH-GOAL in AEN on B&R

B&R, in the eyes of American news media, pivots around China. The B&R initiative, which is a path offered by the

Chinese, only points to or benefits its own development. The utilization of SOURCE-PATH-GOAL here discusses and puts B&R and TPP in different positions.

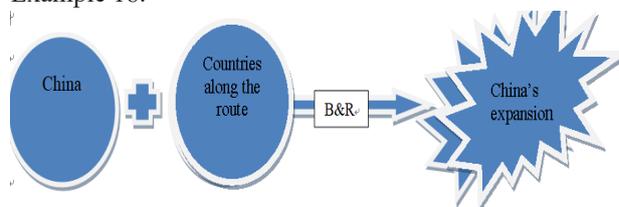
Example 17 (AEN text 7)

*'We are already seeing that investors are deciding to **move to** TPP countries where they will have a stable labour system,' protections for intellectual property and the freedom to move data into and out of the country without government restraints, which are part of the deal being negotiated. (As Obama plays China card on trade, Chinese pursue their own deals, *The New York Times*, 13<sup>th</sup> May, 2015)*

Example 18 (AEN text 25)

*The region's pivot **toward** China on economic matters hurts the United States' ability to shape developments on the political front. The U.S. typically ties its international aid and loans to causes such as gender equality, government transparency and human rights -- issues on which China's authoritarian leaders rarely engage. (Ready or not, former critics push Beijing to defend globalization in the age of Trump, *Los Angeles Times*, 27<sup>th</sup> November, 2016)*

Ever since the introduction of B&R, the America media has positioned China's B&R initiative as a counter 'move' against its former strategy of TPP. However, the US has already retreated from this position. In fact, great differences between TPP and B&R or AIIB lie in the path and goal. While the US sees the participation of TPP as a goal, where those countries can have a stable labour system (Example 17), China's B&R Initiative views itself as a path leading partners to the goal of mutual development. The two different perceptions of goal and functions of paths suggest that there is actually no collision between these two countries on the issue, considering their different pursuits. In AEN reports, the launch of Chinese policies, covering the B&R initiative and other economic initiatives, is under the attempt to direct regional or even global attention to itself. This redirection of attention disrupts the political layout shaped by the US with a specific direction 'toward China' in Example 18.



**Figure 8**  
The image schema of SOURCE-PATH-GOAL in AEN on B&R

The path of China's expansion aided by B&R, however, would never touch upon the essential issues like gender equality and human rights, which usually take up the central position in American policies. In the comparison of the policy foci between China and the

US, the American media purposely consider the goal of Chinese economic efforts to be to improve its international standing and expansion, rather than the realization of mutual assistance or shared success (see Figure 8).

#### 4.5 Image-schematic analysis on CENTER-PERIPHERY

Just like the human body is a proportionally balanced integral, constituted by different parts from the brain to the limbs, everything in the world has its own centre and periphery. Various roles played by different parts allocate them with different functions, including the leading centre and the following periphery. Although both 'centre' and 'periphery' have their own irreplaceable impacts, the concept of 'centre' does weigh much heavier than that of 'periphery' in terms of significance and prominence.

##### 4.5.1 The image schema of CENTER-PERIPHERY in CEN on B&R

The core tenet of B&R rests on the shared economy and market economy, which bears the crucial role in the plan of economic restructuring, testifying the hard determination of China in re-modelling its economy by B&R initiative to build up a community of shared interests.

Example 19 (CEN text 3)

*Europe-Asia cooperation will bring balance to the future world. Europe should take this opportunity to return to the **center** of the world stage, and in this way, reshape the transatlantic relationship between Europe and the US. ('Belt and Road' initiative points to brighter globalization, People's Daily, 25<sup>th</sup> October, 2016)*

Example 20 (CEN text 26)

*Cities that have been included in the **core** area under the initiative will grasp the chance to complete their industrial upgrading, such as making the transition from labour-intensive industry to technology-intensive industry, moving from traditional industries to emerging ones, and moving from a low value-added model to a high value-added one. (Nation to benefit from 'One Belt, One Road' initiative, Global Times, 7<sup>th</sup> May, 2015)*

Instead of consolidating its own central stance in the process of B&R, China strategically puts Piraeus into the position of 'centre of the world stage', in accord with the plan to assist Europe to return to the central position in the global stage under the help of B&R (Example 19). The CEN presented in Example 20 reveals the Chinese notion of development concerning B&R Initiative as sharing mutual development, rather than enjoying sole growth. Under B&R, China has realized the substantial role of industrial transformation and fulfilled the real action to shift from the labour-intensive mode to the technology-oriented or consumption-driven mode. Placing cities or enterprises in the 'core area' under B&R in terms of carrying out the industrial restructuring mission, rather than the government or authorities, China shows its determination to provide a much freer environment driven

by market economy. This shift in focus makes a change from the previous mode of operation by governmental control to bring the invisible hand of market economy into play, or the self-management of enterprises. B&R initiative also adds economic vitality into the smoothness of the progress of market economy (see Figure 9).

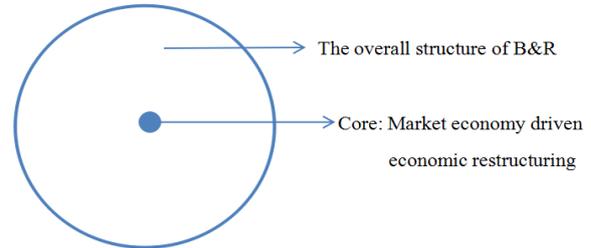


Figure 9  
The image schema of CENTER-PERIPHERY in CEN on B&R

##### 4.5.2 The image schema of CENTER-PERIPHERY in AEN on B&R

The image schema of CENTER-PERIPHERY applied in American news represents the core value carried by B&R in European economic recovery and blossom. But this schema also unfolds the apprehension felt by most Americans that China is using B&R to enhance its currency status of the Chinese 'yuan' (see Example 21).

Example 21 (AEN text 21)

*The U.K. issued a 3 billion offshore yuan bond in October 2014, four months after China Construction Bank said it would launch yuan clearing in London, setting up that **center** as a yuan-trading hub. (Hungary's dim-sum bond, The Wall Street Journal, 16<sup>th</sup> April, 2016)*

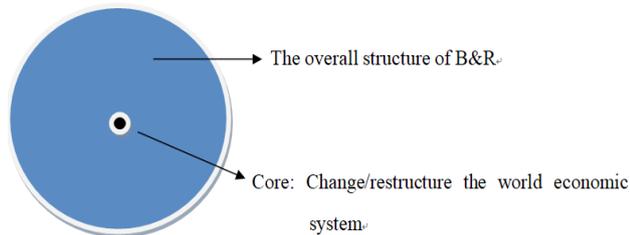
Example 22 (AEN text 28)

*Here the oil and gas pipelines, as well as the main roads and the railway lines, always pointed north to the **heart** of the old Soviet Union. Today, those links are beginning to point toward China. (Tug of war in Central Asia, The Washington Post, 27<sup>th</sup> December, 2015)*

The B&R initiative in AEN discourses is viewed as challenges and threats to the international economic and financial system led by the US. This system is especially threatened after China's promotion of circulating Chinese currency 'yuan' as the 'centre' among countries alongside, although the use of 'yuan' advocated by China in CENs during the process of B&R is to provide more abundant and convenient cross-border clearing and settlement services for trade and investment projects between China and other countries along the routes. Nevertheless, the act of promoting cooperation under the framework of B&R in AEN writers' cognition is crooked and perceived as the Chinese intention to change the dominated situation of the American Dollar, and the attempt to replace it with the Chinese 'yuan' to restore a new economic and financial system guided by China.

Similarly, in Example 22, the AEN report tends to infuse the public with the notion that China is seizing

the economic fruit of Russia. The resource programme covered by the B&R initiative is depicted as a vicious means of competition for China to grab the market share taken by the old Soviet Union. The intentional employment of image-schematic CENTER of resource shifting from the old Soviet Union, which used to be the ‘heart’ of oil and gas pipelines, to current China by the American mass media displays negative attitude toward B&R and China.



**Figure 10**  
The image schema of CENTER-PERIPHERY in AEN on B&R

In AEN discourses, the perception of China’s B&R is generally projecting the China’s engagement in changing the world economic system (see Figure 10).

## 5. DISCUSSION OF IMAGE SCHEMA IN SINO-AMERICAN ECONOMIC NEWS ON B&R

The adoption of the qualitative analytical method with the consideration of various image-schematic patterns presents a picture of the bodily experience of human beings with both concrete physical actions and abstract cognitive thoughts which reveal the substantial and indispensable role image schema has played in our daily life. Grounded on the qualitative analysis of selected image-schematic structures, a statistical analysis is employed in this paper in an attempt to grasp the frequency variations, subsuming the linguistic preferences and application habits of news writers themed on B&R in Sino-American economic texts.

**Table 4**  
The allocation of image schema on B&R in CEN and AEN discourses

Image schematic structures	CEN on B&R		AEN on B&R	
	Occurrence of token	Percentage of token (%)	Occurrence of token	Percentage of token (%)
Link	166	4.34	152	2.27
Part-whole	157	4.10	299	4.47
Containment	2751	71.88	4562	68.22
Source-path-goal	695	18.16	1518	22.70
Center-periphery	58	1.52	156	2.33
Total	3827	100	6687	100

The statistical comparison in the schematic embodiment and realization of the interaction between

human actions and cognitive processes on B&R displays cultural and cognitive disparities as shown in Table 4. The occurrence of image schemas in CEN and AEN reports on B&R shares a commonality in certain patterns, covering CONTAINMENT and PART-WHOLE with different lexical choices and images representations. Coexisting with the similarities, SOURCE-PATH-GOAL, CENTER-PERIPHERY and LINK schemas present differences, especially the LINK schemas in CEN outnumber those in AEN news reports, and its percentage is almost doubled than those in AEN reports, showing the B&R’s purposes for connection, cooperation and inclusiveness in CEN discourses.

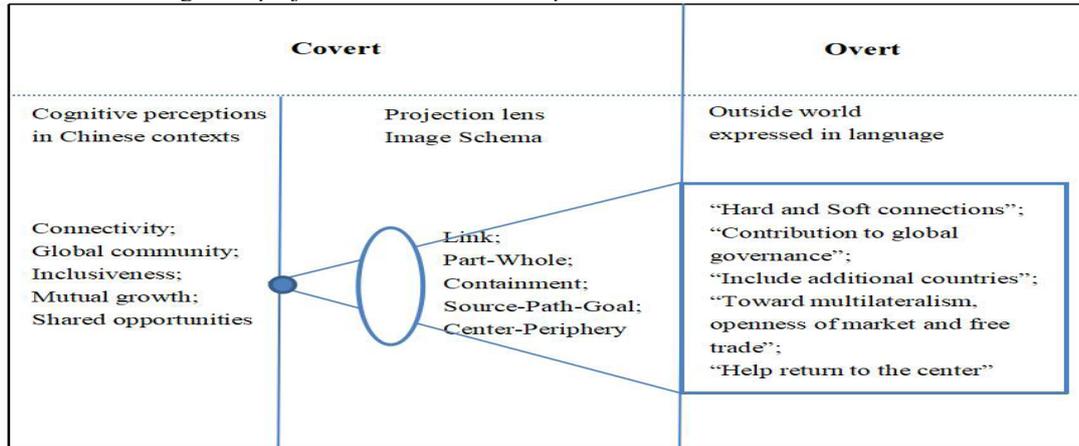
Tracing back to the reasons behind the differences, the authors identify the interrelationship and corresponding features among the ‘Silk Road’ initiative and core concepts advocated in B&R with the image-schematic preferences in these two schemas. The ‘Silk Road’ initiative, condensed China’s goals as ‘*peace and cooperation*’, ‘*openness and inclusiveness*’, ‘*mutual learning and mutual benefit*’, together with the gist of Five Connectivity of as a whole: ‘*policy*’, ‘*infrastructure*’, ‘*trade*’, ‘*financial*’ and ‘*people-to-people*’, extends the correlations to the schematic implications of LINK and PART-WHOLE to construe a community of shared interests, destiny, and responsibility, and CONTAINMENT to promote inclusiveness. Moreover, the underlying cause in driving such differences lies in the imbalance between Chinese claims of non-centralization, non-marginalization, and non-sole-growth-orientation, and American outlooks on China’s B&R as centralizing China, marginalizing the US, and goal-steering China toward rising up as an international power.

In the mode of ‘*projector*’, image schema, the common way of perceiving the outside world shared in all cultures, projects different perceptions or cognitive processes onto varied language uses adopted in economic news texts on B&R. Taking a closer look at the news analysis in the light of the five categories of image schemas, the authors summarize and sketch the contrasting diagrams of Chinese and American cognitive maps over B&R in the mode of ‘*projector*’, presented as Figure 11 and Figure 12.

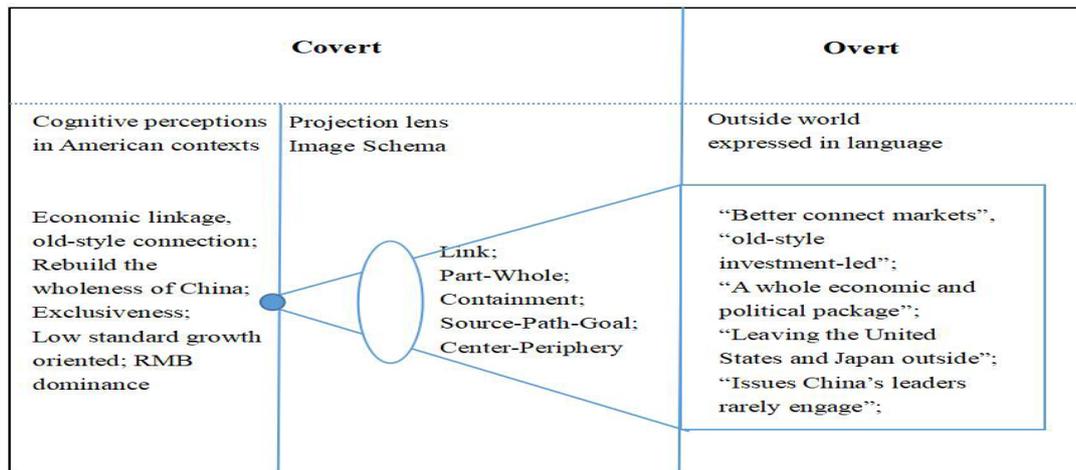
In the projector mode in CEN reports, the schematic pattern of LINK often shows up in conveying the concept of connectivity promoted in B&R. This connectivity links the fates of both the developed countries and the underdeveloped countries, both the countries alongside the road and those outside the routes, and both the regional development and China’s own transformation. All these linkages emphasize the interrelated, inter-dependent and entwined futures of all countries. Also, except for the ‘*hard connections*’, covering the cooperation in infrastructure and trade, B&R advocates ‘*soft connections*’, referring to the cultural exchange between countries alongside the routes, which is accomplished by the image schema of LINK. The partial contribution devoted by B&R to the

whole picture of global governance displays the perceptive way in the schematic structure of PART-WHOLE in B&R. Chinese denial of the resonance of B&R with Marshall Plan, which works as part of Western attempts to restrain the expansion of the Soviet Union, demonstrates the fact that B&R is never a part of expanding strategy of China, presenting the Chinese perceptive way of PART-WHOLE in positioning B&R. The tenet of inclusiveness shown in all-embracing economic proposals and the sustainable development voiced by the Chinese side in contributing to the common growth in full coverage are projected onto the news texts through the projector of the schematic pattern

of CONTAINMENT. In terms of SOURCE-PATH-GOAL, B&R is depicted as a path taken by countries alongside the routes riding on the high-speed running train of China's development and geared toward the final goal of mutual growth. That is, B&R is regarded here as a path instead of a goal, which reveals the perception and cognition on B&R of the Chinese people. In schematizing CENTER-PERIPHERY, B&R is described as a power booster to help countries and cities alongside the routes return to the centre stage, which indicates Chinese concepts of sharing growth, instead of enjoying its sole advancement.



**Figure 11**  
 The Chinese cognitive process over B&R in ‘Projector’ mode



**Figure 12**  
 The American cognitive process over B&R in ‘Projector’ mode

While the image-schematic analysis reveals that CEN reports on B&R are prone to build up a win-win connection between China and countries alongside the Road, advocating its concepts of closer economic ties, deepened cooperation, and shared wealth, AEN reports uphold that the launch and implementation of B&R have imposed threats and challenges to the regional dominance of the US and dealt a heavy blow to its leading status in the international financial and economic system. The AEN projector mode (in Figure 12) displays the problems

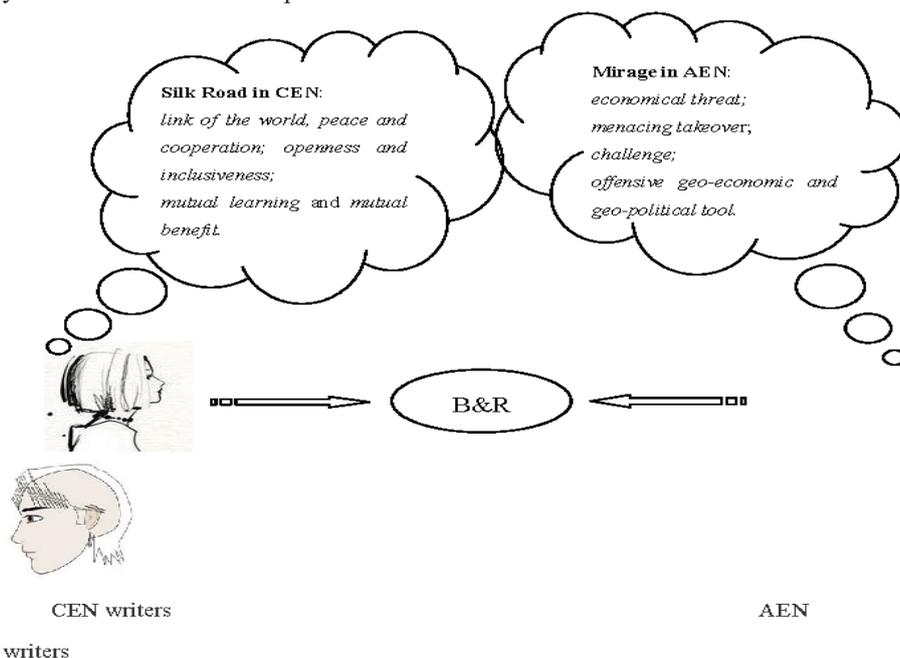
especially after the promotion of ‘yuan’ as the currency circulated between engaged countries under B&R. In most American news coverage samples, B&R is a more ambitious and even offensive geo-economic and geo-political tool for China to step onto the central world stage than a favourable undertaking contributed to the joint development and mutual growth of the participating countries.

Though the image-schematic pattern of LINK is employed in voicing the rational acknowledgment on the

close bond of joint economic community built on B&R, the assertion that the linkage is just in a state of ‘*claimed to be*’ discloses American media’s perception on B&R as a mirage constructed about China’s daydream. While the Chinese act of ‘*lobbying*’ American allies to join AIIB, the financial foundation for B&R, fashions the cause of B&R proposed by China as the whole in terms of economic growth through PART-WHOLE schema, which outlines B&R as the challenging rival for American dominance. The negative perception goes on in CONTAINMENT schematization that the inclusiveness advocated by B&R is in the guise of the malicious exclusion of America and Japan, while including diverse countries, especially the friends of the US. In the light of SOURCE-PATH-GOAL, comparison arises between TPP and B&R with TPP being portrayed as the goal offering a stable labour system and intellectual property protection to member countries. The lack of understanding of B&R being positioned as a path taken and shared by all countries geared toward mutual growth in AEN reports insinuates the cognitive variations on B&R and TPP. The cognitive process magnified through the perception channel of CENTER-PERIPHERY by American news media presides on B&R as a tool to

centralize ‘*yuan*’ in an attempt to challenge the dominance of the American Dollar and reshape the financial system led by the US. That is, the initiative of B&R is perceived as a menacing takeover of American power in the world, which stems from the cognitive process of ‘*China Threat*’ in AEN discourses.

Except for the differed preferences in applying image schemas regarding statistical results in Table 4, the authors find that huge differences rest on the interpretations on the initiative of B&R in news texts disclosed by the news writers. Image schemas are utilized here as projection lenses to project the covert cognitive processes onto the overt language uses and functions. On account of the contrastive analysis of CEN and AEN discourses, in the course of deciphering language employed from the perspective of semantics, the authors find the language use in CEN on B&R consistent with the core principles, mainly the ‘*Silk Road*’ initiative, which is condensed in the actual employment of words signaling image-schematic patterns. In AEN, language decoding on B&R appears to be in a more negative stance or tone, and its cognitive process on B&R projects a ‘*Mirage*’ image by using negative lexical selections in discourses (see Figure 13).



**Figure 13**  
The image schemas on B&R in Sino-American economic discourses

## CONCLUSION

As Gibbs (2008, p.132) sees it, the dynamic view on image schema is that each construal of an image schema will have a different profile depending on the overall state of the organism involved in some activities. The interrelation between language and cognitive processes, that cognition gets projected onto language and language reflects human cognition, has been well documented in the research.

On the cognitive process of economic news writers and readers, we argue that the cognitive processes concerning linguistic discursiveness in discourses have emerged as a prominent research paradigm in cognitive studies. The image schemas applied in CEN and AEN reports denote that the nature of language, the mind, and their relationship with sociophysical (embodied) experience in the interdisciplinary study of cognitive constructions are organized in individuals’ mind as networks, indicating that

the process of infiltration of language and concepts (such as B&R) is formulaic at different levels of schematicity, presenting different processes of cognitive entrenchment (Yang et al, 2018). Despite the fact that the results of the analysis are put into the on-going debates about the universality and variation of image schemas and their signal words across types of texts and cultures, the authors admit that due to various cultural backgrounds and personal experiences, news writers use various lexical expressions and their projected images, with regard to the kinds of embodiments they involve (e.g. intentional, emotional and motivational natures) within specific discursive settings, or with regard to their embedding meanings within wider action scenarios and even a culture ethos. Thus, we perceive the discourse writers' thoughts and reasoning processes across cultures as inherently social activities in which economic news is not just a means by which people learn to think about the economic issues, but also how they engage in thinking about the economic development in different nations.

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## APPENDIX

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### CEN data

- A shared vision for Belt and Road Initiative (2016/11/10, China Daily) [http://www.chinadaily.com.cn/cndy/2016-11/10/content\\_27330110.htm](http://www.chinadaily.com.cn/cndy/2016-11/10/content_27330110.htm)
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