A Study of Transitivity in the Sino-US Trade War Discourse from the Perspective of Critical Discourse Analysis — A Case Study of Center for Strategic and International Studies

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Abstract—From the perspective of Critical Discourse Analysis, this study analyzes the transitivity in American Think Tanks' discourse in the Sino-US trade war. It uses Fairclough's three-dimensional framework model as the theoretical framework and Halliday's theory of transitivity and Van Dijk's theory of Ideology Square as analytical tools. The corpus was selected from the experts' comments on Sino-US trade war published on the official website of the Center for Strategic and International Studies from March 23, 2018 to March 24, 2019. Major findings are as follows: experts in CSIS use material (56.49%) and relational (26.62%) process most frequently, followed by mental (7.79%), existential (5.84%) and verbal (3.25%) process, with no behavioral process. Experts in CSIS use material process and relational process frequently in their comments, which indicates that they try to expound the measures taken by both sides in the Sino-US trade war and the impact of these measures on the development of Sino-US trade war.

Index Terms—CDA, transitivity, ideology square, Sino-US trade war.

I. INTRODUCTION

On March 22, 2018, U.S. President Donald Trump signed a presidential memorandum to impose tariffs on $60 billion worth of Chinese goods based on the USTR (the United States Trade Representative) Section 301 investigation of China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation. China responded by imposing 25% tariff on 14 categories of 106 items originating in the United States. The two countries were engaged in a trade war as each country announced to implement tariff sanctions on goods between them. As of May 10, 2019, China and the United States have conducted the eleventh round of high-level economic and trade consultations. During the consultations, Trump's administration imposed a tariff of $200 billion on Chinese exports from 10% to 25%. The Chinese side stated that they would have to take necessary counter-measures. It is obvious that the trend of development for Sino-US trade war will continue to receive widespread attention.

On January 31, 2019, 2018 Global Go To Think Tank Index Report was released simultaneously in more than 200 cities. This report [1] was prepared by the University of Pennsylvania, Think Tanks and Civil Societies Program. According to the report, Think Tanks are organizations for public-policy research and analysis that make policy-oriented research, analysis and suggestions on domestic and international issues. Think Tanks play important roles in their host societies-there is a vital task for them to help policy makers and the public to make informed decisions about public policy. According to the report, the United States has more Think Tanks than any other countries in the world. In an effort to solve the Sino-US trade war problem, American Think Tank experts have published multiple comments to interpret Sino-US trade relations and made many recommendations.

People's attitudes towards domestic and international issues are easily affected by authorities. Think Tank's comments are often seen as the discourse of authorities. People think experts in Think Tank can be neutral and objective because of their professionalism in a particular field. However, Van Dijk [2] believe that there is no doubt that no language use is free from ideologies. According to the study of ideology, Van Dijk [2] points out that the discourse is shaped by ideology and ideology is conversely shaped in discourse [1]. The major task of CDA is to explore hidden power, inequality, ideologies by analyzing specific discourse. Therefore, this paper attempts to make a critical discourse analysis on comments written by CSIS's experts about Sino-US trade war. Fowler [3] states that transitivity should be weighed carefully to find ideologies hidden in discourses, so the study is undertaken base on the theory of transitivity in CSIS's Sino-US trade war discourse. The thesis is expected to illustrate the complex relation between language and ideology.

II. LITERATURE REVIEW

Norman Fairclough is one of representative figures in the field of CDA. He made contributions to the development of CDA by publishing lots of journals and books. On the study of the relation of language and society, Fairclough [4] points out that language is a part of society and language and society are not related in the external sense but in the internal sense. That means social phenomena affect the use of language, similarly, language phenomena can reflect the features of society. Also, Fairclough [5] states that the study of ideology occupies a central and key position in the field

of CDA. In his opinions, ideology is generated and transformed in actual discursive events and it is a crucial category and a theme in the study of the relation of language and society. Consequently, Fairclough [5] establishes a three-dimensional framework model to study the association of language, society and ideology, which can be regarded as Fairclough's main achievement.
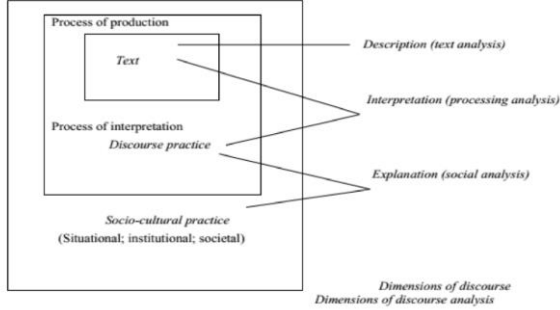

Fig. 1. Diagrammatic representation of CDA approach.

Fig. 1 shows that Fairclough's three-dimensional framework model is composed of three dimensions of discourse conceptions: text, discourse practice and sociocultural practice. Moreover, discourse can be found at three stages: Description, Interpretation and Explanation. Description deals with the language properties in the text, which means that the analysis of discourse should pay attention to the linguistic features of vocabulary, grammar and text structure. Interpretation copes with the relationship between the discursive processes and the text, which means that the analysis of discourse should focus on the process of generation and dissemination. Explanation focuses on the relationship between the processes and social conditions, which means that the analysis of discourse should concentrate on the social power hidden underneath the text.

Van Dijk [2] focuses on the study of discourse and ideology in the field of CDA. In 1998, he came up with a theoretical concept which is called Ideology Square. His theory of Ideology Square first of all studies racial discrimination in discourse and explores hidden ideologies in discourse. In his opinions, the crowd can be divided into two groups according to the needs of interests. One is Self and the other is Others. Self refers to the members of the same camp and its own alliances and friends. Others includes the members of the other camp and the alliances and friends of these members. People tend to describe the positive side of their own camp while describing the negative side of the other camp. This phenomenon sometimes tends to be polarized, what is, our camp is good and the other camp is bad. The influence of this kind of conscious strategies can be seen easily in CDA. Therefore, Van Dijk presents a four-dimensional classification that describes the ideological tendencies between groups. Table 1 is the diagrammatic representation of Ideology Square.

According to Van Dijk's [6] theories, the analysis of discourse is equivalent to the analysis of ideology. Thus, Van Dijk identifies a large number of discourse structures to reveal the relationship between ideologies and group struggles, such as lexical items, proposition, implications, presuppositions, semantic moves, etc. As a way of expressing meaning in a clause, transitivity is the semantic

core of the clause. Thus, this study focuses on the analysis of transitivity in order to illustrate the ideology behind CSIS's Sino-US trade war discourse.

TABLE I: DIAGRAMMATIC REPRESENTATION OF IDEOLOGY SQUARE

	Positive information	Negative Information
To Self	↑	↓
To Others	↓	↑

"↑" indicates expression and emphasis, "↓" indicates suppression or desalination

According to Halliday's [7] theories of Systemic functional Grammar, language has three meta-functions: ideational, interpersonal, and textual functions. The ideational function includes the experiential function and the logical function. The experiential function means that language can enable human beings to build a mental picture of reality and to make sense of what goes on around them and inside them. The experiential function is mainly realized by transitivity and voice. As a semantic system, the transitivity can construe the world of experience into a manageable set of process types. A process consists of three components: the process itself, participants in the process and circumstances associated with the process. There are six types of processes construed by the transitivity system in the grammar: material, mental, relational, verbal, behavioral and existential process.

III. METHODOLOGY

A. Research Questions

Base on Fairclough's three-dimensional framework model and Halliday's theory of transitivity, this paper attempts to answer the following two questions:

(1) In what way are the transitive processes distributed in the selected comments about Sino-US trade war from the official website of Center for Strategic and International Studies (Hereinafter referred to as CSIS)?

(2) What are different ideologies revealed through various transitive processes in CSIS's Sino-US trade war discourse?

B. Research Methods

According to the theories of Fairclough's three-dimensional framework model and transitivity, this study is designed to discover the ideologies hidden in CSIS's Sino-US trade war discourse by analyzing the distributions and characteristics of each transitive process. Both qualitative research and quantitative research were adopted in this study. The quantitative method was used to describe the distribution of transitivity. The qualitative method was used to illustrate the functions of transitive processes by analyzing specific examples. These two methods play important roles in revealing the hidden ideologies in CSIS's Sino-US trade war discourse. To be specific, based on the theory of Van Dijk's Ideology Square, this paper also analyzes positive and negative patterns in some particular processes.

C. Data Collection

Sample texts of this study were collected from the comments written by experts from CSIS about the Sino-US trade war on the official website. There were in total seven

texts being selected. These texts are comments concerning the Sino-US trade war from March 23, 2018 to March 24, 2019, a total of seven expert comments, with 13,191 words in total. The time range of the texts starts on March 23, 2018 when Trump announces the imposition of tariffs on US imports of US$60 billion and ends on March 24, 2018 when the Sino-US representative concluded the seventh round of trade negotiations. There are two reasons why CSIS was chosen as the research object. On the one hand, CSIS is a bipartisan, nonprofit policy research organization dedicated to providing strategic insights and policy solutions. CSIS aims to help Trump's administration to chart a course for making a better world. On the other hand, expert's comments on the official website of CSIS are endowed with good quality and they can represent Think Tank's ideas about the Sino-US trade war.

IV. RESULTS AND DISCUSSION

A. The Distribution of Transitivity in CSIS's Sino-US Trade War Discourse

There are 306 clauses in the research text of this study which is collected from the comments written by experts from CSIS about the Sino-US trade war on the official website. According to the definition of six processes in transitivity system, 306 clauses in the text will be judged which process they belong to and the number of each process is counted.
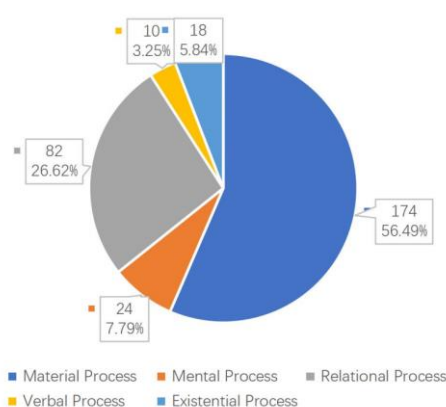

Fig. 2. Number and percentage of different types of transitive processes.

As is shown in Fig. 2, there are five processes in the research text: material process (174), mental process (24), relational process (82), verbal process (10) and existential process (16). There is no behavioral process in the research text. Seen from Figure 2, material process ranks first (56.49%), followed by relational (26.62%), mental (7.79%), existential (5.84%), with verbal process (3.25%) ranking last. There are several possible reasons for this phenomenon. Firstly, the proportion of material process is the highest in the distribution of transitive process because this process expresses the fact that something or someone takes some actions (Halliday, 1994). Experts in CSIS use this process to state the facts of the measures taken by the two countries in the Sino-US trade war. In addition, relational process takes the second place because this process explains the relationship between the two participants (China and the United States). In CSIS's Sino-US trade war discourse,

relational process is mainly used to identify and attribute the issue of Sino-US trade war. The number of mental process and existential process ranks third and fourth respectively. This means that experts pay more attention to the role of existential process in objectively expressing facts or opinions, and focus on people's understanding of Sino-US trade war. The percentage of verbal process ranks fifth because experts seldom use this method to directly express their views. There is no behavioral process in CSIS's Sino-US trade war because this process is mainly used to describe the behavior and characteristics of specific entity. Behavioral process is always used in fiction, not in commentary or news.

B. The Application of Transitivity in CSIS's Sino-US Trade War Discourse

1) Material process

Halliday [7] defines that material process is the process of doing. It expresses the notion that an entity does something or may be done to the other entity. There are two participants in material process: the *Actor* and the *Goal*. The *Actor* is the one that does the deed. Each action may have an impact on others and "others" is the *Goal* of material process.
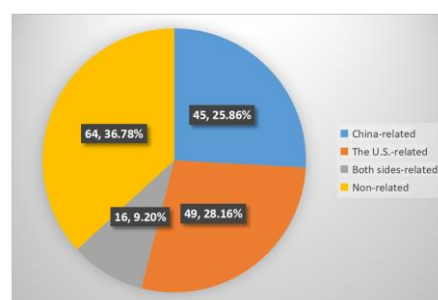

Fig. 3. Number and percentage of different types of Actor in material process.

As can be seen from Fig. 3, the *Actors* in CSIS's Sino-US trade war discourse are divided into four kinds: *The US-related Actor*, *China-related Actor*, *Both sides-related Actor* and *Non-related Actor*. *The US-related Actor* is the *Actor* that refers to the US government or Trump's administration, for instance "the United States", "the US administration", "President Trump", "Washington", etc. *China-related Actor* is the Actor that is linked to the Chinese government, for example, CSIS's experts usually use "China", "Beijing", "President Xi", and "Chinese officials" to introduce the measures taken by the Chinese government in their comments. *Both sides-related Actor* is the Actor that is concerned with the United States and China like "both economics", "both sides", "Beijing and Washington", etc. *Non-related Actor* refers to the Actor has nothing to do with any government's view. These *Actors* are almost all objective facts, such as "the outcome", "the environment", "the report", etc. After counting the number of different types of Actor in material process, *Non-related Actor* is in a large proportion (36.78%), followed by *The US-related Actor* (28.16%), *China-related Actor* (25.86%) and *Both sides-related Actor* (9.20%). Seen from Fig. 2, *The US-related Actor* appears 49 times and *China-related Actor* appears 45 times, which can be seen that the CSIS's experts give the almost same attention to the United States and China when conducting the Sino-US trade war comments.

CSIS's experts take *Both sides-related Actor* only sixteen times, which indicates that China and the United States share little common views on trade war. It is noteworthy that *Non-related Actor* ranks first by accounting for 36.78% with a total of 64. The reason why *Non-related Actor* occupies the dominant position is that experts in CSIS try to describe some specific economic phenomena rather than to show the position of China and the United States. In short, the distribution of different types of *Actor* in material process reflects that experts in CSIS do their best to be neutral by giving the almost same attention to both countries in trade war and focusing on objective facts in Sino-US trade war.

TABLE II: NUMBER OF MATERIAL PROCESS IN IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	22	27	49
To Others (China)	4	41	45
Total	26	68	94

As can be seen from Table II, there are 26 clauses of material process conveying positive messages about the United States and China while there are 68 clauses conveying negative messages. Thus it can be seen that experts in CSIS take negative attitudes in commenting on trade war. Seen from Table II, 49 clauses of material process are concerned with the United States while 45 clauses are related to China, which indicates that experts in CSIS try to keep objective attitudes in their discourse. Also, negative information about China is much more than positive information, which can be seen that experts in CSIS believe that China remains a threat to trade between the two countries. What's more, negative information about China is much more than it about the United States, which shows that experts in CSIS pay more attention to China's negative impact on their trade rather than to the reasons for the Sino-US trade war. In order to further explore the ideologies hidden in CSIS's Sino-US trade war discourse, an example is analyzed as follows.

Example 1: The U.S. trade restrictions [Actor]will not create [Process] an existential threat [Goal] to the Chinese economy.

In Example 1, the Actor is "the US trade restrictions" which is related to the United States and the Goal is "an existential threat". The expert uses the word "create" to describe the process. This sentence is a typical example of positive information about the United States in *Ideology Square*. This example states that the US trade restrictions will not pose a threat to the development of Chinese economy, which means that experts in CSIS believe that American government launches a trade war to protect its own country's trade, not to hinder China's economic development.

2) Relational process

Halliday [7] defines that relational process is the process of being. There are three main types in relational process: *Intensive*, *Circumstantial*, and *Possessive* types. Each of these is divided into two modes: *Attributive* and *Identifying* modes.

As can be seen from Table III, there are 82 clauses of relational process in CSIS's Sino-US trade war discourse. The number of *Identifying* mode with a total of 48 is more than *Attributive* mode that is in total 34. The number of

Intensive types ranks first with a total of 68, followed by *Possessive* (9) and *Circumstantial* types (5). Seen from Table III above, *Attributive* mode takes up 41.46% while *Identifying* mode takes up 58.54%, which shows experts in CSIS tend to state the facts rather than conclude the characteristics of the Sino-U.S. trade war. As for three types of relational process, *Intensive* type (82.93%) is in a large proportion followed by *Possessive* (10.98%) and *Circumstantial* type (6.10%). There are two evident features of this distribution. On the one hand, experts in CSIS almost balance two modes in relational process, which means that they not only emphasize the attribution of Sino-US trade war, but also identify its relationship with other entities. On the other hand, *Intensive* type takes the largest share in relational process which indicates that experts in CSIS often define the specific measures taken by the two countries in the Sino-US trade war. According to Table III, it is obvious that the data collected in the mode are more balanced, so the following section will analyze these two modes respectively.

TABLE III: NUMBER AND PERCENTAGE OF MODES AND TYPES OF RELATIONAL PROCESS

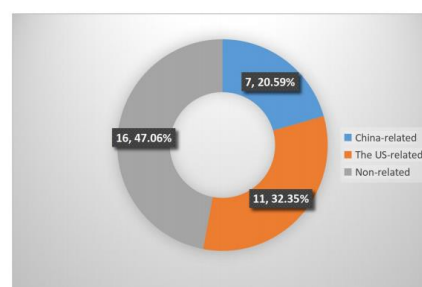| Type \ Mode	Attributive	Identifying	Total / Percent
Intensive	25	43	68 / 82.93%
Circumstantial	4	1	5 / 6.10%
Possessive	5	4	9 / 10.98%
Total / Percent	34 / 41.46%	48 / 58.54%	82

3) Attributive

Fig. 4. Number and percentage of types of Carrier in attributive mode.

Halliday [7] states that "an entity has some quality ascribed or attributed to it in the Attributive mode". The quality refers to the *Attribute* and the entity to which it is ascribed is the *Carrier*. In CSIS's Sino-US trade war discourse, the *Carriers* are divided into three kind: *China-related Carrier*, *The US-related Carrier* and *Non-related Carrier*. *China-related Carriers* mainly refer to China's action while *The US-related Carriers* refer to the United States' action. *Non-related Carriers* are some economic terms or objective facts. As can be seen from Figure 4, *Non-related Carrier* takes the largest share (47.06%) in the *Attributive* mode, followed by *The US-related Carrier* (32,35%) and *China-related Carrier* (20.59%).

TABLE IV: NUMBER OF RELATIONAL PROCESS IN ATTRIBUTIVE MODE IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	4	7	11
To Others (China)	2	5	7
Total	6	12	18

Seen from Table IV, 12 clauses of relational process with negative information can be found while there are only 6 clauses with positive information in the *Attributive* mode. Thus it can be seen that experts in CSIS have negative attitude toward the Sino-US trade war. Also, there are 11 clauses of relational process about the United States while there are 7 clauses about China, which indicates that experts in CSIS pay more attention to attribute actions taken by American government. Then, negative information about China is much more than positive information, which can be seen that experts in CSIS believe that China should be responsible for trade war between the two countries. To surprise, negative information about the United States is much more than it about China in relational process, which shows that experts in CSIS may disapprove of the US government's actions in the Sino-US trade war. In order to further explore the ideologies hidden in CSIS's Sino-US trade war discourse, an example from Ideology Square is analyzed as follows.

Example 2: The Trump administration [Carrier] is [Process] correct [Attribute] to address these issues.

In Example 2, the *Carrier* is "the Trump administration" which is related to the United States and the *Attribute* is "correct". This sentence is a intensive type of relational process and is a typical example of positive information about the United States in *Ideology Square*. This example states that it is correct for the US government to take measures to settle international trade disputes. Thus it can be seen that experts in CSIS support actions taken by the government to protect domestic trade.
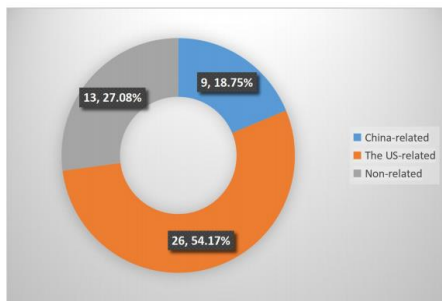
4) Identifying

Fig. 5. Number and percentage of types of Identified in identifying mode.

In the *Identifying* mode, one entity is being used to identify another: "X is identified by A" or "A serves to define the identity of X". The X-element refers to the *Identified* and the A-elements refers to the *Identifier*. In CSIS's Sino-US trade war discourse, the *Identified* can be divided into three kind: *China-related Identified*, *The US-related Identified* and *Non-related Identified*. *China-related Identifie*d is concerned with Chinese government or China's action in trade war, such as "China", "The Chinese government", "Chinese exports", etc. *The US-related Identified* is about American government or its action, for instance "The Trump administration", "The core of the US position", "Washington", etc. *Non-related Identified* refers to some economic terms or objective facts, like "the next moment", "another sign", "the question", etc. As can be seen from Fig. 5, *The US-related Identified* takes the largest share (54.17%) in the *Identifying* mode, followed by *Non-related Identified* (27.08%) and *China-related Identified*

(18.75%).

TABLE V: NUMBER OF RELATIONAL PROCESS IN IDENTIFYING MODE IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	5	21	26
To Others (China)	3	6	9
Total	8	27	35

Seen from Table V, the clauses of relational process with negative information is much more than it with positive information in the Identifying mode, which indicates that experts in CSIS take negative attitudes toward the Sino-US trade war. Then, there are only 9 clauses of relational about China in the Identifying mode while there are 26 clauses about the United States. Thus it can be seen that experts in CSIS focus on identifying measures taken by American government in trade war. Also, negative information about the United States is much more than positive information, which can be seen that experts in CSIS disapprove of some measures taken by Trump's administration. What's more, negative information about the United States is much more that it about China in relational process, which also implies that experts in CSIS may disagree American government's actions in the Sino-US trade war. In order to further explore the ideologies hidden in CSIS's Sino-US trade war discourse, an example from Ideology Square is analyzed as follows.

Example 3: The core of the U.S. position [Identified] is [Process] that China become a genuine market economy on an expedited schedule [Identifier].

In Example 3, the *Identified* is "the core of the US position" which is related to the United States and the *Identifier* is "that China become a genuine market economy on an expedited schedule". This sentence is an intensive type of relational process and is a typical example of positive information about the United States in *Ideology Square*. This example shows that the core position of the United States is that China should accelerate to become a real market economy. Thus it can be seen that experts in CSIS endorse the U.S. government's initiation of a trade war and explain that American actions in trade war is to help China build a better economy.

5) Mental process

Halliday [7] defines that mental process is the process of sensing. The *Sensor* and the *Phenomenon* are two participants in this process. The *Sensor* refers to the conscious being such as feeling, thinking and seeing. The *Phenomenon* is something which is sensed.
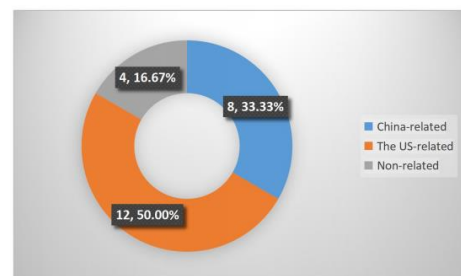

Fig. 6. Number and percentage of different types of Sensor in mental process.

As can be seen from Fig. 6, the *Sensors* in CSIS's Sino-US trade war discourse are classified into three types: *China-related Sensor*, *The US-related Sensor* and *Non-related Sensor*. *China-related Sensor* refers to the Chinese government such as "China", "President Xi", "Beijing", etc. *The US-related Sensor* is concerned with the American government like "The United States", "The administration", "President Trump", etc. *Non-related Sensor* is the fact that is unconcerned with any countries, for instance "the dream", "challenge", "multinational corporation", etc. Seen from the Figure 6, *The U.S-related Sensor* is mainly presented in mental process which is in a large proportion (50%). *China-related Sensor* ranks second by accounting for 33.33% with a total of 8. *Non-related Sensor* is mentioned only four times, accounting for 16.67% of the total. There are several reasons for this distribution. Firstly, experts in CSIS are Americans so they pay more attention to American's views on the Sino-US trade war, which leads to the largest share of *The U.S-related Sensor*. Secondly, experts in CSIS also elaborate the inner thoughts of Chinese people in order to maintain objective attitudes in their comments, which leads to the second share of *China-related Sensor*. Thirdly, though experts do their best to keep balance, the percentage of *Non-related Sensor* indicates that experts in CSIS give high priority to what is happening in the United States. What's more, there is no *Both sides-related Sensor* in mental process because China and the United States have different attitudes toward trade war, which reflects the intense conflict in the Sino-US trade war. To sum up, experts in CSIS focus on the inner thoughts of Americans in mental process. By using this process, they explain the reason why the U.S administration launches Sino-US trade war and show how the American people view the Sino-U.S. trade war.

TABLE VI: NUMBER OF MENTAL PROCESS IN IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	6	5	11
To Others (China)	2	7	9
Total	8	12	20

As can be seen from Table VI, there are 12 clauses of mental process with negative information while there are 8 clauses with positive information, which indicates that experts in CSIS are not optimistic about the development of the Sino-US trade war. Also, the clauses of mental process about the United States is much more than it about China, which can be seen that experts in CSIS pay more attention to show American people's views about the Sino-US trade war. Then, clauses of mental process with negative information about China is much more than it with positive information. Thus it can be seen that experts in CSIS believe that China poses a threat to the US economy and should be responsible for the Sino-US trade war. Above all, negative information about the United States is almost the same to positive information in mental process, which indicates that experts in CSIS not only see the need for the U.S. government to protect international trade, but also see the irrationality of the current trade war launched by Trump's administration. In order to further explore the ideologies hidden in CSIS's Sino-US trade war discourse, an example from Ideology Square is analyzed as follows.

Example 4: The United States [Sensor] needs [Process] to keep the door open to discussions with China [Phenomenon].

In Example 4, *The US-related Sensor* is "the United States" and the *Phenomenon* is "to keep the door open to discussions with China". The word used to describe the process is "need". This sentence is a typical example of positive information about the United States in *Ideology Square*. This example states that the United States needs to settle trade disputes through peaceful negotiation, which indicates that experts in CSIS support the peaceful negotiation between China and the United States in resolving trade disputes and they believe that peaceful settlement of trade frictions is also the hope of the American people.

6) Existential process

Existential process is the process of existing. This process represents that something exists or happens. The feature of existential Process is that the sentence pattern is usually started with "there", or there are some verbs describing existence in the clause, such as "exist", "arise". In each existential process, there must be a participant in the process – *Existent*.
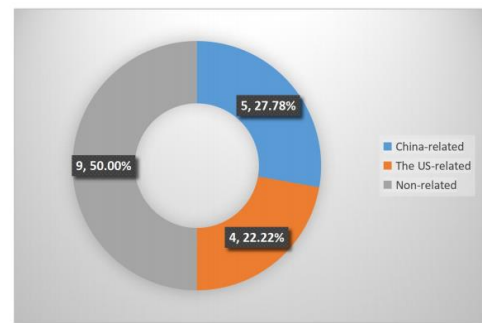

Fig. 7. Number and percentage of types of Existent in existential process.

As can be seen from Fig. 7, the *Existents* in CSIS's Sino-US trade war discourse are classified into three types: *China-related Existent*, *The US-related Existent* and *Non-related Existent*. *China-related Existent* refers to the Chinese action, such as "case that the Chinese government will not change behavior". *The US-related Existent* is concerned with the American government or its action like "worry that the US side had not adequately prepared or coordinated". *Non-related Existent* is the fact that is unconcerned with any countries, for instance "cybersecurity reviews that the government could use to delay or block market access". Seen from the Figure 7, *Non-related Existent* is in a large proportion (50%), followed by *China-related Existent* (27.78%) and *The US-related Existent* (22.22%). The reason for this distribution is that experts in CSIS use this process to explain some facts about the trade war.

TABLE VII: NUMBER OF EXISTENTIAL PROCESS IN IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	4	3	7
To Others (China)	0	2	2
Total	4	5	9

As can be seen from Table VII, negative information is almost the same to positive information in existential process, which indicates that experts in CSIS are concerned about both the negative side of Sino-US trade war and the positive impact of trade war. Also, there are 7 clauses of existential process about the United States while there are 2 clauses about China, which can be seen that experts in CSIS pay more attention to emphasize the existence of trade dispute from the side of the United States. Above all, it is evident that there is no existential process about China with positive information. Thus it can be seen that experts in CSIS believe that Chinese government poses a threat to American economy and China should take responsibility for the Sino-US trade war. In order to further explore the ideologies hidden in CSIS' s Sino-US trade war discourse, an example from Ideology Square is analyzed as follows.

Example 5: There should now be no doubt [Existent] in anyone's mind that the Trump administration is not bluffing.

In Example 5, The US-related Existent is "no doubt that the Trump administration is not bluffing". This sentence is a typical example of positive information about the United States in existential process. This example states that the US government's action on initiating a trade war is not bluff, but a willingness to launch a full-scale trade war. This statement indicates Trump administration's positive attitude toward the executive power of itself.

7) Verbal process

Verbal Process means the process of saying. There are three elements containing it. The first is *Sayer* which means the participant who speak the words. The second is *Receiver* which refers to the one to whom the saying is addressed. The last one is *Verbiage* which is a name for the verbalization itself. There are 10 clauses of existential process in CSIS's Sino-US trade war discourse.
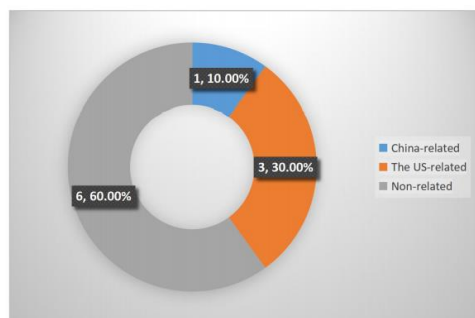

Fig. 8. Number and percentage of different types of Sayer in verbal process.

As can be seen from Fig. 8, the *Sayers* in CSIS's Sino-US trade war discourse are classified into three types: *China-related Sayer*, *The US-related Sayer* and *Non-related Sayer*. *China-related Sayer* refers to the Chinese government like "China". *The US-related Sayer* is concerned with the American government or its action such as "The United States", "The administration", etc. *Non-related Sensor* is the fact that is unconcerned with any countries, for instance "history", "Japan", "European Union", etc. Seen from the Fig. 7, *Non-related Sayer* is in a large proportion (60%). *The US-related Sayer* ranks second by accounting for 30% with a total of 3. *China-related Sayer* is mentioned only one time, accounting for 10% of the total. The reason for this distribution is that experts in CSIS use this process to elaborate some facts about the trade war rather than to present the two governments' views on trade war.

TABLE VIII: NUMBER OF VERBAL PROCESS IN IDEOLOGY SQUARE

	Positive information	Negative Information	Total
To Self (The United States	0	2	2
To Others (China)	1	1	2
Total	1	3	4

As can be seen from Table VIII, there are 3 clauses of verbal process with negative information while there are 1 clause with positive information, which indicates that experts in CSIS take negative attitude toward the Sino-US trade war. Then, the clauses of verbal process about the United States is the same to it about China, which can be seen that experts in do their best to keep balance in the verbal process. What's more, it is obvious that there is no verbal process about the United States with positive information, which can be seen that experts in CSIS believe that though China's international trade may hinder the development of American economy, it is unwise for the US government to initiate the trade war between two countries. In order to further explore the ideologies hidden in CSIS's Sino-US trade war discourse, an example from Ideology Square is analyzed as follows.

Example 6: A U.S. win against China [Verbiage] is easier said [Process] than done.

In Example 6, the Verbiage is "a US win against China" and the word used to describe the process is "say". This sentence is a typical example of negative information about the United States in *Ideology Square*. This example states the truth that the United States cannot win in the trade war even if the administration takes actions to protect its economy, which indicates that experts in CSIS take negative attitudes toward measures taken by Trump's administration.

V. CONCLUSION

This study employs Halliday's transitivity and Van Dijk's Ideology Square to analyze what hidden ideologies are in CSIS's Sino-US trade war discourse and in what way they are revealed by the transitive processes. The major findings can be summarized are as follows:

On the one hand, with regard to the distributions of transitivity processes, the proportion of material process is the highest (56.49%). Since material process expresses the fact that something or someone undertakes some action or some entity "does" something. In addition to that, the percentages of relational process take the second place (26.62%) in CSIS's Sino-US trade war discourse because it construes the relationships between two participants. In the selected texts from discourse, the relational process is mainly used to identify and attribute the issue of Sino-US trade war. The number of mental process and existential process is in the third (7.79%) and fourth (5.84%) place. It means that CSIS's experts pay more attention to the function of existential process in expressing the facts or opinions in an objective way. Whereas it is the mental process that ranks the third in CSIS's Sino-US trade discourse since it is a

reflection of people's awareness of state of beings. Undoubtedly, CSIS is concentrating on the cognition of people in the issue of trade war in China. Furthermore, the percentage of the verbal process ranks the fifth (3.25%) because the experts seldom use this way to elaborate their own points. The behavioral process is not presented in CSIS's Sino-US trade war discourse because this process is mainly applied to show the behavior of an entity with depicting some features of it. This process is always used in novel instead of comments or news.

On the other hand, by analyzing particular examples based on Van Dijk's Ideology Square, this study reveals that language structures can produce certain meanings and ideologies which are not always explicit for people. In all, the differences in ideologies are existing in some aspects, such as the focus, attitudes, perceptions and social values of CSIS. Generally speaking, the ideologies hidden in CSIS's Sino-US trade war discourse are revealed: First of all, experts in CSIS use many material processes to acknowledge that China's economy poses a threat to American economy, so the US government needs to take action to protect its trade. They also use many material processes to state that the Chinese government and relevant authorities are keeping close eye on the development of trade war in the country. Secondly, according to the analysis of relational process, experts in CSIS introduce the trade relationship between two countries and believe that the tough attitude taken by the US government to launch the Sino-US trade war at this stage is not conducive to both sides between China and the United States. The best way to tackle the trade dispute between two countries is the peaceful consultation. Therefore, experts in CSIS have been questioning the US administration's actions in dealing with the trade war problems. Thirdly, according to the analysis of existential and verbal process, experts in CSIS are still biased against the Chinese government, believing that China's tough attitude in the Sino-US trade war is due to the high concentration of state power and the measures taken by state leaders to consolidate the regime. The examples indicate that many American politicians have poured poignant sarcasms against Chinese economy and made several groundless accusations against "threats" of Chinese economy.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Yicai Huang conducted the research, analyzed the data and wrote the paper in draft. Xueai Zhao supported the research, gave many suggestions and helped revise the draft.

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