Original Paper

A Cognitive Study on the Semantic Extensions of GOLD in English

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Abstract

Based on the British National Corpus (BNC), this study attempts to analyze the contexts with gold and gold-relevant words. The corpus-based analysis of the contexts shows that the main meaning focuses of GOLD are: Color; Value; Rarity and Stability. The target scopes of GOLD include: Human, Animal, Object, Star, Plant, Place, Sport, Economy, Occupation, Music, Time, Chance, Rules and Ideas. The relationships between the source focuses and the target scopes fall into two levels: types and tendency. The types of relationships are metonymy, metaphor. The tendency shows the application tendency of the source focuses onto the targets. Color tends to describe Stars, Places, Objects, Plants, Animals and Human. Rarity and Value tend to describe Places, Plants, Sports, Economy, Time, Idea and Rules. Stability tends to describe Human, Occupation, Economy and Rules.

Keywords

Corpus, GOLD, meaning focuses, target scopes, Metonymy, Metaphor

1. Introduction

The publication of *Metaphors We Live By* (Lakoff & Johnson, 1980) revitalizes researches into metaphor and metonymy. It is now accepted that both metaphor and metonymy are conceptual (Lakoff & Johnson, 1980, p. 39; Kövecses, 2010, p. 173). "Metaphor is mapping across knowledge structures (i.e., domains or ICMs); metonymy is mapping within the same domain or domain matrix" (Lakoff & Turner, 1989, p. 103). "Although in principle metaphor and metonymy are distinct cognitive processes, the two are not mutually exclusive. They maybe found in combination in actual natural language expressions" (Goossens, 1990, p. 323). Therefore the cover term of metaphtonymy was invented for the combination of the two cognitive processes.

This paper attempts to focus on the source domain of GOLD to analyze how it is used in the conceptualization of the targets in English. Kövecses (2010) stated that "a single source concept can characterize many distinct target domains." (p. 136) and "Each source is associated with a particular

meaning focus (or foci) that is (or are) mapped onto the target. This meaning focus is conventionally fixed and agreed-on within a speech community" (p. 138) Therefore, a study focused on GOLD can reveal some of the cognitive models and meaning focuses of GOLD in English because "a source domain contributes not randomly selected but predetermined conceptual materials agreed on by a community of speakers to the range of target domains to which it applies". (Kövecses, 2010, p. 138)

Gold, with its diverse properties, presents in many aspects of human life, such as politics, economy, culture, science, technology, military, fashion, religion, and so on. Macdonald (2007) stated that "Gold has been known and prized as an object of beauty and for its unique properties of chemical stability, electrical conductivity, malleability and ductility (trivalent and univalent) ..."(p.1)In fact, the naming of this substance was the process of human cognition of these properties as well. "The name for gold is derived from the historic English word '*geolo*', for yellow and the chemical symbol for gold *Au*, from the Latin name for gold '*aurum*' (glowing dawn)." (Macdonald, 2007,p. 1)

These unique properties of gold influence not only aspects of human life, but human language and cognition as well. Therefore, the analysis on GOLD can reveal how this strategic substance can influence human cognition, which has already aroused some Chinese scholars' interest.

Wang and Sun (2010) categorized GOLD metaphors in Chinese idioms into four types: social activities, production activities, daily experiences, and historical or fairy tales. Xiong (2012) analyzed the similarities and differences among the literal and metaphorical meanings of GOLD, SILVER, COPPER and IRON. Jia and Lan (2013) classified conceptual metaphor and metonymy behind GOLD in both ancient and modern Chinese and found that the contemporary Chinese critically and selectively inherited the expanded meanings of GOLD in ancient Chinese. Zhou (2016) found six major metaphorical extensions of METAL: VALUE, HARDNESS, COLORS, SOUNDING OBJECTS, DICTION and SOCIAL STATUS.

The aforementioned studies focused on the concept of GOLD but they only revealed some of the GOLD metaphor and metonymy because their choice of the data source is relatively limited. Dictionaries are used by Wang and Sun (2010) and Xiong (2012). Even though CCL (Center for Chinese Linguistics) corpus is used by Jia and Lan (2013) and Zhou (2016), it is used in random sampling or as example sources, which may not bring the value of corpus into full play. Compared with these studies which focused on GOLD metaphors in Chinese, little research has focused on GOLD metaphor in English. Even though some studies mentioned GOLD metaphors in English, they are only mentioned or analyzed as examples but not as the research focus.

First, **Happiness As Gold** is used as the example to explain the comprehension of metaphors in Glucksberg, Newsome and Goldvarg (2001); Kintsch and Bowles (2002) and Kintsch (2008). **Encyclopedias As Gold Mines** is used to explain the interpretation or comprehension of metaphors in Sopory (2005); Steen (2008) and Song (2011). **Hume's Treatise As Gold Mine** is used in Elgin (1995) to explain the chain of reference in metaphorical comprehension. **Neuroimaging As Gold Mine** is used in Glucksberg (2003) to explain the model of metaphor comprehension. **Heart of Gold** is used by

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Kennedy (1990) and Lakoff (1995) to talk about the moral and experiential basis of metaphorical comprehension. ***Ideas As Gold*** is used in Blasko (1999) and Mashaln and Kasirer (2014) to analyze the comprehension of verbal and visual metaphors. ***Time As Gold*** is used in Chapetón (2010) to analyze metaphor identification in EFL argumentative writing.

Rachael Louise (2016) gives a relatively systematic analysis of GOLD and finds the figurative connotations: Eloquence; Popularity; Bribery; Sport; Special Treatment. This is the only relatively systematic analysis of GOLD available, but Gold is only one section of a larger research which gives a diachronic study on the meaning shifts of color terms in English. In the section of GOLD, the author only generalized some of GOLD metaphor or metonymy and analyzed the connotations of them but as to the cognitive rules or mappings, he mentioned little.

From the aforementioned researches, it can be seen that even though they focus on GOLD, the Chinese studies are limited in corpus and the English studies only use GOLD metaphor or metonymy as examples, not as research focuses. Therefore, this paper attempts to give a corpus-based quantitative study on the conceptual mappings of GOLD in English, aiming to reveal the cognitive rules of GOLD mappings in English. More specifically, the following questions are sought to be answered:

(1)   What are the distributions of GOLD metaphor and metonymy in English?

(2)   What are the types of GOLD metaphor and metonymy in English?

(3)   What are the cognitive rules of GOLD metaphor and metonymy in English?

2. Methodology

In this part, the contexts with GOLD and the related forms are extracted from the corpus, which equips this research with abundant linguistic resources for the categorization, generalization and comparison of the mappings of GOLD in English.

2.1 Corpus

The corpus used for this research is the British National Corpus (BNC), which is "a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of British English from the later part of the 20th century, both spoken and written genres (e.g., spoken, fiction, magazines, newspapers, and academic)". (Retrieved from https://corpus.byu.edu/bnc/2021/8/28)

2.2 Data Collection

The research focus of this paper is the use of GOLD in English metaphor and metonymy, so the relevant contexts with GOLD, GOLDEN (adjective) GILD (verb) and the derivations of GILD (GILT, GILDED, GILDING GILDER) are extracted from BNC. Each hit of the data contains one context of GOLD, with 13 words on both sides of the keyword, which is retrievable to its original text in the corpus. All of the contexts are used as the linguistic sources for the identification, generalization and comparison of the metaphor and metonymy of GOLD in English, which will reveal some of the conceptualization rules of GOLD in English. The search with these key words in BNC produces a total

of 11872 hits, as shown in the table below:

Table 1. Distributions of GOLD-Related Contexts in BNC

Keywords	Gold	Golden	Gild	Gilding	Gilt	Gilded	Gilder	**Total**
Hits	7454	3698	17	53	371	267	12	11872
Percent	62.8%	31.2%	0.15%	0.45%	3.1%	2.2%	0.1%	100%

From Table 1, it is demonstrated that Gold and Golden occupy 11532 (94%) of the related contexts while Gild and its derivations take 720 (6%) of the whole. From the frequencies of these Gold-related contexts, it can be figured out that the noun form of Gold is used most in English, the adjective form is used relatively less, and the verb form and its derivations are used the least. The noun form is the root and original form of Gold, so it is used more frequently in English language, while Golden and Gild are derivations of the root, and thus they are used less frequently.

2.3 Data Processing

Within the conceptual framework of metaphor and metonymy, the data is processed to extract the metaphor and metonymy of GOLD in English. The process taken in this research for the metaphor identification is the five-step procedure proposed by Steen (1999, p. 73).

(4)   a. Identification of metaphor-related words

b. Identification of propositions

c. Identification of open comparison

d. Identification of analogical structure

e. Identification of cross-domain mappings.

The process for the metonymy identification stated in (5) is the adaptation of Steen's procedures to metonymy identification by Littlemore (2015, p. 127).

(5) a. Identification of metonymy-related words

b. Identification of propositions

c. Identification of a domain

d. Identification of the relationship within the domain.\

Within the framework of conceptual metaphor and metonymy, this paper uses the aforementioned identification procedures to identify metaphors and metonymy in the contexts which contain GOLD and keywords related to it. Before the identification, there is a purification process in which GOLD with literal meanings or as proper nouns (especially a person's name) are excluded. After the identification process, the linguistic expressions are analyzed to get the distribution frequencies of metaphors and metonymy in English, which can answer the first research question: What are the distributions of GOLD metaphor and metonymy in English? After the analysis of the distribution, the generalization of these contexts with linguistic metaphor or metonymy gives birth to the conceptual

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metaphor or metonymy of GOLD, which will answer the second research question: What are the types of GOLD metaphor and metonymy in English? At last, the conceptual metaphor and metonymy are compared and generalized to get the cognitive rules, which would lead to a complex system of GOLD metaphor and metonymy and this could answer the last research question: What are the cognitive rules of GOLD metaphor and metonymy in English?

3. Results and Discussions

3.1 Results

This part demonstrates the results from the data collection and processing, which can reveal the general distribution patterns of GOLD metaphor and metonymy in English. Then, the inner distribution patterns and cognitive rules of GOLD metaphor and metonymy will be analyzed respectively. At last the GOLD metaphor and metonymy will be compared and generalized to reveal the systematic features of GOLD metaphor and metonymy.

3.1.1 Distributions of GOLD-Related Contexts in BNC

In this section, the Gold-related contexts would be classified into literal usages and non-literal usages. In the literal usages, the gold-related words were used in their literal meaning while in the non-literal usages, the gold-related words were used as metaphor or metonymy. The non-literal usages are the focus of this research and they will be analyzed in details in the next section.

Table 2. Distributions of GOLD-Related Literal and Non-Literal Contexts

Keywords	Gold	Golden	Gild	Gilding	Gilt	Gilded	Gilder	**Total**
Hits	7454	3698	17	53	371	267	12	11872
Literal	4222	559	8	34	193	142	12	5170
Percent	56.6%	15.1%	47.1%	64.2%	57.4%	53.2%	100%	43.5%
Non-literal	3232	3139	9	19	178	125	0	6702
Percent	43.4%	84.9%	52.9%	35.8%	42.6%	46.8%	0	56.5%

Several distribution features indicated in Table 2 are analyzed as the following. First, generally speaking, Gold-related words were used relatively more non-literally (56.5%) than literally (43.5%). Second, specifically speaking, Gold was used relatively more literally (56.6%) than non-literally (43.4%), because as the most precious metal, Gold still plays a very important role in the society, and thus the original meanings are used relatively more. Third, golden, as one of the most important derivations of Gold, was used much more non-literally (84.9%) than literally (15.1%). Fourth, gild and its derivations were used relatively more literally (54%; 389 of the 720 Gild forms) than non-literally (46%; 331 of the720 Gild forms).

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3.1.2 Distributions of GOLD Metaphor and Metonymy in BNC

In this section, the non-literal contexts of GOLD are categorized under the theoretical framework of the Conceptual Metaphor Theory and the Conceptual Metonymy Theory. The conceptual metaphor and metonymy are identified through the MIP procedures (Steen, 1999; Littlemore, 2015). The identification and categorization results are demonstrated in Table3.

Table 3. Distributions of GOLD Metaphor and Metonymy in BNC

Keywords	Gold	Golden	Gild	Gilding	Gilt	Gilded	Gilder	**Total**
Non-literal	3232	3139	9	19	178	125	0	6702
Metaphor	669	1535	7	5	113	51	0	2380
Percent	20.7%	48.9%	77.8%	26.3%	63.5%	40.8%	0	35.5%
Metonymy	1259	1524	2	14	65	74	0	2938
Percent	39%	48.6%	22.3%	73.7%	36.5%	59.2%	0	43.8%
Meta-metonymy	1304	80	0	0	0	0	0	1384
Percent	40.3%	2.5%	0	0	0	0	0	20.7%

From Table3, it can be seen that the non-literal contexts of GOLD fall into three categories: Metaphor, Metonymy and Meta-metonymy. The distribution features of them are analyzed as the following: First, from the general perspective, GOLD is used relatively more as metonymy (43.8%) than as metaphors (35.5%), and meta-metonymy takes 20.7% of the whole non-literal contexts. Second, from the specific perspective, Gold is used more as meta-metonymy (40.3%) and metonymy (39%) than as metaphor (20.7%). Third, metaphor (48.9%) and metonymy (48.6%) takes almost similar percentage of Golden contexts, while meta-metonymy takes 2.5% of the Golden contexts. Fourth, meta-metonymy is absent from the contexts with Gild and its abbreviations.

3.1.3 Distributions of Source Focuses

In this section, the source meaning focuses are analyzed. As mentioned in the introduction, Gold has many physical properties, such as color, chemical stability, electrical conductivity, malleability and ductility and so on. According to Kövecses (2010, p. 138) "Each source is associated with a particular meaning focus (or foci) that is (or are) mapped onto the target. This meaning focus is conventionally fixed and agreed-on within a speech community." Therefore, not all of the GOLD properties and its associated meanings can be used in GOLD metaphors or metonymy. The analysis of the source focuses can show what aspects of GOLD are used in the GOLD metaphors and metonymy.

The systematic annotation of the contexts according to the meaning focuses of GOLD produces the distribution table below:

Table 4. Distributions of Source Focuses (Note 1)

KW SF	Gold	Golden	Gild	Gilding	Gilt	Gilded	Gilder	**Total**	**Percent**
Color	1193	1716	6	14	65	81	0	3075	46%
Rarity	1314	307	0	0	0	10	0	1631	24%
Value	557	959	3	5	113	34	0	1671	25%
Stability	168	157	0	0	0	0	0	325	5%
Total	3232	3139	9	19	178	125	0	6702	100%

From this Table, it can be seen what source meaning focuses of GOLD are used in the non-literal contexts. The distribution features can show the conventional meaning focuses of GOLD which are accepted by the speech community. The general distribution features are the following: First, generally speaking, the property of Color takes 46% of the whole non-literal contexts of GOLD. The property of Rarity takes 24% while the property of Value takes 25%. The property of Stability takes only 5%. The other properties such as electrical conductivity and ductility are absent from the non-literal contexts. Second, specifically speaking, the properties of Color, Value and Rarity and Stability exit mostly in *Gold* and *Golden* contexts. In the *Gold* contexts, the properties of Rarity and Color are mostly used while the properties of Value and Stability are less used. In *Golden* contexts, the properties of Color and Value are mostly used while the properties of Rarity and Stability are less used. Third, the properties of Color and Value exist mostly in *Gild* and its abbreviations. The property of Stability is absent from *Gild* and its abbreviations. The property of Rarity exists only in *Gilded*.

However, some further analyses show the relationships between these properties. They are not independent from each other. Some of these properties are interwoven. First, the property of Rarity is interwoven with the property of Value. It is common sense that the rarer an object is, the more valuable it will be. The rarer an object is, the harder it will be to get, and more devotion will be needed. The more devotion people put into the object, the more valuable it will be in people's hearts. The element of Gold is rare and hard to extract from the earth, so, in history, it has been regarded as the symbol of Value and the tool for exchange. In sports, the performances of the players are ranked according to the Rarity of the materials of the medals. Gold medals are the rewards to the best players who devote the most and give the best performance, while silver medals are for the second and the bronze medals are for the third one.

Second, the property of Value is represented by the property of Color. The property of Value is relatively more abstract than the concrete property of Color. Therefore, the property of Value is represented by the property of Color in life practices. Gold is accepted as the symbol of value and wealth, and the special and prominent property of Color is also used as the symbol of Value in the society. In ancient times, the color of Golden was used in the clothes and decorations of the rich or

royal families. The Property of Color becomes the symbol of wealth the noble status in the society.In modern time, the color of gold is still frequently used in the clothes, accessories and decorations of the rich people. It is still a symbol of wealth and higher social status. For example, the latest smart phones from Apple Company have the Golden color versions which are well-received in the market. Golden color is also used in the decorations of the houses or buildings owned by the rich or royal families. In sports, the materials for the Gold medals are not complete gold because the main material is silver which is gilded with gold as the exterior. The gilded exterior of gold medal only takes the Property of Color to represent the Properties of Value and Rarity. Therefore, in some of the competitions, the Gold medals may contain no element of gold at all, and they may be made of paper, plastic, wood, silver, iron or any kind of material rather than gold. They are painted in the color of Gold which has the symbolic meaning of Value and Rarity.

3.1.4 Distributions of Target Themes

After the analysis of the source meaning focuses of GOLD, this section will analyze the targets onto which these source focuses are mapped. Kövecses stated that "a single source concept can characterize many distinct target domains" (2010, p. 136). Kövecses also stated that "the target inherits the main meaning focus (or foci) of the source" (2010, p. 138).

Based on these ideas, it can be inferred that the source domain GOLD can be used to characterize many distinct target domains and these targets inherit the main meaning focuses of the source. The analysis of the mapping relationships between the source meaning focuses and the targets can reveal the conceptualization of the various targets through the source domain of GOLD. So it is necessary to analyze the targets and their distribution features in the non-literal contexts of GOLD.

The generalization and categorization of GOLD metaphor and metonymy lead to the distribution table below:

Table 5. Distributions of Target Themes (Note 2)

KW TT	Gold	Golden	Gild	Gilding	Gilt	Gilded	Gilder	Total	Percent
Stars	107	109	1	14	6	5	0	242	3.6%
Place	179	161	1	0	9	16	0	366	5.5%
Object	260	154	1	0	25	30	0	470	7%
Plant	97	139	5	5	3	12	0	261	3.8%
Animal	56	400	0	0	8	23	0	487	7.2%
Human	659	846	1	0	8	32	0	1546	23%
Occupation	1	61	0	0	6	0	0	68	1%
Sport	1304	80	0	0	0	0	0	1384	21%
Economy	480	204	0	0	113	1	0	798	12%

Music	24	51	0	0	0	0	0	75	1.1%
Time	0	617	0	0	0	6	0	623	9.2%
Chance	0	124	0	0	0	0	0	124	1.8%
Idea	15	49	0	0	0	0	0	64	1%
Rule	50	144	0	0	0	0	0	194	2.8%
Total	3232	3139	9	19	178	125	0	6702	100%

The Table above presents the target themes of the conceptual mappings of GOLD. The target themes can be classified into three groups according to the property of concreteness and abstractness.

(6)   a. Concrete themes: Nature; Place; Object; Plant; Animal; Human;

b. Concrete-Abstract blend: Occupation; Sport; Economy; Music;

c. Abstract themes: Time; Chance; Idea; Rule;

The first group of target theme is concrete and tangible. The targets range from the visible Stars (the Sun, the Moon and the stars in the sky) to the places, objects, plants, animals and human beings. The second group of targets is hard to define because even though they are relatively abstract, they may have some concrete representations. Occupations and sports are related to the relatively abstract notion of skills and status, but they also have concrete forms of the tools, places, and participants. The same is true with economy and music. The third group is completely abstract because these targets are intangible and they have to be conceptualized through the concrete notions like GOLD.

From the distribution of the targets, some of the conceptual rules can be revealed. The top three targets of GOLD are Human (23%), Sports (21%) and Economy (12%). The source domain GOLD is used to describe these three targets that have close relationship with GOLD. The relationships will be analyzed in the next section where the mapping relationships will be analyzed in details. Human takes the largest proportion of the targets and some other targets, such as Sports, Economy, Occupations, Ideas, and Time, are also closely related to Human. There seems to be a kind of Human-centrality in the targets. In Human-centrality, GOLD is used to describe the features of Human first, such as the body features, the abstract moral features and relationships and so on. The other targets which are closely related to human beings are also described through the source domain GOLD. Human-centrality has its rational roots in the cognition process of human beings. Human beings are the master and prominent participant of the cognition process and their cognition starts from themselves and then extends to the other relevant targets.

3.2   Discussions

In the discussion part, on the basis of the results mentioned above, the conceptual rules of GOLD mappings are analyzed. The analysis of the conceptual rules fall into two levels: Conceptual Mappings between the Source and the Target themes and Relationships between the Source Focus and the Target Themes.

3.2.1 Conceptual Mappings between the Source and Target Themes

The conceptual mappings between the source and the targets fall into three types: Metonymy, Metaphor and Meta-metonymy. Metonymy relationships exist in the mappings between the Color property and the concrete target themes, such as Stars, Plants, Objects, Animals and Human beings. In the metonymy: *MATERAL FOR COLOR*, the prominent property of gold is used to describe the color of the targets. For example (Note 3):

(7)   a. The Sun grew golden and weak.

b. There is also an avenue of trimmed and rounded golden yew trees.

c. The golden bowerbird builds a maypole bower.

d. In his gilt sandals Lorne walked from one window to the other.

e. The dark gold skin of her lovely face had a reddish tinge to it.

f. No golden cities and distant mountains echoing with thunder there.

MATERIAL FOR COLOR also exists in many texts in which that the color of gold is used to describe all aspects of these concrete domains. For the stars, the bright light of the Sun, the Moon and even the Star are characterized with the color of Gold. For the plants, the color of the flowers, the leaves, the fruits and the branches are characterized with gold. For animals, the color of the skin, the fur, and the eyes are described in Gold color. For places, the color of the building, the hill, the coast and so on is characterized in Gold color. For human beings, the color of the skin, the hair, the eye and so on is described in gold color.

There is also another type of metonymy: *MATERIAL FOR PRODUCT.* Gold is used as the main material of coins and currency, so gradually it is regarded as the symbol of money and wealth. Gold and silver are often used together for the product: money. For example:

(8) Gold and silver had a great power to dazzle men's minds.

Metaphor relationships exist in the cross-domain mappings between GOLD and the concrete domains like Human and the relatively concrete domains like Economy and the abstract domains like Time, Idea and Rules. Within the cross-domain mapping, the source domain maps different focuses onto the different aspects of the targets and give birth to a group of conceptual metaphors in the target themes.

Meta-metonymy exists in the target theme of Sports in which metaphor is based on metonymy. Gold is used as the material for the medals and awards. The rare and valuable material (gold) is used for the product (medal) and gold medals are awarded as the representations to their excellent performance and merits. The winner of a gold medal is called Gold medallist. For example:

(9) Remember us when you win the slalom Olympic gold.

(10) Robin Francis (York) was a double gold medallist in the boys'50m.

3.2.2 Conceptual Metaphors of GOLD

This section analyzes the conceptual metaphors in the related target themes respectively, from the concrete themes to the abstract themes. The different source focuses are mapped onto the different target themes. The conceptual mappings can to some extent reveal the rules of the application of GOLD

in English cognition.

1)   Place Theme

There are a lot of place names that contain gold, for example, golden gate, gold coast, golden bridge, gold street and gold triangle and so on. Some of these places are where gold was discovered in history, for example, gold coast gold hill, gold valley and golden gate. In the other names, the metonymy *MATERIAL FOR PRODUCT; GOLD FOR WEALTH* works in them. For example,

(11) Gold Street has a wealth of small 19th Century buildings.

(12) Might they go to London, the golden city?

In these examples, gold stands for wealth, so a gold street is where rich people live rather than where gold is found. In Place theme, GOLD MINE metaphor also works in many contexts. In the metaphor, *VALUABLE SOURCE AS GOLD MINE,* the abstract sources of valuable things or ideas are understood in terms of concrete Gold mine where gold is produced. For example,

(13) Rudolf Hess must be a gold mine of strategic information

(14) This area is a gold mine for us. We've got twenty five sales.

2)   **Plant Theme**

In the Plant theme, the fruits of plant produce the following metaphors: *ROOT OF TROUBLE /DISCORD AS GOLDEN FRUIT* and *TO DO UNNECESSARY THINGS AS TO GILD THE LILY.* The golden fruit/ apple metaphor comes from the Greek myth, in which a golden apple caused discord among the Goddess. Later it is accepted as the symbol of trouble and discords. The second metaphor is a kind of event metaphor in which TO DO UNNECESSARY THINGS is understood in terms of TO GILD THE LILY. The natural color of lily is white so the action of gilding will not beautify it but spoil its natural beauty, so to gild the lily is unnecessary.

3)   Animal Theme

Some animals, such as Goose and calf, are described with gold to produce some conceptual metaphors as the following: *WEALTH AS GOLD CALF* and *TO DESTORY THE PROFITABLITY OF AN ASSET AS TO KILL THE GOOSE THAT LAY GOLDEN EGGS.* Calf is heavy and gold is valuable, and thus a calf made of gold means wealth. It is a symbol of material wealth.

(15) What greater respect for God than to make an offering of a golden calf?

The English idiom "Kill the goose that lays the golden egg" is generally used to describe the short-sighted action that destroys the profitability of an asset. In the metaphor *TO DESTORY THE PROFITABLITY OF AN ASSET AS TO KILL THE GOOSE THAT LAY GOLDEN EGGS*, Goose as the mother of eggs is mapped onto the source of wealth, while the value of golden eggs is mapped onto the value of the profit. The action of killing the goose that lay golden eggs is mapped onto the short-sight action of destroying the profitability of an asset.

4)   **Human Theme**

As the central theme, human beings produce a group of GOLD metaphors, in which the abstract features or properties are understood in terms of gold. The main source focuses are Rarity, Value and

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Stability. The relationships between the focuses and human properties are analyzed as the following: ***KINDNESS AS GOLD.*** Kindness is cherished and valued by human beings, and this abstract property is understood in terms of the quality of Heart, which is received as the root of emotions and symbol of character. A kind person has a heart of gold that is very valuable. The focuses of Value and Rarity are mapped onto the value of kindness.

(16) The Giffens have hearts of gold. They are sensitive and kind.

In the conceptual metaphor ***PERFECT MATCH AS GOLD***, the property of Stability and Value is mapped on to the stable, valuable and perfect match relationships between the couples.

(17)Golden couple Bill and Freda Jefferson celebrates 50 years of marriage today.

In the metaphor ***POPULARITY AS GOLD,*** the properties of Rarity and Value are mapped onto the popularity of human beings in which the popular people are understood as the rare and valuable mineral which is favored and sought after by people.

(18) He was the fashionable golden boy of the day.

In the metaphor ***GOOD BEHAVIOR OR PERFORMANCE AS GOLD***, the good behaviors of people are understood in terms of gold. The property of Value is mapped onto the good behaviors of the kids or the performance of machine, which are considered to be valuable.

(19) Well he sat there as good as gold.

(20)His car is good as gold.

5)   **Sport Theme**

In Sport theme, the properties of Rarity and Value are mapped onto the excellence and merit of players. Since section 3.2.2 has already analyzed the basic mapping relationships, this section will not repeat them. Sport theme may cover not only the physical competition but some other kinds of competition as well. The best performers of all kinds of competitions are awarded the gold medals, awards or cups. For example the Oscar Gold Statue, the gold medals in the speech contests, writing contests or drawing contests.

6)   **Occupation Theme**

The properties of Value and Stability are mapped onto the rich rewards or stability in the workplace, which give birth to the metaphor: ***GENEROUS REWARD OR BENEFIT AS GOLD***. This metaphor works in all stages of the occupation: the beginning, the process and the ending. Attractive and generous rewards to the job hunters are regarded as *Golden Hello*.

(21) The Council makes golden hellos to attract higher research workers.

The generous and stable guarantee measures are regarded as *Golden Parachute*, because the parachute can give stability and the golden parachute can give the staff generous rewards or priorities to get the guaranteed stability.

(22) The golden parachutes in place give the top officers a handsome pay-off.

The generous rewards to the retired are regarded as *Golden Handshake* which means that a generous reward is given to the staff before retiring.

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(23) The reward for dismissal is a golden handshake of several years' pay.

The rules and restrictions in the well-salaried jobs are regarded as Golden Handcuffs: the restrictions in the well-salaried jobs are like handcuffs.

(24) Pensions were the golden handcuffs which chained staff to a company.

7)   **Economy Theme**

In Economy theme, ***PRIORITY AS GOLD*** works. In this metaphor, the property of Value and Rarity are mapped onto the priority treatment and wealth in economic activities. The cards or accounts which can give the customers priority or rich profits are called gold card or accounts.

(25) Gold card holders with all three vouchers will get tickets.

(26) The Gold Account is a very high interest account for the longer term.

(27) Golden shares are single shares in a company containing special rights.

In ***WEALTH AS GOLD*** metaphor, the Value property is mapped onto the valuables in economic activities: ***A POT OF GOLD*, *STRIKE GOLD.***

(28) There is some pot of gold stuck in some foreign country.

(29) Jack struck gold and bought a big house.

8)   **Music Theme**

In Music theme**, *POPULARITY AS GOLD*** works. The properties of Rarity and Value are mapped onto the rare and good music collections that can produce huge profits to the singer and producer.

(30) We're the first metal band to have a gold album with this kind of music.

(31) The glitzy music biz reward is an impressive collection of gold discs.

9)   **Time Theme**

The properties of Rarity and Value are mapped onto the abstract domain of time to describe the value and importance of time**. *TIME AS GOLD*** works in the specific metaphorical expressions which contain the time signals of day, week, month, year, age, decade, century, past, future, seasons and so on.

(32)This is the golden age of Scottish education.

(33) There is no guaranteed golden future.

The fiftieth year is called golden or jubilee, because it is valuable and cherished by the people and they will celebrate it with a party or some ceremony.

(34) Mary celebrated the golden jubilee of her religious profession on Friday.

(35) Bernard and Clare celebrated their golden wedding Anniversary.

10)   **Chance Theme**

The abstract Chance theme is related to Time Theme because chances or opportunities are special moment or time which is very rare, valuable and cherished. In ***CHANCE/OPPORTUNITY AS GOLD*** metaphor, the properties of Rarity and Value are mapped onto the preciousness of opportunities because they are rare, hard to get and valuable.

(36) Colerain missed a golden chance to get back into the game.

(37) This was her golden opportunity to have her say.

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11) **Idea Theme**

The properties of Rarity and Value are mapped onto the abstract theme of Idea and produce **_RATIONAL OR EXCELLENT IDEAS AS GOLD._** In this metaphor, the reasonable and rational ideas, opinions and suggestions are characterized by the concrete source: GOLD, because they are rare and valuable and may lead to valuable results.

(38) My golden advice is not to have the manager handling the artist's money.

(39) We quoted golden opinions of the statue from leading luminaries of the arts.

12) **Rule Theme**

The properties of Value and Stability are mapped onto the abstract Rule theme and lead **to _RATIONAL AND STABLE RULES AS GOLD_**. In this metaphor, the property of Value is mapped onto the Rationality of rules because rational rules can lead to valuable results. The property of Stability is mapped onto the rational stability of rules because the effect of a rational rule is stable.

(40) There are some golden rules for organizing a costing system.

(41) A golden principle in contract was "freedom of contract".

(42) Your golden guideline is: keep the system simple.

3.2.3 Relationships between Source Focuses and Target Themes

In this section, the relationships between the source focus and the target themes and the conceptual mappings will be analyzed in details. The relationships between the source domain, the source focus, and the target themes are demonstrated in Figure 1.
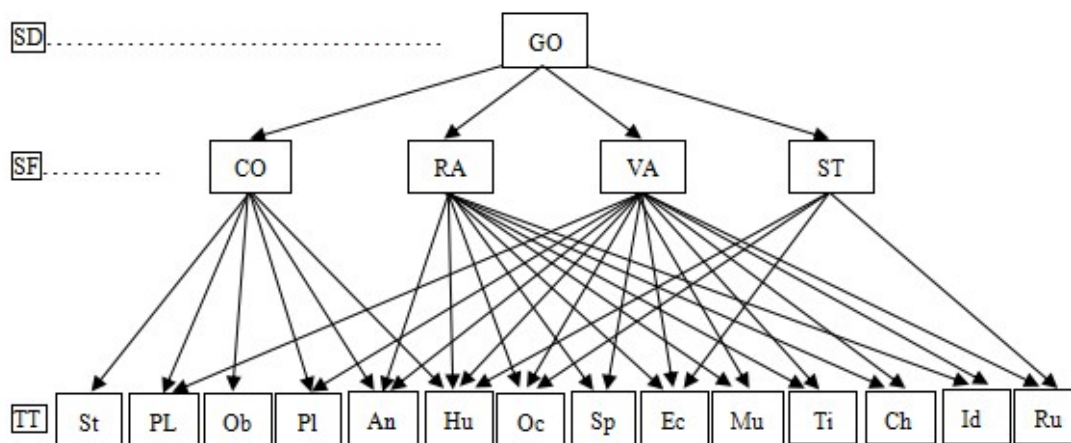

Figure 1. Relationships Between Source Focuses and Target Themes (Note 4)

From the Figure, some mapping relationships can be drawn as the following: First, the Color focus is mainly mapped onto the concrete targets, such as Stars, Places, Objects, Plants, Animals and Human beings. Theses mappings are metonymy in which the material (Gold) is used for its color. Second, the Rarity and Value focus are mainly mapped onto almost all the targets from the concrete places, plants to the relatively concrete sports, economy and the abstract time, idea and rules. These mappings are

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mostly metaphors in which the value property is used. Third, the Stability focus is used to describe Human, Occupation, Economy and Rule. Theses mappings are metaphors in which the stability property is used to describe the stable relationships or performance of these targets.

4. Conclusion

This corpus-based study reveals the distribution features and mapping rules of the concept of GOLD in English, which can show the cognitive rules of the element-based mappings in English. The main findings can be summarized as follows.

The distribution features show the distributions of the GOLD related key words, the literal and non-literal contexts of GOLD, the Source focuses and the Target themes. These distribution features are drawn from the data analysis. The data analysis shows that gold and golden occupy the largest percentage of the hits (94%), while gild and its abbreviations take a small portion (6%). Some further classifications show that GOLD related words are used relatively more non-literally (56.5%) than literally (43.5%).

The source meaning focuses fall into four types: Color, Rarity, Value and Stability. In the non-literal contexts of GOLD, Color takes 46%, Rarity takes 24%, Value takes 25%, Stability takes only 5%. The analysis also shows the relationships between some properties: The property of Rarity is interwoven with the property of Value. The property of Value is represented by the property of Color.

The target themes fall into three groups: Concrete, Concrete-abstract blend and Abstract. The distribution of the targets leads to Human-centrality of GOLD mappings because Human (23%) takes the largest proportion of the targets and some other targets, such as Sports (21%), Economy (12%), Occupations, Ideas, and Time, are also closely related to Human.

The Color focus is mainly mapped onto the concrete targets, such as Stars, Plants, Animals and Human beings. Theses mappings are metonymy in which the material (Gold) is used for its color. The Rarity and Value focus are mapped onto almost all the targets from the concrete plants to the relatively concrete economy and the abstract idea and rules. These mappings are mostly metaphors in which the Value focus is used. In sports, meta-metonymy exists. The Stability focus is used to describe Human and Rule. Theses mappings are metaphors in which the stability property is used to describe the stable relationships or performance of these targets.

The conceptual mappings of GOLD fall into three categories: Metaphor, Metonymy and metaphtonymy. GOLD is used relatively more as metonymy (43.8%) than as metaphor (35.5%), and meta-metonymy takes 20.7%. Metonymy relationships exist in the mappings between the Color property and the concrete target themes, such as Stars, Plants, Objects, Animals and Human. Metaphor relationships exist in the cross-domain mappings between GOLD and the concrete domains like Human and the relatively concrete domains like Economy and the abstract domains like Time, Idea and Rules. The source domain maps different focus onto the different aspects of the targets and give birth to a group of conceptual metaphors in the target themes. Metaphtonymy exists in the target theme of Sports in which

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metaphor is based on metonymy.

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Notes

Note 1. In this table, abbreviations are used for the conciseness of the table. KW: Key Words; SF: Source Focus

Note 2. In this table, abbreviations are used for the conciseness of the table. KW: Key Words; TT: Target Themes

Note 3. All the examples in this study are from BNC corpus.

Note 4. In Figure 1, abbreviations are used for the conciseness of the figure. SD: Source Domain; SF: Source meaning Focus; TT: Target Themes; GO: Gold; CO: Color; RA: Rarity; VA: Value; ST: Stability; St: Stars; An: Animal; Pl: Plant; Ob: Objects: PL: Place; Hu: Human; Oc: Occupation; Sp: Sport; Mu:

Music; Ec: Economy; Ti: Time; Ch: Chance; Id: Idea; Ru: Rule. These abbreviations will also be used in figures in the following sections.