The Cognitive Semantics of Particle "out" and Its Phrasal Verbs

Fan Li, Zongxiang Feng, and Li Li

Abstract—**English phrasal verbs are one of the key and difficult parts in English learning. Since the traditional linguistics holds that English phrasal verb is an integral thing that cannot be analyzed, learners can only perform rote tasks of memorization which is time-consuming and inefficient. However, cognitive linguistics holds that the semantics of phrasal verbs and their constituents, verbs and particles, are both prescriptive and analytical. These dual attributes of phrasal verbs require researchers using the relevant theories of cognitive linguistics to analyze the cognitive semantics of phrasal verbs, so that learners can master phrasal verbs systematically and efficiently. Out is situated in the second place of the usage frequency of the particle in English phrasal verbs; and the meaning of it is enormous and complex which gives much trouble and burden to leaners. The current research in the cognitive linguistics field on the particle "out" and its phrasal verbs are mainly based on spatial schema, while those without in- out spatial meaning still lacking the pursuable explanation. While conceptual metaphor and conceptual integration theory build the broader prospect for studying semantics of particle "out" and its phrasal verbs. They have a great deal of cognitive explanatory power for analyzing particle "out" and its phrasal verbs with the prototype theory and image schema.**

Index Terms—**Particle 'out', phrasal verb, cognitive semantics, conceptual integration theory.**

I. INTRODUCTION

Particles and their phrasal verbs are one of the most important and difficult parts in English study. Although the number of particle is not very large, the semantics of phrasal verbs with particles is so complex that learners have great difficulty in mastering them. Numerous phrasal verbs are created under the combinations of masses of verbs and complex particles. Unfortunately, traditional linguistics like structuralism and transformational-generative grammar failed to give a feasible theory to solve the complex semantics of particles and their phrasal verbs. Learners do not have effective methods to learn English phrasal verbs except memorizing mechanically. They spend more but harvest less. With the development of cognitive linguistics, theories like embodied philosophy, prototype theory, image schema, conceptual metaphor and conceptual integration have demonstrated an increasing power to solve the problems. While the semantics and motivation of phrasal

verbs with particle is unpredictable so that it needs researchers to use the knowledge of cognitive linguistics to analyze its cognitive semantics and motivation so that learners could learn effectively and expediently. Meanwhile, "out" is the second common particle in English phrasal verbs (He Xuede [1], 2005). According to *Oxford Phrasal Verbs Dictionary for Learners of English* [2], "out" is also highly situated at the second place just after UP in the number of usages.

Although so many researches have been devoted to particle "out" by applying the image schema and conceptual metaphor theory, only few attentions have been paid to "out" and its phrasal verbs with systematically analyzed prototype, conceptual metaphor and conceptual integration theory and neglect to consider particle "out" and its phrasal verbs in non-spatial concepts to reveal the relation between the primary meaning and the extended meanings. It would seem, therefore, that further investigation is needed in the area of cognitive semantics of particle "out" and its phrasal verbs with systematic cognitive linguistics theory in order to confirm the power of its explanation and further explore motivation and semantics of phrasal verbs in the meanwhile.

According to *Oxford Phrasal Verbs Dictionary for Learners of English* [2] (the eighth edition, 2014), "out" is only second to UP in terms of the number of usages. So it has a very high frequency of use in the English language. Therefore, quite many scholars' attention has been aroused to the study of particle "out" and its phrasal verbs. Wu Huijuan [3] (2012:72), He Xuede [1] (2005:46), Xu Dan and Li Ying [4] (2008:129) have studied "out" and its phrasal verbs in the aspect of their structure and they have concluded that the prototypical meaning and metaphorical senses of "out" are inseparable from the angle of image schema and conceptual metaphor. However, they lack the systematic cognitive analysis and vividly dynamic constructive process of polysemy of "out" and its phrasal verb. Yang Mingming [5] (2012: 68) uses the Trajector—Landmark Theory to analyze phrasal verbs with particle "out" which offers effective methods for studying the particle "out", but the process of analyzing the meanings of phrasal verbs with "out" lacks specifically supportive theory and motivations. Xu Dan [6] (2012: 114) analyzes the various kinds of semantics of "out" under the theory of metaphor and image schema and she offers an idea that there are three types of metaphorical meaning of "out", namely, tendency, degree and result. Her conclusion about the classification of metaphorical meaning of "out" enlightens this paper a lot. This paper will classify the semantics of particle "out" with the reference of her result.

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II. THEORETICAL FRAMEWORK

A. Image Schemas

The image schema theory is an important theory of cognitive linguistics and, it fully demonstrates the philosophical basis of cognitive linguistics, the philosophy of empiricism and experience. It puts forward the concept of "meaning" and emphasizes the role of "human body" in the process of meaning acquisition. Image refers to a kind of representation and the ability of which the objective world is not input, the human mind can still imagine the thing. Schema is the study of memory in Gestalt psychology in 1920s; Bartlett (2004) found that human memory can form a variety of information and experience to form a conventional schema which stored in the memory of people. After 80s, Lakoff & Johnson combine these two concepts and define it as: an image schema which is a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience (Johnson 1987: xiv) [7]. This paper analyzes the primary meaning and the metaphorical meaning of out by applying the instruments of Trajector and Landmark proposed by Langacker. The kinds of relative position, shapes, size, dimensionality and functions of trajector and landmark can constitute the image schemas of "out" and it can shed light on polysemy of "out".

B. Conceptual Metaphor Theory

Conceptual metaphor theory was originally derived from the book *Metaphors We Live By* written by Lakoff & Johnson. The theory holds that metaphor is a systematic mapping from a specific conceptual domain to an abstract conceptual domain and metaphor is a matter of thinking, rather than language expression. Thus, metaphor is a way of thinking and means of cognition. Lakoff & Johnson[8](1980) defines: metaphor involves the comparison of two concepts in that one constructed in terms of the other. It's often described in terms of a "target domain" and a "source domain". The target domain is "the experience being described by a metaphor" and the source domain is "the means that we use in order to describe the experience" (Hu Zhuanglin, 2011) [9]. For example,

The road of love is too long to remember to return.

This sentence is based on a metaphor "love is journey" in which the target domain, LOVE, is conceptualized in terms of the source domain of JOURNEY. For most time, the concrete things are used to describe the abstract experience.

C. Conceptual Integration Theory

In 1994, Fauconnier and Turner proposed and discussed blending or integration theory. They claim, the integration theory is a cognitive operation whereby elements of two or more "mental spaces" are integrated via projecting into new, blended space which has its unique structure (As shown in Fig. 1). It includes four spaces, two input spaces (I1 and I2), generic space and the blend. The generic space is produced by the cross-space mapping of input spaces and it reflects the shared abstract structure and organization (also called "mental space") in input spaces; input I1 and input I2 has selective projection and that producing the forth space, the blended space; the blended space builds the emergent

structure by its composition, completion and elaboration. The elements in emergent structure are not existed in the input I1 and input I2, which reflects the creativity of the conceptual integration theory.
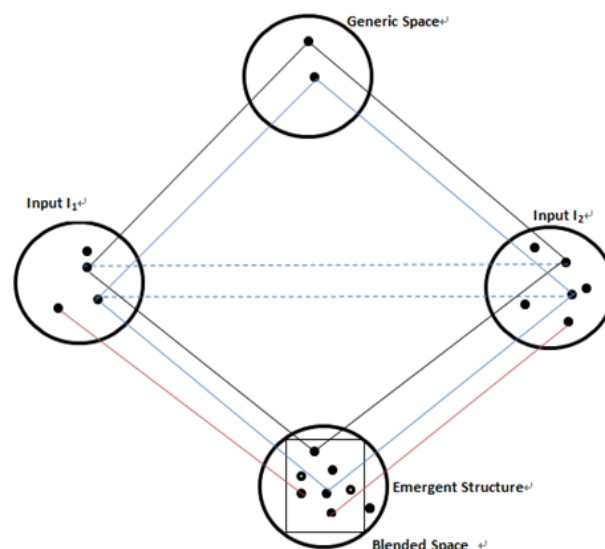

Fig. 1. The integrational network.

A complete four-space figure of conceptual integration is vividly showed as Fig. 2-1, in which the rectangle stands for the emergent structure in the blend. This diagram indicates that when counterparts are projected into the blend, they may be integrated into a single element or projected separately. And also, there has a possibility that one of the counterparts is projected but not to other. In this paper, the meaning of verbs in phrasal verbs with "out" and particle "out" are put into two spaces, usually are named as Input1 and Input2. All the analyses of phrasal verbs with particle "out" are presented under the integration networks.
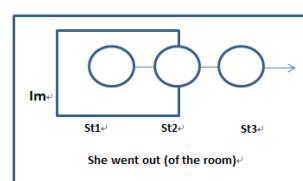

Fig. 2-1. Central Image Schema of *out*.

III. COGNITIVE ANALYSIS OF THE PARTICLE "OUT"

The primary meaning of "out" is originated from the bodily embodiment, which means: Something away from or not inside of the place and that belongs to physical space (Advanced Learner's English-Chinese Dictionary [10], 2004). People view the physical body as the boundary unconsciously, and think the thing inside the body is IN, and those outside or at the margin of body is OUT by physical experience and mental thoughts. So the extended meaning of "out" in the following part is explored based on its primary meaning.

A. The Prototypical Meaning of "out"

Mood is the main component of interpersonal meaning, which is composed of the speaker's voice, thoughts and feelings. Different tones convey the speaker's position, social status and views on different things. It consists of two

parts: subject and finite element. Therefore, communicative roles and communicative objects constitute four main speech functions: providing, commanding, declarativing and questioning. As shown in the table below:

According to the prototype theory, on the same plane of polysemy, a word forms a category of meaning which can be separated into the central meaning (prototypical meaning) and the marginal meaning. The central meaning is regarded as the most representative meaning of semantic category, which is usually the first meaning realized by people and it's the earliest meaning in language symbol. However, due to the development of human mind and continuing evolution, the given meaning can no longer satisfy the needs of communication, people begin to create new words to describe the changeable objective world, so some expressions based on the existed meaning is produced and accepted by people. We named them central meaning and the extended meaning. The extended meaning is produced by features of "family resemblance" in category which finally formed the meaning network. In the meaning network, the central meaning is the most familiar and representative meaning for us. It is the best example of the category insofar as it possesses the largest number of characteristics associated with the category, and it should be the common member we usually use. Tyler and Evans summarized that the prototypical meaning is determined by the following items:

Earliest attested meaning; Predominance in the semantic network; Use in composite forms; Relations to other prepositions; Testable grammatical predicates.

(Tyler and Evans: 2003)

These five items are the five types of linguistic evidences to determine whether a meaning of a word is the prototypical meaning or not. Thus, the prototypical meaning of particle "out" will be identified with these five types of linguistic evidences. About the prototypical meaning of "out", *Collins Cobuild Advanced Learner's English Dictionary(New Edition,2013)* [11] gives this definition, when something is in the particular place and you take it out, you remove it from the place; *Oxford Advanced Learner's English-Chinese Dictionary*(the seventh Edition,2009) [12] explains it as away from inside of a place or thing. From the meaning the dictionaries give we can get the conclusion that the prototypical meaning of out is "the TR (trajectory) away from or not inside of LM (landmark)" with the evidences, based on Langacker's Trajectory-Landmark Theory (1987).

In the former part this paper has discussed and identified the motivations of prototypical meaning, and concluded the first evidence is the earliest meaning which was tested by history. That is to say, the prototypical meaning is the typical historical primary. The prototypical meaning of "out" should be stable and unchangeable for a long time. The conception of "out" originated from our bodily experience, especially by our sensorimotor system which influence humans' minds and thoughts. So the original meaning of "out" must be from the original experience in the early time. After the evolution of history, its prototypical meaning as "TR away from or not inside of LM" still does not change and is widely used in our daily life. For example,

She went out (of the room).

Image schema describes things from the overall aspects of things or events and it has constitutions. Three circles represent three different stage of "trajector", while a square represents "landmarks". St1 and st3 are the most highlighted part of the entire movement process, so they are the focus of attention, while st2 is just any state in the process of movement. St2 can select whether go closely to st1 or st3 or not. So there is no important information carried by st2 in the whole process. When st1 stays inside the landmark but st3 is out of landmark, it means the trajector has left the scope of landmark, which stands for the meaning of "out" that is away from the inside of a place or thing.

B. The Extended Meaning of "out"

"Out" is a particle which can be combined with verbs to form phrasal verbs. The following meaning is given by *Oxford Advanced Learner's English-Chinese Dictionary* [12] (the seventh edition, 2009) which is essential for Chinese students to learn English.

(1)Away from the inside of a place or thing; (2)Away from or not at home or their place of work; (3)Away from the edge of a place; (4)A long or a particular distance away from a place or from land; (5)Sb./sth.. is removed from a place, job, etc. (6)Sb./sth.. does not have any of sth... (7)Sb./sth.. is not or no longer in a particular state or condition; (8)The reasons; (9)From a particular number or set; (10) (a book, etc.) Not in the library; Borrowed by sb. else.(11) (of the tide) at or towards its lowest point on land; (12)(Of flowers) fully open; (13)Available to everyone; known to everyone; (14)Clearly and loudly so that people can hear;(15)Having told other people that you are homosexual; (16)If a team or team member is out, it is no longer their turn with bat; (17)If the ball is out, it landed outside the line; (18)Not correct or exact; wrong; (19)Not possible or not allowed; (20)Not fashionable; (21)No or no longer burning or lit; (22)At the end; (23)Unconscious; (24)On strike; (25)To the end; Completely.

(The seventh edition 2009: 1219)

These twenty-five senses of "out" can be mainly categorized into four parts, which are also the four metaphorical meaning of "out".

a) From the sense 1, the paper can generalize the first metaphorical meaning of "out": Leaving and away from.

b) From the sense 9, the paper can conclude the second metaphorical meaning of "out": Appearing.

c) From the sense 6, the paper can generalize the third metaphorical meaning of "out": Without，negative meaning

d) From the sense 25, the paper can conclude the forth metaphorical meaning of "out", Accomplishing, arriving, completing.

The four metaphorical meanings are derived from the spatial experience of human, which is related to the departure of a place or something, and the other senses are generated by metaphorical projection on the basis of the concept of the core space.

Sense 2, 3, 4, 7 and 12 are generated by the first metaphorical meaning; sense 8, 9, 13, 14, 15, 20 and 23 are formed by the second metaphorical meaning; sense 5, 6, sense 7, 10, 19, 21, 23 and 24 are created by the third

metaphorical meaning; the others are engendered the forth meaning.

The thesis tries to interpret the four image schemas for metaphorical meanings of "out" by the spatial relationship of trajector (TR) and landmark (LM) in order to promote our understanding and cognition of "out".

The first metaphorical meaning, leaving, is also the prototypical meaning of "out". As shown in the Fig. 2-2, TR gets away from LM, which means to leave a place, leave home, and leave the work place, away from land, country, and town and so on. The related phrasal verbs are, for example, bring out, cast out, set out, make out, get out, eat out, check out, and leave out, etc. The focus of attention is gathered in the process of trajectory which moving outward.
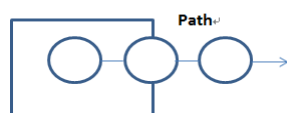
Fig. 2-2. "Leaving".

The first meaning of "out" is a kind of spatial concept, which is extended by the metaphorical mechanism. From spatial concept to abstract domain, it presents the changing state of meaning formation of "out" and gradually stands for the new kind of meaning that is breaking away form or leaving. For instance, *He lives right out in the country*. Similarly, the source domain can be projected to target domains such as deletion, removal, abandonment, omission, and so forth. There are some phrasal verbs with "out" have such meanings, such as strike out, leave out, rule out, and throw out and those can be understood as sb./sth.. is divorced from or excludes a range of something.

The second metaphorical meaning is "appearing". TR is the truth of appeared things or facts, and LM is a mystery. The image schema of the second metaphorical meaning of "out" is shown as follows:
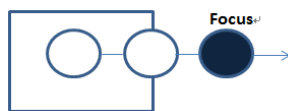

Fig. 2-3. "Appearing".

E.g. (1) Three hundred people turned **out** to listen to the campaign speech.

(2) His name leaped **out** at him from the first page of a dictionary.

As is shown in the Fig. 2-3, the focus of attention is on the outermost trajector (e.g. his name, three hundred people). So it can also express the meaning of "out" for bursting, exposing and revealing. There are some phrasal verbs having this kind of meaning, such as break out, let out and so on. The meaning of the "appearing" of "out" is mapped to the event domain by metaphor, indicating the meaning of "explosion, exposure, disclosure" and so on, and the phrasal verbs, break out, let out, and burst out have the meaning of appearing.

The third metaphorical meaning is "without" which is always express the negative meaning. People have the ability to express unknown conception by using the given information and known conceptions. The negative domain is an abstract domain which is relatively difficult to grasp, and

it projects into the spatial domain through the mechanism of metaphor which expressing the metaphorical meaning of "without", "no", "losing", "not existing" and so on, and also, it can express the meaning of "to the end", "sleeping", "quitting" and so on. As shown in Fig. 2-4, the small circle (trajector) had been in the position of Stage1, with the gradually reducing of its area; it finally disappears in the landmark. At this point the focus of attention is on the result of the disappearance of the trajector.
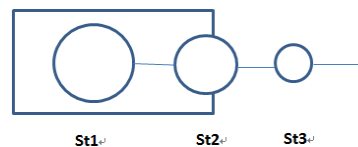

Fig. 2-4. "Without".

E.g. (1) This kind of bird is dying out.

(2)The petrol of our car has already run out.

(3)They have sold out their whole stock of egg.

(4)He was out for more than an hour and come round in hospital.

(5)It was so hot in the church that an elderly lady passes out.

Among the five examples presented above, the trajectors in sentences (1) through (3) are the bird, gasoline and the egg; the landmarks are the whole biosphere, the fuel tank and the unsold eggs; in the sentence (4) and (5), consciousness, the abstract domain, is the trajectory, and the brain consciousness system is the landmark correspondingly.

The forth metaphorical meaning of "out" is "completing"; "appearing" or "accomplishing". As shown in Fig. 2-5, the attention is focused on the top of the trajector which means completing; achieving or accomplishing for the whole process can be considered as the transition from quantitative change to qualitative change. "Out" plays a part of intensifier in phrasal verbs to express the completed and accomplished action. There are some examples which express the forth meaning,

E.g. (1) We left them to fight it out.

(2)Suddenly all the lights went out.

(3)I expect her to carry out her promise

Moreover, when the time of completion is longer, the mind of the man will experience the difficulty of sustaining it. Thus, "out" can also indicate difficult maintenance before completion, mainly in the following phrasal verbs,

E.g. (4) I didn't enjoy the play, but I sat it out.

(5)The miners stuck out for higher wages.

(6)He lived out his life in solitude.

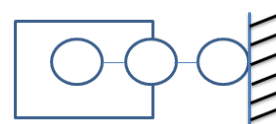(7)It grew so late that we did not stop to see the play out.

Fig. 2-5. "Completing".

IV. Cognitive Semantic Analysis of Phrasal Verb with "out"

A. Selection of Data

The paper analyzes and summarizes 63 phrasal verbs with

"out", which are required to master in the College English Teaching Syllabus, which is composed of 3400 English words. In this section, the paper will use conceptual integration theory as the theoretical framework, and use the method of qualitative analysis to analyze the 63 phrasal verbs with "out". Through the analysis, the thesis presents the dynamic construction process of the cognitive semantics of phrasal verbs with "out" in the conceptual integration network. Conceptual integration theory is a theory that involves a complex cognitive process, which is a conceptual process of integrating simple concepts into the new, meaningful concepts. So it can well explain the mechanism of meaning construction of the phrasal verbs with "out". Thus, this chapter will conduct a cognitive analysis of the phrasal verbs with "out", based on mechanism of meaning construction.

B. The Meanings of Phrasal Verbs in Integration Networks

In order to ensure the fluency of the reading, the 63 phrasal verbs with "out".

By analyzing all the meanings of 63 phrasal verbs with "out", the paper summarizes the following 7 meanings:

TABLE I: 7 MEANINGS OF PHRASAL VERBS WITH "OUT"

Meaning 1	*Appearing，outward, to be seen and known.*
Meaning 2	（consciousness）emerged without recognized.
Meaning 3	Removing something from the inside of the object.
Meaning 4	Finishing, completing and accomplishing.
Meaning 5	Eliminating and quenching.
Meaning 6	In the end and complete.
Meaning 7	Loudly.

The following part will analyze the seven meanings of phrasal verbs with "out" in the form of graphs. Due to limited space, the paper randomly selects some phrasal verbs with "out" from Meaning1 and conducts a cognitive analysis of them by applying the conceptual integration theory.

Meaing1 Appearing，outward, to be seen and known.

There are 63 kinds of phrasal verbs with "out" in College English Teaching Syllabus which has the meaning of Appearing, outward, to be seen and known. Some phrasal verbs with "out" have two kinds of meanings. One is just the primary meaning; the other is the combination of the primary meaning (PM) and the metaphorical meaning (MM). Table II presents these two kinds of meaning clearly,

TABLE II: PHRASAL VERBS WITH "OUT"

	The primary meaning	*The combination of PM and MM*
Phrasal verbs with "out"	Allow out, argue out of, bear out, cast out, catch out, check out, keep out, lock out, move out, pour out, pull out, puzzle out, ride out, rule out, share out,	Act out, arise out of, ask out, back out, break out, bring out, burst out, come out, count out, cut out, draw out, drop out, dine out, eat out, fall out, figure out, fish out, get out, give out, go out, hand out, help out, lay out, leak out, leave out, let live out, look out, make out, miss out, pay out, pick out, point out, see out, send out, serve out, set out, shut out, sort out, spread out,

	sign out, and spit out.	stand out, start out, stick out, take out, try out, walk out and work out.
Number	17	46

In order to make the examples be more representative, the paper selects the phrasal verbs which have the primary meaning and have the combination of the primary meaning and the metaphorical meaning to analyze their cognitive meaning with conceptual integration theory.

1) The primary meaning

Allow out:

Somebody or something (sb./sth..) is let to go from the inside to the outside of a place (by somebody or something).

E.g. the doctor did not allowed the patient out until he fully recovered.

The primary meaning of allow is let sb./sth.. to do sth..; to let sth.. happen to be done.

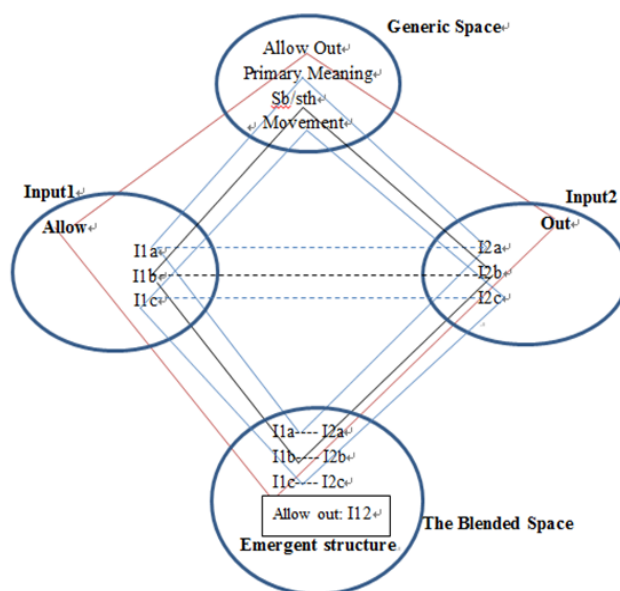The primary meaning of out is sb./sth.. goes away from the inside of a place or thing.

Fig. 3-1. The Blended Process of *allow out.*

Once we conceived of the meaning of "allow out" as the unity of two parts, which are involved in the behavior of "allow out", one part is its meaning involves two subjects, and the other part is that it stands for a movement. For allow, it has its own primary meaning, it also has to have a subject, and it works as a preposition or adverb following the verb to express the conditions of the verb. So for input1, there exist three elements, its primary meaning, two subjects which can be somebody or something, and the feature of movement. On the other hand, the other input space—Input2, which is constituted by the selecting sources about the primary meaning of "out". It involves three elements: the primary meaning of "out", one subject, and the symbolization of movement, which are the elements of Input2. When people come across such a phrasal verb, they have great talent for creating a blended space, inheriting the similar feature from Input1 and Input2. Besides, the generic space is an abstract structure shared by these two input spaces in which there are three mappings between subject(s) and movement. Thus the primary meaning of "allow" and "out", "subjects" maps "subject". The element of physical movement in Input1 has

mapping the element of expressing the condition of movement in Input2. The elements in two spaces are projected into the blended space, which eventually formed the phrasal verb "allow out", "subject(s)" in two spaces, the physical movement for do something in Input1 and "the condition of movement" in Input2. So far, the process of composition has finished. The activation of people's common sense, cognitive and cultural models start up the process of completion. The meaning of "allow out" is (subjects) let sb./sth.. to do movements that sb./sth.. goes away from the inside of a place which marks the accomplishment of the completion process. At last, by many complex mental activities of the elaboration process, a fresh new emergent structure is formed that the meaning of "allow out" is somebody or something (sb./sth..) is let to go from the inside to the outside of a place (by somebody or something). Fig. 3-1 will exhibit the whole process in detail.
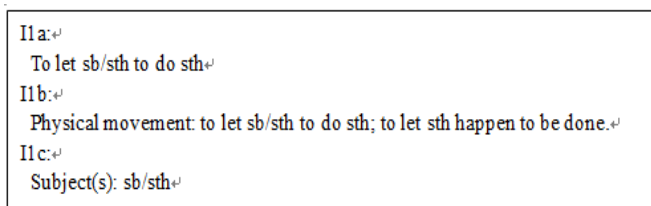
In this figure, I1a and I2a represent the primary meaning of "allow" and that of "out" respectively. I1b and I1c, I2b and I2c stand for two elements in Input1 and Input2 respectively, which are presented in Fig. 3-2 and Fig. 3-3. Finally, I12 stands for the meaning of "allow out", which means somebody or something (sb./sth..) is let to go from the inside to the outside of a place (by somebody or something).

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I1a:↵
  To let sb/sth to do sth↵
I1b:↵
  Physical movement: to let sb/sth to do sth; to let sth happen to be done.↵
I1c:↵
  Subject(s): sb/sth↵
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Fig. 3-2. The elements of *allow* in Input1.

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I2a:↵
  Sb/sth goes away from the inside of a place or thing↵
I2b:↵
  The condition of movement: away from the inside of a place or thing.↵
I2c:↵
  Subject:   sb↵
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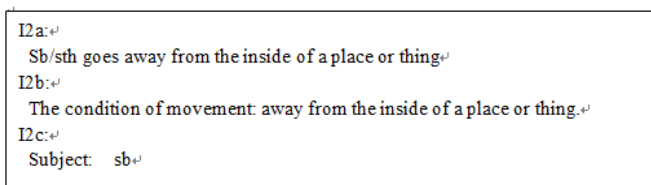
Fig. 3-3. The elements of *out* in Input2.

2) The primary meaning and the metaphorical meaning
Come out

The Oxford Advanced English- Chinese Dictionary [12] gives the meaning of come out as the following,

1) When the moon, sun or stars come out, the appear
2) (Of flowers) to open
3) To be produced or published
4) (Of news, the truth, etc.) to be known
5) When words come out, they are spoken
6) To stop work and go on stick

The meaning of "come" in *the Oxford Advanced English-Chinese Dictionary* [12] is:

a) TO A PLACE
To move to or towards a person or place
To arrive somewhere in order to do sth.. or get sth..
b) TO A POSITIONN/STATE
To have a particular position
To show sth.. has reached a particular state
To become

To reach a point where you realize, understand or believe sth..

In last section, the paper has concluded four kinds of metaphorical meaning of "out", they are,

a) Leaving, away from
b) Appearing
c) Without, negative meaning
d) Accomplishing, arriving, completing

Based on our cultural background and the cognitive model, we know the meaning of "come out" is the integration of two parts, one part is the meaning came from COME, the other part is originated from OUT. For "come", its meaning includes seven senses which can be classified into to category, to a place and to a position/state. In these seven senses, "to a place" and "to a position/state" is the primary meaning of COME, the other is extended meaning which mainly formed by conceptual metaphor theory. So the article name it metaphorical meaning. The situation is adapted for "out", too, and this article has mentioned that in the third part. By analyzing the meaning of COME, the article finds that COME means to do something and stands for the physical movement, for example, to move, to arrive, to reach and to become. Since it is verb, the right and complete sentence should have subject which can be the subject and object. The meaning of COME also has the sense semantic element of [+POSITION] and [+CONDITION]. OUT is a particle, the function of that is to conduct as the supplements to help verb to express the meaning of phrasal verbs, which can express the condition of verb in phrasal verbs. Leaving, moving, appearing, without and completing are all senses of particle "out", which show the tendency of moving and resulting. Moreover, "out" is the spatial preposition, having the sense semantic element of [+CONDITION]. In integration networks, the meaning of COME and the meaning of OUT can be treated as two input spaces. In Input1, the meaning of COME, covers several elements: the primary meaning, the metaphorical meaning, standing for movement, to a place, to a state, having subject, arriving, reaching, becoming, [+POSITION] and [+STATE]. For Input2, the meaning of OUT, having the following elements: the primary meaning, the metaphorical meaning, the condition of movement, the subject (sb./sth..), leaving, moving, appearing, without and completing and [+CONDITION]. The meaning of "come out" is created in the blended space by inheriting the similar elements from Input1 and Input2. Besides two input spaces, the generic space is an abstract structure shared by these two input spaces in which there are four mappings among the meaning of two words, the sense semantic element, having subject and standing for movement. Therefore, "the primary meaning" maps into meaning", "the primary meaning" maps into "the metaphorical meaning", "the metaphorical meaning" maps into "the metaphorical meaning", "the metaphorical meaning" maps into "the primary meaning", "physical movement" maps "the condition of movements", "having subjects" maps "having subject", "[+POSITION] and [+STATE]" maps "[+CONDITION]". The elements in two spaces are projected into the blended space, which eventually formed the phrasal verb "allow out", "subject(s)" in two spaces, the physical movement for do something in Input1 and "the condition of movement" in Input2. So far,

the process of composition has finished. And then, the activation of peoples' background knowledge, cognitive and cultural models start up the process of completion. The meaning of "come out" is originated from the elements of COME and OUT and it can express different meanings in different contexts. At last, by many complex mental activities of the elaboration process, a fresh new emergent structure is created which combined with the meaning of "come out" and shows the condition of movement. The meaning of "come out" showed as the following part:

1) When the moon, sun or stars come out, the appear
2) (Of flowers) to open
3) To be produced or published
4) (Of news, the truth, etc.) to be known
5) When words come out, they are spoken
6) To stop work and go on stick

Fig. 3-4 will exhibit the whole process in detail.
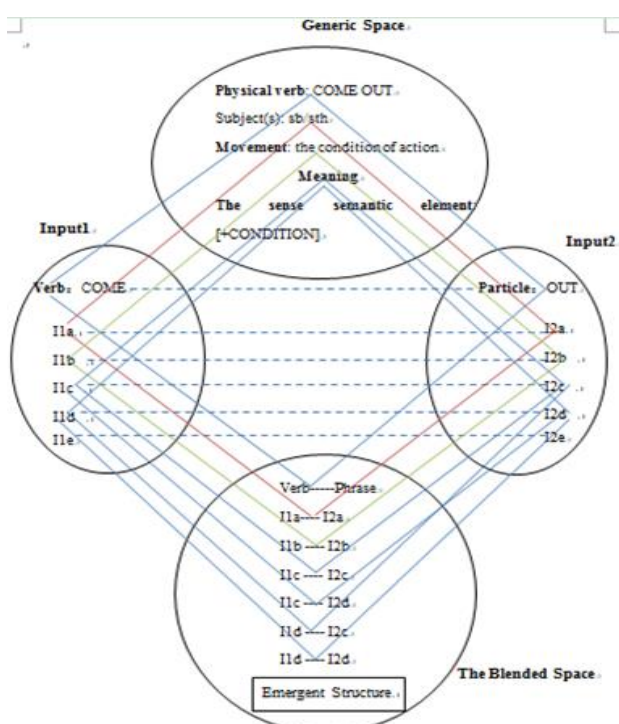
Fig. 3-4. The blended process of *come out*.

For the convenience of presenting, here the paper uses some signs to stand for the element analyzed in this integration network. I1a through I1e stand for the elements which constitute the selecting sources of Input1 and they are presented specifically in Fig. 3-5; I2a through I2e are the selecting sources of Input2 and they are set out in Fig. 3-6, and the components in Emergent Structure are showed in Fig. 3-7.

Fig. 3-5. The meaning of *come*.

Fig. 3-6. The meaning of *out*.

Fig. 3-7. The meaning of *come out* in integration network.

Through the analysis of allow out and come out by the conceptual integration theory, the research finds that in the integration network, the meaning of verb and the meaning of particle "out" can be put into two input spaces. The phrasal verb can be used as a verb so that the subject(s) is required in English sentences. The subject(s) can always be the common elements which providing the mapping for two spaces. Because both the verb and the particle "out" have its own primary meaning and the metaphorical meaning, their integration of phrasal verb can generate many new and logical meanings in integration network. This integration process also shows the powerful integration function and dynamic construction process of conceptual integration theory, which can supply a new perspective of semantic research for phrasal verbs in the future.

V. CONCLUSION

In this paper, 63 kinds of phrasal verbs with "out" in the College English Syllabus are analyzed and sorted out. After analyzing this corpus, the paper gets the following conclusions, first, in the integration network, the meaning of verb and the meaning of particle each plays a part in the two input spaces, but the meaning of phrasal verb is more than the sum of the verb and the particle; second, by integrating in the integration networks, this paper can conclude seven meanings of phrasal verbs with "out".

Though the significance of phrasal verbs is now well recognized by both the researchers and learners, there are still less systematic and effective methods and creative and satisfied results are accomplished by people. Moreover, although there are many scholars study the cognitive semantics of phrasal verbs, creative and productive researches are hardly to be seen, for example, the analysis of the cognitive semantics and motivations of phrasal verbs by applying conceptual metaphor and integration theory is rare. While conceptual metaphor and integration theory can be combined well and can shed light on the meaning of other phrasal verb. Therefore, the author sincerely hopes that this study of cognitive analysis of phrasal verbs with "out" can have enlightenments for cognitive semantics and supply

brand-new perspectives for cognitive researching. Besides, in explaining phrasal verbs with "out", a teacher should try to enlighten and help students to recognize the relations between its primary meaning and metaphorical meanings instead of listing them separately. On the part of students, in order to understand and grasp the meanings of the phrasal verbs with "out", they should try to think in a metaphorical way so as to learn English more effectively and enjoyably.

Conflict OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Fan Li made the great contribution to this paper. She conducted to this work and wrote the paper; Zongxiang Feng amended and review this paper; Li Li and Fan Li collected and analyzed the data; all authors had approved the final version.

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