A Study on If-conditionals in English from a Perspective of Cognitive Linguistics

LIAO Ting, GAO Wen-cheng
University of Shanghai for Science and Technology, Shanghai, China

As an important form to express inference and reasoning, if-conditional has occupied a significant position in linguistic research. Traditional studies investigate the issue in virtue of categorization, cognitive semantics and comparative analysis, etc. So far few researches have concerned meaning construction of if-conditionals from a perspective of cognitive linguistics. Based on the mental space theory, it is found that two mental spaces are set up in discourse, a base space representing if-clause and main clause represented by an expansion space. When elements in spaces are respectively projected in a mapping relation, the meaning is constructed by blending. This paper aims to provide a full interpretation for meaning construction by establishment of mental spaces and mapping between them, and also the analysis of subjectification pattern of if-conditionals, providing reference for future studies of the issue.

Keywords: if-conditionals, cognitive linguistics, mental space theory, subjectification

1. Introduction

Conditional sentence is recognized as one of the most prevailing and complicated issues in the field of language research, due to its complex syntactic structure, semantic relation and pragmatic contexts. It plays a central role in everyday thinking about the world and in deliberating about how people should try to act, and the deliberation involves the conscious consideration of alternatives for future action. But some researchers suggest that conditionals directly reflect the cognition of human ability to reason about alternative situations. Therefore, comprehending the conceptual organization of the ability to construct and explain conditionals is conducive to gain an insight into cognitive processes, linguistic competence and reasoning strategies about supposition and effect.

The primary aim of this paper is to explore how the mapping between a base space (if-clause) and an expansion space (main clause) contributes to the meaning construction of a if-conditional, what the lattice between these mental spaces is, and whether there is subjectification in the process of meaning construction. The first section of the paper will introduce the main paradigm and unique features of if-conditionals, then it comes to the review of previous achievements and research gap which is about to be filled in the present study,

LIAO Ting, Master, College of Foreign Languages, University of Shanghai for Science and Technology.
GAO Wen-cheng, Professor, Doctor, master student supervisor, College of Foreign Languages, University of Shanghai for Science and Technology.
and the third part will be extended to analyze if-conditions by virtue of mental space theory, and the final part
will summarize the major findings and limitations of the essay.

2. Literature Review

The previous studies on if-conditionals at home and abroad will be briefly reviewed in this section.

2.1 Previous Studies on If-conditionals Abroad

Categorization and classification based on features and functions is of significant importance in human
cognition. The studies employing such approach attempts to present all types of if-conditionals, like material
conditionals and indicative conditionals (Leszek, 2011). While Orlando has employed the mental model theory
to separate factual conditionals from counterfactual ones, but he fails to clearly decide to which side should
conditionals like “if you have a ticket, then you must enter the show” belong. In fact, there is no standard which
can divide conditionals into two kinds, since there are many exceptions that do not fall into either category.

Some corpus-based researches propose that if-conditionals are more frequently applied in discipline like
education, medical discourse and legal documents (Max M, 2008; Leszek, 2011; Gibson, 2001).

The studies within the pragmatic paradigm investigate if-conditionals in real conversations, and explore
the use and functions of them. The major findings provide empirical motivation for the primacy of relevance
theory in conversation interaction, and speech act theory guarantees that contextual inference can be drawn
from main clause and storage conflicts can be avoided (Liliane, 2009; Cristina, 2020). The pragmatic-function
approach to if-conditionals shifts the focus from form and structure to meaning, and correlates with a tendency
towards the formal simplification, which all need to be further discussed and confirmed.

2.2 Previous Studies on If-conditionals at Home

Domestic studies on the matter put the focus on the classification, cognitive analysis and the comparison
between if-conditionals in Chinese and English.

Based on the tenses of main and subordinate clauses, Yi (1994) divides if-conditionals into standard ones
in which the realization of main clause is on the premise that the content of if-clause comes true. Not all
if-sentences are supposed to reflect conditional connection between main and subordinate clauses, instead they
employ the form to achieve a certain language effect. And accordingly, Feng (1999) has classified
if-conditionals into imperative kind, logical kind, polite kind and so on. The study not only focuses on the
various functions, but also takes those if-conditionals that do not reflect a condition at all into consideration,
which is conducive to the grammar description of if-conditionals.

As reasoning and inference are of significance in human thinking, they exist in all human languages with
different forms. Major findings of contradictive analysis between languages point out that tenses vary in
English from sentence to sentence and there is no tense change in Chinese (Chen, 1988; Xu, 2004; Zhou, 2015).
However, the study on if-conditionals is ultimately exploring how people make inference with language.
According to the prototype theory, there is a network among the if-conditionals, the prototype as the central
member and others as peripheral ones which are derived from the center, and all the members are in a radiation
category (Xiong, 2009; Xu, 2004). Besides, a model of metonymic inferencing is proposed to pay attention to
those marginal members of the network, like stand-alone conditionals with “if” but without “then” (Xiang,
2012; Sun, 2013). Cognitive linguistics as the frontier of linguistics, provides lots of useful theories for the study on if-conditionals and will usher in more and significant findings in further research.

3. Analysis of If-conditionals from a Perspective of Cognitive Grammar

As mentioned above, cognitive linguistics is a frontier paradigm which provides many an innovative and productive theories to the study on various linguistic issues, like conceptual blending theory, prototype theory, mental space theory and so on. To explore the hidden aspects of meaning construction, this paper will adopt the mental space theory to analyze this issue.

3.1 Theoretical Foundation

Mental Space Theory is proposed by Gilles Fauconnier, which is used to account for the hidden conceptual mechanism of meaning construction. He defines mental spaces as “partial structures that proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures” (Fauconnier, 1997), which means that when people think and talk, mental spaces divide meaning into different conceptual domains or “modules”, constructed by space builders, which are linguistics units that can not only motivate building of another new space, but also shift focus forth or backwards between the spaces constructed before.

Space builders enable the hearer to portray a scenario beyond the ongoing discourse, no matter if it reflects reality or virtuality, reality in past or in future. As long as a mental space has been constructed, it will be in connection with other mental spaces that have already existed in the discourse. With the discourse proceeding, mental spaces form a network to meet the demands for recruiting more background knowledge or establishing relations between the resulting spaces. A successful communication should be the one in which the hearer is able to recognize the mental space set up by the speaker, and to put befitting discourse information and mapping relations in proper mental spaces.

3.2 Mental Spaces in If-conditionals

Mental spaces set up in memory activate structures from long-term accumulation of knowledge for immediate interpretation in communication. With the discourse proceeding, mental space network or lattice is formed. The base space (reality space), involves experiences of the speaker, including the available background information and frameworks related to the context, on which a focus space can be set up. According to Fauconnier (1994), the construction “if p then q” fulfills the role as a space builder which constructs two continual spaces, if-clause as the foundation space and the main clause represented by the expansion space, and the expansion space is affiliated with the foundation space. The Access Principle suggests that “a linguistic expression that names or describes an element in one mental space is accessible to its counterpart in another mental space”, and semantic elements belonging to respective spaces can establish the cross-space mapping relation in virtue of connectors (Fauconnier, 1997). For example:

(1) If Oswald did not kill Kennedy, someone else did.
This sentence can activate three mental spaces, base space, foundation space and expansion space that are set up in the initial space. Elements in base space represent the killer Oswald and the result that Kennedy died. While the foundation space also involves elements like a killer who isn’t Oswald and the event that Kennedy was assassinated, as for the elements in expansion space reflect a killer who was unknown and carried out the assassination, and the result that Kennedy died. The elements in spaces construct the events respectively, and they are in mapping relations across the two mental spaces. This can be shown in Figure 1 as the following.

In the example above, the antecedent if-clause and its consequent are both hypothetical, and it will never come true in real world, but may become true in literary works. Conditionals of this kind are counterfactual in nature, an assumption about what has already happened to see how the results would change if any element of the events was changed. Also, people usually have the purpose of advertising others to share a common opinion about a matter or to behave in a special way. In order to realize the purpose, they typically perform a “mental act” in “other person’s place” or “walking in other’s shoes” and transfer individual or personal idea and view to others, which is called “replace thinking”. For instance,

(2). If I were the president, I would hire you. (hypothetical conditional)

The meaning construction of this sentence can be shown in the following figure.

In reality, it is unknown that the manager will fire him or not, the element of “president” in base space is not particularized, and neither is the element of “I” in the extended space because whether “I” have the right or power to decide if “you” should stay or leave also keeps unclear. As the figure shows, the base space is a reality space which is constructed by a HIRE frame with two elements EMPLOYER and EMPLOYEE, and their corresponding values “president” and “you”. The extended space is also a reality space which is fulfilled by the
frame of COLLEAGUE and the corresponding values “I”, and my opinion and “you”. The cross-space mappings between the base space and extended space are set up according to the relation between identity and analogy. The speaker uttering this kind of sentence in conversation tends to advise or persuade the listener.

While the paper tends to analyze conditionals of inference and reasoning, which means that the consequent of if-conditionals should be inferred from the antecedent, and they are in the logical relation. Mental space theory recognizes those antecedents as means to set up hypothetical cognitive spaces which differ from the reality space of the speaker. Once built, these cognitive spaces serve as a “base” for deduction, for example:

(3). If he owns a Ferrari, then he must be rich. (Wenmackers, 2013)

![Figure 3](image-url)

*Figure 3. The Mental Space of Example (3).*

The consequent that “he must be rich” locates his state of richness inside the hypothetical space in which “he has a Ferrari” is already set up. That means in cognition there is an existing space in which a person who has a Ferrari is rich and wealthy, and when one comes across a situation like Peter has a Ferrari, then the man can conclude that Peter is a rich man. Mental spaces set-ups of this sentence can be shown as figure 3.

The theory assumes that what a conditional represents is not a single and fixed construction, but a series of relevant ones, no matter whether they are central or peripheral. From this perspective, linguistic expressions can be recognized as hints for various interpretations, that is to say, linguistic expression has meaning potential. In addition, based on the cross-space mappings, semantic meaning of the expression can be constructed in the conversation then, but pragmatic meaning cannot.

### 3.3 Subjectivity and Subjectification of If-conditionals

Cognitive linguists believe that speakers’ attitudes, beliefs and emotions (i.e. subjectivity) will inevitably post an influence on the cognition process and results of events. Such influence will be reflected in the language expression and structure. Therefore, the speaker shows his current attitude and emotion towards an event at the same time when he chooses particular language expression, marking a “self” imprint in the discourse, which is the so-called “subjectivity” of language. And the corresponding course in which language changes in accordance with the specific structure and form to reflect subjectivity is subjectification. According to Traugott (1989), subjectification refers to the process in which the subjective attitude and its structure of a speaker slowly turns to be some recognizable grammatical constituents, and meaning becomes increasingly dependent on the speaker’s attitude toward the event. In other words, subjectivity concerns the linguistic expression of a speaker’s point of view or attitude in discourse, while subjectification refers to the structures and strategies that languages evolve in the realization of subjectivity.
The previous studies on if-conditionals in virtue of cognitive theories suggest that there must be a prototype of if-conditionals, the sentences closed to the center share more common features with the prototype than those peripheral ones. That is to say, a speaker may adapt the typical structure of conditionals to meet the demand for expressing his subjective position and attitude in discourse, resulting in change of sentence structure and the polysemy of conditionals. The polysemy here doesn’t refer to that a specific if-conditional has several meanings at the same time, but means that the structure and form of if-conditional can be used to undertake different functions, for example:

- Inferential: If it’s 10 o’clock, then he must be taking a coffee break.
- Imperative: If only she would marry me!
- Modification: His style is florid, if that’s the right word. (Feng, 1999)

Besides, it can be altered into topic conditionals, factual conditionals and so on, in accordance with the subjectivity of the speaker. Cognitive linguistics insists that cognition and meaning are the internal motivation to form syntactic structure of language, which means that the appearance of syntactic structure is motivated by cognitive and semantic factors. Accordingly, the modification pattern of conditionals can be worked out: if-conditional is subjective itself, and the choice of if-conditionals indicates that the speaker believes there is a conditional connection between events; he may modify the existing construction to meet demands for information exchange and emotion expression; the transformation should be completed on the basis of typical structure of if-conditionals.

The subjectification process of if-conditionals can be equalized to the process in which the construction is transformed from the prototype to those peripheral ones hierarchically. The characteristics of the prototypical if-conditionals can be summarized in four aspects, namely logical relation, semantics, syntactics and pragmatics, which are objective themselves, and once they are changed with the corresponding circumstances and moving to subjective side, the subjectification model of if-conditionals is formed. The motivation that promotes the structure extension is the subjectivity.

Subjectivity and subjectification make it possible for the structure of if-conditionals to form and change accordingly. The more subjective cognition is, stronger the subjectification is, and further the structure deviates from the typical one accordingly.

**Conclusion**

This paper has analyzed if-conditionals through using mental space theory, and elaborated on its subjectification. It is found that “if p then q” can be seen as a space builder which is activated to build mental spaces, located in the base space that involves semantic elements in real world and serves as the background of the two hypothetical spaces. The elements in expansion space (main clause) should be corresponding to those in foundation space (if-clause), namely they should be in a cross-space mapping relations. With the ongoing discourse proceeding, as long as one mental space established, more spaces will be set up and be in connection with other spaces through connectors, forming a lattice or network eventually. The subjectification concerns the language structure or measures that language evolves in accordance with subjectivity, which is the motivation that promotes the expression transformation.
The paper has provided an interpretation of meaning construction for if-conditionals in English from a perspective of cognitive linguistics, but the analysis of mental space buildings and account for the subjectification pattern of if-conditionals are not very sufficient, which is required in future studies.

References