

Economic Metaphors in English Newspapers

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1. Introduction

Economy, like politics, has a close relationship with human beings and human society. It is so important an aspect of people's life that in everyday speech people inevitably speak of economy and related topics. These economic terms such as *stock*, *equity*, *insurance*, *interests*, *GDP*, *financial deficit*, *budget* are very familiar to English-speaking people and used in their daily life from time to time.

In 1980, Lakoff and Johnson published their famous book, *Metaphors We Live By*, which is one of the most important works within cognitive linguistics. In *Metaphors We Live By*, they point out the importance of metaphor. Metaphor is permeable in everyday life and plays an indispensable role in defining the way people perceive the world and the way we react to the world. As Lakoff and Johnson (1993) observe, metaphor is now a concept with multidisciplinary implications and its use has been found "in virtually every aspect of human thought: physical science, biological science, economics, law, political theory, psychology, art, philosophy, business, morality and even poetry". As claimed by the contemporary theory of metaphor, economics should also abound with metaphors. The contemporary theory of metaphor also claims that abstract concepts are understood via metaphor mapping the concrete and physical onto the abstract and nonphysical, then how are abstract economic concepts structured in terms of metaphor in this special field of economics.

Guided by the theory, much research in various subjects and fields has been made and has yielded rich harvests. But metaphor on economic discourse, as a branch of metaphor, did not arouse linguists' special attention until the past 20 years. With a view to applying the contemporary theory of metaphor, it is necessary to investigate metaphor use in non-literary works with special reference to economics, especially media economics in which metaphors are often overlooked. The research about metaphor on economic discourse is rather limited. Therefore, this study is intended to make some explorations into the use of metaphor in economics texts by applying the

contemporary theory of metaphor.

1.1 Aim

This study aims to explore the use of metaphor in English economic discourses by applying the conceptual theory proposed by Lakoff and Johnson (1980) and investigate how phrases and expressions are metaphorically used in different contexts in the field of economy. This essay will offer a cognitive analysis of conceptual metaphors dealing with how abstract economic concepts are structured in terms of metaphors in the special field of economics and the functions of the metaphorical expressions in economic texts.

1.2 Material

The data used for this study consists of economics texts in English. These economic contexts are chosen from two eminent English newspapers and magazines, *the Financial Times*, *CNNMoney.com* via Google, because the two authoritative economic newspapers and magazines provides rich contemporary economic discourses and the latest material. The list of illustrated forty seven examples will contain metaphorical usage of economic words and phrases. They have been classified into different categories according to different source domains they belong to, namely, human beings, a machine, a plant and a building. Then each metaphorical phenomenon has been analyzed and discussed carefully guided by the theory.

1.3 Method

Firstly, based on the metaphorical theories created by Lakoff and Johnson(1980), many metaphorical examples about economic discourses are selected and then classified into categories and sub-categories by making a list of them in accordance with their different source domains they belong to, namely, human beings, a machine,

a plant and a building. The reason is that people's cognition of the world around them is usually rooted in their physical experience and life experience. In daily life, people comprehend complicated and intangible concepts and theories in reference to the visible, tangible entities around people. Hence, these four things, human beings, a machine, a plant and a building, which belong to tangible entities and are very common in the world make up for an interesting study. Secondly, each category is supported by a range of examples and provided with explicit explanations of how the conceptual metaphors work in comprehension of the abstract economic concepts and phenomena. An explanation of the terminology used here will be given in section 2. Thirdly, the study elaborates on conceptual metaphors identified in sampled economics texts with reference to their metaphorical expressions, source domains and the functions of these metaphors in the comprehension of abstract economic concepts and phenomena. Finally, a summary of the results will be presented.

2 Theoretical Background

In the view of the classic theory of linguistics, metaphor was regarded as a matter of novel poetic language rather than ordinary language. Metaphorical expressions were assumed to be mutually exclusive with the realm of ordinary everyday language. This theory has been taken for granted and accepted by most people for centuries. However, Lakoff and Johnson in 1980 challenged this traditional entrenched view of metaphor and developed a new theory that has been known as “the cognitive view of metaphor” (Lakoff and Johnson, 1993:56). Lakoff and Johnson claim in their well-known book *Metaphors We Live By* (1980) that metaphor is pervasive in everyday life, not merely in poetic language but also in people’s thought and action. “Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature” (Lakoff and Johnson 1980:2). This view gives linguists a totally new angle from which to research metaphors.

2.1 The Essence of the Metaphor

Contemporary cognitive linguists, for example, Lakoff and Johnson in 1980 think that metaphor is defined as a cognitive mechanism whereby a concept is partially mapped onto another concept. It involves understanding and experiencing one kind of abstract entity in terms of another kind of concrete entity. Metaphor allows people to comprehend a relatively abstract or inherently unstructured subject matter in terms of a more concrete, or at least a more highly structured subject matter. The terminology of the former abstract subject is the **target domain** and the concrete latter one is **source domain** (Lakoff and Johnson, 2003:14).

The following ordinary, everyday English expression is an example of what metaphor means for a metaphorical concept to structure what we do and how we understand, *Our relationship has hit a dead-end street*. Here, love, this abstract **target domain** is being conceptualized as a journey, the concrete **source domain**, implying that their

relationship is stalled, that the lovers can not keep going the way they have been going, that they must turn back, or abandon their relationship (Kövecses, 2002:40) .

An important matter to be pointed out is that the source domain and target domain are based on a set of systematic correspondences. Such correspondences are often referred to as **Mappings**. **Mappings** permit us to reason about the target domain using the experience to reason about the source domain. Hence, metaphor in fact is a set of mapping across conceptual domains (Kövecses, 2002:24). Take the “love is a journey” metaphor as an example. A set of mappings are as follows:

The love is a journey **mapping**

- The lovers correspond to travelers.
- The love relationship corresponds to the vehicle.
- The lovers’ common goals correspond to their common destination on the journey.
- Difficulties in the relationship correspond to impediment to travel.

(Lakoff and Johnson, 1980:12)

2.2 The Classification of the Metaphor

From the cognitive linguistic view, there are mainly three kinds of metaphors, namely, **orientational metaphor**, **structural metaphor** and **ontological metaphor**.

2.2.1 Orientational Metaphor

Orientational metaphor, which is rooted in people’s physical and cultural experience, involves the mapping of a simple spatial structure onto a complex non-spatial structure. This kind of metaphor mostly has to do with spatial orientations which originate from the interaction between human beings and nature: up-down, in-out, front-back, on-off, deep-shallow, central-peripheral. Spatial orientation provides an extraordinary rich basis for understanding abstract concepts by means of orientation terms (Lakoff and Johnson, 1993:10). Take the up-down orientation metaphor as an illustration:

Happy is up; Sad is down.
Conscious is up; Unconscious is down.
Health is up; Sickness is down.
More is up; Less is down.
High status is up; Low status is down.
Rational is up; Emotional is down.
(Lakoff and Johnson, 1980:23, 24)

Here, happy, conscious, health, more, high status and rational are regarded as positive concepts, which are linked with upward orientation, while sad, unconscious, sickness, less, low status and emotional as negative concepts, which are linked to a downward orientation.

2.2.2 Structural Metaphor

Structural metaphor means that the abstract intangible target domain is understood by means of the structure of the concrete tangible source domain. This kind of metaphor enables people to comprehend the target domain via the elaborate structure of the source domain. The understanding takes place through a set of conceptual mappings between a more physical element and a more complex element (Kövecses, 2002:31).

Take the TIME IS A RESOURCE metaphor as an example, people understand time through the structure of the resource. A resource, as a kind of valuable substance, can be quantified and used up progressively. Accordingly, grounded in our experience with material resources, people understand time in the following way:

TIME is a kind of abstract substance.
 can be quantified fairly precisely.
 can be assigned a value per unit.
 serves a purposeful end.
 is used up progressively as it serves its purpose.
(Kövecses 2002:34)

2.2.3 Ontological Metaphor

Spatial orientations provide rich basic experiences for understanding concepts in orientational terms. People’s knowledge about physical objects, substances and containers also provide the basis for a variety of **ontological metaphor**. In other words, if people can realize the association and similarities between the activities, emotions, ideas and entities and substances, it’s not difficult to apprehend and reason about them. In other words, in **ontological metaphor** abstract ideas and concepts are embodied. It bears the function of referring, quantifying, identifying and setting goals(Lakoff and Johnson, 1993:23).

Source Domains	Target Domains
Physical Object	Nonphysical or abstract entities (e.g., the mind) Events (e.g., going o the race) Actions(e.g., giving somebody a call)
Substance	Activities (e.g., a lot of running in the game)
Container	Undelineated physical objects (e.g., a clearing in the forest) Physical and nonphysical surfaces (e.g., land areas, the visual field) States (e.g., in love)

(Lakoff and Johnson, 1987:32)

2.3 The Grounding of the Metaphor

Metaphor, by nature, is a cognitive process during which people comprehend and experience target domain depending upon the similarities and the correlation between the source domain and the target domain. It is the similarity and experiential correlation that build a bridge between the source domain and the target domain. Accordingly, the similarities and the correlation are the grounding of the metaphor (Dingfang, Shu 2002:28).

The world people live by is full of a variety of objects and things. These different things have their respective objective properties and natural qualities, such as space, size, shape, quantity, state, etc. Besides, they have their subjective common properties

perceived and judged by people through abstract reasoning and thinking (Dingfang, Shu 2002:12). Although they are different in various aspects, it is inevitable that perceived objective and subjective similarities and correlation exist between them. They provide the exact motivation for the metaphor. Then based on the similarities and correlation people relate the source domain to the target domain by means of perceiving, associating, imagining and deducing in their minds (Shuwu, Lin 2002:7).

The IDEAS ARE FOOD metaphor enables to understand the similarities between the abstract concept of idea and the concrete one of food. The similarities are laid out as follows:

Food	Ideas
We cook it.	We think about them.
We swallow it or refuse to eat it.	We accept them or reject them.
We chew it.	We consider them.
The body digests it.	The minds understand them.
Digested food provides nourishment.	Understanding provides mental well-being.

(Kövecses, 2002:32)

The mapping can be expressed in another way.

Thinking is cooking.	Let me stew over this.
Accepting is swallowing.	I can't swallow that claim.
Considering is chewing.	Let me chew over the proposal.
Understanding is digesting.	I can't digest all the ideas.
Mental well-being is physical nourishment.	He thrives on stuff like this.

(Kövecses , 2002:73)

2.4 Metaphor in Economy

In the 18th century Adam Smith, the founder of modern economics, mentioned the invisible hand. It is perhaps the earliest use of metaphor in economic contexts. He argues that the invisible hand of the market manipulates prices so as to efficiently allocate scarce resources according to consumer preferences and production costs

(Boers, 1997:45) .

In 1982, Henderson, a famous economist, in his book *Metaphor and Economics* formally began to discuss the metaphorical use of language in economic discourses. Then in 1983 McCloskey, in *The Rhetoric of Economics* recognized the importance of metaphor in economic contexts. McCloskey argues that economics is metaphorical in nature. He sees metaphor as the most important example of economics rhetoric, essential to economic thinking and states that “To say that markets are represented by supply and demand ‘curve’ is no less a metaphor than to say that the west wind is the ‘breath of autumn’ being(McCloskey, 1983:502). He also points out that mathematical reasoning and economic modeling in economics is metaphorical, even the lines, curves, points on the diagram and graphs are used metaphorically to represent economy or economic variables. He summarizes that economics is adrift in metaphors and that they are an empirical reality. Another economist, Krugman (1985) also points out that metaphor plays a heuristic role in economics modeling in terms of conveying economic ideas.

Bicchieri (1988) shows that how relations among the production, circulation and distribution of goods can be represented in terms of the relation between body parts. He proposes that the expression of circulation of money originates from William Harvey’s discovery of the circulation of blood.

Marshall is the first economist to invoke the biological metaphor to describe the economy. In the 1890s, Marshall analyzed business development with reference to a natural circle of living organism, namely, growth, change and decay (Marshall, 1920:56).

Ormerod (1997) argues that the conception of economy as a piece of machinery in the 19th century was an outcome of the parallel advances achieved in the natural sciences during the Victoria era, which led to the development of a mechanistic view of the

world in general and the economy in particular.

In a word, many economists and linguists, such as McCloskey(1983), Henderson(1982), Charteris-Black(2000), Boers(1997), have made a study on metaphor in economic contexts in the past decade. In the studies, they agree that metaphors in economic contexts play a significant and indispensable role in comprehending abstract economic theories and complex economic phenomena. Metaphors in economic contexts can also be firmly established in people's mind and form a constitutive part of people's conceptual framework. Such economic metaphors as *employees are human capital*, *the inflows of foreign capital*, *equity indexes fall*, *the rebound in stocks*, have been gradually gotten absorbed into people's way of thinking and form a constitutive part of people's conceptual framework.

3 Analysis and Discussion

Firstly, one headline “People need confidence during the tough economic times” is selected from *the Financial Times* (Oct.28, 2009). Here, the phrase, *the tough economic times*, means the difficult economic times. Another headline, *the eurozone economic recovery*, which is also from *the Financial Times*, refers to the eurozone economy goes back to a former position of prosperity. People may often read them effortlessly in the English financial newspapers and magazines. They are so deeply entrenched in everyday use by ordinary people that most people would not even notice that they use metaphor. As a matter of fact, in the cognitive linguistic view they are metaphorical phenomena, the word *tough* is in connection with economy, the word *recovery* is in connection with economy. With the help of metaphor, economy, this ordinary abstract concept, can be easily and clearly comprehended.

Secondly, forty seven economic metaphorical expressions and sentences from *the Financial Times*, *CNNMoney.com* via Google, will be categorized and presented which draw from the following source domains: human beings, a machine, a plant and a building. These examples are marked numbers in round brackets at the beginning and marked references respectively the in square brackets in the end. For example, if an example is from *the Financial Times*, it will be marked [FT]. If an example is selected from *CNNMoney.com*, it will be marked [CN]. In addition, the economic metaphorical expressions, source domains, and functions of these conceptual metaphors will be analyzed and discussed intensively.

3.1 ECONOMY IS HUMAN BEINGS

The belief that man is the measure of all things which is claimed by Plato, an ancient Greek philosopher comprehends abstract economic concepts and phenomena relying upon human features. In this way, personification sheds light on the things described, thus making it manageable by applying human characteristics to economic discourses.

Human beings rely upon their own experience and knowledge to reason about the abstract and complicated economic concepts and phenomena.

3.1.1 Stages of Economic System are Stages of Human Beings

As people know, everyone is bound to experience the following phases in the life: birth, growth, maturation and death. These phases of life are often mapped onto the economic domains and used to talk about the different stages of economic organization and business.

- (1) The European Central Bank is only in its *infancy*. [FT]
- (2) *Mature* market should not be mistaken for a stagnant market. [FT]
- (3) The Korean economy is in great danger of becoming an *aging* economy. [FT]

In example (1), *infancy*, the first stage of human life, implies that the European Central Bank is at the beginning of the development and need to be taken care of and protected like an infant. In example (2), *mature*, the developed stage of human life, implies that market has grown and developed. In example (3), *aging*, the later period of human life, implies that economy is becoming declining and turning down. On the mapping, economic organizations and markets are regarded as a living being and experience the process of infancy, maturity and declination which is grounded in the resemblance and affinity between the source domain and the target domain.

3.1.2 The Structure of Economic System is the Structure of Physical Body

Some particular parts of human body which operate to contribute to the whole body are also employed as the source domain so as to humanize such economic concepts as market and business and make it easier to reason about them. It is shown in the following examples:

- (4) That failed to calm the market *nerve*. [FT]

(5) the *heart* of global economy [CN]

(6) the *backbone* of the economy [FT]

These three words, *nerve*, *heart*, *backbone* are main parts of the physical body which are metaphorically used to describe the different aspects of economy and business respectively. In example (4), the expression, the market *nerve*, means the most sensitive place of the market because nerve is very susceptible to the outside world. In example (5), the phrase means the centre of the global economy which is derived from the basic knowledge that the heart is the most important part of physical body. However, in example (6), it means the mainstay of the economy which also originates from the life experience. The backbone supports and upholds the whole body.

Actually, a large portion of economic metaphorical meaning derives from people's experience of the physical body. The embodiment of the meaning is perhaps the central idea of the cognitive view of meaning. The human body plays a key role in the emergence of metaphorical meaning (Kövecses, 2002: 16).

3.1.3 The Behaviour of Economic System is the Behaviour of Human Beings

In addition, the behaviours, characters and abilities human being exhibit are inevitably imprinted onto the economic discourses. Thus, financial markets, enterprises, and economic institutions, are personified and demonstrate certain abilities, characters, behaviours and even the psychological activities of human beings.

(7) They are quick to cut rates if financial markets *tremble*. [FT]

(8) Corporations hang on *stubbornly*. [FT]

(9) This increases the risk that the economy will *wake up* in a sweat at 2 a.m. [FT]

(10) The oil price will have its *revenge*. [FT]

(11) The markets have been *jittery*. [FT]

(12) the *misery* of manufacturing [CN]

In example (7), (9) and (10), *tremble*, *wake up* and *revenge* belong to the actions and behaviours of human beings and are mapped onto the economic area to describe the

economic conditions. In example (8), *stubbornly* is the character of human beings and used to describe the corporation. In example (11) and (12), *jittery* and *misery* are the emotion and psychological activities of human beings. In fact, they reflect people's reaction to the market and industry. Hence, the perceived similarities and experiential connection perceived by people between complicated economic phenomena and human beings' behaviours are the grounding of the metaphor.

3.1.4 The Condition of Economy is the Condition of Human Beings

The daily experience tells people that people are active and energetic when people are healthy. When people are ill, the body malfunctions, illnesses need to be diagnosed and medical treatment prescribed. After the doctors cure the illnesses, people will recover again. Therefore, health and illness has become a rich source domain and the general properties of them are projected onto the description of the state of the economy and financial institutions.

(13) Crisis will be painful to everyone, and no single *remedy* will be enough. [FT]

(14) British car industry now looks *healthier*. [CN]

(15) In Germany, where interest rates set by the ECB are too high for the *feeble* economy. [CN]

(16) This causes *headache* for the economy. [CN]

(17) They are in the pursuit of a *cure* for the country's economic *illnesses*. [CN]

Among these examples, *remedy*, *healthier*, *feeble*, *headache*, *cure* show the connection between human beings and economic institutions. On basis of the experiential correlation between them, the metaphor is established. Thus, the complicated economic processes and phenomena become understandable and vivid to the readers.

In fact, **ECONOMY IS HUMAN BEINGS** metaphor is the extension of **ontological metaphor**. The cognitive function of the **ontological metaphor** is to give an ontological status to general categories of abstract target concepts. It means that people conceive of the experiences in terms of objects and substances (Kövecses,

2002: 34). It allows people to make sense of phenomena in the world in human terms that people can understand on the basis of their own motivations, goals, activities and characteristics. It demonstrates that economy has its own behaviours and needs and its growth is interdependent with its surroundings. It also shows that sometimes economic processes and systems are complex and involve fluctuations that are difficult to predict in the same way that sometimes human beings are subject to unforeseeable physical and psychological changes (Henderson, 1982: 45). Therefore, the conceptualization of economy as human beings highlights the complexity of economic processes and systems.

3.2 ECONOMY IS A MACHINE

3.2.1 The Functioning of Economic System is The Functioning of a Machine

The old-fashioned machine with cogwheels which dates back to the industrial revolution is composed of diverse parts and each part has its own operation, with all parts contributing to the workings of the whole machine. This machine system as a source domain is metaphorically applied to understand the abstract economic system as a target that is also composed of different parts. This mapping is realized by the following linguistic examples:

(18) The American economy is *operating* well above capacity. [FT]

(19) the *workings* of the free market [FT]

(20) The media is important to a *well-functioning* economy. [FT]

Here, in examples (18), (19) and (20), *operating*, *working*, *functioning*, are often used to express the functioning of economic system and processes in English economic newspapers and magazines. The conceptualization of the metaphor has something to do with functioning or the operation of economy. A great deal of knowledge derived from this mapping is applied to understand the abstract economic processes.

3.2.2 The Stimulation of Economic System is the Fuel of a Machine

Fuel is indispensable in order to keep a machine functioning. Without fuel, a machine will stop working and fail to produce. In the abstract domain, the economy also needs fuel like a machine, such as demand, capital and government protection to stimulate its workings. The economy or the market will cease to work without necessary funds.

(21) *fuel* the Russian economy [FT]

(22) The country corporate-bond market has almost *ceased* to function. [CN]

In example (21), the phrase means the Russian economy is activated and stimulated just like a machine works with the help of fuel. Here, the fuel of a machine is mapped onto the stimulation of economy. In example (22), it is just the opposite one. The market almost stopped to work because of insufficient investment just like the machine stops to operate without fuel. The similarity and connection between them motivate the metaphor and build a bridge between the source domain and the target domain. Then, the fuel of a machine is metaphorically used to talk about the stimulation of abstract economic systems.

3.2.3 To Maintain Economic System is to Maintain a Machine

Apart from fuel, a machine needs maintenance such as oiling and greasing to keep it working better and longer. Grounded in this experiential knowledge, the maintenance of a machine corresponds to the maintenance of the economy.

(23) They are commercial activity that *oils the wheels* of the economy. [FT]

(24) Money supply is not adequate to *grease the wheels* of economic growth. [FT]

The metaphorical mapping of these two examples is based on the operating experience of a machine, that is, oiling the wheels of a machine can keep it move longer, which is the grounding of the metaphor. Therefore, in example (23), it means that commercial activity maintains the development of economy just as oil keeps a machine move

longer. But in example (24), due to inadequate money supply, economic growth is affected. It is difficult to maintain the economic growth.

In summary, a machine is familiar to people. On the basis of the familiar concrete object, the abstract complicated economic processes and theories become plain and manageable to people. In this way, the understanding of economic theories and processes are facilitated. The main meaning of the metaphor focuses on the functioning and the operation of the abstract economic system, namely, THE FUNCTIONING OR OPERATION OF ECONOMIC SYSTEM IS THE FUNCTIONING OR WORKING OF A MACHINE (Kövecses, 2002:132).

ECONOMY IS A MACHINE metaphor has long been used in constituting economic newspapers. In *the Financial Times and CNNMoney. Com*, this source domain of a machine supplies a number of machine-related lexical terms to talk about economic concepts and economic phenomena. By relying on these familiar concrete concepts relating to a machine, journalists make those abstract economic processes and systems more manageable and graspable to us. In this way the understanding of these abstract economic concepts is facilitated. Machinery operates smoothly and predictably with its own inherent equilibria. Preserving this inference pattern in the conception of the economy, this metaphor may affect our reasoning about the economy and affect our economic policies.

According to Ormerd (1997) this metaphor provided the intellectual underpinning to the Laissez- faire economic policies of the 1980s under the Thatcher and Reagan government in Britain and the U.S.A. A distinctive trait of a machine is that it is amenable to analysis, prediction and control. Therefore, as Ormerod (1997) mentions, describing economic system and processes in terms of machines and mechanisms may give the impression that they are under control and predictable by economists, while economists assign themselves different roles in controlling and predicting the workings of the economy, such as the designer, driver, sailor, or pilot with a full

knowledge of the economy. But this machine metaphor ignores the possibility of catastrophic non-linear disturbance and neglects the role of different cultures and institutions.

3.3 ECONOMY IS A PLANT

3.3.1 Economic Development is the Plant's Growth

Plants are living organisms on the earth, referring to trees, flowers and vegetables. Many words from the source domain of the plant are used metaphorically to describe the developmental aspects of national economies, economic organizations: their beginning, development and possible ending. The commonly used items in these metaphorical expressions are *growth*.

(25) The economy has *grown* by 7.7%. [FT]

(26) FDI is a necessary factor for China's future *growth*. [FT]

People have a great deal of rich knowledge about the elements of a plant. Therefore, this knowledge can be made use of in the comprehension of the economy. The life experience tells people that a plant starts from a seed first and then it grows. This physical growth is extended to describe the abstract development of the economy. It means that the biological growth of the plant is the development of the economic system.

(27) We have already seen entirely economy *sprouting up*. [CN]

(28) Online exchanges have *sprouted up* in the past couple of years. [CN]

A sprout is a young plant and it grows rapidly. On the basis of the similarities and correlation between the process of the plant and the economy, the meaning of the word is often metaphorically extended to talk of the rapid development of economic area. It is shown in the above sentences.

(29) Eastern investors buy more gold when economic *prosperity* allows it. [FT]

(30) America offers a *thriving* market. [FT]

A healthy plant grows rapidly and flourishes in suitable situations. The meanings of these words, in examples (29), (30), such as *prosper*, *thrive* and *flourish* from the source domain of a plant are extended to describe the successful development of the economy because the subjective common properties perceived and judged by people through thinking and reasoning motivate the metaphor. It involves understanding and experiencing abstract economic institutions and phenomena in terms of concrete entity.

3.3.2 Parts of the Economic System are Parts of the Plant

Parts of a plant such as the root and the branch are also metaphorically used to describe the development of the economic organization. Parts of the plants thus correspond to parts of the complex economic systems.

(31) the *branch* of the company [FT]

(32) the *root* of Net economy [FT]

In example (31), the *branch* of the company, refers to the subdivision of the company. In example (32), the phrase, the *root* of Net economy, means the base of the Net economy. Here, the subjective resemblance and correlation between economic institutions and a plant exit, which motivates the metaphor. Accordingly, parts of the economic institutions and organization are metaphorized as the parts of the plant.

3.3.3 The Best Stage of Economic Development is the Fruit of a Plant

When a plant reaches maturation, it blossoms and bears fruit. The concept of *blossom* is transferred to reason about the best stage of economic progress and development. The phrase, economic *fruits* means the beneficial consequences of economic

activities.

(33) Korea has a *blossoming* and diverse economy. [CN]

(34) Joint venture with overseas firms is *flowering*. [CN]

(35) If we share economic *fruits*, the system won't survive. [CN]

In example (33) and (34), *blossoming* and *flowering* imply the good development of economy and business. However, in example (35), the phrase, economic *fruits*, means the achievements and rewards in the development of economic process. It is the similarity and experiential correlation in people's mind that relate abstract and complicated economic system and processes to a concrete plant.

Apparently, **ECONOMY IS A PLANT** metaphor which is based on the rich knowledge about plants in the nature utilizes most of the metaphorical entailment potential associated with the concept of a plant. According to Kövecses, the basic constituent mapping of the metaphor focuses on the vast amount of rich knowledge, the mapping according to which the natural, biological growth of plants corresponds to the abstract development of the complex economic concepts and systems. The elaborate knowledge about the growth of plants structures much of the knowledge about the developmental aspects of complex economic systems (Kövecses, 2000:133).

ECONOMY IS A PLANT metaphor is widely spread in *the Financial Times and CNNMoney.com*. In the point of view of Marshall (1920), all these abstract development and its various properties of the economy are derived metaphorically from the notion of physical growth of plant and its characteristics. The economy begins to develop at some points and develop slowly. At the very beginning it may be delicate, and may have to be nurtured, but then can survive adverse conditions.

3.4 ECONOMY IS A BUILDING

A building is quite familiar as a source domain to people because it is essential for

people's life and provides shelter for people. In economic contexts, the source domain of a building generates a number of metaphorical expressions. It appears that they make use of the construction, structure and strength of a building.

3.4.1 The Structure of Economic System is the Structure of a Building

The framework and the structure are the most important parts to provide support to a building. Buildings have a groundwork and foundation on which a framework or structure stands above the ground. These words are extended metaphorically to talk about the corresponding concepts in the economic target domain.

- (36) New technologies have changed the *structure* of the American economy. [FT]
- (37) They have signed agreements that lay the *ground* for a huge growth in trade and cooperation. [FT]
- (38) Buying government bonds to increase the monetary *base*. [FT]

These examples have to do with the structure and the base of the economy and the trade. The metaphorical expressions make reference to the general structure of such words as the structure and the ground. On the basis of the life experience, the metaphor highlights the structure and the foundation of the economy. They appear to be highly conventionalized and widely used in *the Financial Times*, *CNNMoney.com*.

In addition to the base and framework, a building contains other parts, such as the floor, the ceiling. These expressions in the source domain of a building are also used to talk about the corresponding concepts in the target domain of economy.

- (39) They put a *ceiling* on the income tax. [CN]
- (40) That is the reason why inflation targets should have a *floor* below which inflation is allowed to drop as well as a *ceiling*. [CN]

Among these two examples, *ceiling* as the highest part of a building and *floor* as the

lowest one are used metaphorically to talk about price limits. They have to do with spatial orientation: up—down, which are rooted in the physical environment and cultural experience. In example (40), it means the price reaches the top. On the contrary, in example (41), the price reaches the lowest. These two examples belong to orientational metaphor in nature, which provide less conceptual structure for target concepts than ontological ones. Upward orientation tends to go together with positive evaluation, whereas downward orientation with a negative one (Kövecses, 2002:35).

3.4.2 The Stability of the Economy is the Stability of a Building

According to the experiential logic, if a building is well constructed, it will be firm and strong. Otherwise, it will be shaky and tends to collapse. Similarly, the economic system will shake and collapse if it is not strengthened. The commonly used words are *collapse*, *stability*, *stabilize*. The following examples illustrate the mappings:

- (41) A stock market *collapse* would inflict little damage on the real economy. [FT]
- (42) When asset prices increase to unsustainable levels, it will threaten to *destabilize* the economy. [FT]
- (43) Today central banks agree more or less unanimously that *price stability* should be the main goal of monetary policy. [FT]

The metaphor highlights the stability of the building. A number of weaker institutions are consolidated through bankruptcy and merger. The metaphorical expressions make reference to its strength with such words as *stability*, *solid* in the metaphorical comprehension of economy and business. On the basis of their subjective common properties perceived and judged by journalists they connect a building with economy. Thus abstract economic discourses become easy to understand for readers.

3.4.3 The Designer of Economic System is the Designer of a Building

From the life experience people know that buildings have to be designed and

constructed by people. Similarly, economic system also needs designing. This knowledge about this source domain of a building which is the grounding of the metaphor is adopted by journalists in the English newspapers and magazines. Then a mapping is generated: the designer of the building is the designer of the economy. The mapping is illustrated in the following instances:

(44) *construct* a market economy [CN]

(45) The Canadian government has to start to *rebuild* the economy. [CN]

(46) The *best-designed* market will deliver a better deal than a *poorly designed* one.[FT]

(47) The firms also *restructured* more vigorously. [FT]

In brief, on the basis of the identified metaphorical expressions, a conceptual metaphor is formulated: **ECONOMY IS A BUILDING**. This metaphor highlights the creation of a well-structured and stable or lasting complex system. Most of the examples mentioned above have to do with these three interrelated aspects of buildings: construction, foundation and strength. The form of the mapping can be summarized as follows: CREATING A WELL-STRUCTURED AND LASTING ABSTRACT COMPLEX SYSTEM IS MAKING A WELL-STRUCTURED, STRONG BUILDING (Kövecses, 2002:133).

ECONOMY IS A BUILDING metaphor covers a number of metaphorical expressions. McCloskey (1995) points out that by objecting such abstract concepts as economy, price and market as a building, journalists make those abstract concepts intangible and manageable. Through the metaphor the building of the economy is metaphorized as the building of a structure, which concretizes the economic processes and systems in the readers' mind. In the real life, the foundation of a building is crucial to the stability of a building. This inference pattern of the metaphor is preserved in the conception of the economy, and the metaphor partly accounts for the reason why each country lays so much stress on pillar industries and infrastructure construction.

ECONOMY IS A BUILDING metaphor highlights the fact that the economy and economic systems need good foundations. But compared with complex economic systems, the structure of a building is much simpler. Therefore, the metaphor can not adequately describe the complexity of economic systems. Moreover, a building is a product of human work, and it is built according to a design produced by designers.

3.5 Summary of Analysis and Discussion

In this part, four different kinds of metaphors in English economic contexts are gathered and analyzed carefully, namely, **ECONOMY IS HUMAN BEINGS**, **ECONOMY IS A MACHINE**, **ECONOMY IS A PLANT** and **ECONOMY IS A BUILDING**. All the conceptual metaphors fall into categories distinguished by Lakoff and Johnson and Kövecses. They have similarities and differences although they have their respective meaning focuses.

On the basis of the similarities and correlation between abstract economic processes and concepts and these four concrete things in the world--human beings, a machine, a plant and a building, journalists relate the source domain to the target domain by means of perceiving, associating, imagining and deducing in their minds. This is the motivation of metaphors and precisely verifies the grounding of metaphors which is illuminated by Dingfang, Shu(2002) and Shuwu, Lin(2002).

ECONOMY IS HUMAN BEINGS metaphor belongs to personification, a special kind of ontological metaphor, which accounts for that ontologicalization of abstract concepts in economic discourses is general. This is because human beings live in the physical world and understand the abstract world in terms of human bodies and concrete objects. It reinforces the fact that metaphors are derived from people's bodily and daily experience. They demonstrate and verify the validity of the contemporary metaphorical theory founded by Lakoff and Johnson.

ECONOMY IS A MACHINE metaphor and **ECONOMY IS A BUILDING** metaphor are categorized into structural metaphor. In this metaphor, the source domain, a machine and a building provide a relatively rich knowledge structure for the target domain, economy and business. In other words, the cognitive function of the metaphor is to enable people to understand the target domain by means of the structure of a machine and a building. **ECONOMY IS A PLANT** metaphor is an ontological metaphor. It mainly focuses on the abstract and complex economic systems, which is conceptualized as the natural growth of a plant. The metaphor is widely spread in *the Financial Times*, *CNNMoney.com*. All these abstract development and its various properties of the economic concepts and systems are originated metaphorically from the natural growth of the plant. This entailment of growth and the need for care and protection links this metaphor with **ECONOMY IS HUMAN BEINGS** metaphor.

All in all, just as Kövecses mentions in the book *Metaphor: A Practical Introduction*, the four metaphors form the Complex Systems Metaphor, which the target domain of abstract complex economic systems is high in the hierarchy of “things”, while the source domains of human beings, a machine, a plant and a building are all lower than economy. The major properties of the complex systems include the function, stability, development and condition of the abstract economic system. The properties of function, stability, development and condition of abstract and complex economic concepts and systems are primarily featured by the four source domains: HUMAN BEINGS, MACHINE, PLANT and BUILDING respectively(Kövecses, 2000:127,128). This claim yields the following generalized mapping:

Target Domain	Source Domain
ABSTRCT ECONOMIC SYSTEMS	HUMAN BEINGS MACHINE PLANT BUILDING

(Kövecses, 2000:128)

4 Conclusion

This study attempts to apply the contemporary theory of metaphor to investigate the use of metaphor in two English economic newspapers. The analysis and discussion of metaphors in two English economic newspapers have reinforced claims made by the contemporary theory of metaphor and have yielded the following conclusions:

Four types of source domains are used for economic metaphorical mappings, which are human beings, a machine, a plant and a building. All of them are concrete and tangible from the real world. Accordingly, conceptual metaphors used for understanding the abstract economic domain are not arbitrary. All of the four metaphors in economic newspapers mentioned above which describe various aspects of economics domain and highlight different aspects of economy are grounded in people's bodily experience and daily knowledge. The abstract economic concepts and systems are understood by the concrete terms which are derived from people's experience in the physical world. Without these metaphors, it is hard for people to reason about economic concepts, phenomena and activities. Some metaphors are so deeply entrenched in people's thinking that they even affect the way of reasoning about economic issues and activities. The metaphors in economic texts are not merely used for explanatory and vivid purposes. Instead, just as McCloskey (1983), Henderson(1982) and Boers(1997) mention that they have become an integral part of economic texts and served as an indispensable cognitive mechanism and form a constitutive part of people's conceptual framework.. As for the frequency usage, the human metaphor has the highest frequency and the machine metaphor has the second highest frequency among all the metaphors.

As a cognitive tool, metaphors are cross-domain mappings. Mappings can project the source domain inference patterns onto the target domain inference patterns (Kövecses, 2002:24). At the abstract level, metaphorical mappings are conceptual. At the linguistic level, when lexical items denoting source domain

concepts have transferred into the target domain, they become polysemous, having acquired a stable sense in the target domain. Some lexical terms are firmly established in the target domain of economy and other lexical items may completely lose the original senses in the source domain after they have acquired a stable sense in the target domain of economy. They have become jargons in economy and their meanings can not be figured out by retracing to their source domains and special formal economics knowledge is required for their understanding.

There are some of limitations in the study. Firstly, the study of metaphors in economic contexts is only restricted to a small number of contexts. In fact, in the economic metaphors there are many other source domains, such as war, fluid, journey. Secondly, the identification and classification of metaphors in economic texts are subjective to some extent.

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