Challenges to Metaphorical Coherence across Languages and Cultures

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Abstract
The use of metaphors in both economics and business texts has been debated among economists. However, little attention has been paid to the phenomenon of metaphorical coherence in branches of economics texts in which a set of different categories and types of conceptual metaphor are used for different communicative purposes. As for the research methodology, this paper investigates this phenomenon by adopting a qualitative method in terms of textual analysis, the cognitive and corpus-based approaches, as well as the comparative model of translation. The results show that 19 types of metaphor were used in the source text subcorpus; some of which tend to co-occur with a set of other types of metaphor. A critical analysis of the metaphorical coherence, which enhances and strengthens meaning in the source text (as opposed to translation in the target language), is followed by a detailed discussion of a translation in Indonesian as the target language. In terms of translation procedures, most of the SL metaphors were rendered as metaphors into Indonesian with similar source domain whereas other types of metaphor were replaced with a standard source domain in Indonesian. This paper concludes with the view that metaphorical coherence is not only source-language-and-culture-orientated but also target-language-and-culture-orientated as it comes laden with translation problems.

Keywords: cognitive approach, corpus-based approach, language and culture, metaphorical coherence, translation

Introduction
The realisation of metaphors in economics and business discourse has been debated among economists (Backhouse, 1994; Boers, 2000; Charteris-Black, 2001, Henderson, 1986, 1994; McClosekey, 1994; White, 2003). Little attention, however, has been paid to the use of metaphorical coherence associated with conceptual metaphors (Lakoff & Johnson, 1980; Lakoff, 1993) in several branches of economics. To achieve different communicative purposes (McClosekey, 1994), discourse writers might use a set of different categories and types of conceptual metaphors simultaneously rather than individually. As a result of this, it is often difficult to understand those ideas that are cognitively expressed by the writers since this may involve more than one category and type of conceptual metaphor that have different conceptual mappings.

The level of difficulty escalates when translation is attempted as a set of conceptual metaphors (metaphorical coherence) in economics texts written in the source language (SL) must be translated as accurately, as clearly and as naturally as possible for the same type of economics text in the target language (TL). In other words, this translation process is cross-linguistic and cross-cultural in nature.

Transfer of meaning across languages and cultures has been one of the research areas in translation studies; semantics, including cognitive semantics, belongs to this branch of linguistics. The focus of this research is, therefore, to study how a set of conceptual metaphors (i.e. metaphorical coherence) simultaneously used in economics texts is rendered into Indonesian as the TL. According to Malmkjær (2010, pp. 62–64), cognitive semantics is a metaphor-orientated translation phenomenon dealing with both language and thought.

The notion of *translation as a product* (Hatim & Mason, 1990, pp. 3–4) is quite relevant in this respect in the sense that translated texts can be investigated as a result of the translation process involving the SL and the TL. Hence, translators play a crucial role. Translators often encounter problems in translating metaphorical expressions due to linguistic and cultural differences between the SL and the TL (Newmark, 1988; Schäffner, 2004). Such translation problems often come up when translating (i.e. English-to-Indonesian translation) a set of conceptual metaphors used simultaneously in economics texts.

A Cognitive Approach to Metaphor
The cognitive approach is one of the cognitive linguistic approaches in dealing with the theory of cognitive metaphor. It relies on the assumption that both metaphor and culture are basically interrelated, either directly or indirectly (Caballero, 2007; Kövecses, 2005). According to the conceptual metaphor theory, human conceptual systems are metaphorical in nature as human thought processes (i.e. experiences or daily activities) are closely related to the use of metaphors (Johnson, 1995; Lakoff & Johnson, 1980). In addition to this, other metaphor theorists (Barcelona, 2003; Dobrzyńska, 1995; Fernández, 2002; Goatly, 1997/2011; Knowles & Moon, 2006; Lee, 2001; Martin & Rose, 2003; Newmark, 1982; Samaniego Schäffner, 2004) seem to agree that the basic notion of metaphor is essentially how to understand one particular concept in terms of another concept. Alternatively, conceptual metaphors show the relationship between the source domain and the target domain in the human conceptual system (Croft & Cruse, 2004; Deignan, 2005; Kövecses, 2002; Lakoff, 1993; Lee, 2001; Samaniego Fernández, 2002; Schäffner, 2004).

Lakoff and Johnson (1980) and Lakoff (1993) classified conceptual metaphors into three major categories: (1) *orientational metaphors* dealing with UP/DOWN, IN/OUT, FRONT/BACK, ON/OFF, NEAR/FAR, DEEP/SHALLOW, CENTRAL/PERIPHERAL concepts (Lakoff & Johnson, 1980, p. 14−21); (2) *ontological metaphors* employed for explaining activities, emotion, ideas through both the notion of ENTITY and SUBSTANCE; and (3) *structural metaphors* used for constructing particular concepts through other concepts (Lakoff, 1993, p. 202−252).

The cognitive approach, as pointed out by Katan (2004), could also be adopted in order to study culture as it relates to what people have in mind and how they understand ideas and concepts in relation to other things and then interpret them. This paper examines the phenomenon of translating a set of conceptual metaphors in economics texts in which cultural aspects of the SL come into contact with the TL and culture.

Metaphorical expressions, according to the cognitive approach put forward by Lakoff and Johnson (1980), are basically the manifestation of conceptual metaphors. Conceptual mappings (CMs) are crucial in the theory of conceptual metaphors as they reflect the ontological link between the source domain and the target domain. Other scholars such as Al-Hasnawi (2007), Croft and Cruse (2004), Goatly (2011); Kövecses (2002), and Schäffner (2004) share a similar perspective.

Unlike Lakoff and Johnson (1980) and Lakoff (1993), Stienstra (1993) divided metaphors into three main categories: (1) *universal metaphors* that are commonly used in many languages and cultures; (2) *culture-overlapping metaphors* in which two different languages and cultures share similar types of metaphor; (3) *culture-specific metaphors* whose realisation can only be found in a language or culture.

Metaphorical Coherence

Using a metaphorial expression in a single sentence, or paragraph, is a common practice of language use. However, the phenomenon of using more than one metaphorical expression in a given context is intended to achieve specific purposes. To put it simply, writers either consciously or unconsciously use several conceptual mappings, either similar or different in nature, when they write a text. If they are different, then the phenomenon of using those different metaphorical expressions (metaphors) is called *overlapping/intersecting*. Lakoff and Johnson (1980, p. 104) termed such a phenomenon as *metaphorical coherence*. This term is defined as a cognitive relation among conceptual mappings, which aim to enhance and strengthen meanings, or a set of arguments for a concept. Take the following sentence for instance, particularly the bold type: *The country **has travelled a rocky road to get there**, but today **the outlook for** Chile's extensively privatized **economy**, **supported** where needed by **a constructive government role**, is very **bright** indeed* **[MAN]**. There are at least eight conceptual mappings in the sentence, as seen in Table 1.

Table 1. *Metaphorical coherence*

Metaporical Expressions	Conceptual Mappings
• The country has *travelled a rocky road* …; • … the *outlook for* Chile's extensively privatized *economy* …;	• LIFE IS A JOURNEY • THE ECONOMY IS LOOKING

• … *supported* where needed by *a constructive government role*…; • … *the outlook for* Chile's extensively privatized *economy*, ... is very *bright* indeed.	• THE ECONOMY IS A BUILDING; THE GOVERNMENT ROLE IS A BUILDING • THE ECONOMY OUTLOOK IS A LIGHT-SOURCE

Each of the metaphors in Table 1 constructs a concept (i.e. a country's economy) resulting in a coherent understanding of the concept as a whole (Lakoff & Johnson 1980, p. 89). The sentence makes a contrast between two opposite arguments or conditions representing both the past and the present situations of Chile's economy using the linking word *but* as one of the cohesive devices. The past economic condition is conceptually expressed by the LIFE IS A JOURNEY metaphor whereas the present condition is cognitively expressed by using three different types of metaphor – image metaphor, building metaphor and light-source metaphor. In addition to this, the building metaphor is used twice in order to create a much stronger argument. The occurrence of the above four conceptual mappings has cognitively strengthened the coherent or conceptual relations in the economics text. This phenomenon again proves that using more than one type of metaphor in a given text strengthens arguments. The use of such metaphors also reflects the quality of arguments or ideas put forward by the writers. In other words, the relationship between the different types of metaphor has to do with coherence rather than consistency (Lakoff & Johnson, 1980, p. 44).

Translation Strategies for Metaphorical Coherence Across Languages and Cultures
The ST writer, either consciously or unconciously, often uses more than one type of conceptual metaphor in a single paragraph. This adopted strategy, on the one hand, could increase the level of coherence among conceptual mappings in a given text (Lakoff & Johnson, 1980, pp. 87−105). On the other hand, this could create problems for the translator. A question that would then arise, as far as translation studies is concerned, is to what extent can the degree of coherence in the ST be preserved in the TT? Therefore, translation strategies are relevant in this respect as they can be used to successfully translate different types of conceptual metaphor in branches of economics textbooks from English (SL) into Indonesian (TL), as put forward by Venuti (1993, pp. 216−217).

This research adopts the definition of translation strategy posited by Lörscher (2005, pp. 600−601) that states that "translation strategies are procedures for solving translation problems. They range from the realization of translational problems to [their] solution or the realization of [their] insolutibility by a subject at a given moment". Based on this definition, translation strategies function to solve translation problems, including translation problems relating to conceptual metaphors in branches of economics texts.

In order to sort out such metaphor-related translation problems, Newmark (1982, pp. 84−96) put forward several procedures, as follows:
(1) "reproducing the same image in the TL"*;*
(2) "replacing the image in the SL with a standard TL image which does not clash with the TL culture";
(3) "translation of metaphor by simile, retaining the image";
(4) "translation of metaphor (or simile) by simile plus sense (or occasionally a metaphor plus sense";

(5) "converting metaphor to sense;

(6) "deletion, if the metaphor is redundant";

(7) "using the same metaphor combined with sense, in order to enforce the image".

The scope of this research is limited to an investigation of conceptual metaphors in branches of economics that are partly based on a cognitive approach having two major components: (1) *source domain*, termed *image*/*vehicle* in the traditional approach, and (2) *target domain* termed *sense*/*ground*/*tenor* in the traditional approach.

Methodology

In order to achieve the objectives of the study, this research employs a methodology having three components (i.e. method, data and data processing). A qualitative method taking the form of textual analysis is adopted (Travers, 2001, p. 4–5; William & Chesterman, 2002, pp. 64–65). Moreover, the *comparative model* as a theoretical model of translation is also adopted. Its formula is written as follows: ST ≈ TT or TT ≈ ST (Williams & Chesterman, 2002, p. 49). According to the formula, the ST is more or less similar to that of the TT, and the other way around. The metaphorical expressions representing each category and type of conceptual metaphor used in those branches of economics are compared with their equivalents in the Indonesian translated texts (Baker, 1992; Shuttleworth & Cowie, 1997).

The previous method is also supported by a quantitative method, particularly frequency of occurrence of some *keywords* as the source domain vocabulary or image (Cameron, 2002; Stefanowitsch, 2006).

As for the data, Table 2 and 3 both provide a summary of the parallel subcorpus for each branch of economics (Baker, 1995; 1996; Bowker & Pearson, 2002; Olohan, 2004; Shuttleworth & Cowie, 1997; Zanettin, 2000).

Table 2. *General featues of the parallel corpus*

FEATURES	PARALLEL CORPUS
• Type of corpus	• Parallel
• Target language	• Indonesian
• Source language	• English
• Medium	• Written language, textbook
• Publication period	• 2003-2005
• Size of text	• Full-text
• Genre	• Nonfiction
• Translational corpus type	• Direct translation
• Translator	• Professional translator

Table 3. *Size, coverage and distribution of the parallel corpus*

ST	TT
1) *Principles of Economics, 3rd edition, 2003* Number of tokens: ±356,096 words Number of writers: 1 Number of books: 1	1) *Pengantar Ekonomi Mikro*, Edisi 3 & *Pengantar Ekonomi Makro*, Edisi 3, 2004 Number of tokens: ±292,865 words Number of translators: 1 Number of books: 2 Publisher: Salemba Empat
2) *Economic Development, Eighth Edition, 2003.* Number of tokens: ±384,303 words Number of writers: 2 Number of books: 1	2) *Pembangunan Ekonomi di Dunia Ketiga*, Edisi Kedelapan, Jilid 1 & 2, 2003 Number of tokens: ±450,825 words Number of translators/teams: 2 Number of books: 2 Publisher: Erlangga
3) *Management, 7th edition, 2002* Number of tokens: ±278,316 words Number of writers: 2 Number of books: 1	3) *Manajemen*, Edisi 7, Jilid 1 & 2, 2005 Number of tokens: ±284,929 words Number of translators: 1 Number of books: 2 Publisher: PT. Indeks
Total number of tokens = 1,018,715 words	Total number of tokens = 1,028,619 words

The electronic data (i.e. the parallel corpus) are processed using a concordance programme called *WordSmith Tools 5.0* (Scott 2001, 2008). It is used to elicit samples of metaphorical expressions in the study corpus (ST) and their equivalents in Indonesian (TT). As a referent corpus, the British National Corpus is also employed to obtain a list of keywords in each of those branches of economics (ST subcorpus).

Results

As far as the corpus-based approach and categories of conceptual metaphors are concerned, this section presents some results relating to both lists of keywords and the use of metaphorical coherence in branches of economics. Table 4 shows some keywords extracted from the study corpus involving the referent corpus (Karnedi, 2011, p. 70).

Table 4. *Some keywords in economics*

N	Key word	Freq.	%	RC. Freq.	RC. %	Keyness
1	PRICE	3041	0.29851	1096	0.021992916	6417.473633
2	DEVELOPMENT	2658	0.26092	969	0.019444466	5583.378906
3	GROWTH	2198	0.21576	509	0.010213863	5372.667969
4	INCOME	2260	0.22185	643	0.012902778	5189.268066
5	LABOUR	1396	0.13704	6		4878.215332
6	DEMAND	2067	0.2029	592	0.011879385	4735.506348
7	SUPPLY	1770	0.17375	367		4457.139648
8	MANAGER	1416	0.139	311		3511.325928
9	GOODS	1368	0.13429	263		3510.791748
10	ECONOMY	1516	0.14881	553	0.01109679	3182.547607
11	MARKET	2247	0.22057	2052	0.041176517	2785.672852
12	EMPLOYEE	1113	0.10926	252		2736.822754
13	COST	1631	0.1601	1029	0.020648457	2619.715576
14	POPULATION	1242	0.12192	457		2598.172607
15	CAPITAL	1318	0.12938	560	0.011237256	2596.024658

16	TAX	1411	0.13851	923	0.018521406	2216.775391
17	EQUILIBRIUM	652	0.064	15		2175.161133
18	POVERTY	767	0.07529	144		1979.457031
19	TRADE	1419	0.13929	1113	0.022334047	1975.567505

The higher the keyness index of a keyword, the greater the importance of the keyword in the ST. It can then be regarded as part of the source domain vocabulary that may be used metaphorically in the ST. Table 5 and Table 6, on the contrary, show a number of keywords mostly used in the branches of Economic Development and Management respectively.

Table 5. *Some keywords in economic development*

N	Key word	Freq.	%	RC. Freq.	RC. %	Keyness
1	DEVELOPMENT	2511	0.653439999	373	0.020196671	6765.630371
2	COUNTRIES	1973	0.513435721	224	0.012128832	5586.095215
3	GROWTH	1752	0.45592469	188	0.010179555	5005.84375
4	INCOME	1276	0.332054734	256	0.013861522	3206.055176
5	POPULATION	1118	0.290938228	130		3150.593262
6	LABOR	715	0.186065152	4		2468.328369
7	NATIONS	773	0.201158553	67		2278.47583
8	CAPITAL	816	0.212348476	150		2094.402588
9	POVERTY	661	0.172012672	33		2073.224854
10	WORLD	1540	0.400755703	1561	0.084522799	1711.979248
11	TRADE	845	0.219895184	332	0.017976662	1698.955688
12	POLICIES	591	0.153796509	125		1463.839111
13	RESOURCES	504	0.131156415	76		1351.732422
14	ECONOMY	573	0.149112359	147		1343.087402

15	CAPITA	379	0.098627545	0		1333.555786
16	AGRICULTURAL	383	0.099668466	19		1201.745972
17	SECTOR	547	0.142346352	177		1186.358521
18	RATE	653	0.169930831	326	0.017651781	1175.273804
19	LDCS	325	0.084575072	0		1143.512573

Table 6. *Some keywords in management*

N	Key word	Freq.	%	RC. Freq.	RC. %	Keyness
1	EMPLOYEES	1079	0.387734801	62		3696.156738
2	ORGANIZATIONS	642	0.230700403	13		2349.804443
3	MANAGEMENT	867	0.311553359	221	0.013558416	2312.038818
4	ORGANIZATION	692	0.248667717	63		2252.396973
5	GOALS	543	0.195125103	47		1778.61499
6	PERFORMANCE	644	0.231419101	211	0.012944913	1591.952271
7	EXHIBIT	405	0.145535305	9		1476.121582
8	BEHAVIOR	379	0.136192292	0		1459.827759
9	EMPLOYEE	422	0.151644185	26		1435.206299
10	ORGANIZATION	336	0.120740399	1		1280.834229
11	JOB	595	0.213811114	294	0.018036988	1256.257202
12	BUSINESS	588	0.211295694	477	0.029264091	950.5166626
13	COMMUNICATION	281	0.100976348	36		869.2313843
14	DECISIONS	319	0.114631511	79		856.8895264
15	COMPANY	552	0.198359221	481	0.029509492	850.7002563
16	MANAGER	366	0.131520793	144		848.0175171

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17	DECISION	398	0.14301987	219	0.013435715	799.3286133
18	LEADERSHIP	320	0.114990853	111		775.7269287
19	ENVIRONMENT	336	0.120740399	153		734.6202393

Statistics for Conceptual Metaphors in Branches of Economics

In terms of categories and types of conceptual metaphor in branches of economics, Figure 1 shows the trend of conceptual metaphors used in the ST subcorpus (N = 648). Structural metaphors, especially commodity metaphors (22.22%) and image metaphors (17.13%), are used more frequently than orientational metaphors, such as up-down metaphors (12.35%), and ontological metaphors, such as entity metaphors (11.42%) and containment metaphors (6.945%) (Karnedi, 2011, pp. 71–74). As for the economics methodology, this tendency reflects the fact that ideas, arguments, economic realities, models or theories are mostly expressed or explained through a number of other concepts, such as commodity and image/vision, apart from other concepts such as up-down, entity and containment.

Metaphorical Coherence in Branches of Economics

As seen in Figure 2, commodity metaphors (i.e. structural metaphor) normally co-occur with at least four other types of metaphor i.e. entity metaphors, up-down metaphors, containment metaphors and journey metaphors. In other words, commodity metaphors mostly co-occur with two types of metaphors i.e. ontological (i.e. entity metaphors and containment metaphors) and orientational categories (e.g. up-down metaphors) of conceptual metaphors.
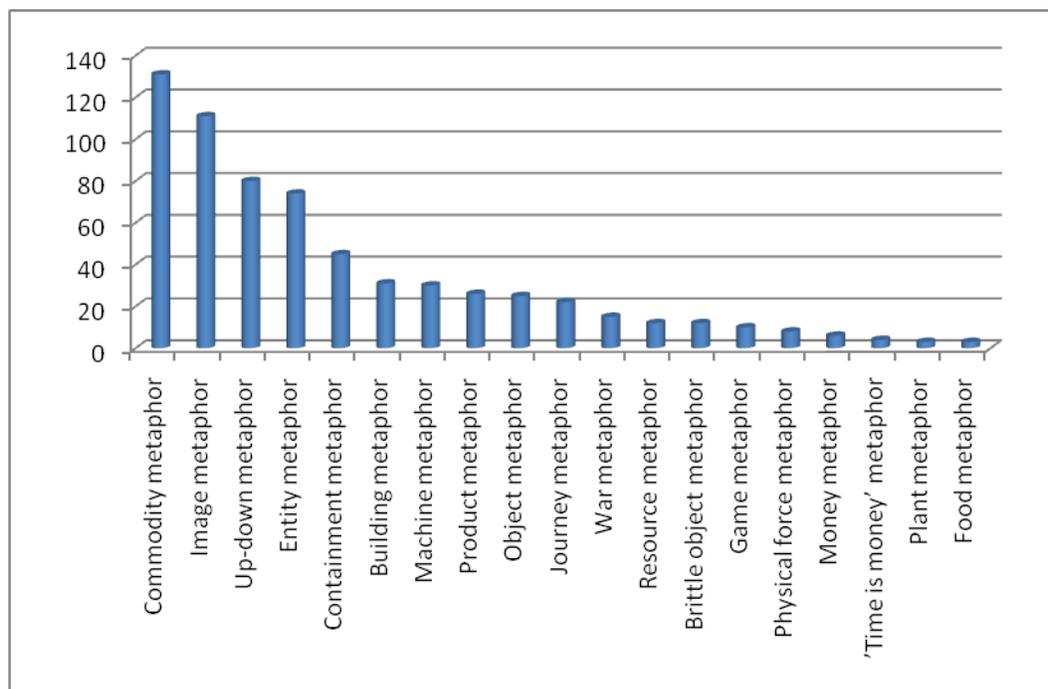

Figure 1. Conceptual metaphors in branches of economics

Unlike commodity metaphors, image metaphors, as seen in Figure 3, mostly co-exist with journey metaphors (i.e. ontological metaphors), followed by entity metaphors (i.e. ontological metaphor), up-down metaphors (i.e. orientational metaphors) and commodity metaphors (i.e. structural metaphor). To put it simply, to strengthen the meanings, the textbook writers concerned use image metaphors as part of structural metaphors together with ontological and orientational metaphors.
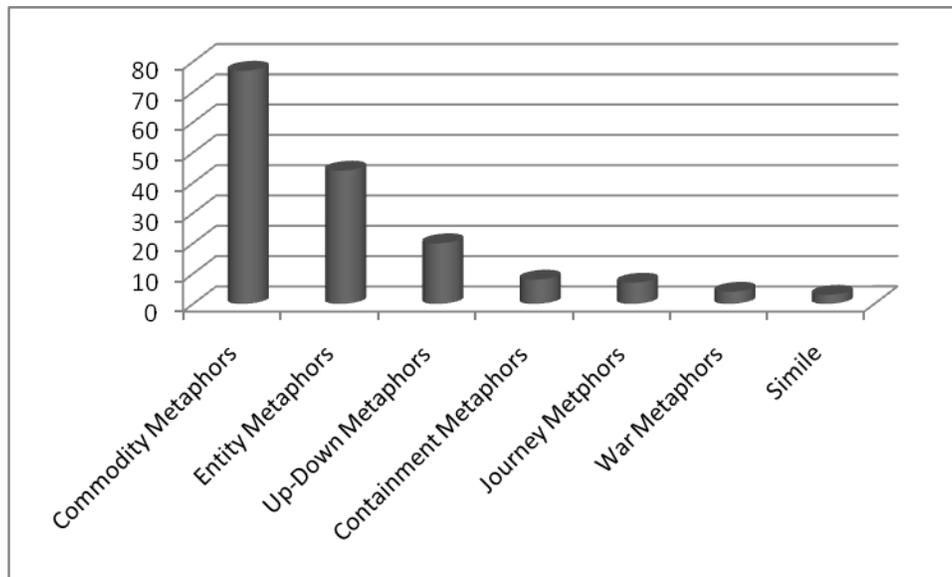

Figure 2. **Metaphorical coherence: Commodity metaphors & others**

Compared to the previous metaphorical coherence phenomenon, Figure 4 shows a tendency to use building metaphors, which is a structural metaphor, together with both image metaphors (i.e. structural metaphors) and entity metaphors (ontological metaphors).
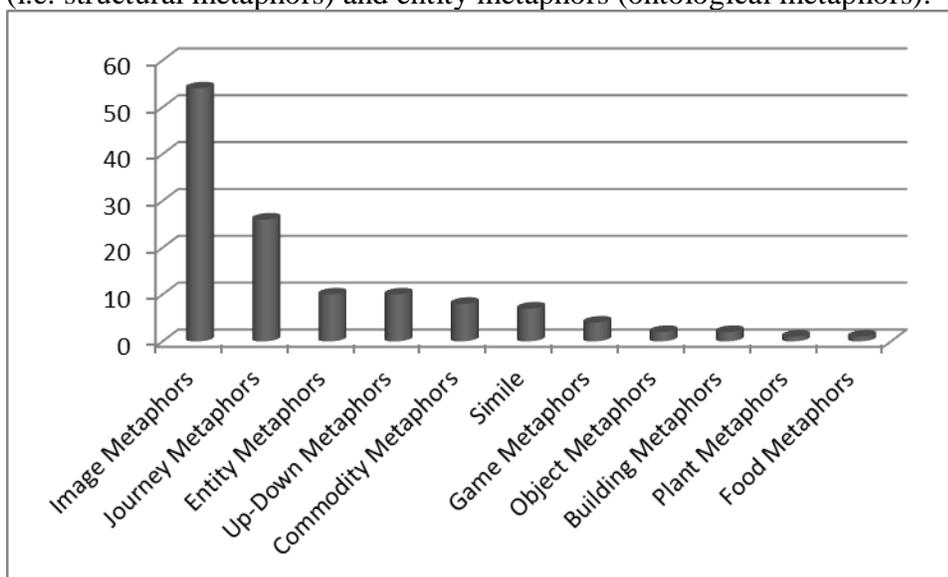

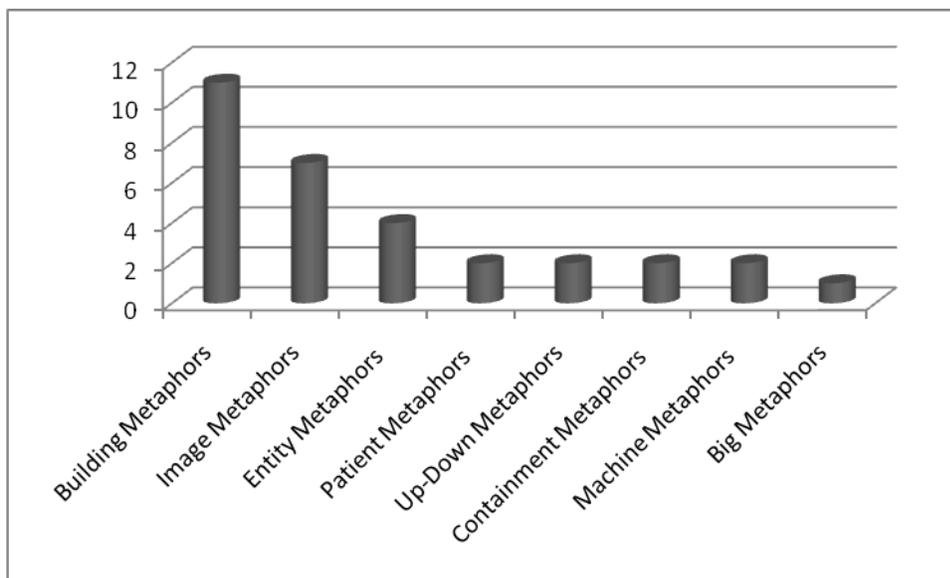*Figure 3. Metaphorical coherence: Image metaphors & others*

Figure 4. Metaphorical coherence: *Building metaphors & others*

As part of the orientational metaphor, up-down metaphors as seen in Table 5 significantly co-exist with entity metaphors that belong to the ontological metaphor, as opposed to the other three types of metaphor (i.e. journey, containment and game metaphors).

Table 6, however, shows that ontological metaphors, especially entity metaphors, mostly co-exist with both orientational (i.e. up-down metaphors) and structural metaphors (i.e. image metaphors). These types of metaphor are followed by journey and machine metaphors.
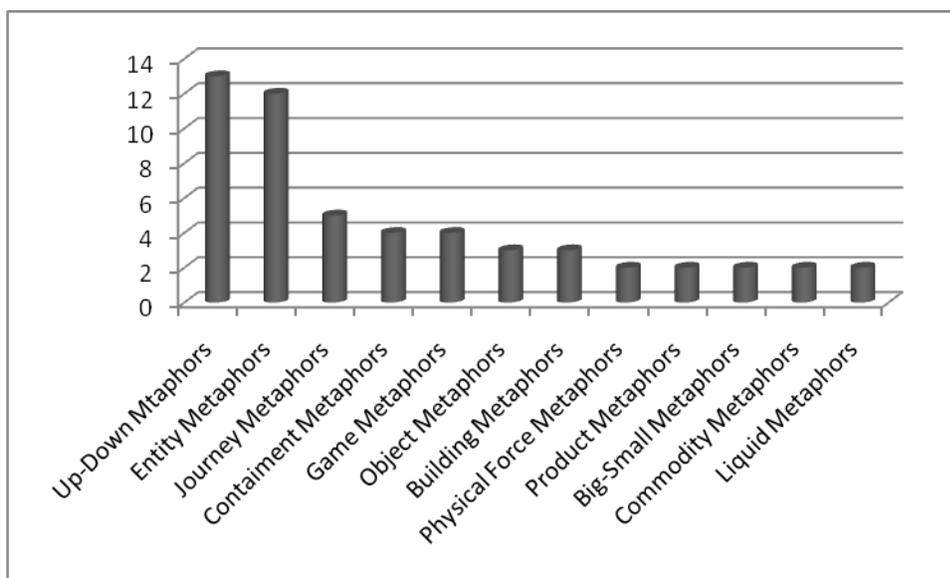

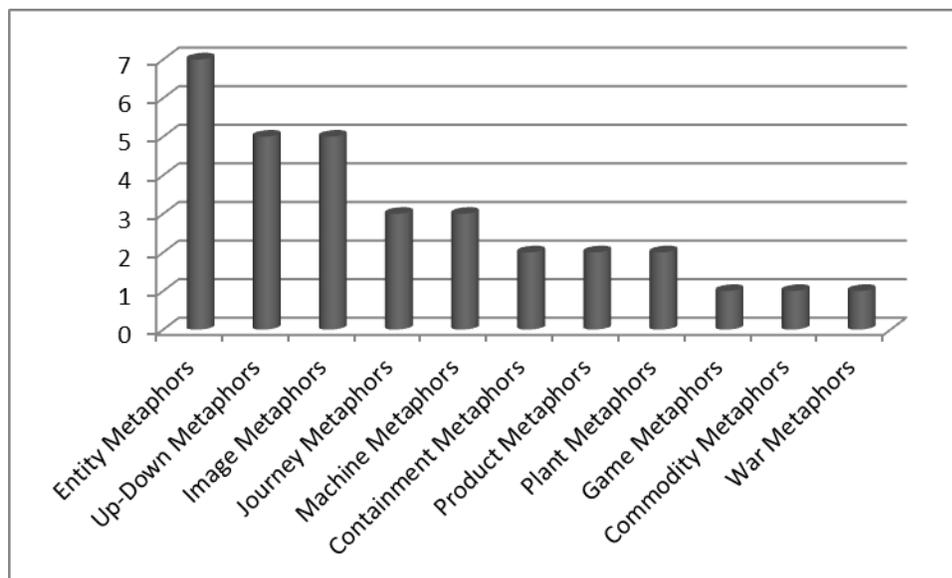*Figure 5.* **Metaphorical coherence: Up-down metaphors & others**

Figure 6. Metaphorical coherence: Entity metaphors & others

Discussion

Discussion in this part will focus on the phenomenon of metaphorical coherence involving the English language as the SL with a western-culture background and Indonesian as both the TL and the target culture.

As far as translation studies is concerned, comparative analyses are carried out to observe the application of metaphorical coherence in the SL and culture and also how it is rendered by translators into Indonesian. For these purposes, some types of metaphor which co-occur with at least two other types of metaphor associated with the three categories of conceptual metaphor (i.e. structural, orientational and ontological metaphors) have been selected as examples, as follows: (1) Commodity Metaphors & Others, (2) Image Metaphors & Others, (3) Building Metaphors & Others, (4) Up-Down Metaphors & Others, (5) Entity Metaphors & Others.

Metaphorical Coherence: Commodity Metaphors & Others

As part of the structural metaphor, commodity metaphors are normally used to show the relationship between the structure of a given concept as the source domain and another concept structure as the target domain (Lakoff & Johnson (1980). Metaphor categorisation involving the (ST) subcorpus reveals that commodity metaphors have the highest frequency of occurence, as opposed to other types of metaphor. Below are some examples of how commodity metaphors within the context of source culture co-exist with other types of metaphors, followed by translation analyses.

To begin with, as seen in ST (1a), three types of metaphor have been used to strengthen the given argument. In the UNDERSTANDING IS SEEING/image metaphor, the verb *see* as the source domain vocabulary (literally: 'to see something') has been used metaphorically to mean 'to uderstand something' as seen in the expression *we can now see*. Conceptually, this metaphor is supported by the other two metaphors i.e. entity and LABOR IS A COMMODITY metaphors. In the case of the entity metaphor (traditionally called personification), *principle* as a nonhuman entity can do something (as the target domain) that human beings normally can (as the source domain)

as seen in the expression *this principle works*. In addition to this, the commodity metaphor is used to support the argument. In this instance, the literal meaning of the source domain vocabulary *market* (e.g. *cattle market*) has been metaphorically extended to the target domain (i.e. unphysical market), as seen in the expression *the market for labor*. In other words, this phenomenon of metaphorical coherence has to do with the concept of coherence rather than consistency.

> ST (1a)
> CM: UNDERSTANDING IS SEEING; Entity Metaphor (Nonhuman); LABOR IS A COMMODITY
> We can now *see* how *this principle works* in the *market* for labor. [POE]
> TT (1b)
> CM: UNDERSTANDING IS SEEING; Non-metaphor; LABOR IS A COMMODITY
> *Kita sekarang akan **melihat** bagaimana **prinsip ini berlaku** pada **pasar tenaga kerja**.*
> Back-Translation (BT)
> We will now see how these principles work in the labour market.

As seen in TT (1b), two out of three types of conceptual metaphor have been translated into Indonesian as a metaphor, that is, LABOR IS A COMMODITY → LABOR IS A COMMODITY as seen in *the market for labor* :: *pasar tenaga kerja* ('labour market') and UNDERSTANDING IS SEEING → UNDERSTANDING IS SEEING as seen in ... *see* how *this principle* ... :: ... *melihat bagaimana prinsip ini* .... ('see how this principle ....'). Nonetheless, another entity metaphor has been rendered into Indonesian as a non-metaphor where the linguistic expression *how this principle works* :: *bagaimana prinsip ini berlaku* ('how this principle is applied'). This makes the level of metaphorical coherence in the TT (1b) rather weak compared to the metaphorical coherence in the ST (1).

One of the causes of the above translation phenomenon is that the translator might not realise that it was a metaphorical expression or it was because of the translator's translation procedure preference, which is TL-orientated. The use of such a strategy reflects the fact that the translator puts more emphasis on the TL as the translation method (Newmark, 1988).

Metaphorical Coherence: Image Metaphors & Others

In the ST subcorpus, image metaphors tend to co-occur with the journey metaphor as seen in the ST (2a). The use of such metaphors indicates that economics texts partly have a function to explain those concepts in economics through imagery. As seen in ST (2a), three types of metaphor (i.e. UNDERSTANDING IS SEEING; ECONOMIC ACTIVITIES ARE GAMES; IDEAS ARE A JOURNEY) have been simultaneously used in order to support the argument. The journey metaphor with its realisation in the linguistic expression *let's return to our duopolists...* shows a conceptual relationship between the source domain (e.g. *to return home*) and the target domain 'to return to a topic being discussed'. As the main clause, it is supported by a dependent clause in which the other two metaphors have been used. In the case of UNDERSTANDING IS SEEING metaphor, there is a conceptual relation between 'to see something' as in *to see an old friend* and 'to understand an idea'. Moreover, through the game metaphor, the writer wants to convey the meaning 'economic activities are identical to games' (as the target domain) as in ... *to enforce in repeated games* through the source domain 'to play a game' as in *the London Olympics Games 2012*. In other words, the use of such types of metaphor as these three is intended to make a strong argument in the ST (2a), which is coherent in nature.

ST (2a)

CM: UNDERSTANDING IS SEEING; ECONOMIC ACTIVITIES ARE A GAME; IDEAS ARE A JOURNEY
To *see* why cooperation is easier to enforce in repeated *games*, let's *return* to our duopolists, Jack and Jill. [POE]

ST (2b)

CM: UNDERSTANDING IS SEEING; ECONOMIC ACTIVITIES ARE A GAME; IDEAS ARE A JOURNEY
*Untuk **melihat** mengapa kerja sama lebih mudah dicapai dalam **permainan** yang diulang terus-menerus, mari kita **kembali** kepada dua orang pemain duopoli kita, Jack dan Jill.*

BT

To see why collaboration is more easily achieved in repeated games, let's go back to our two duopolists, Jack and Jill.

Based on the comparative method, a comparative analysis involving both the ST (2a) and TT (2b) identifies that the three metaphors have been rendered in Indonesian as metaphors having the same source domain or image. This phenomenon seems to be SL-orientated. In terms of metaphorical coherence, this then creates high level metaphorical coherence in the TT (2b), as in the ST (2a).

Metaphorical Coherence: Building Metaphors & Others

As part of the structural metaphor, building metaphors are generally used to explain certain concept structures in economics through the structure of other concepts. A number of source domain vocabulary, such as *framework, to support, to construct, to set up* and *shaky* are used metaphorically in the ST subcorpus as seen in the ST (3a). Within the context of metaphorical coherence, there are at least three different types of metaphor used in the ST (i.e. image, entity and building metaphors). As the realisation of entity metaphor, the linguistic metaphor *the neoclassical theory provides* embodies a conceptual relation between the source domain (e.g. *they provide translation services*) and the target domain 'any theory should provide a basis for discussion', which is an activity that is normally done by humans. This metaphor is then supported by the other two metaphors (i.e. image and building metaphors). As regards the image metaphor, a cross domain relation has been identified, that is, the relationship between the source domain as in *to see a picture* and the target domain as in *as you will see* 'as you will understand'. In addition, another set of cross domain mappings is also found as in *a steel framework* (as the source domain) and *a framework for this discussion* 'a basis for discussion'. Again, the three types of metaphor do produce a coherent text.

ST (3a)

CM: UNDERSTANDING IS SEEING; Entity metaphor; THEORIES ARE BUILDINGS
As you will *see*, *the neoclassical theory provides* the *framework* for this discussion. [POE]

TT (3b)

CM: UNDERSTANDING IS SEEING; Entity metaphor; THEORIES ARE BUILDINGS
*Seperti yang akan Anda **lihat**, **teori neoklasik menyediakan kerangka kerja** untuk pembahasan ini.*

BT

As you will see, the neoclassical theory provides a framework for this discussion.

As seen in TT (3b), the image metaphor (i.e. UNDERSTANDING IS SEEING) in the ST has been translated into Indonesian in the form of metaphorical expressions where the word *see* which means 'understand' is rendered as *lihat* 'to see something' in the TT. Like the first type of metaphor, the other two metaphors (i.e. entity metaphor and building metaphor) have also been translated into Indonesian by choosing metaphors having the same source domain or image. The three translation procedures are therefore TL-orientated, which leads to strong metaphorical coherence in the TT (3b).

Metaphorical Coherence: HIGH STATUS IS UP *Metaphors & Others*
As highlighted earlier, up-down metaphors belong to the category of orientational metaphor with spatial dimensions i.e. a vertical relationship between the source domain and the target domain (Lakoff & Johnson, 1980), as seen in ST (4a) below.

ST (4a)
CM: HIGH STATUS IS UP; BUSINESSES ARE A JOURNEY
Middle managers must understand the business *goals*, provide leadership to their people so that they achieve the *goals* set, and provide feedback to *board*-level managers about successes and challenges in the market. [MAN)

TT (4a)
CM: HIGH STATUS IS UP; BUSINESSES ARE A JOURNEY
*Para manajer **menengah** harus memahami **sasaran** bisnis (sasaran perusahaan), memberikan kepemimpinan pada orang-orang mereka sehingga mereka dapat mencapai **sasaran** yang ditetapkan, dan memberikan umpan balik kepada para manajer **tingkat dewan** tentang keberhasilan dan tantangan di pasar.*
BT
Middle managers have to understand business goals (company's targets), provide leadership to their own staff so that they can achieve the goals set, and provide feedback to the board level managers about the successes and challenges in the market.

The HIGH STATUS IS UP metaphor in ST (4a) has been rendered into the TL (4b) as the same type of metaphor by employing a translation procedure in which a similar source domain or image has been chosen. In this instance, the source domain vocabulary *middle* (literally: 'between low and high level') becomes *menengah* (literally: 'middle level') and also *board* (literally: 'highest level') becomes *tingkat dewan* (literally: 'director level') in the TT (4b). The same procedure was applied when translating the journey metaphor as part of the ontological metaphor category into Indonesian. This reflects the fact that both the TT (4b) and ST (4a) have a similar level of metaphorical coherence in explaining the concept of manager levels in association with business targets.

Metaphorical Coherence: *Entity Metaphors & Others*
As pointed earlier, entity metaphors (i.e. human and nonhuman entities) belong to the category of ontological metaphors, which are generally used to explain abstract concepts such as activities and emotions by referring to concrete things such as objects, substance, containers or people, as

seen in (5a) where the keyword DEVELOPMENT is used metaphorically along with other types of metaphor (i.e. product and game metaphors).

ST (5a)
CM: TRADE IS AN ENTITY & ECONOMIC SECTORS ARE PRODUCTS & COUNTRIES ARE ENTITIES & ADVANTAGES ARE GAMES & ADVANTAGES ARE ENTITIES
Trade helps countries achieve development by *promoting* and rewarding the sectors of the economy where *individual countries possess* a *comparative* advantage, whether in terms of labor efficiency or factor endowments. *It* also *lets* them take advantage of scale economies. [ED]

ST (5b)
CM: TRADE IS AN ENTITY & ECONOMIC SECTORS ARE PRODUCTS & COUNTRIES ARE ENTITIES & ADVANTAGES ARE GAMES & ADVANTAGES ARE ENTITIES
Perdagangan dapat membantu semua negara *dalam menjalankan usaha-usaha pembangunan mereka melalui* **promosi** *serta pengutamaan sektor-sektor ekonomi yang mengandung keunggulan* **komparatif***, baik itu berupa ketersediaan faktor-faktor produksi tertentu dalam jumlah yang melimpah, atau keunggulan efisiensi alias produktivitas tenaga kerja.* **Perdagangan** *juga* **dapat membantu semua negara** *dalam mengambil keuntungan dari skala ekonomis yang mereka miliki.*

BT
Trade can help all countries in dealing with their development efforts through promotion as well as giving priority to those economic sectors having comparative advantages, either in terms of production factors available in large quantities, or efficiency advantages associated with labour productivity. Trade can also help every country take advantage of their scale economies.

In the case of the ST (5a) translated into the TT (5b), the translator adopted the first translation procedure (i.e. image or the source domain in the SL has been replaced with the same image or source domain) in the TL. The nonhuman entity (i.e. *trade*) in the SL was replaced with the same nonhuman entity in the TL, that is, *perdagangan dapat membantu semua negara* 'trade can do something that humans do'. The applied procedure is more SL-orientated. This translation phenomenon reveals the fact that both the SL and the TL have a higher degree of translatability pertaining to that particular type of conceptual metaphor which then makes the translation task much easier to complete. This indicates that both the TT (5b) and ST (5b) are similar in terms of having strong metaphorical coherence in explaining the concept of manager levels in association with business targets.

To sum up this section, after conducting a series of comparative analyses involving more than 65 instances of metaphorical expressions that were randomly selected representing 19 types of conceptual metaphors in the study corpus (Karnedi, 2011, p. 92), the analyses revealed that the translators preferred to render the SL metaphors as metaphors into Indonesian with a similar source domain or image (46.15%), as opposed to the second procedure in which the source domain or image in the SL was replaced with a standard source domain or image in Indonesian (26.15%).

Unlike the previous translation procedures, the next two translation proceduresrendered the SL metaphors as non-metaphors in Indonesian using the same source domain or image (13.85%) and also a different source domain or image (12.31%). In other words, the SL conceptual metaphors were converted into meaning/sense in Indonesian. Moreover, as a metaphor translation procedure, *deletion* seems to be an unpopular procedure since it was only used once by the translator (1.54 %).

Within the context of English-Indonesian translation, this research shows some empirical evidence that the translators were very much influenced by the SL metaphors and translated them into Indonesian by reproducing the same source domain or image. The translation tasks were slightly easier to complete due to the relatively high level of translatability between the two languages and cultures involved. The higher percentage of reproducing the same source domain or image in the TL (i.e. 46.15%) indicates that the translators adopted the faithful translation method as a translation principle in coping with those conceptual metaphors in branches of economics (Newmark, 1988). However, the statistics on the other four translation procedures prove that greater emphasis is placed on the Indonesian as the TL (i.e. 53.85%). This means that the communicative method is actually applied by the translators.

Conclusion

The use of metaphorical coherence in branches of economics discourse written in English does not only make the concepts in those branches less abstract but also creates stronger arguments. The realisation of metaphorical coherence in economics (i.e. micro- and macroeconomics), in particular, tend to be richer compared to the other two branches (i.e. economic development and management). This metaphor manifestation can be understood because economics as part of the social sciences is rich in concepts. To help readers understand those concepts easily, a set of categories and types of conceptual metaphor having different CMs have been chosen by the ST writer, either consciously or unconsciously.

From the ST writer's point of view, the use of metaphorical coherence in branches of economics proves to be helpful as it is one of his/her own strategies to make the discourse concerned easier for readers to understand. However, when the translators rendered a series of those conceptual metaphors into Indonesian, translation problems were inevitable. In other words, the metaphorical coherence in the ST posed challenges to the translators when rendering it into the TL.

The causes of such problems vary, and are either linguistic-based (i.e. structural and system differences between the SL and the TL) or pragmatics-based (i.e. external contextual factors having effects on successful communication through translation process) or even cultural (i.e. long-practiced conventions in a particular community). One of them refers to the fact that the translators might not realise the existence of conceptual metaphors, or even metaphorical coherence in the ST being translated. If this were the case, the conceptual metaphors in the ST would then be translated as non-metaphors, and this is considered a 'bad translation', rather than 'wrong translation'.

Another cause of translation problems comes from the fact that the SL and the TL do not always share similar images (i.e. the source domain) of a particular concept (i.e. the target domain). Above all, the translators need to adopt appropriate translation strategies (i.e. translation ideology, translation methods and translation procedures and/or translation techniques). In terms of metaphorical coherence (a set of conceptual metaphors), the appropriate selection of translation procedures operating at the micro level is a must.

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References
Al-Hasnawi, A. R. (2007). A cognitive approach for translating metaphors. *Translation Journal*, 11, 3.
Backhouse, R. E. (1994). *New Directions in Economic Methodology*. London: Routledge.
Baker, M. (1992). *In Other Words: A Coursebook on Translation*. London: Routledge.
Baker, M. (1995). Corpora in translation studies: An overview and some suggestions for future research. *Target,* 7, 2, 223−243.
Baker, M. (1996). Corpus-based translation studies: The challenges that lie ahead. *Terminology, LSP and Translation*, 175−186.
Barcelona, A. (2003). *Metaphor and metonymy at the crossroads: A cognitive perspective*. Berlin: Mouton de Gruyter.
Boers, F. (2000). Enhancing metaphoric awareness in specialized reading. *English for Specific Purposes,* 19, 137-147.
Bowker, L., & Pearson, J. (2002). *Working with Specialized Language: A Practical Guide to Using Corpora*. London: Routledge.
Caballero, R. (2007). Metaphor in culture: Universality and variation. *Metaphor and Symbol, 22*(1), 109−118.
Cameron, L. (2002). Metaphor in science education: A discourse focus. *British Educational Research Journal,* 28, 5, 637−674.
Charteris-Black, J., & Ennis, T. (2001). A comparative study of metaphor in Spanish and English financial reporting. *English for Specific Purposes,* 20, 3, 249−266.
Croft, W., & Cruse, D. A. (2004). *Cognitive Linguistics*. Cambridge: Cambridge University Press.
Dobrzyńska, T. (1995). Translating metaphor: Problems of meaning. *Journal of Pragmatics* 24, 595−604.
Deignan, A. (2005). *Metaphor and Corpus Linguistics*. Amsterdam/ Philadelphia: John Benjamins.
Goatly, A. (1997). *The Language of Metaphors* (1st ed.). London: Routledge.
Goatly, A. (2011). *The Language of Metaphors* (2nd ed.). London: Routledge.
Hatim, B., & Mason, I. (1990). *Discourse and Translator*. London: Longman.
Henderson, W. (1986). Metaphors in economics. In M. Coulthard (Ed.), *Talking about Text*: *Studies Presented to David Brazil on his Retirement* (pp. 109–27). Birmingham: English Language Research, University of Birmingham.
Henderson, W. (1994). Metaphor and economics. In R. E. Backhouse (Ed.), *New Directions in Economic Methodology* (pp. 343–367). London: Routledge.
Johnson, M. (1995). Introduction: Why metaphor matters to philosophy. *Metaphor and Symbolic Activity,* 10, 3, 157–162.
Karnedi (2011). A cognitive approach to metaphor translation: A case study of translating an economics textbook from English into Indonesian**.** *Lintas Bahasa Translingua,* 15, 1, 63–98.
Katan, D. (2004). *Translating Cultures: An Introduction for Translators, Interpreters and Mediators*. Manchester: St. Jerome Publishing.
Knowles, M., & Moon, R. (2006). *Introducing Metaphor*. London: Routledge.
Kövecses, Z. (2002). *Metaphor: A Practical Introduction*. Oxford: Oxford University Press.
Kövecses, Z. (2005). *Metaphor In Culture: Universality and Variation*. Cambridge: Cambridge University Press.

Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago, IL: University of Chicago Press.

Lakoff, G. (1993). The contemporary theory of metaphor. In A. Ortonoy (Ed.). *Metaphor and Thought (2nd ed.)*. (pp. 202–251). Cambridge: Cambridge University Press.

Lee, D. (2001). *Cognitive Linguistics: An Introduction*. Victoria: Oxford University Press.

Lörscher, W. (2005). The translation process: Models and problems of its investigation. *Meta,* 50, 2, 597−608.

Malmkjær, K. (2010). *The Routledge Linguistics Encyclopedia (3rd ed.)*. London: Routledge.

Martin, J.R. & Rose, D. (2003). *Working with Discourse: Meaning beyond the Clause*: *Through Context, Beyond the Cause*. London: Open linguistics series.

McClosekey, D. N. (1994). The rethoric of economics. In D. M. Hausman (Ed.). *The philosophy of economics*. Cambridge: Cambridge University Press.

Newmark, P. (1982). *Approaches to Translation*. Oxford: Pergamon.

Newmark, P. (1988). *A textbook of Translation*. Hertforshire: Prentice Hall International (UK) Limited.

Nord, C. (1997). *Translation as a Purposeful Activity*. Manchester: St. Jerome.

Olohan, M. (2004). *Introducing Corpora in Translation Studies.* London: Routledge.

Samaniego Fernandex, E. (2002). Translator's English-Spanish metaphorical competence: Impact on the target system. *ELIA*, 3, 203–218.

Schäffner, C. (2004). Metaphor and translation: Some implications of a cognitive approach. *Journal of Pragmatics*, 36, 1253–1269.

Scott, M. (2001). Comparing corpora and identifying key words, collocations, frequency distributions through the Wordsmith tools suite of computer programs. In M. Ghadessy, A. Henry, & L. Roseberry (Eds.). *Small Corpus Studies and ELT*, 47–67. Amsterdam: Benjamins.

Scott, M. (2008). *WordSmith tools 5.0*. Oxford: Oxford University Press.

Shuttleworth, M., & Cowie, M. (1997). *Dictionary of Translation Studies*. Manchester: St. Jerome Publishing.

Stefanowitsch, A. (2006). Corpus-based approaches to metaphor and metonymy. *Trends in Linguistics: Studies and Monographs*, 171, 1−16.

Stienstra, N. (1993). *YHWH is the Husband of His People: Analysis of a Biblical Metaphor with Special Reference to Translation*. Kampen: Kok Pharos.

Travers, M. (2001). *Doing Qualitative Research through Case Studies*. London: Sage.

Venuti, L. (1993). Translation as cultural politics: Regimes of domestication in English. *Textual Practice,* 7, 2, 208–223.

White, M. (2003). Metaphor and economics: The case of growth. *English for Specific Purposes,* 22, 2, 131–151.

Williams, J., & Chesterman, A. (2002). *The MAP: A Beginner's Guide to Doing Research in Translation Studies*. Manchester: St. Jerome Publishing.

Zanettin, F. (2000). Parallel corpora in translation studies: Issues in corpus design and analysis. In M. Olohan (Ed.). *Intercultural Faultlines: Research Models in Translation Studies: Textual and Cognitive Aspects*. Manchester: St Jerome.

Texts used for corpus and examples (and abbreviations used)

[ED] Todaro, M. P., & Smith, S. C. (2003) *Economic Development (8ᵗʰ ed.)*. Boston: Addison Wesley.

[MAN] Robbins, S. P., & Coulter, M. (2003). *Management, (7th ed.)*. New Jersey: Prentice Hall.

[POE] Mankiw, N. G. (2003). *Principles of Economics, (3rd ed.)*. USA: South-Western.