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Searching for Cross-Domain Mappings in the Corpus: an Analysis of Conceptual Metaphors' Usage Patterns in Farsi

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Abstract

In this study, corpus method was used to test an assumption of Conceptual Metaphor Theory (CMT) that systematic and conventionally fixed metaphorical expressions have literal meaning in the source domain. The conceptual metaphors LIFE IS A JOURNEY and IDEAS ARE PLANTS were selected for analysis and three keywords from source domain of the metaphors were chosen and matched with their English equivalents. Hamshahri 2 collection of Farsi texts was selected as the corpus of the study. For ease of processing, one third of the corpus comprising of fifty million word tokens was randomly sampled as the working corpus. Collocates of the source-domain keywords, as realizations of fixed metaphoric expressions, were extracted using AntConc software and their concordances were examined. It was found that 1) in conventionally fixed metaphorical expressions, when source-domain keywords were used metaphorically they had collocates that rarely appeared with the same source-domain keywords used literally, and 2) source-domain keywords had gradable degrees of metaphoricity. The findings were interpreted as suggesting that the meaning of fixed metaphoric expressions may not be systematically connected to the metaphor's source-domain meaning.

Keywords: Conceptual Metaphor Theory; Conventionality; Corpus linguistics; Mutual information; Collocation.

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1. Introduction

Conceptual Metaphor Theory (CMT), also known as cognitive theory of metaphor, is one of the foundational theories of cognitive science in general and cognitive linguistics in particular which gives metaphor a unique stance in structuring human thought and cognition and goes beyond its literary aesthetics. The cognitive approach to metaphor is based on the thesis of embodied cognition (Johnson, 1987) which considers the role of body and experience primary in shaping thought, meaning, and abstract concepts in human mind. In the CMT, one concept belonging to the source domain[1] of metaphor and usually an abstract one is understood in terms of another concept, usually more concrete and belonging to the target domain of metaphor. When a connection is established between source and target domains, it is said that there is a mapping between source and target domains. Hence according to this theory, when there is a mapping between domains, concepts from source domain are used to partially understand concepts of target domain. For example, in the expression *a long time,* it is said the word *long* belongs to the source domain of SPACE[2] which has been used to describe the abstract concept of TIME. In other words, the domain of space has been mapped into the domain of time.

Lakoff and Johnson (2003) have systematically analyzed English expressions and have revealed their underlying conceptual metaphors. Some of the key assumptions of the CMT reflected in the work of Lakoff and Johnson are: 1) Conceptual metaphors function at the level of thought and cognition, and metaphoric language is a realization of this metaphoric structure of thought. Therefore, the role of metaphoric language is secondary compared to metaphoric thought. 2) Systematic metaphors differ from unsystematic ones. "Expressions like *wasting time, attacking positions, going our separate* ways, etc., are reflections of systematic metaphorical concepts that structure our actions and thoughts. They are "alive" in the most fundamental sense: they are metaphors we live by. The fact that they are conventionally fixed within the lexicon of English makes them no less alive" (p. 55). These metaphors are systematic in that words like *attack, position, and defend* belong to the source domain of WAR, but they are used systematically in the domain of ARGUMENT.

During the past decades, some scholars have challenged the method used by CMT suggesting that the theory and its assumptions are traditionally based on intuitive metaphor analysis method (Kövecses, 2011). There are also researchers that criticized the theory's method from corpus linguistic perspective suggesting that invented examples do not reflect native speakers' language use patterns (Deignan, 2008). In the context of these criticisms, it is unclear how CMT aligns itself with corpus evidence.

The current study attempts to examine one of the important assumptions of CMT under the light of Farsi corpus data. To state

[1] Metaphors establish a connection between two conceptual domains: Source and Target. Source-domain concepts are usually thought to be more concrete /familiar which are used to talk or think about less concrete/ familiar target domain concepts.

[2] Following the CMT's convention, conceptual metaphors (as mental constructs) as well as their source and target domains will be written in capitals.

explicitly, we are interested to see whether there is corpus evidence for the existence of systematic relationship between the corpus meanings of conventional metaphoric expressions and their corresponding source-domain meanings (systematicity assumption). To answer this question, two conceptual metaphors namely LIFE IS A JOURNEY and IDEAS ARE PLANTS were selected and for each metaphor three source-domain keywords were specified and searched for in the corpus. Using mutual information measure, significant collocates of the source-domain keywords (as operationalized definition of conventionally fixed metaphoric expressions) were extracted and their concordances were examined. It is hypothesized if a systematic relationship holds between source domain and target domain concepts, usage patterns of collocations in the corpus will be distributed evenly between metaphorical and literal uses.

In the next section, the most relevant work on corpus studies of metaphor will be reviewed. Then in the Method section the theoretical concepts will be operationalized and empirically testable hypotheses based on CMT's assumptions will be formulated. In the Analysis and Results section, the collocational analyses of some selected metaphoric keywords will be presented. Finally the results of the corpus analyses and the implications to the CMT will be discussed.

2. Relevant Work

Lakoff and Johnson (2003) seem to have used invented or elicited expressions to investigate their underlying conceptual metaphor, as they have not explicitly mentioned how the linguistic expressions have been arrived at. Using intuition-based linguistic data in language analyses have been criticized by cognitive psychologists on one hand (Gibbs, 2006) and cognitive linguists (Grondelaers et al., 2006) on the other hand. It has also been shown that one's intuitions, realized as invented or elicited expressions from informants, about language could be unreliable predictor of natural language use (Sinclair, 1991).

In usage-based linguistics (e.g. Bybee, 2010), language is studied in its original context of use. Language corpora which are large collection of texts can be a reliable source of original language use. Deignan (2005: 85) enumerates three advantages of corpus-based method over intuition: 1) the limitations of human memory mean that a computer is far better equipped to both store and search large amounts of text; 2) Corpus linguists have found that human beings are not good at describing their own language production (Sinclair, 1991). This seems strange; we must all have a stock of typical word meanings, collocations and grammatical patterns in order for us to produce natural-sounding language, yet for some reason we are unable to access this knowledge out of context performing endlessly repetitive tasks swiftly and accurately; 3) Any one speaker will not know all the words of their language and their meanings in use.

Using corpus-based methods in studying conceptual metaphors is considered relatively recent (see Deignan, 2005, 2006, 2008; Golshaie, R., Golfam, A., Assi. S. M., & Aghagolzadeh, F., 2014; Golshaie & Golfam, 2015; Steen et al., 2010; Stefanowitsch & Gries, 2006; Svanlund, 2007). For example, Deignan (2005) has studied grammatical, semantic and collocational properties of

linguistic metaphors and has concluded that CMT cannot fully account for linguistic and semantic patterns found in metaphoric expressions. Further her research findings show that some instances of linguistic metaphors are not only rare in the corpus, but also non-conventional semantically. For example, she uses American section of Bank of English corpus to study lexical items identified by Yu (1995) as realizations of ANGER IS HEAT conceptual metaphor. Deignan (2005: 95) cites the following expressions that were used by Yu:

- These are *inflammatory* remarks.
- She was doing a show *burn.*
- He was breathing *fire.*
- Your insincere apology has added *fuel to the fire.*
- After the argument, Dave was *smoldering* for days.
- Boy, am I *burned up.*
- *Smoke* was pouring out of his ears.

She finds out that "while some of Yu's linguistic metaphors are frequent, others do not occur at all in the corpus. Inflammatory and smoldering both occur regularly with meanings they have in Yu's examples but metaphorical breath/e/ed/es/ing fire occurred only once in 1,000 citations of fire. Fuel and its inflections collocate with fire as a linguistic metaphor just three times in 10,000 citations of fire… There are no instances of burned+up with the meaning of 'be very angry'. Smoke appears within eight words either side of ears only twice in the entire American corpus, with a literal meaning in each case" (p. 95). These findings suggest that what are considered conventional metaphors by some researchers, may turn out to be rare or nonexistent in the corpus.

Sanford (2010) studies the effect of frequency of use on the representation, productivity and processing of English metaphoric expressions. He shows that frequency of use as a language use factor affects the representation of conceptual metaphors and that frequent linguistic metaphors are more accessible and acceptable than infrequent ones. Sanford's findings, as he concludes, do not contradict the idea that conceptual metaphors are mental non-linguistic structures, but it takes a more dynamic and interactive position on humans' cognitive system and conceptual metaphors, i.e. metaphoric schemata are formed and supported by the processing and use of metaphoric expressions and these metaphoric expressions have direct inputs into the conceptual system.

Another topic in corpus-based studies of metaphor is what is termed mixed metaphors. Mixed metaphors are defined as metaphoric expressions which belong to different conceptual domains but used adjacently. Kimmel (2010) studies mixed metaphors in two British newspapers Sun and The Guardian in a 14-month period from 2004 to 2005. According to his findings, mixing metaphors in journalistic texts is very common. Based on the corpus findings, he argues that conceptual metaphors are not devices for preserving coherence operating as logical structures in text, but they operate at a local level.

In another corpus-based study, Svanlund (2007) has studied "weight"-related metaphoric expressions in Swedish language and has concluded that the metaphoric strengths of different metaphoric expressions which have WEIGHT as their source domain are not the same. He concludes that conceptual metaphors should

be seen as cognitive tendencies and not systematic structures that govern the semantics of a group of lexical items. These cognitive tendencies are themselves affected by lexical conventionalization patterns. Svanlund, based on his corpus observations, predicts that conventional metaphoric expressions would not activate the source-domain representations as strongly as novel metaphors do. This prediction has also been stressed in the Career of Metaphor hypothesis (Bowdle & Gentner, 2005). This hypothesis maintains that metaphoric expressions are understood by structure-mapping between source and target domain representations. However, as metaphors are conventionalized by frequent use, the mode of processing shifts from comparison to categorization. As a result, dead metaphors whose source and target domains have lost their connection are the end product of this process.

Building on the previous research, we will attempt to evaluate systematicity of conventional metaphoric expressions in Farsi language using corpus-based method. In the next section, operationalization of CMT assumptions and the method used for extraction and analysis of source-domain keyword patterns have been elaborated.

3. Method

In order to test the systematicity assumption of CMT, it had to be operationalized. According to CMT, the meaning of systematic metaphoric expressions is understood by mapping the target domain concepts into source-domain counterparts. In fact, it can be understood that fixed words or expressions that are used in the target domain of metaphors, have also literal usages. As put by Lakoff and Johnson (2003: 265), "[m]etaphorical language has literal meaning in the source domain". This point has also been noted by Deignan (2005: 37) from a corpus linguistic perspective: "[a] metaphor is regarded as systematic if there is corpus evidence that one or more collocates from the same source domain are also used metaphorically, in the same target domain". This is reasonable because if a metaphorical expression is not used in its literal meaning it will become a dead metaphor. For instance, the word comprehend (derived from Latin comprehendre "to get") is considered a dead metaphor because it is not used in its literal meaning anymore (Lakoff & Turner, 1989: 129). Thus, it is predicted that fixed and conventional metaphorical expressions to have similar metaphorical and literal usage patterns in the corpus. Conventional metaphorical expressions were further operationalized in terms of collocations (words that co-occur more often than would be expected by chance) of the source-domain keywords. In other words, since conventional metaphorical expressions are fixed by convention, they can be found in the corpus by searching for collocational patterns of the source-domain keywords.

To address the research question, the conceptual metaphors IDEAS ARE PLANTS, and LIFE IS A JOURNEY were selected for analysis. They are among the most discussed metaphors in the literature. In the next stage, some keywords associated with the conceptual metaphors were selected to be searched for in the corpus. Farsi source-domain keywords were selected based on their English equivalents already studied in the literature and then they were searched in the Google to make sure they had both literal and metaphorical usages.

Farsi keywords and their English equivalents are given in Table 1.

Table 1. Source Domain Keywords for the Conceptual Metaphors IDEAS ARE PLANTS and LIFE IS A JOURNEY in English and Farsi.

Conceptual Metaphors	English Keywords - Farsi Equivalent	Farsi Script
IDEAS ARE PLANTS	*flowering – shokoufaee*	شکوفایی
	fruit(s)–samar(aat)	ثمر(ات)
	branch(es) – shaakhe(ha)	شاخه(های)
LIFE IS A JOURNEY	*deviation– enheraaf*	انحراف
	up and down – faraaz-o nashib	فرازونشیب
	fork – doraahi	دوراهی

The corpus used in the study was Hamshahri 2 Farsi text collection developed by the Database Research Group (DBRG) at the University of Tehran (AleAhmad et al., 2009). Hamshahri 2 is a collection of newspaper texts (with cultural, social, political, scientific, etc. topics) collected from 1996 to 2007 comprised of nearly 150 million word tokens. For ease of processing, a random number of documents consisting of 50 million word tokens were selected as the working corpus of this study.

The keywords were studied in the context of their collocates within a window of ±3 words using AntConc software (Anthony, 2011). AntConc is capable of calculating collocations based on T-score and MI (mutual information) measures. MI indicates the strength of collocation, while T-score indicates certainty of collocation (Hunston, 2002). To obtain significant collocations, collocates of the source-domain keywords ranking high based on both MI and T-score measures were considered as appropriate. After extracting significant collocates from the corpus, concordance lines of the instances were studied and their metaphorical and literal meanings were counted. In some cases there were instances the meanings of which were irrelevant to the metaphorical mapping under analysis. These cases were removed from analysis and only the frequency of metaphorical and literal meanings were counted.

4. Analyses and Results

4.1. IDEAS ARE PLANTS

Ideas can undergo changes and transformations and these changes are often conceptualized in terms of more concrete models in the world such as growth of plants. The formation of this conceptualization in the mind of people facilitates the way people understand abstract nature of ideas. The keywords selected for this domain were *shokoufâyi* (شکوفایی"flowering"), *samar(ât)* (ثمر(ات) "fruit(s)"), *shâkhe(hâ)* (شاخه(ها) "branch(es)"). Google searches for the Farsi keywords showed that they are used in both literal and metaphorical meanings. Some instances of Google search results and their English translations are given in 1-3 below.

(1a)	**In the late March or early April, people await the TV weathermen to forecast the time of flowering of cherry trees in every city. (Japanese embassy in Iran)** **در اواخر ماه مارس یا اوایل ماه آوریل همه مشتاقانه به انتظار پیشگویی هواشناسان تلویزیون درباره روز شکوفایی درختان گیلاس در هر شهر می‌نشینند. (وبگاه سفارت ژاپن در ایران)**
(1b)	Whenever in the history the appropriate social philosophy for the development has emerged, we have witnessed the flowering of science and technology. (Mehrnews, 89/8/6) در تاریخ هر گاه فلسفه اجتماعی مساعد توسعه فراهم شده است، شاهد شکوفایی علم و فناوری بوده‌ایم. (مهرنیوز، ۸۹/۸/٦)
(2a)	The municipality should clear the power lines from intruding branches of trees. (Mehrnews, 91/7/22) شهرداری نسبت به پاکسازی حریم‌های شبکه برق از شاخه‌های درختان اقدام کند. (مهرنیوز، ۹۱/۷/۲۲)
(2b)	We have ranked 1st in some scientific branches (disciplines) in the region, and in general our scientific branches are competing with the region's first rank country. (Dananews, 88/2/14) ... در برخی شاخه‌های علمی رتبه نخست منطقه را به‌دست آورده‌ایم و در مجموع شاخه‌های علمی نیز با کشور نخست منطقه رقابت تنگاتنگی دارد. (دانانیوز، ۸۸/۲/۱٤)
(3a)	Some of Mazandarani gardeners say that the pest called "Mediterranean fly" has caused severe damage to garden fruitage… (Jam-e Jam Online, 90/7/26) شماری از باغداران مازندرانی می‌گویند که آفت مگس مدیترانه‌ای تاکنون به بشخی از ثمرات باغی آنها خسارت وارد کرده است... (جام جم آنلاین، ۹۰/۷/۲٦)
(3b)	In the first half of the 20th century, middle east countries were not exposed to benefits of technology that caused them miss the fruits of science and technology. (Hamshahri Online, 82/2/31) در نیمه اول قرن بیستم کشورهای خاورمیانه در معرض سودهای ناشی از فناوری قرار نگرفتند که در نتیجه این کشورها از ثمرات علوم و فناوری بهره‌ای نبرده‌اند. (همشهری آنلاین، ۸۲/۲/۳۱)

After making sure that source-domain keywords are used in literal and metaphorical meanings, the significant collocates of the keywords were extracted from Hamshahri 2 corpus and concordances of the collocations were further studied. Table 2 summarizes the results of the analysis for the keyword *shokoofâyi*.

Table 2. Collocates of the Source Domain Keyword *Shokoufaee* ("Flowering") with Its Metaphorical/Literal Frequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
shokoufaee ***شکوفایی***	*roshd_*	رشد	"growth"	116	116	0
	_estedaadhaaye	استعدادهای	"talents of"	93	93	0
	*zamine_*	زمینه	"ground"	54	54	0
	_estedaadhaa	استعدادها	"talents"	66	66	0
	*shaahed_*	شاهد	"witness"	25	25	0
	*dowraan_*	دوران	"age"	25	25	0
	*owj_*	اوج	"peak"	23	22	1
	*jahat_*	جهت	"in order to"	20	20	0
	_bishtar	بیشتر	"more"	22	22	0
	_farhangi	فرهنگی	"cultural"	30	30	0
				Total = 474	473(100%)	1(0%)

The examination of the first ten significant collocates of the keyword *shokoofâyi* in Table 2 indicates that all of the uses of this word in the corpus is metaphorical. There is only one instance of literal use for the collocation *owj-e shokoofâyi* ("the peak of the flowering"). This observation suggests that the keyword has almost completely lost its literal use in the corpus. The next keyword belonging to the source domain of PLANTS is *shâkhe(hâ)*. Table 3 summarizes results for the collocations found in the corpus for the keyword *shâkhe(hâ).*

Table 3. Collocates of the Source Domain Keyword *Shaakhe/Haa* ("Branch/Es") with Its Metaphorical/Literal Frequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
shaakhe/haa ***شاخه/ها***	*_mokhtalef*	مختلف	"different"	30	30	0
	_gol	گل	"flower"	32	0	32
	_oloum	علوم	"sciences"	23	23	0
	_derakhtaan	درختان	"trees"	21	0	21
	_derakht	درخت	"tree"	12	0	12
	_gounaagoun	گوناگون	"various"	10	10	0
	_riyaazi	ریاضی	"mathematics"	9	9	0
	*taqsim-shodan_*	تقسیم(شدن)	"(be)divided"	6	6	0
	_zeytoun	زیتون	"olive"	6	0	6
	*		-	-	-	-
				Total = 149	78 (52%)	71 (48%)

*Since the frequency of the 10th collocate dropped below 5, only nine collocates were analyzed.

The data in Table 3 shows that literal and metaphorical meanings of the keyword *shâkhe(hâ)* is distributed evenly among its collocates. In fact, literal senses of the keyword are found where it collocates with the words *gol* ("flower"), *derakht(ân)* ("tree/s"), and *zeytoon* ("olive"). On the other hand, metaphorical uses of the keyword *shâkhe(hâ)* has been mainly observed in the domain of science, such as: *shâkhehâ-ye oloom* ("branches of science"), and *shâkhehâ-ye riyâzi* ("branches of mathematics"). Whenever the keyword is collocated with the words meaning "various" or "different", it has been used in metaphorical sense. The last keyword of the conceptual metaphor IDEAS ARE PLANTS is *samar(ât)* ("fruit(s)") collocates of which has been provided in Table 4.

Table 4. Collocates of the Source Domain Keyword *samar/aat* ("fruit/s") with its Metaphorical/Literalfrequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
samar/aat ***ثمر/ات***	*_aan*	آن	"that"	15	15	0
	_enqelab	انقلاب	"revolution"	19	19	0
	_barakaat	برکات	"blesses"	12	12	0
	_nataayej	نتایج	"results"	6	6	0
	_roshd	رشد	"growth"	6	6	0
	_khoubi	خوبی	"good"	6	6	0
	_mohem	مهم	"important"	5	5	0
	_mosbati	مثبت	"positive"	5	5	0
	_football	فوتبال	"football"	5	5	0
	_ziyadi	زیادی	"more"	5	5	0
				Total =84	84 (100%)	0 (0%)

In Table 4, it can be observed that the overall frequency of the keyword *samar(ât)* is low in the corpus. Distribution of the senses also shows that all of the uses of the keyword *samar(ât)* in the context of its collocates are metaphorical. The analysis of its usage patterns shows that *samar(ât)* is no longer used with its source-domain meaning "fruit" but with the meaning of "result" and "advantage".

Concluding this section, it is argued that the keywords belonging to the source domain of the conceptual metaphor IDEAS ARE PLANTS are not consistently systematic. Of the three keywords examined for this metaphor, the keyword *shâkhe(hâ)* shows comparable degrees of metaphorical and literal uses. Although this keyword is used in metaphorical and literal senses in the corpus, its collocational uses are either metaphorical or literal. In fact, every collocation of the keyword is used uniquely in metaphorical or literal sense not both. This finding can be interpreted as suggesting that conventionally fixed expressions that have metaphorical uses are almost not used in literal sense.

4.2. LIFE IS A JOURNEY

Another conceptual metaphor studied in this paper is LIFE IS A JOURNEY. The source domain of JOURNEY is formed in the mind due to movement in the physical world. Since humans' life has a beginning and an end, our understanding of LIFE is conceptualized to be a movement on a path that has a start and a final point. The motion on the path (journey) can be slow or fast or it can have many up and downs and obstacles. The experiential correlation between living and moving (especially in pre-modern era) is the root of this metaphor across the cultures. The keywords chosen for this metaphor were: *enherâf* ("deviation"), *farâz-o nashib* ("up and down"), and *dorâhi* ("fork"). Before searching for their collocates, the keywords were looked up in the Google to be certain of their metaphorical and literal uses. Instance 4-6 are from Google:

(4a)	**The cause of Tabas accident was announced to be the crossover of one of the buses. (Farsnews, 89/7/1)** **علت سانحه طبس انحراف به چپ یکی از اتوبوس‌ها اعلام شد. (فارس‌نیوز، ۸۹/۷/۱)**
(4b)	Personal harms that may cause students to go astray from their right direction include: ... (Hamshahri Online, 89/9/15) آسیب‌های فردی که ممکن است موجب انحراف دانشجو از مسیر اصلی‌اش شود عبارتند از:... (همشهری آنلاین، ۸۵/۹/۱۵)
(5a)	After travelling on a road with lots of ups and downs, they arrived to a farm. (Hamshahri Online, 91/2/23) آنها پس از مدت طولانی که جاده پرفرازونشیب را طی کردند، به مزرعه‌ای رسیدند. (همشهری آنلاین، ۹۱/۲/۲۳)
(5b)	Ayatollah Seyyed Mahmoud Alayi Taleqani had a turbulent (up and down) life and was jailed repeatedly during his fight against the previous regime. (Khabar Online, 91/6/18) آیت‌الله سید محمود علایی طالقانی، معروف به مجاهد نستوه در ابوذر زمان، زندگی پرفرازونشیبی را طی کرد و در راه مبارزه با رژیم گذشته بارها به زندان افتاد. (خبرآنلاین، ۹۱/۶/۱۸)

(6a)	For initial investigations, a team consisting of firefighter and red crescent divers went to the location where the incident happened that was somewhere near the Dizin-Chalus junction (fork). (Hamshahri Online, 88/5/14) تیمی از غواصان آتش‌نشانی و هلال احمر برای بررسی‌های اولیه به محل حادثه که جایی در دوراهی دیزین-چالوس بود رفتند (همشهری آنلاین، ۸۸/۵/۱٤)
(6b)	"Ta'bir Khaab" is a story of a policeman who is experiencing many up and downs in the life and encounter a very important dilemma (fork). (Khabar Online, 91/7/10) «تعبیر خواب» روایتگر زندگی یک پلیس است؛ مردی که زندگی شخصی پرفراز و نشیبی دارد و در همین حین در دوراهی انتخابی مهم قرار می‌گیرد. (خبر آنلاین، ۹۱/۷/۱۰)

Google results 4-6 clearly show that the three selected keywords *enherâf* ("deviation"), *farâz-o nashib* ("up and down"), and *dorâhi* ("fork") have been used in metaphorical and literal sense. For detailed examination, the collocates of these keywords were searched in the corpus. Table 5 provides the significant collocates of the keyword *enherâf* found in the corpus.

Table 5. Collocates of the Source Domain Keyword *Enheraaf* ("deviation") with its Metaphorical/Literal Frequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
enheraaf ***انحراف***	*_chap*	چپ	"left"	94	0	94
	_masir	مسیر	"path"	48	27	21
	*adam_*	عدم	"lack of"	29	29	0
	_afkaar	افکار	"thoughts"	33	33	0
	_ejtemaaee	اجتماعی	"social"	25	25	0
	_omoumi	عمومی	"general"	32	32	0
	*dochaar_*	دچار	"afflicted"	30	29	1
	*mojeb_*	موجب	"cause"	29	27	2
	*jelogiri_*	جلوگیری	"prevent"	28	28	0
	*baa'es_*	باعث	"cause"	22	19	3
				Total =370	249 (67%)	121 (33%)

The examination of significant collocates for the keyword *enherâf* in Table 5 shows that the keyword has been mainly used in metaphorical sense (67%) in the corpus. The literal sense has been used with collocates *chap* ("left"), *masir* ("path"), *dochâr* ("afflicted"), *mojeb* ("cause"), *bâ'es* ("cause"). The last three collocates can be classified under the semantic field of causation suggesting that a cause has been responsible for the deviation from a path. As can be seen in Table 5, these collocates has been mainly used with metaphorical meaning but their literal uses are still available. In conclusion, it can be suggested that only the collocational pattern *enherâf [az] masir* ("deviation from the path") is used almost equally with metaphorical and literal meanings. Other collocates have been mainly used either in metaphorical or literal sense.

The second keyword of the metaphor LIFE IS A JOURNEY is *farâz-o nashib* ("up and down"). Table 6 summarizes the significant collocates of the keyword found in the corpus.

Table 6. Collocates of the Source Domain Keyword *Faraaz-o Nashib* ("up and down") with its Metaphorical/Literal Frequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
faraaz-o nashib ***فرازونشیب***	*zendegi_*	زندگی	"life"	28	28	0
	*por_*	پر	"full of"	30	29	1
	_khod	خود	"oneself"	32	32	0
	*taarikh_*	تاریخ	"history"	32	32	0
	*saal_*	سال	"year"	23	23	0
	*gozashte_*	گذشته	"past"	24	24	0
	_iraan	ایران	"Iran"	18	18	0
	*dowraan_*	دوران	"period"	17	17	0
	*daaraa-ye_*	دارای	"to have"	15	15	0
	*raah_*	راه	"way"	11	11	0
				Total =230	229 (100%)	1 (0%)

The data in Table 6 shows that the keyword *farâz-o nashib* has almost been used metaphorically in the corpus. There was one case where in collocation with *por* ("full of") the keyword has been used in its literal meaning. It is interesting to note that the most frequent collocate of this keyword is *zendegi* ("life") which belongs to the target domain of the metaphor. The remaining collocates that have metaphorical uses mainly belong to the semantic domain of time. It is also worth mentioning that the keyword in collocation with *râh* ("way") has been completely used in metaphorical sense. In sum, the keyword *farâz-o nashib* has almost lost its connection to the source domain of the metaphor and has acquired the metaphorical meaning of "difficult".

The last keyword belonging to the conceptual metaphor LIFE IS A JOURNEY is *dorâhi* ("fork"). Since the frequency of the keyword was low in the corpus, the number of significant collocates found for this keyword in the corpus was only 6 cases. Table 7 summarizes the extracted collocates together with their metaphorical and literal frequencies.

Table 7. Collocates of the Source Domain Keyword Doraahi ("Fork") with its Metaphorical/Literal Frequencies of Use.

Keyword	Collocate		Meaning	Frequency	Metaphorical	Literal
doraahi ***دوراهی***	*bar sare_*	برسر	"on the"	73	72	1
	*qarrar_*	قرار	"to be"	43	43	0
	*yek_*	یک	"a"	16	15	1
	_entekhaab	انتخاب	"selection"	8	8	0
	_ Qolhak	قلهک	"Qolhak"	5	0	5
	_Roudhen	رودهن	"Roudhen"	5	0	5
				Total =150	138 (92%)	12 (8%)

The data in Table 7 shows that the keyword *dorâhi* is inclined to have metaphorical meanings in the corpus. The metaphorical uses are mainly formed around the meaning of "dilemma" in decision making. There are also instances that have been used literally, i.e. when the keyword has been used to point to specific road junctions like Qolhak and Roodhen. In short, the balance between metaphorical and literal uses of the keyword in the corpus is tipped in favor of the metaphorical uses (92%). That means

although the keyword still has literal uses in the corpus, the metaphorical meaning is likely to be associated with the core meaning of the keyword.

5. Discussion

The collocational analyses of the source-domain keywords from LIFE IS A JOURNEY and IDEAS ARE PLANTS showed that high-ranking collocations of keywords are not distributed evenly between literal and metaphoric senses of the keyword; i.e. every collocation is either dominantly literal or metaphorical. This can be interpreted as suggesting that conventionality of metaphoric expressions is strongly associated with a fixed form and also a fixed meaning. This fixed meaning is usually metaphorical that means the expression as a whole has lost its connection with the metaphor's source domain. Thus, given that systematicity was defined in terms of source and target domain uses of conventional metaphoric expressions, corpus evidence does not support the claim that conventionally fixed metaphoric expressions are systematic.

The results also show that different source-domain keywords examined in this study do not enjoy the same degree of metaphoricity. For instance, in the IDEAS ARE PLANTS metaphor, keywords shokoofâyi ("flowering") and samar(ât) ("fruit(s)") are almost completely used in their metaphorical sense; the other keyword shâkhe(hâ) ("branch(es)") is used in both literal and metaphorical sense. This observation is not predictable by CMT since the source domain has been depicted in the theory as if it is a homogenous single stratum category, whereas it may be more appropriate to conceive it as having a prototypical structure (see Rosch & Mervis, 1975), i.e. some members of a category could be more central or more peripheral than other members of that category. In the case of our data, a keyword like shâkhe(hâ) ("branch(es)") with equal literal and metaphorical uses is more central to the source domain of PLANT than the keywords shokoofâyi ("flowering") or samar(ât) ("fruit(s)") with completely metaphorical uses. It is also worth mentioning that although a keyword like shâkhe(hâ) ("branch(es)") is used both literally and metaphorically in the corpus, it is still not considered a systematic metaphoric expression since its source-domain collocates are not used metaphorically in the target domain and vice versa.

The findings of the present study are in line with those of Deignan (2005) who suggests that there are two opposing forces shaping linguistic form of metaphors. One force is to innovatively create and establish metaphoric mappings between domains to understand abstract concepts which is best explained by CMT. The other force is rooted in humans' need to communicate effectively and unambiguously and associate established meanings with specific forms. It can be suggested that it is the second force that could be seen responsible for this study's finding: that collocations of source-domain keywords are either dominantly metaphorical or literal. In fact the collocations in which source-domain keywords appear, force the keywords to have a particular literal/metaphoric sense and the collocational pattern as a whole is conventionally used with that particular sense. We can take all these as evidence suggesting that linguistic realizations of

metaphors and their semantic patterns are not fully predictable by conceptual metaphors. This shouldn't be interpreted as questioning or dismissing contributions of CMT in discovering underlying mechanisms of human thought and cognition. This simply means it would be unrealistic to come up with a theory of metaphoric language without taking in to account language use factors and dismissing minute linguistic patterns detectable only by systematic corpus analyses.

6. Conclusion

In this study an important assumption of Conceptual Metaphor Theory, namely systematicity assumption, was investigated based on corpus data. The assumption was that conventional metaphorical expressions have literal meaning in the source domain. In other words, conventional metaphorical expressions are systematically used both in literal and metaphorical meanings. Two conceptual metaphors, namely LIFE IS A JOURNEY and IDEAS ARE PLANTS were selected for analysis and three source-domain keywords were chosen for each metaphor. The source-domain keywords were looked up in a 50 million token corpus for their significant collocates. After examining the significant collocations, literal and metaphorical uses of the keywords were counted and their metaphorical and literal sense were compared. The results indicated that conventionally fixed metaphorical expressions (collocations) that have metaphorical meaning in the target domain are rarely used with literal meaning in the source domain. Future follow-up investigations are necessary to validate the conclusions that can be drawn from this study.

References

[1] AleAhmad, A., Amiri, H., Darrudi, E., Rahgozar, M., & Oroumchian, F., (2009). Hamshahri: A Standard Persian Text Collection. *Journal of Knowledge-Based Systems, 22*(5), 382-387.

[2] Anthony, L., (2011). AntConc (Version 3.2.2.1) [Computer Software]. Tokyo, Japan: Waseda University. Available fromhttp://www.antlab.sci.waseda.ac.jp/antconc_index.html

[3] Bowdle, B. F., & Gentner, D., (2005). The Career of Metaphor. *Psychological Review, 112*, 193-216.

[4] Bybee, J., (2010). *Language, Usage and Cognition*. New York: Cambridge University Press.

[5] Deignan, A., (2005). *Metaphor and Corpus Linguistics.* Amsterdam: John Benjamins Publishing Company.

[6] Deignan,A., (2006). The Grammar of Linguistic Metaphors. In A. Stefanowitsch & S. T. Gries (Eds.), *Corpus-Based Approaches to Metaphor and Metonymy* (pp. 106-122). Berlin: Mouton de Gruyter.

[7] Deignan, A., (2008). Corpus Linguistics and Metaphor. In R. W. Gibbs (Ed.), *The Cambridge Handbook of Metaphor and Thought* (pp. 280-294). Cambridge: Cambridge University Press.

[8] Gibbs, R. W., (2006). Why cognitive linguists should care about empirical methods? In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson & M. Spivey (Eds.), *Methods in Cognitive Linguistics* (pp. 2-18). Amsterdam: John Benjamins Publishing Company.

[9] Golshaie, R., Golfam, A., Assi, S.M., Aghagolzadeh, F., (2014). A corpus-

basedevaluation of conceptual metaphor theory's assumptions: the case of ARGUMENT IS WAR metaphor in Persian. *Language Related Research, 5*(1), 223-247.

[10] Golshaie, R. and Golfam, A., (2015). Processing conventional conceptual metaphors in Persian: A corpus-based psycholinguistic study. *Journal of Psycholinguistic Research, 44*(5), 495-518.

[11] Grondelaers, S., Geeraerts, D., & Speelman, D., (2006). A case for a Cognitive Corpus linguistics. In M. Gonzalez-Maruqez, I. Mittelberg, S. Coulson & M. Spivey (Eds.), *Methods in Cognitive Linguistics* (pp. 149-169). Amsterdam: John Benjamins Publishing Company.

[12] Hunston, S., (2002). *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.

[13] Johnson, M., (1987). *The Body in the Mind: The Bodily Bases of Meaning, Imagination, and Reason*. Chicago: The University of Chicago Press.

[14] Kimmel, M., (2010).Why we mix metaphors (and mix them well): Discourse coherence, conceptual metaphor, and beyond. *Journal of Pragmatics, 42*, 97–115.

[15] Kövecses, Z., (2011). Methodological Issues in Conceptual Metaphor Theory. In: Handl,S. and H-J. Schmid (eds.), *Windows to the Mind: Metaphor, Metonymy and Conceptual Blending*. Berlin and New York: Mouton de Gruyter. 23–39.

[16] Lakoff, G. & Johnson, M., (2003). *Metaphors We Live By.* London: The University of Chicago Press.

[17] Rosch, E., & Mervis, C., (1975). Family resemblances: Studies in the internal structures ofcategories. *Cognitive Psychology*, 7, 573-605.

[18] Sanford, D., (2010). Figuration and Frequency: A Usage-based Approach to Metaphor. Ph.D. dissertation, The University of New Mexico, New Mexico.

[19] Sinclair, J. (1991). *Corpus, Concordance, Collocation.* Oxford: Oxford University Press.

[20] Steen, G., Dorst, A., Herrmann, J. B., Kaal, A., Krennmayr, T., & Pasma, T., (2010). *A Method for Linguistic Metaphor Identification: From MIP to MIPVU*. Amsterdam: John Benjamins Publishing Company.

[21] Stefanowitsch, A., & Gries, S. T., (Eds.). (2006). *Corpus-Based Approaches to Metaphor and Metonymy.* Berlin: Mouton de Gruyter.

[22] Svanlund, J., (2007). Metaphor and Convention. *Cognitive Linguistics, 18*(1), 47-89.

[23] Yu, N., (1995). Metaphorical Expressions of Anger and Happiness in English and Chinese. *Metaphor and Symbolic Activity, 10*, 59–92.

ویژه‌نامهٔ زبان‌شناسی

در جست‌وجوی نگاشت‌های بین حوزه‌ای در پیکره: تحلیلی از الگوهای کاربرد استعاره‌های مفهومی در زبان فارسی

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چکیده

هدف از این پژوهش به‌کارگیری روش پیکره‌ای برای بررسی این فرض در نظریه استعاره مفهومی است که عبارات ثابتِ استعاریِ نظام‌مند و متعارف دارای معنای لفظی در حوزه مبداء هستند. برای این منظور، دو استعاره‌ی مفهومی «زندگی به‌مثابه سفر» و «ایده‌ها به‌مثابه گیاهان» و سه کلیدواژه از حوزه مبدا این استعاره‌ها برای تحلیل انتخاب و با معادل انگلیسی‌شان تطبیق داده شدند. پیکره فارسی همشهری ۲ به‌عنوان پیکره پژوهش انتخاب شد. به‌منظور سهولت پردازش، یک سوم از این پیکره که متشکل از حدود ۵۰ میلیون کلمه بود به‌طور تصادفی نمونه‌گیری شد و به‌عنوان پیکره‌ی جستجو مورد استفاده قرار گرفت. همایندهای سه کلیدواژه‌ی حوزه مبدا به‌عنوان نمود عبارات استعاری ثابت و متعارف با استفاده از نرم‌افزار پیکره‌ای AntConc استخراج شدند و فهرست واژه‌نمای آنها بررسی شد. نتایج نشان دادند که ۱) در عبارات استعاری ثابت و متعارف، هنگامی که کلیدواژه‌های حوزه مبدا در معنای استعاری به‌کار گرفته می‌شوند، دارای هم‌آیندهایی هستند که به‌ندرت با همان کلیدواژه‌ها در کاربرد لفظی به‌کار رفته‌اند، و ۲) کلیدواژه‌های حوزه مبدا دارای درجات متفاوتی از معنای استعاری هستند. این یافته چنین تفسیر شدند که معانی عبارات استعاریِ ثابت به‌طور نظام‌مند با معانی حوزه مبدا استعاره مرتبط نیستند.

واژه‌های کلیدی: نظریه استعاره مفهومی، زبان فارسی، زبان‌شناسی پیکره‌ای، اطلاعات متقابل، باهم‌آیی

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