

## **The Development of Conceptual Fluency & Metaphorical Competence in L2 Learners**

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### **Abstract**

Conceptual fluency (CF) and metaphorical competence (MC) have interested many L2 researchers. Leading the front is Danesi (1992, 1995, 2003) who contends that metaphorical language cannot afford to be ignored by L2 curricula anymore. His push is to instill in L2 learners a more functional communicative competence. This article reports on a study to scrutinize the development of CF and MC in Persian students of English. First, a group of language students (95 freshmen, 92 sophomores, 139 juniors, and 90 seniors) were tested to see whether they were conceptually and metaphorically competent, and the results showed they were almost bereft of such a competence, and the analysis of their writings uncovered low metaphorical density. The findings corroborated Danesi's (1992) claim: L2 learners do *not* necessarily develop CF and MC after several years of study. Then, the juniors partook in the study in which they were exposed to the metaphorical language of English. The posttest results were indicative that they had developed their CF and MC, and their written discourse was almost as metaphorically dense as that of natives. The data implied it is possible to develop CF and MC in a classroom. Finally, the data indicated that there is a relationship between CF and MC.

**Key Words:** Metaphor, Conceptual Fluency, Metaphorical Competence, Verbal Fluency, Metaphorical Density, Metaphorical Sentence

### Introduction

In recent years, an emerging theme in SLA has been the degree to which L2 learners acquire the capacity to express themselves in the TL using culturally appropriate figurative language (Danesi, 1994). While this ability to generate metaphors in the TL might not appear to be essential to self-expression on the face of it, it is becoming ever more palpable that the more we fathom about language, thought, and cognition, the more we find ourselves challenged with the weighty task of trying to define, explain, and understand *metaphors*.

Most attempts in Second Language Teaching (SLT) have been directed towards the enhancement of *linguistic* and *communicative competences*. We have almost been successful in training L2 learners to have a good command of grammar and communication; however, there is something still not quite *kosher* in the actual L2-learner discourse—something that goes beyond grammatical and communicative proficiency, i.e., something that cannot be explained in precisely grammatical and/or communicative terms (Danesi, 1992). While L2-learner discourse might show a high degree of *verbal fluency*, it invariably seems to lack the conceptual appropriateness that typifies that of natives. That is L2 learners *speak* or *write* with the formal structures of the TL but *think* in terms of their L1 conceptual system: L2 learners usually apply TL words and structures as *carriers* of their own L1 concepts. When these accord with the ways in which concepts are structured in the TL, then the L2-learner texts coincide serendipitously with culturally appropriate texts; when they do not, their texts manifest an asymmetry between language form and conceptual content. What L2-learner discourse typically lacks is *conceptual fluency* (CF). Danesi(1992) claims that *metaphorical competence* (MC) is as crucial as the linguistic and communicative competences since it is tightly linked to the ways in which a culture organizes its world conceptually. Not only thinking and acting are based on this conceptual system, but in large part communication as well. The programming of discourse in metaphorical ways is an integral trait of native-speaker competence.

### Definition of Terms

Since the mid-1980s, the practice has been to use *metaphor* to refer to the study of all figurative language and to consider the other tropes as particular kinds of metaphor (Danesi, 2003). *Verbal fluency* is defined as the grammatical and communicative abilities of an L2 learner: The ability to produce grammatically and communicatively appropriate discourse in an L2. *Conceptual fluency* is the ability to use and comprehend the conceptual concepts of a given language. To be *conceptually fluent* in a language is to know how that language reflects or encodes its concepts on the basis of metaphorical structuring. *Metaphorical competence* is the ability to comprehend and use metaphors in a given language as used in natural discourse. *Metaphorical density* refers to the total number of metaphors divided by the total number of sentences multiplied by 100. A *metaphorical sentence* is a token or instantiation of the underlying culturally appropriate conceptual system. Any sentence comprising a metaphorical or figurative language (e.g., metaphor, idiom, and simile) is taken as a *metaphorical sentence*.

### Statement of the Problem

Although SLA researchers (e.g., Cook, 1993; Ellis, 1986, 1994) tell us a lot about how L2 learners acquire an L2, they are almost silent on metaphors and idioms, unlike their teacher-training colleagues, who are full of good ideas (e.g., Danesi, 1992; Lindstromberg, 1991). According to Winner (1982), the experimental literature indicates that if “people were limited to strictly literal language, communication would be severely curtailed if not terminated.” Why should such an obviously ubiquitous dimension of language use be almost ignored by our field? Is it because grammatical theories have traditionally regarded metaphor as cumbersome, and we are hung up on grammatical theory? Or, is it because metaphor is seen primarily as a literary device, so of peripheral interest to most L2 learners? Whatever the reason, if metaphorical language is as prevalent in everyday language as the frequency counts suggest, then presumably mastery of the forms and functions of the conventional repertoire constitutes an important part of what it means to

know a language. And by extension, the successful acquisition of an L2 will entail the development of a *new* repertoire of metaphorical language (Danesi, 1992, 2003).

Among L2 learners, there is an assumption that no real fluency is possible in an L2 unless the learner spends some time in the TL setting. Almost every L2 learner traveling in the TL country has experienced a certain kind of disappointment which is the result of not conveying meaning the same way as natives do, i.e., using wrong or nonnative-like constructions, phrases, and words. What these learners lack most is CF which means knowing how the TL reflects or encodes its concepts on the basis of metaphorical structuring (Danesi, 1992) and other cognitive mechanisms (Kövecses & Szabó, 1996). L2 learners with low level of CF will never sound native-like. Research suggests that, at least, a certain portion of the human mind is *programmed* to think metaphorically (Lakoff & Johnson, 1980; Lakoff, 1987; Johnson, 1987; Danesi, 1992). Metaphor probably underlies the representation of a considerable part of our common concepts. It is not at the margin of language; rather, as Harris (1981) convincingly argues, it “is at the very heart of everyday mental and linguistic activity.” Gibbs (1994), in surveying the psycholinguistic literature on figurative language, demonstrates that in appropriate contexts people more often process the metaphorical properties of a message than they do its so-called literal meaning. Metaphors are, therefore, an equal, if not more important, feature of communicative interaction (Lantolf & Thorne, 2006).

The lack of awareness of metaphorical concepts often leads L2 learners to render a metaphorical expression in the L2 by using an analogous counterpart of their L1. So, the meaning of a word or sentence is frequently translated literally by activating the L1 concept owing to a lack of knowledge of all possible meanings a word or expression could have: The concept from the L1 is simply translated into the L2 or vice versa. Since “metaphor is the main mechanism through which we comprehend abstract concepts and perform abstract reasoning” (Lakoff, 1993), teaching should make L2 learners aware of the L2 conceptual system. Also, L2 learners should be encouraged to make use of

metaphorical language, “to produce and comprehend metaphors as tools of communication and thought” (Stight, 1979).

Lantolf (1999) proposed that learning an L2 from the perspective of culture entails much more than complying with the behavioral (linguistic and otherwise) patterns of the host culture. He argues that it is about the appropriation of cultural models, including conceptual metaphors, and therefore entails the use of meanings as a way of (re)mediating our psychological and, by implication, our communicative activity. Kecskes and Papp (2000) argue that if learners acquire grammatical and communicative knowledge but fail to develop conceptual knowledge in a new language, their language use will be significantly different from that of natives. Danesi (1993) concurs with this observation in commenting that even if students develop high levels of communicative proficiency but continue to think ‘in terms of the native conceptual system’ using L2 words and structures to carry their own L1 concepts, they may be understood, but their discourse may be inappropriate or marked. Boers (2000) proposes a less ambitious goal in arguing for the need for learners to develop ‘metaphor awareness’ in the L2 so that they will, at least, be able to “organize the steady stream of figurative language they are exposed to.” Likewise, Littlemore (2001) suggests that “the ability to interpret metaphors quickly in conversation can be a crucial element of interaction.”

Mastery of appropriate use of metaphorical expressions in an L2 has been acknowledged as one of the greatest challenges facing L2 learners. Empirical investigations of L2 figurative language use have been guided mainly by pedagogical concerns about the appropriate use of humor (Deneire, 1995; Schmitz, 2002), irony, sarcasm, idioms (Cooper, 1999), metaphor (Danesi, 1992), and other forms of figurative expressions in an L2 context. Despite the amount of research done on CF and MC, little research has been done, to the best of our knowledge, to see if Persian students majoring in English in Iran develop CF and MC after four years of studying English. The study examined to what extent L2 learners understood and produced metaphors in English, and it analyzed the MD of their written discourse. It also sifted whether CF and

MC could be developed in a classroom setting. Moreover, the study investigated to see whether there was any relationship between CF and MC.

### **Literature Review**

For most people, *metaphor* is a device of the poetic imagination and the rhetorical flourish, a matter of extraordinary rather than ordinary language; it is by and large taken as typical of language alone, a matter of words rather than thought or action; and most people assume they can get along well without metaphor. But, metaphor is pervasive in everyday life, not just in language but also in thought and action. Lakoff and Johnson (1980) define *metaphor* as a process by which we conceive “one thing in terms of another, and its primary function is understanding.” Metaphors provide a means for understanding something abstract in terms of something concrete. They are not just ‘poetic’ but rather determine ‘usage’ in our language: These metaphors inform normal ways of talking about life situations. Our ordinary conceptual system, in terms of which we both think and act, is basically metaphorical in nature (Lakoff & Johnson, 1980).

But this conceptual system is not something we are normally aware of. In most of the little things we perform every day, we simply think and act more or less automatically along certain lines. What these lines are is by no means well-defined. One way to find out is by looking at language. Since communication is based on the same conceptual system that we use in thinking and acting, language is a significant source of evidence for what that system is like. Primarily in line with linguistic evidence, Lakoff and Johnson (1980) assert that most of our ordinary conceptual system is metaphorical in nature. Metaphors as linguistic expressions are possible precisely because there are metaphors in a person’s conceptual system. The conceptual system is a model of reality upon which is based every aspect of human symbolic behavior: Our social organizations, religious beliefs, figurative arts, and language are rooted in it in some essential way. The analysis of language is particularly illuminating since language is our primary means of communication.

The study of metaphor and its relation to language and cognition took on a new direction in the 1980's with the publication of Lakoff and Johnson's *Metaphors We Live By* (1980) and with the further development of their ideas later in the decade (Lakoff, 1987; Johnson, 1987). Their basic contention is that metaphors are not merely an embellishment of language or a rhetorical device, but rather metaphors and the capacity to *metaphorize* are a fundamental aspect of human cognition: Human perception and behavior is governed by and mediated through a non-linguistic conceptual system which is fundamental in how we organize and understand our percepts, thoughts, and consequently, reality.

Beck (1982) saw that the conceptual system described by Lakoff and Johnson has potential applications in education, especially in language study and in cultural understanding. Recently, Danesi (1986, 1989, 1992, 1994, 1995, 2003) has applied this view of language and thought to the field of SLT and SLA. He contends that in order to fully learn a language, we must also have the ability to access and encode our expressions according to the conceptual system in which that language is rooted. This *neglected dimension* in L2 pedagogy is called MC: When L2 learners have attained a native-like MC, it may be said they are conceptually fluent. Danesi contends that to date, teaching practice has not imparted this ability to L2 learners. *Conceptual Fluency Theory* holds that underlying any given linguistic system is a conceptual system which serves as the basis not only for language but also for cognitive functioning in general: We speak, think, perceive, and interpret the world in terms of our conceptual system. In acquiring another language, therefore, L2 learners must express themselves in the TL while utilizing the L2 conceptual system in order to express themselves in a truly native-like fashion. To be conceptually fluent is to be able to take part in a target culture perception of the physical and social world and to interact with it like a native.

Figurative language competence has aroused the interest of a number of L2 researchers. Leading the front are Danesi (1992, 1995) and Johnson and Rosano (1993), who state that metaphors and idioms

should not be ignored by L2 curricula any longer. Their push is to instill in L2 learners a more *functional communicative competence* over a traditional formal competence. Danesi (1995) argues that L2 learners do not reach the fluency level of a native speaker until they have knowledge of “how that language ‘reflects’ or ‘encodes’ concepts on the basis of metaphorical reasoning.” Other L2 researchers interested in CF have investigated formulaic expressions (Kecskes, 2000; Wray, 2003), phrasal verbs (Matlock & Heredia, 2002) and idioms (Bortfeld, 2002; Cooper, 1999).

## **Methodology**

### **Participants**

First, 139 juniors majoring in English were randomly chosen from three universities, the rationale of which was to have a sample which was representative of the population. They were assigned to three groups, the rationale of which was to have homogeneous learners in each group. Before the study, their MC was assessed by a teacher-made test, comprising metaphors, idioms, and the like. Also, 187 other participants, as a comparison group, were tested for their MC: 95 freshmen, 92 sophomores, and 90 seniors. Moreover, 23 natives of English were asked to write a paragraph each, and the MD of their writings was examined.

### **Materials**

Specifically designed to tap into the participants' MC, the pretest ( $r=.89$ ) comprised two sections: One on the comprehension and the other on the production of metaphorical language. The posttest ( $r=.83$ ) was designed to appraise the juniors' CF and MC, in terms of comprehension and production of metaphors as well as comprehension of a handful of L2 conceptual metaphors. And the Oxford Placement Test (OPT) was used to assign the juniors to the three groups mentioned above.

One of the books selected for instruction was *Idioms Organiser* (1999), the rationale of choosing which was to expose the juniors to



some L2 conceptual metaphors, out of which were born some 206 metaphors and idioms. The other book was *136 American English Idioms* (2004). Also, 10 imaginative stories were retrieved from the Internet, each of which focused on certain metaphors and idioms, breeding some 210 metaphorical expressions. Moreover, some quizzes on idiomatic language, producing some 295 idioms and expressions, were given to the juniors during the program.

## Procedures

### Phase One

The 139 juniors who had enrolled in a course, meeting for 90 minutes, once a week, for 16 consecutive weeks, were assigned to the aforementioned three groups and were given a pretest to check their MC. As for the MD of their written discourse, they were required to write one paragraph each before launching the study and one after the study.

As for the *instruction* of metaphorical language, they were initially given some idea of what *conceptual metaphors* are, and how it is possible to generate innumerable metaphors and idioms out of such concepts. To give some idea of what it could mean for a concept to be metaphorical and for such a concept to structure an everyday activity, the researcher exemplified with the concept **ARGUMENT** and the conceptual metaphor **ARGUMENT IS WAR**. This metaphor is reflected in English by a wide variety of expressions:

#### ARGUMENT IS WAR METAPHOR

- *Your claims are **indefensible**.*
- *He **attacked** every weak point in my argument.*
- *His criticisms were right **on target**.*
- *I **demolished** his argument.*
- *I've never **won** an argument with him.*

The juniors were reminded that we do not just talk about *arguments* in terms of *wars*. We can actually win or lose arguments. We see the person we are arguing with as an opponent. We attack his position and defend our own. If we find a position indefensible, we can abandon it and take a new line of attack. Many of the things we do in *arguing* are partially structured by the concept of *war*. Though there is no physical battle, there is a verbal battle, and the structure of an argument reflects this. It is in this sense that the **ARGUMENT IS WAR** metaphor is one that we live by in English: It structures the actions we perform in *arguing*. It is not that *arguments* are a subspecies of *wars*. *Arguments* and *wars* are different kinds of things—verbal discourse and armed conflict—and the actions performed are different kinds of actions. But *arguments* are partially structured, understood, performed, and talked about in terms of *wars*. The concept, the activity, and language are metaphorically structured. Moreover, this is the ordinary way of having an *argument* and talking about one.

As for *Idioms Organizer*, each unit opens with a conceptual metaphor such as **THE OFFICE IS A BATTLEFIELD**. Initially, the juniors were instructed that there are two concepts here: One is an abstract concept *office*, and another is a concrete one *battlefield*. Next, the literal meanings of the words coming from the concrete concept were examined in various sentences. Regarding the domain of *battlefield*, there are words like *to stab*, *to command*, and *sight*. When it comes to talking about *office*, the same words could be used metaphorically: *To stab sb. in the back*, *one's second in command*, and *to set one's sights*. After examining the literal meanings of the words from concrete domains, they were to study the various metaphors and idioms generated from such domains. They were to look up the meaning of the metaphorical language if needed, fill in the exercises with such language, write their own metaphorical sentences and apply them in communicative activities in the classroom, and finally write one paragraph for each unit, encouraged to use the metaphors and idioms in their writings.

Regarding *136 American English Idioms*, the juniors were to learn 10 idioms for each session. Each idiom is put in an authentic context, along with its definition and an illustration to help L2 learners grasp the meaning. They were to write their own metaphorical sentences and were encouraged to involve in communicative activities in the classroom, harnessing the assimilated metaphors and idioms.

As to the *stories*, each student had a copy of a story for each session. Each text had the story with the metaphors and idioms in bold, followed by blank spaces. The students were to read each story, look up the meaning of the metaphorical language, fill in the gaps provided for the meanings of the metaphors, and come to the class loaded for bear. Also, a number of *quizzes* were given to the juniors from time to time, most of which were in the form of fill-in-the-blank exercises. They were to do the exercises, find the meanings of the expressions and idioms, and come to the classroom prepared. In the classroom, the exercises were done individually, and the potentially problematic meaning areas were eradicated.

### **Phase Two**

The other 187 participants (95 freshmen, 92 sophomores, and 90 seniors) were also tested for their MC. They were compared to the juniors in order to see whether MC develops after 4 years of study. Also, they were required to write a paragraph each in order to assess the MD of their written discourse. Moreover, in order to have a criterion for the MD of native-speaker written discourse, 23 natives were asked to write a paragraph each and the MD of their writings was calculated.

### **Data Analysis**

#### **Phase One**

As shown in Table 1, the juniors were assigned to three groups. The assignment was based upon their mean scores obtained from the OPT:

**Table 1**  
**The OPT Results for the Juniors**

Groups	N	Mean	Std. Deviation
1	48	47.64	4.80
2	43	57.74	1.84
3	48	66.31	3.92
Total	139	57.21	8.65

In order to see the probable effect of the treatment, the scores from the pretest and posttest were statistically analyzed. The results in Table 2 all show there is a significant difference between the means of the two performances of the above groups:

**Table 2**  
**Matched T-Test for the Juniors**

Groups	Pre-Test Vs. Post-Test Sections	Paired Differences			T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error of Mean			
1	Comprehension	67.18	10.20	1.47	45.6	47	.000
	Production	20.22	10.26	1.48	13.6	47	.000
	Total Scores	87.54	18.19	2.62	33.3	47	.000
2	Comprehension	73.11	10.05	1.53	47.6	42	.000
	Production	28.20	10.67	1.62	17.3	42	.000
	Total Scores	101.58	19.35	2.95	34.4	42	.000
3	Comprehension	76.08	11.52	1.66	45.7	47	.000
	Production	31.85	9.97	1.44	3	47	.000
	Total Scores	107.93	20.19	2.91	22.1	47	.000
					37.0		

In order to see whether there was any relation between CF and MC, the scores from the third section of the posttest (Conceptual Fluency Section) were compared with the total scores of the Comprehension and Production Sections and statistically analyzed. Table 3 shows there is a moderate relationship between CF and MC:

**Table 3**  
**Correlation between CF & MC**

Groups			Conceptual Fluency	Metaphorical Competence
1	Conceptual Fluency	Pearson Correlation Sig. (2-tailed)	1.000	.524**
		N	48	.000 48
	Metaphorical Competence	Pearson Correlation Sig. (2-tailed)	.524**	1.000
		N	.000 48	48
2	Conceptual Fluency	Pearson Correlation Sig. (2-tailed)	1.000	.374**
		N	43	.013 43
	Metaphorical Competence	Pearson Correlation Sig. (2-tailed)	.374**	1.000
		N	.013 43	43
3	Conceptual Fluency	Pearson Correlation Sig. (2-tailed)	1.000	.621**
		N	48	.000 48
	Metaphorical Competence	Pearson Correlation Sig. (2-tailed)	.621**	1.000
		N	.000 48	48

### Phase Two

In order to see whether L2 learners at various levels develop MC, the scores from the test given to the freshmen, sophomores, juniors, and seniors were compared and subjected to statistical operations. Since there seemed to be a difference in mean scores of the participants, the data was further subjected to statistical analysis and Table 4 shows there is a difference between the four groups ( $F = 96.45$ ,  $df = 3$ ,  $\alpha = 0.05$ ,  $p = 0.00$ ):

**Table 4**  
**One-Way ANOVA for All the Participants**

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	4154.375	3	1384.79	96.45	.000
Within Groups	3259.062	412	14.35		
Total	7413.437	415			

In order to see which of the groups was different, the data was subjected to post hoc analysis, and Table 5 (see the Appendix) and Table 6 below show the *Freshmen Group* was different:

**Table 6**  
**Homogeneous Groups**

Groups		N	Subset for alpha = .05	
			1	2
Tukey	Freshmen	95	27.70	
	Sophomores	92		39.51
	Juniors	139		40.23
	Seniors	90		40.30
	Sig.		1.000	.803
Duncan	Freshmen	95	27.70	
	Sophomores	92		39.51
	Juniors	139		40.23
	Seniors	90		40.30
	Sig.		1.000	.399

### Phase Three

Before discussing the MD of the written discourse in this study, it should be mentioned that in order to guarantee maximum inter-rater reliability, each paragraph was examined by three independent raters for its MD, and the average metaphorical density (AMD) of each paragraph was finally calculated.

In order to examine the MD of all the participants' written discourse, they were asked to write a paragraph each. Then, the AMD of their written discourse was statistically compared. Table 7 shows there

was a difference among the four groups ( $F = 11.12$ ,  $df = 3$ ,  $\alpha = 0.05$ ,  $p = 0.00$ ):

**Table 7**  
**One-Way ANOVA for All the Participants**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.131	3	4.36	11.12	.000
Within Groups	.891	412	3.92		
Total	1.022	415			

In order to see which of the above groups was different, the data was subjected to post hoc analysis, and Table 8 (see the Appendix) and Table 9 below show the *Seniors Group* was different:

**Table 9**  
**Homogeneous Groups**

Groups		N	Subset for alpha = .05	
			1	2
Tukey	Freshmen	95	6.61	
	Sophomores	92	7.97	
	Juniors	139	8.00	
	Seniors	90		.1472555
	Sig.		.769	1.000
LSD	Freshmen	95	6.61	
	Sophomores	92	7.97	
	Juniors	139	8.00	
	Seniors	90		.1472555
	Sig.		.367	1.000

In order to see whether the MD of the seniors' writings had approached that of the natives, the AMD of their writings was compared with that of the natives. Table 10 shows there was a significant difference between the two groups ( $t = -3.71$ ,  $df = 23$ ,  $\alpha = 0.05$ ,  $p = .001$ ):

**Table 10**

## Independent-Samples T-Test

	Levene's Test for Equality of Variances		T-Test for Equality of Means				
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variances Assumed	34.465	.000	-4.25	111	.000	-33.13	5.44
Not Assumed			-3.71	23.34	.001	-33.13	6.15

As mentioned before, the juniors were asked to write two paragraphs: One before the study and one after the study. In order to see if there was any significant difference between the MD of their two writings, the results were subjected to statistical analysis, and Table 11 shows there was a significant difference between the means of their two writings:

**Table 11**  
AMD of the Written Discourse by the Juniors

Groups	The Juniors' Writings	Paired Differences			T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error of Mean			
1	AMD (Before & After the Study)	-.4079	.10639	1.5	-26.56	47	.000
2	AMD (Before & After the Study)	-.4046	9.30	1.4	-28.52	42	.000
3	AMD (Before & After the Study)	-.4220	.10669	1.5	-27.40	47	.000

Moreover, in order to make sure whether the MD of the juniors' second writings had approached that of the natives, the AMD of their second writing was compared with that of the natives. Table 12 shows



that there was *not* a significant difference between the two groups ( $t = .561$ ,  $df = 159$ ,  $\alpha = 0.05$ ,  $p = .575$ ):

**Table 12**  
**Independent-Samples T-Test**

	Levene's Test for Equality of Variances		T-Test for Equality of Means				
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variances Assumed	.307	.580	.561	160	.575	1.31	2.34
Equal Variances Not Assumed			.550	29.30	.585	1.31	2.39

### Discussions & conclusions

Recent research has found that L2 learners of high grammatical proficiency will not necessarily show concomitant pragmatic skills. Some scholars explained non-native-like production by the lack of CF and MC in the TL (Kecskes, 1999; Danesi, 1992, 2003). Previous research on CF (Danesi, 1992, 1993; Russo, 1997) suggests that L2 learners show virtually no traces of CF after many years of study. The results of this are indicative that L2 learners do not develop CF and MC after several years of study. The findings also suggest that MC, even at the level of comprehension, is inadequate in L2 learners. The reason for this is not that they are incompetent to learn the conceptual system of L2, but rather they have never been exposed to the conceptual system of the TL in formal or systematic ways. At this stage of the game, Danesi (2003) claims, there seems to be very little in L2 methodology which takes CF and MC into account in any orderly fashion.

However, the findings here indicate that it *is* possible to enhance L2 learners' CF and MC in a classroom setting. By systematically taking L2 conceptual concepts and their metaphorical realizations into account and

incorporating them in L2 textbooks and methodology, we believe it is possible to boost this crucial aspect of L2 proficiency in L2 learners.

Although the juniors did not know beans about metaphorical language before the study, they *did* develop their CF and MC after the study was over: Not only did they produce and understand discourse that was conceptually and metaphorically appropriate in English, they also produced writings which were as metaphorically dense as those of natives. So, the data backs up Danesi's (1992) claim that MC is the neglected dimension in SLA and SLT. Also, it implies it is feasible for us practitioners to systematically incorporate metaphors in L2 syllabus, and in this way to make L2 learners aware of the conceptual system of the TL and to encourage them to apply metaphorical language in their everyday language use.

As for the MD of the L2 learners' written discourse, what could be gleaned from the data here is that vis-à-vis natives, the L2 learners had little or no access to the conceptual system of English. That was why their written discourse showed a high degree of literalness, i.e., the L2 learners knew almost nothing about thinking conceptually and writing metaphorically after four years of studying English. This finding corroborates Danesi's (1992) argument that L2 learners learn almost no *new way* of thinking conceptually after several years of study in a classroom.

Specifically, the juniors were asked to write two pieces of writing: One before the study and another after the study. The data vividly revealed that the MD of their second written discourse was much higher than that of their first one. This finding once more probably reinforces the idea that it is possible to boost L2 learners' CF and MC in a classroom setting. The comparison of their second writings with those of the natives made plain that they could produce written discourse which was as metaphorically dense as that of the natives. Once again, the data probably substantiates the notion that it is possible to build up L2 learners' CF and MC via systematic ways and in an orderly fashion.

Research suggests that at least a certain portion of the human mind is *programmed* to think metaphorically (Lakoff & Johnson, 1980; Lakoff, 1987; Johnson, 1987; Danesi, 1992). According to Danesi (1992), MC is a basic feature of native-speaker discourse because natives usually program discourse in metaphorical ways. At this point, however, Valeva's criticism (1996) of Danesi's approach appears to be correct. She argued against the reduction of CF to MC: MC is a very important part of CF, but it would be a mistake to equate MC with CF (Kecskes, 1999). The findings here bear out Valeva's claim. CF and MC are related, but the relationship is not a causal one. It could be inferred there is a *moderate* relationship between CF and MC at the outside.

The importance of developing CF has been emphasized in other contexts in a number of research reports. These studies suggest that CF (including MC) can be developed in the classroom if students are taught about the underlying cognitive mechanisms. Valeva (1996), however, thinks that the issue of *learnability* should be investigated before facing the question of *teachability*, and it is still an open question whether the conceptual system of an L2 is learnable or not in a classroom setting (Kecskes, 1999). The findings here imply that CF and MC could be developed in a classroom setting. To be precise, it is conceivable to expose L2 learners to the conceptual concepts of the L2, teach them about these concepts, expose them to the TL metaphorical language, and sensitize them to such concepts and such language during the process of L2 learning.

Danesi (1992) has claimed that metaphor is the *neglected dimension* in SLT and SLAR. The findings here imply that it is all plain sailing to integrate metaphorical language in L2 syllabus and methodology, and we might witness the day that L2 learners would develop not only their linguistic and communicative competences but also their metaphorical competence. Danesi (1992) asserts that MC must be extracted from the continuum of discourse and held up for L2 learners to study and practice in ways that are analogous to how we teach them grammar and communication. The data here corroborates his assertion, given that MC was treated autonomously in this study. In a

nutshell, the data makes evident that L2 learners do not develop CF and MC *by osmosis* in view of the fact that they are also exposed to authentic materials during their BA program, which are supposedly imbued with metaphorically structured discourse.

As Danesi (1986, 1992, 1994, 1995, 2003) has repeatedly put it forward, the implications of metaphor and MC for SLT and SLA should be meticulously examined. A very specific implication that the notions of MC and CF hold for SLAR and L2 methodology is that these notions are in no way mutually exclusive of grammatical and communicative competences. As Danesi (1992) maintains, it is very probable that all the three competences constitute overlapping layers in discourse programming. We now know quite a lot about how the grammatical and communicative layers operate; the time has come to look at how and where the metaphorical layer fits in.

The concluding implication of this study might be that metaphor instruction presented here could be incorporated into EFL programs for L2 learners at all levels of English proficiency. Metaphor instruction features direct teaching of metaphorical language through the use of conceptual metaphors as cognitive tools for language learning. It may be adopted equally and easily by Persian-speaking teachers as the instructional method for dealing with L2 learners' difficulties in learning metaphorical expressions. Metaphor instruction here also employed the use of 'pictures' as instructional aids in design. A picture that depicts the concrete term in a conceptual metaphor provides the common ground on which the teachers and the learners can communicate ideas effectively since the pictorial representation of the vehicle term minimizes potential semantic problems. With the presence of pictures, it is not necessary for L2 learners to mark the meanings of the TL in L1. The use of pictures adds meaning comprehension to the instructional language and promotes communication and discussion between the teacher and the learners. Pictures can assist the use of conceptual metaphors in EFL learning in the way that they can draw L2 learners' attention and perception, hold their interest continuously, and engage them in applying known experience or knowledge in the process of understanding abstract information.

The conclusions drawn from this study are limited due to certain shortcomings inherent in a study of this nature. Therefore, the findings cannot be taken as definitive answers to the questions of this research. It

is the present researchers' hope that the results of this mostly empirically-based study serve as a step in a better understanding of CF and MC in L2, and in coming closer to a better understanding of L2 proficiency.

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## Appendix

**Table 5**  
Multiple Comparisons of All the Participants

(I) Groups (J) Groups		Mean Difference (I-J)	Std. Error	Sig.
Tukey HSD	Freshmen Sophomores	-11.80*	.96	.000
	Juniors	-12.52*	.75	.000
	Seniors	-12.59*	.97	.000
	Sophomores Freshmen	11.80*	.96	.000
	Juniors	-.71	.75	.778
	Seniors	-.78	.97	.851
	Freshmen Sophomores	12.52*	.75	.000
	Juniors	.71	.75	.778
	Seniors	-6.978	.76	1.000
	Freshmen Sophomores	12.59*	.97	.000
	Juniors	.78	.97	.851
	Seniors	6.978	.76	1.000
LSD	Freshmen Sophomores	-11.80*	.96	.000
	Juniors	-12.52*	.75	.000
	Seniors	-12.59*	.97	.000
	Sophomores Freshmen	11.80*	.96	.000
	Juniors	-.71	.75	.344
	Seniors	-.78	.97	.420
	Juniors Freshmen	12.52*	.75	.000
	Sophomores	.71	.75	.344
	Seniors	-6.978	.76	.927
	Seniors Freshmen	12.59*	.97	.000
	Sophomores	.78	.97	.420
	Juniors	6.978	.76	.927

Table 8  
Multiple comparisons of all the participants

(I) Groups (J) Groups			Mean Difference (I-J)	Std. Error	Sig.
Tukey	Freshmen	Sophomores	-1.3635	1.591	.827
		Juniors	-1.3858	1.244	.681
		Seniors	-8.1144*	1.604	.000
	Sophomores	Freshmen	1.3635	1.591	.827
		Juniors	-2.2307	1.244	1.000
		Seniors	-6.7509*	1.604	.000
	Juniors	Freshmen	1.3858	1.244	.681
		Sophomores	2.2307	1.244	1.000
		Seniors	-6.7286*	1.261	.000
	Seniors	Freshmen	8.1144*	1.604	.000
		Sophomores	6.7509*	1.604	.000
		Juniors	6.7286*	1.261	.000
LSD	Freshmen	Sophomores	-1.3635	1.591	.392
		Juniors	-1.3858	1.244	.267
		Seniors	-8.1144*	1.604	.000
	Sophomores	Freshmen	1.3635	1.591	.392
		Juniors	-2.2307	1.244	.986
		Seniors	-6.7509*	1.604	.000
	Juniors	Freshmen	1.3858	1.244	.267
		Sophomores	2.2307	1.244	.986
		Seniors	-6.7286*	1.261	.000
	Seniors	Freshmen	8.1144*	1.604	.000
		Sophomores	6.7509*	1.604	.000
		Juniors	6.7286*	1.261	.000

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