

ICONICITY VS. ARBITRARINESS OF SOUND SYMBOLISM PHENOMENON THROUGH A CONTRASTIVE ANALYSIS FRAMEWORK

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ABSTRACT: *This paper reports on the comparison and contrast drawn between sound symbols of Persian, English, and Spanish In order to embody the form-meaning relationship from a universal point of view. 140 sound symbols chosen from Persian onomatopoeic dictionary (1996) and their English and Spanish counterparts were first categorized according to Hinton et al.'s (1994) typology. Using Contrastive Analysis Hypothesis the phonemes were described and contrasted in three languages afterwards. Prediction was made consequently. Together the findings suggest that no absolute arbitrariness or iconicity could be considered for sound symbols. As a matter of fact there are different sound symbols categories and each is of a special degree of iconicity/arbitrariness. It is inferred that a continuum can best demonstrate the order and degree of iconicity for sound symbols.*

KEYWORDS: Sound Symbols, Contrastive Analysis, English, Persian, Spanish

INTRODUCTION

Words in each language symbolize physical and abstract entities arbitrarily. This arbitrary nature is regarded as “the first principle of linguistics” by Saussure (2001). But there is a limited group of words which stands for neither physical nor abstract concepts, but mirror the actual sounds. That is, they imitate sounds using language-specific-based phonetic and phonological systems. As Saussure (2001) states “not all signs are absolutely arbitrary”, and “the sign may be motivated to a certain extent”. Onomatopoeias are mimetic expressions with inherent acoustic properties similar to the sounds they refer to (Pharies, 1979). They are considered to be as a bridge between language and nonverbal sounds (Hashimoto et al,2006). This operative group of words is employed in advertisement and music retrieval methods, along with everyday interactions.

Different classifications are put forward by different linguists. Vahidian (1996) believes that there are two classes of emotional and non-emotional onomatopoeias. In Ito et. al. (2013) onomatopoeias are a collective term for “onomatopoeic words”, “mimetic words”, and “imitative words¹”. Inose (2006) classifies them into two groups of “onomatopoeia” and “mimetic words”. While the former consists of the words that imitate real sounds (human, animal, and otherwise), the latter includes words that are the representation of emotion, movement, or state of things and has nothing to do with sounds. These two classes are labeled as “primary” and “secondary” onomatopoeic words by Duan (2012). Bolinger (1992) treats

¹ “expressions for the states or motions of an object.” (Ito et. al., 2013)

onomatopoeia as a subclass of sound symbolism². He considers phonesthemes³ as another subcategory of this class.

The term which is going to be examined in this paper would be any representation which is said to be iconic, so the researcher made use of Hinton et al.'s (2004) typology that categorizes this notion under four classes of Conventional, Imitative, Corporal, and synesthetic Sound Symbols. The aim of this study is twofold, so that the phonological and semantic characteristics of the aforementioned words will be investigated in three languages of English, Spanish, and Persian through contrastive analysis. Phonological features, and syllable structures are issues which are going to be investigated in terms of structure. Semantics would be dealt with by exploring the relationship between the sounds and the meanings.

Onomatopoeias are limited in comparison with the other class of words. The notion of arbitrariness versus symbolism which is yet debatable would be another subject in this paper will be dealt with.

LITERATURE

Socrates marks words with iconic natural relationship between their meaning and form as 'good words', and the words without this kind of relationship as 'bad words'. (Shrum and Lowrey, 2007: 54) This so-called 'good words' have been investigated in numerous studies under different labels such as Sound Symbols, Onomatopoeias, Mimesis, etc. the researcher studied 49 papers related from different perspectives to these iconic words. She outlined only six works in this section which were more relevant to the subject for the lack of space.

Sobkowiak (1990) in his paper focuses on the comparison between onomatopoeias and the rest of the lexicon. By investigating the frequency of syllables, sounds, and clusters in the two aforementioned categories he interferes that not only the phonetic structure, but also the semantic properties of the groups are different from each other.

Mimesis⁴ word formation in Turkish is the matter of investigation in Ido (1999). It brings certain phonological correspondences to light between semantically-related mimetic words. Vowel and consonant alternation, along with the addition of specific 'extenders' are expressed to have elusive sensations.

Kleparski and Lecki (2002) present a different perspective about form-meaning relationship in onomatopoeias and sound symbols. They claim this relation to be "nothing less than arbitrary". (2002) they also explore word-formation processes in this class of words and point to narrowing, broadening, and shift as frequent procedures in these expressions. Accordingly, they come to this conclusion that semantic changes affect onomatopoeias not less than non-onomatopoeic forms.

² "the form of iconicity in which the nature of the sound resembles what the sounds stands for" (Bolinger, 1992)

³ A concept "based on the synthetic connection between sound and sound, sound and size, sound and movement, etc.

⁴ Sound Symbolism or Onomatopoeia

They maintain that the apparent form-meaning similarity could be justified by language contact, their common ancestral root, or simply by accidentality.

Rungrojsuwan (2009) investigates “sound –symbolic words” in Thai language both semantically and structurally. The results show that most sound-symbolic words are either reduplicated or mono-morphemic. He also points to semantic relations between sound symbols and human behaviors, activities, and surroundings, in conclusion.

SitiHajjar (2012) examines the forms and characteristics of onomatopoeias in cosmetic and skincare product advertisements. He introduces five common forms of onomatopoeias and their associated sense. He comes to the conclusion that Japanese onomatopoeias can express the sensation of products. He argues that using onomatopoeias in cosmetic product advertisements is required for conveying different impressions and scents to the consumers.

Sammarco (2013) analyzes sound symbols and quadrilaterals in modern Arabic dialects from a functional point of view. In this study he examines different procedures onomatopoeias are derived from in Arabic. The relationship between form and meaning is another matter of focus in this paper. He points to different representations of onomatopoeias and sound symbols in different Arabic dialects as a result. Reduplication is a procedure which is applied to the Arabic onomatopoeias and roots are extracted and used as the basis for the derivation of other forms.

While all the aforementioned studies examine echoic words in a single language, the present paper inquire into the concept in three languages of English, Spanish, and Persian. The fact that these languages are of different ancestors of Germanic, Romance, and Sanskrit respectively the analysis gives rise to a more reliable conclusion from a universal perspective.

Theoretical framework

Languages are different from each other not only in their morphological and syntactic, but also in their phonological structures and properties. That’s why phonology is an area in which Contrastive Analysis (CA) works best. CA is a systematic branch of applied linguistics. Using this method the researcher is able to show how three languages of English, Spanish, and Persian’s phonological systems are different or similar.

Lado (1957) was the first person who provides an all-embracing theoretical framework with a systematic set of technical procedures for comparing and contrasting properties of languages. (Yang, Byung-gon, 1992) He maintains that the differences between the native language of the learner and the language which s/he is going to learn result in difficulties in his/her acquisition of that language. This phenomenon is called “native transfer”. (Lado, 1957) this hypothesis presents notions of positive and negative transfer which occur in cases of structural similarity and difference of the languages respectively.

Whitman (1970: 191) mentions four procedures of CAH as below:

1. Description: taking the two or more languages, and writing their formal descriptions.
2. Selection: choosing forms from the descriptions for comparing and contrasting.
3. Contrast: making a contrast of the forms chosen.
4. Prediction: predicting difficulty through the contrast.

A multilingual corpus which is a constituent part of CAH could be provided as two classes: 1. Original text and its translation, which is called 'parallel/translation corpora'. 2. Original texts from different languages as representations of similar registers, which is under the label 'comparable corpora'. (Volker Gast)

Nowadays we see that many researchers make use of this framework for the contrastive study of different aspects of languages. Historical linguistics, second language teaching and learning, translation and language therapy, etc. are among multiple fields apply CA from time to time.

CAH is presented as three versions of strong, moderate, and weak. Like the other hypothesis this one has its own pros and cons, but still different versions of CAH are used widely. Lehn and Stager (1959) made use of the procedure for the contrastive analysis of Arabic and English phonemes. Broselow (1984) investigated the transfer phenomenon between the same languages using CAH. Phonological interference between English and German was another research which was done by Erdmann (1973:229) with this theoretical framework.

METHODOLOGY

The researcher picked 140 Persian sound symbols up from Persian dictionaries and their counterparts from English and Spanish dictionaries, as 'comparable corpora'. She classifies them according to Yorkstone's (2004) under four groups of Imitative, Conventional, Corporal, and Synesthetic Sound Symbolisms.

- In Corporal/Expressive sound symbolism certain symbols expresses the internal emotional/physical state of the speaker. This category contains involuntary sounds such as coughing.
- Imitative sound symbolism, as its name represents, involves symbols which embody environmental sounds from animate/inanimate entities.
- Synesthetic sound symbolism which is said to be "a cross-modal sensory association" conveys non-verbal senses such as size, movement, etc.
- Conventional sound symbolism in which the relationship between certain clusters and special meanings are emphasized/highlighted.

64 sound symbols were categorized as Imitative. Conventional category embraces 46 sound symbols. 16 sound symbols were allocated to Corporal class, and the Synesthetic sound symbols contains 18 words as well. As it is seen the total number is more than 140. The reason is that some of the symbols could be a member of more than one category.

After the categorization of the data the phonological characteristics of each group were examined in three languages separately. Accordingly the universal and language-specific properties were come out. The form-meaning relation was predicted in each group through the similarities and differences between them in three languages.

DATA ANALYSIS

Imitative sound symbols

Imitative sound symbolism is itself classified into six categories; Symbols that mirror sounds of animals, liquid, gas, human beings, collision, and miscellaneous sounds. In Hinton et al.'s categorization Imitative sound symbols exclude human-related sounds (Hinton et al., 1994). These sounds could belong to none of the other categories regarding their definition (see above). Once the sounds were echoic the researcher marked them as Imitative.

Of the 20 animal sounds, six were almost the same in three languages considering the place and manner of articulation.

Table 5-1. Animal Sound Symbols with the same place & manner of articulation

	English	Spanish	Persian	Sound source
1	ba.ba	be:.be:	ba:ʔ.ba:ʔ	sheep
2	bez	bz	vez.vez	bee
3	me:.au	mi.aw	mio.mio	cat
4	mu:	mu:/me:	mɑ:.mɑ:	cow
5	pər	Pr	fer.fer/xer.xer	cat
6	His	S	his	snake

In six cases also vowel harmony were seen in three languages. In most of these cases consonants were also the same in English and Spanish.

Table 5-2. Animal Sound Symbols with vowel harmony

	English	Spanish	Persian	Sound source
1	chərp	Pio.pio	ɖic.ɖic	chicken
2	kləkklək	Klo.klo.klo	God.God	hen
3	kro:kkro:k	Ku.ac.ku.ac	Gu:r.Gu:r	frog
4	kwak	Ku.ac.ku.ac	Gət.Gət	duck
5	twi:t	Pi.o.pi.o	ɖir.ɖir	bird
6	nei	ɖi.ɖi	fei.he	horse

As it is demonstrated in table 5-2 the phoneme /k/ is replaced by /G/ in Persian. The eight animal sounds which are presented in table 5-3, are either different among three languages or are different in one language comparing the other two.

Table 5-3. Animal Sound Symbols with different realizations in three languages

	English	Spanish	Persian	Sound source
1	bow. wow	guf.guf	ʔow.ʔow	dog
2	ku:	Ku.ku	Baq.ba.qu	pigeon
3	grau(-ə)l	gru.nir	xor.nas	animal
4	hau(-ə)l	a.ul	Zu.ze	dog
5	grənt	gru.ni.do	xor.xor	pig
6	snɔ:rt	baf	Xor.xor/xor.nas	bill
7	Jæp	gua	ʔow.ʔow	dog
8	‘hi:hɑ:	i-o i-o	ar.ʔarʔ	donkey

Sounds related to liquid include six Imitative sound symbols. Voicelessness seems to have a significant relationship with water-related sounds. /tʃ, ʃ, c, p/ in Persian, /p, s, ʃ, t, k/ in English, and /p, k, f, s, c, x/ in Spanish are of the most frequency. /l/ is a phoneme which is of a high frequency in three languages.

Table 5-4. Liquid-related Sound Symbols

	English	Spanish	Persian	Sound source
1	drɪpdrɑ:p	Plok.plok	tʃec.tʃec	Liquid falling in drops
2	plɑ:p	plaf/ paf	Te.lep /ʃo.lop	Liquid hitting something
3	splæʃ/‘splætə(r)	sa.pil.ca.du.ra	ta.raʃ.ʃo / tʃe.lep.tʃo.lop	Liquid hitting something
4	trɪk(ə)l	go.ti.ar	tʃec.tʃec /tʃec.ce	Slow thin flow of water
5	bʌb(ə)l	bor.bu.xa	Gol.Gol	Quiet sound of water
6	fiz	e.fer.ve.sen.sia	feʃ.feʃ	Small bubbles popping

You can see /G/ in this concept as well in Persian imitative sounds. /p/and /tʃ/ in Persian seems to be associated by the notions of dispersion/distribution and Compression/compactness respectively. Rasouli in his thesis came to this conclusion that /ʃ /is conceptualized with the notion of Liquid and water. (Rasouli, 2002) In the six Imitative sound symbols related to gas, one can see occurrence of /f, p, ʃ/ in three languages.

Table 5-5. Gas-related Sound Symbols

	English	Spanish	Persian	Sound source
1	fɪz	e.fer.ve.sen.sia	feʃ.feʃ	gas
2	Flæp	ta.pa	tʃe.lep	Cloth moving by wind
3	pʌf	Nu.ve	pʌf	Smoke or steam
4	swɪʃ	Fu:.fu:	feʃ.feʃ	Light sweeping sound
5	wɪz	Lin.se	qeʒ.qeʒ -feʃ.feʃ	Light sweeping sound
6	pɑ:p	Pʌp/ pum	Pok	bursting

In English /z, s,w/ occurs more than in the other two languages. The consonants of /v, n, m/ are more frequent in Spanish than in Persian and English. In Persian /tʃ, q, ʒ/ are more regular. Almost all the five human-related Imitative sound symbols are the imitation of the physical state of concepts they represent.

Table 5-6. human-related Imitative sound symbols for physical state

	English	Spanish	Persian	Sound source
1	mwa:zsmu:tʃ	Mua/ muac	mɑ.tʃo.muʃ	kissing
2	həhəhə/ hehe/ hohoho	xaxaxa/ xexexe	Gah.Gah /hɑ.hɑ	laughing
3	lubdub, bʌmp	bum.bum	tʌp.tʌp /tɑ.lʌp.tu.lʌp	Heart beat
4	mʌntʃ	Mas.kar	Me.letʃ.mu.lʌʃ.car.dan	chewing
5	mʌtər	Mur.mu.rar	Lond.lond /Gor.Gor	complaining

The place and manner of articulation of the sounds correlates with the manner and place of the acts they embody. Except for one case, the other instances are about the same. Among Nine Imitative sound symbols are related to collision /l/ seems to be the indispensable part of the symbols in three languages.

Table 5-7. collision-related Imitative sound symbols

	English	Spanish	Persian	Sound source
1	Klæŋ	tin.tin/ ti.lin	ʔi.rɪŋ.ʔi.rɪŋ	Metal hitting against something
2	ˈklætər	rui.do	ʔeq.ʔeq /tɑ.laG.ta.laG	Quick series of short loud sounds
3	klɪk	Klic	Tic.tic	Short sharp sounds
4	klɪŋ	tin.tin/ ti.lin	ʔe.leŋ.ʔe.leŋ	Quick series of short sounds
5	dʒɪŋɡl	tin.tin/ ti.lin	ʔi.rɪŋ.ʔi.rɪŋ	Light ringing sound
6	nɑ:kna:k	Tac tac	taG.taG	Door hitting
7	ˈrætl	tra.ce.te.o	Te.leG.te.leGTe.leG.te.leG	A series of short loud sounds
8	θʌd	Tok	Tep.tep	Loud, dull sound
9	θʌmp	gol.pa.so	dʌmb	Loud, deep sound

Stops and nasals are also frequent after /l/. Miscellaneous sound symbols allocate to different significations. There are examples which could be presented as evidence to the significant relationship between the phonemes and specific concepts. Plosives embody the senses of explosion, abruptness, and impacts.

Table 5-8. Miscellaneous sound symbols with plosive phonemes

	English	Spanish	Persian	Sound source
1	Kræk	Kru.hi.do/ tfas.ci.do	Ta.raG.tu.ruG	Sudden loud, sharp sound
2	bum̩arobum	Bu:m, pum	ttaG.ttaG	fireworks
3	Krækɫ	Kre.pi.tar/kre.pi.ta.si .on	Ta.raG.tu.ruG	Bursting and explosion
4	bu:m	pum	Qor.ref /bum	Deep and loud sound

Fricatives represent notions of friction, dryness, and swiftness.

Table 5-9. Miscellaneous sound symbols with fricative phonemes

	English	Spanish	Persian	Sound source
1	flʌʃ	ru.vo.ri.sar.se	Si.fun	A sudden flow
2	rev	re.bo.lu.sion	Qam.qam	Car engine
3	ˈrʌsl	su.sur	xef.xef	Rubbing leaves/pieces of papers
4	zu:m	zum	Vez.vez	Moving vehicle
5	tʃʊ:,wʊ:wʊ:	tʃʊtʃʊ	Bu.bu.tʃi.tʃi	train

While high front vowels are associated with high-pitched sounds, low back vowels represent low-pitched sounds.

Table 5-10. Low-pitched sounds in Miscellaneous Symbols

	English	Spanish	Persian	Sound source
1	kri:k	ni.ec	qeʒ.qeʒ /dʒir.dʒir	Long, high sound
2	pi:p	pio	dʒir.dʒir	Feeble shrill sound
3	rɪŋdɪŋdɪŋ	ri:n, ri:n	dellllŋ	ringing
4	skwi:k	kru.hir	dʒir.dʒir	shoes
5	tɪkˈtɑ:k	Tic tac, tic tac	Tic.tic	clock

Table 5-11. High-pitched sounds in Miscellaneous Symbols

	English	Spanish	Persian	Sound source
1	rɔ:r	ru.hi.do	Qor.ref /xo.ruf	Long, loud sound
2	bu:m	pum	Qor.ref /bum	Deep, loud sound

Overall, not only have most of the Imitative sound symbols an iconic relationship with the concepts they refer to, but also they characterize the same concepts in three languages. There are certainly some exceptions in which the same sound is echoed totally differently but the number is limited.

As it was seen the iconicity was of the most degree in case of human Imitative sound symbols. That is, the phonemes' place and manner of articulation are the same as the physical state of the word they stand for.

Conventional Sound Symbols

The relation between conventional sound symbols and their meaning is said to be more abstract than the other categorizations (Yorkston, 2004). Conventional sound symbols with the same consonant clusters with the frequency of more than 1 are classified in table 5-12.

Table 5-12. Conventional sound symbols with the same consonant clusters>1

	English	Spanish	Persian	Sound source
1	snɔ:rt	baf	Xor.xor/xor.nəs	bull
2	Snæp	rom.per	bef.can.za.dan	Sudden, short, sharp sound
3	snif	o.'ler	Fin.fin.car.dan	Drawing air into the nose
4	snip	ri.ci.ri.ci	Geitf.Geitf	scissors
5	grənt	gru.ni.do	nəlidan /xor.xor	pig
6	grau(-ə)l	gru.nir	qor.qor / xor.nas.ke.fi.dan	animal
7	groun	he.mir	Nə.li.dan	To make a Deep sound
8	grambɫ	Re.zon.gar	Lond.lond /qor.qor	Low, heavy sound
9	Flæp	ta.pa	tʃe.lep	Wind hitting cloth
10	flʌf	ru.vo.ri.sar.se	Si.fun	A sudden flow
11	bʌb(ə)l	bor.bu.xa	Gol.Gol	Quiet sound of water
12	grambɫ	Re.zon.gar	Lond.lond /qor.qor	complaining
13	rʌmbɫ	Brum	qo.ro.lond/qor.ri.dan	Low, heavy sound
14	mʌmbɫ	Mas.ku.yar	Men.men.car.dan	Unclear talking
15	spreɪ	ro.si.ar	Pə.fi.dan / ta.raʃ.fo.car.dan	Water flying in small drops
16	splæʃ	sa.pil.ca.du.ra	ta.raʃ.fo /tʃe.lep.tʃo.lop	Liquid hitting something
17	splætə(r)	sa.pil.ca.du.ra	tʃe.lep.tʃo.lop	Liquid hitting something
18	splɪtaʊt	es.ku.pir	Tof.car.dan	Sprinkle of rain
19	Klæŋ	tin.tin/ ti.lin	ɔʒi.rin.ɔʒi.rin	Metal hitting something
20	Klæp	Pal.ma.da	Caf.za.dan / ta.raG.ta.raG	Hitting palms of hand
21	klæʃ	Ku.as	ta.sa.dom /bar.xord	collision
22	klætər	rui.do	ta.laG.ta.laG / ɔʒeq.ɔʒeq	Quick series of short loud sounds

23	klɪk	Klic	Tic.tic	Short sharp sound
24	klɪŋ	tin.tin/ ti.lin	ɔʒe.leŋ.ɔʒe.leŋ	Short quick sounds
25	trɪk(ə)l	go.ti.ar	tʃec.tʃec /tʃec.ce	Slow, thin flow of water
26	Krækɪ	Kre.pi.tar/kre.pi.ta.si.on	Ta.raG.tu.ruG	Bursting & explosion
27	Kræk	Kru.hi.do/tʃas.ci.do	Ta.raG.tu.ruG / te.re.ci.dan	bursting
28	krʌntʃ	Mas.ti.kar	Ge.retʃ.Gu.rutʃ	Sth crushed or chewed
29	kræʃ	ku.as	ʃa:q	Loud sound of falling, hitting, etc.
30	kri:k	ni.ec	qeʒ.qeʒ /ɔʒir.ɔʒir	Long, high sound

There is no consonant cluster in Persian and the number of clusters is few in Spanish as well. We can see nearly the same clusters in three languages only if the symbols are representation of sounds (such as /grau(e)l/). In a few cases the phonemes are the same in three languages but their combination differs due to different phonotactic properties of each language (such as /splaf/).

The senses carrying through the clusters are in conformity with the results of the previous studies. The table below shows the notions which are embodied by the English clusters:

Table 5-13. the notions embodied by the English clusters

Sn-	Breathe noise through nose; swift movement or separation
Gr-	Harshness; dissatisfaction
Fl-	Strike; promptness
-bl	Indistinctness; dissatisfaction; sound of water
Sp-	Water dispersion
Kl-/kl	Collision; slow thin flow of water
Kr-	Smash; explosion; long, high sounds

There is neither an undeniable notion represented by the symbols nor congruity between the clusters in three languages. Though the number of types in each the same cluster occurs is limited, they do not yet embody the same or even similar senses. The results from 5-1 and 5-2 give rise to this conclusion that the iconicity is less in conventional sound symbols than in Imitative sound symbols.

Corporal Sound Symbols

Corporal or expressive sound symbolism is directly connected to the emotional or physical unintentional state of people. The iconicity between Corporal sound symbols and their meaning is quiet apparent.

Table 5-14. Corporal Sound Symbols

	English	Spanish	Persian	Sound source
1	snɪf	o.'ler	Fin.fin.car.dan	Drawing air into the nose
2	slɜ:rp̄slɜ:rp̄/ jʌmjʌm/ om nom nom	Nam.nam/ tʃʌm.tʃʌm	hurt.ce.ʃi.dan /hef.hef	Eating/drinking noisily
3	atɪʃi/atʃu	Atʃu/ atʃis	atʃ.tʃu	sneezing
4	hɪkʌp	i.po	Sec.se.ce	hiccupping
5	fɑ:rt	pu.ʌn, pe.o	Pup	farting
6	wɑ:wɑ:	Bu.a.bu.a	Uw.wa.uw.wa	Baby's crying
7	gʌp	Glup	Gurt.dɑ.dan / hurt.ce.ʃi.dan	Eating/drinking noisily
8	kɔ:f	to.ser	Sor.fe	coughing
9	bleɪʃ	e.ruc.to	ɑ.ruq	belching
10	bɜ:(r)p	e.ruc.tɑr e.ruc.tɑr	.ruq.za.danɑ	belching
11	Jan	bocejar	xamiaze	yawning
12	snɔ:r	ronkar	Xorropof/xornas	snoring
13	aʊtʃ/ov		ax	pain
14	Vɑ:mæt	arohar	Oqq/estefraq	vomiting
15	spʌɪt	despetʃo	boqz	spiting
16	Sɑ:b	sojoso	heqheq	sobbing

Symbols like /atɪʃi/and /kɔ:f / show some kind of friction in the process of articulation of the sounds. /hɪkʌp / and /boqz/ and /ɑ.ruq/ on the other hand associate with the sense of stop and pause in articulation.

Synesthetic Sound Symbolism

In synesthetic category sounds are actually symbols of non-vocal concepts such as size, movement, etc. like in conventional, in this class the relationship between sound and meaning is indirect. Words of this category were classified into different groups concerning their meaning.

Table 5-15. Synesthetic Sound Symbolism that stands for Wonder and amazement

	English	Spanish	Persian
1	geɪz	contemplar	Berr-o-berr
2	flaɪʃi	ostentoso	ɑɟʌqvaɟʌq
3	Aha	aha	Aha
4	Phooey	Ba/tonterias	zeci

Table 5-16. Synesthetic Sound Symbolism that stands for Disgust and repulsion

	English	Spanish	Persian
1	ɑ:r(disgust)		ah /ʔaGʔ
2	fju:	odio	uf

Table 5-17. Synesthetic Sound Symbolism that stands for Haste and Imbalance

	English	Spanish	Persian
1	Stutter/stammer	Tartamudjar/tartaxejar	tetepete
2	Stagger/sway	tambaljarse	telotelo

On the other hand, in some cases opposite concepts are symbolized by the same phonemes (vowels and consonants)

Table 5-18. Synesthetic Sound Symbols with opposite concepts

	English	Spanish	Persian
Inconvenience & uneasiness	Wu:ps	uf/uy	Ax (regret)
Convenience & easiness	u: (ooh)	oh	axeif/ufeif

In most cases concepts are symbolized by different phonemes in different languages.

Table 5-19. Synesthetic Sound Symbols with different phonemes in three languages

	English	Spanish	Persian	Sound source
1	rip	ras.gar	Pɑ.re.car.dan	Ripping
2	prIk		zoqzoq	Feeling pain & burning in a wound
3	woopi	viva/yupi	bahbah	admiration
4	Pəzæz/dæzl	brijo	dambuldimbul	Bright light
5	PrIm	puritano	ʃaq-o-raq	Upright & sticky
6	pænt	asesar/resodʒar	lahlah	Feeling thirsty

Generally, one can see neither a significant correlation between sounds and concepts, nor conformity between sounds of different languages that symbolize the same concept.

RESULTS AND DISCUSSION

The results show that in Imitative sound symbolism conformity is seen in most cases between the components that three languages employ to transfer the same concept. Voicelessness and the phoneme /l/ in three languages embody the notion of

water. While /p/ bounds to the concept of dispersion and distribution, the phonemes /f, p, s/ are realized as representations of gas in three languages. /l/, stops, and nasals are frequently observed in words with the sense of collision. Plosives and fricatives are respectively linked to the notions of explosion/abruptness and friction/dryness/swiftness. There's a harmony between high/low vowels and the sounds having high/low-pitchquality as well. Overall, there's almost an absolute form-meaning iconicity in Imitative sound symbolism, and the relative differences are due to the different phonological systems of each language.

In abstract notions which are conveyed by conventional sound symbols much less iconicity is observed than in Imitative sound symbols. Consonantal clusters are not seen in Persian at all and in Spanish a small number of the symbols contains clusters in comparison to English. The clusters are not universal because they carry special concepts only in one language. Moreover, the variety and heterogeneity of the concepts each cluster embodies contribute to the fact that they are incapable of carrying a single and unique notion. This possibility is assumed to be likely that the meaningfulness of the clusters is only due to the previous concept which is in the speaker's mind originated from the superordinate word of that category.

Some of the words in Corporal category represent the same concepts, have similar phonological embodiments, in three languages. Nevertheless the similarity between languages here is less than this correspondence in Imitative sound symbolism.

In synesthetic sound symbolism no correspondence is virtually seen between the symbols and their concepts. Even in some cases the same symbols convey totally opposite concepts. Among all these symbols only realization of the same phoneme /t/ is observed in three languages, conveying the notion of haste and imbalance which is supposed to be accidental. Besides, no conformity is remarked in three languages for conveying the same concepts.

CONCLUSION

Each language has specific phonemes confined to itself. Occurrence of these sounds is also embodied in sound symbols of each language. While /G/ and / ʒ / is hardly seen in sound symbols of Spanish and English, /e/ is only observed in English, and employment of /x/ is more in Spanish sound symbols than the other two languages'.

Regarding syllable structure of sound symbols, two-consonantal clusters are only seen in English sound symbols. Neither Persian nor Spanish sound symbols contain a cluster. The reason is that while there is no cluster in syllable structures of these two languages, English syllables can contain three-syllable clusters in the beginning and four-syllable clusters in the end of the words. In English sound symbols the clusters are seen more frequently in the beginning than in the end.

In conclusion it could be inferred that sound symbols are neither totally iconic nor entirely arbitrary. A continuum could be presented to shows the degrees of arbitrariness and iconicity in the whole phenomenon.

