

The Way Verbs of Perception Play a Role in the Poems by the Blind

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ABSTRACT: Due to the importance of vision in human perception, different verbal behaviors are expected in the congenitally blind individuals and the sighted ones. Therefore, in this research, two groups of poets (the congenitally blind and control group of the sighted) were found to explore how differently they represent their perception of the five predominant senses. Strikingly, the statistical results show that the frequency of verbs of vision are not only significantly high but also are more frequent than the same verbs in the poems of the sighted. This might be explained through the fact that perception is reflected and codified in language. Thus, the blind can perceive visual phenomena through language however they are congenitally blind. The second qualitative experiment shows that these blind people use different visual metaphors more than the sighted. This might prove Halliday and Mathiessen's belief that conceptual structure and semantic structure are just different metaphors of one thing.

KEYWORDS: blind, metaphor, perception verb, vision

1. Introduction

It seems that lack of vision as a vital sense can result in differences between sighted and blind individuals' perceptions. Part of perception might be traced to language. Moreover, Verbs of perception shows how people verbalize their perceptions. Among the five various perception fields of vision, hearing, touch, taste, and smell, as Allan (2008) mentioned, vision is the most significant of all senses. Due to the importance of vision in the conceptualization of the world before learning a language, there are various opinions. Sweetser (1990) illustrated that the leading cause is based on the fact that the visual sense is our "primary source of objective data about the world" and "the strongest and most reliable." Moreover, in child language acquisition, it can be seen that vision is the earliest sense to improve. In addition to the discussion of intellectual comprehension, the first metaphor is consequently "Understanding is Seeing." The manner that people talk and the reason concerning mental procedures given visual perception have developed a huge literature and relatively heated discussion. Metaphors of "Understanding is Seeing" (Goschler 2005; Kövecses 2010; Lakoff and Johnson 1980), "Thinking is Seeing" (Danesi 1990), or "Physical Sight = Knowledge, Intellection/Physical Vision = Mental 'Vision'" (Sweetser 1990), have been shown by one and all with the realization in the metaphorical expression "I see (what you mean)." Lakoff and Johnson (1980) and Gibbs (2006) illustrated that the congenitally blind should experience severe problems in making sense of metaphorical expressions rooted in the "Understanding is Seeing" conceptual metaphor.

Mandler (2005, 149), for example, explained that infants "in their early conceptualization of the world" derive the information spatially, and "the spatial information that is crucial to human concept formation is delivered primarily by the visual system." She added: Although spatial information can be gleaned from touch and audition (see Popova 2005), these modalities are much less effective in encoding motion, paths, containment, and the other spatial information crucial for identifying objects and understanding events. It is probably for this reason that blindness delays conceptual development before language is learned; the most efficient source of information needed for concept formation is missing. In comparison with the other senses, there are a lot of explanations for vision to be related to intellect (Mandler 2005, 149).

Deane (2005, 247), on the other hand, talks about "supramodal images" to show that imagery is not so visual, but auditory, olfactory, or kinesthetic as well. Therefore, he says that

there are also "*supramodal* images which define spatial relations without depending solely on visual perception." He added that "this conclusion is reinforced by the competence of blind individuals on spatial tasks." However, Zlatev (2005), accepting "*cross-modal* (as opposed to amodal) structures, involving sensorimotor coordination", argued against Mandler (2004) who gave prominence to visual data for the concept of physical force and other image schemas, claiming that blindness from birth does not lead to "serious mental dysfunctioning". He referred to Landau and Gleitman (1985) for "only slight delays in cognitive development and language onset, but otherwise a completely normal developmental pattern in language acquisition."

So while vision is undoubtedly a very important source of experience for normal children, it cannot be a *necessary* ground for language. A key to the puzzle could be the fact that the child received extraordinary amounts of haptic and verbal interaction from her caregivers, which appeared to compensate for the lack of vision. [...] blind children are given bodily and verbal interaction will not be cognitively and linguistically retarded (Zlatev 2005, 329, 335)

Popova (2005, 400) referred to Revesz (1950) to claim that, [T]he tactile sense equals vision in its importance as a *space perceiving* and *space constituting* sense. It may not develop fully in the sighted due to the influence of vision, but it is nevertheless autonomous because the congenitally blind have a spatial understanding very similar to that of the sighted. More recently, in her extensive studies of very young infants, Streri (1993) has shown that the discrimination of perceptual properties (e.g., shape and size of objects) by two-months-old babies is achieved equally well by manipulation only, as it is by sight only.

Therefore, this paper explores how perception verbs, especially verbs of vision and visually perceived phenomena are used in both congenitally blind individuals and sighted control group. The main goals are to investigate the frequencies of each type of verb related to five senses, and then to explain how far visual objects and phenomena are represented in the poems of the participants.

Moreover, according to Yazdani et al. (2011), critical theorists of languages believe that it is hard to make a difference between literary and ordinary languages. Both types make attempts to use metaphors to convey meaning. They purely transfer meaning. Metaphors include target and source regarding two types.

2. Method

2.1. Participants

Two congenitally blind (two female) and two sighted participants (two female)'s poems were used in the experiment. All of them were native speakers of Persian. The causes of blindness included retinopathy of prematurity. All of them were selected among females to reduce the gender effect. More than two congenitally blind poets were preferred but just two female congenitally blind poets were available at the moment to be observed.

2.2. Material

Modern poetry was used in the research to minimize the effective factors of different types of compulsory prosodic patterns of Persian poetry. In another word, some frameworks of Persian poetry delimit the scope of words, metaphors, and structures which a poet uses. Fifteen poems of each poet were selected and it is attempted to choose nearly the same total lengths of the sample texts. Mahin Zoraghi (2004) that her book is 'Man to rā kāl xāham Čid (I will pick you green)' and Samaneh Mosadegh (2006) that her book is 'Did bidār (enlighted eye)' are chosen for congenitally blind participants. In addition, Roya Zarrin (2003) that her book is 'Zamin be orad-e āšeqane mohtāj ast (the earth needs lovely poems)', and Nahid Abbasi (2001) that her book is 'Dar fasl-hā-e safar (in seasons of the travel)' are selected for control group. Furthermore, only two congenitally blind poets were found in Persian. As a result, an in-depth analysis was conducted.

3. Result

All perception verbs introduced in literature were analyzed both in congenitally blind participants' texts and the control group's one. The average and examples of perception verbs in both groups can be seen in tables below.

Table 1. The average of perception verbs in Blind group's texts

Group	vision	smell	hearing	taste	touch
Blinds	42.42	12.12	9.09	0.01	36.36
Examples in Farsi	'Didan'	'bu kardan'	'Šenidan'	'maze dādan'	'lams kardan'
Translation in English	'to see'	'to smell'	'to hear'	'to taste'	'to touch'

Table 2. The average of perception verbs in control group's texts

Group	vision	smell	hearing	taste	touch
Control	36.36	18.18	0.01	9.09	36.36
Examples in Farsi	'Didan'	'bu kardan'	'Šenidan'	'maze dādan'	'lams kardan'
Translation in English	'to see'	'to smell'	'to hear'	'to taste'	'to touch'

3.1. Experiment 1

Statistical analysis was conducted to find any significant quantitative difference between the congenitally blind and the control group, the sighted. The results are as follows:

Table 3. Statistical analysis between the congenitally blind and the control group

	Test Value = 0.05					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
vision	13.000	1	.049	39.38900	.8892	77.8888
smell	5.000	1	.126	15.14900	-23.3508	53.6488
hearing	1.000	1	.500	4.54400	-53.2056	62.2936
taste	1.000	1	.500	4.54400	-53.2057	62.2937
touch	726.180	1	.001	36.30900	35.6737	36.9443

To analyze the data, SPSS was used. There was not any significant difference between 2 groups concerning vision and touch, $df=1$ and $P<0.05$, $df=1$ and $P<0.05$, respectively. On the other hand, there was a significant difference in the scores for smell $df=1$, $P>0.05$, hearing ($df=1$, $P>0.05$), and taste ($df=1$, $P>0.05$). This is unexpectedly interesting because of the lack of vision in the congenitally blind people supposed to lead to a low frequency of verbs of vision. However, the high frequency of verbs of touch was expectable.

3.2. Experiment 2

In a qualitative research, the linguistic elements related to vision including colors, distance, spatial metaphors, dimension, and depth were studied in both groups to investigate the acceptability of the metaphor "Understanding is Seeing" (Goschler 2005; Kövecses 2010; Lakoff and Johnson 1980),

“Thinking is Seeing” (Danesi 1990), or “Physical Sight = Knowledge, Intellection/Physical Vision = Mental ‘Vision’” (Sweetser 1990) to find whether there is a great difference between congenitally blind poets and healthy ones. In the examples below, there are some examples concerning five senses:

1. ‘rang e qam’
color-ez sadness
‘the color of sadness’
2. ‘entehā ye adamiat’
endlessness-ez human being
‘the end of human being’
3. ‘falseā ye zard’
seasons-ez yellow
‘the yellow seasons’
4. ‘durtare xalvat’
further-ez privacy
‘beyond privacy’
5. ‘rāh e derāz’
way-ez long
‘a long way’
6. ‘qarqe tamæšæ’
deep- ez seeing
‘a deep seeing’
7. ‘azæye Čæšmæn’
sadness-ez eye-plr
‘sadness of eyes’
8. ‘zehne xæli’
mind-ez empty
‘empty mind’

It was observed that all of the senses were found in both groups. Interestingly, blind poets used the concepts of colors, dimension, depth, distance, and spatial metaphors more than the control group, the sighted.

4. Discussion

As the experiment 1 showed, verbs of vision were more frequent in the congenitally blind than the sighted. This needs an explanation. Viberg (2008) maintains that a host of distinct verbs are directly related to the mentioned senses, for example seeing, hearing, seeing, drinking, feeling and touching, but these perception verbs are the main verbs owing to their complicated polysemy and cross-linguistic uniformity. Based on the cross-linguistic regularity found in verbs of perception, as claimed by Viberg (2008), the same classification can be applied to Persian in the Table below.

Table 4. The basic model of perception verbs in Persian

Group	VISION	HEARING	TOUCH	TASTE	SMELL
In English	‘See’	‘Hear’	‘Touch’	‘eat/drink’	smell
In Farsi	‘Didan’	‘Šenidan’	‘lams kardan’	‘xordan, nušdan’	‘buidan’

Along with the cross-linguistic trends shown thus far, a hierarchy of lexicalization is marked given the five senses. Based on 50 languages, the hierarchy is proposed in the following order by Viberg (1984, 1993):

Table 5. Hierarchy within verbs of perception

Vision > Hearing > Touch > Taste > Smell
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Were one language to exhibit merely one of the above perception verbs, it would be “see”. Given the fact that another language would have two of them, it would be “see” and “hear” (Viberg 2008, 1993). This research indicates that metaphors can be learned through language since metaphors are traced to a sign system, specific language. A sign is used instead of the other thing. A metaphor is created in a sign system. This study reaches a conclusion that congenitally blind ones are capable of using perception verbs and the related metaphors based on vision. This might help to explain why the congenitally blind use more verbs of vision than the sighted in their poems. Thus, as Halliday and Matthiessen (1999, 2), knowledge and meaning are not different issues and therefore conceptual structures and semantic structures are just two metaphors of one phenomenon. This opinion is of course in contrast to those viewpoints confirming that conceptual structures are reflected in semantic structures of language.

The study aims to show the difference between congenitally blind poets and sighted ones regarding perception verbs. It is concluded that congenitally blind poets, in this research, use perception verbs associated with visual and haptic senses the same as sighted ones. The same frequency of verbs related to touching seems to be natural among congenitally blind poets in the study. Still, the same frequency of verbs regarding vision can be seen considerably surprising in the congenitally blind and the control group.

To know the reason behind the quantitative results in the first experiment, a qualitative study is conducted. In the second experiment, it is showed that the congenitally blind poets use the metaphoric elements related to vision (i.e. colors, distance, spatial metaphors, dimension, and depth) more than control groups.

Seemingly, the study indicates that congenitally blind poet’s perception is rooted in language regarding visual verbs leading to the fact that they can enjoy visual metaphors more than sighted ones.

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