

A quantitative/qualitative study on metaphors used by Persian depressed patients

Hossein Kaviani, Robabeh Hamedi

Summary

Aim. This study was designed to examine qualitatively/quantitatively the metaphors used by Iranian depressed patients. Metaphors, used by depressed patients, seem to be associated with personal failings or inadequacies. They may also contribute to the basis to account for a cultural notion of “depression”.

Methods/materials. Filling in two metaphor inventories (Stem-Sentence Test: SST and Metaphor Inventory: MI) and one clinical scale (Beck Depression Inventory: BDI), 30 healthy volunteers and 30 depressed patients matched for age and gender took part in this study. **Quantitative/qualitative data analysis** showed that depressed patients tended to produce metaphors with more negative emotional tone than healthy participants.

Results. Using the descriptive phenomenological analysis, the results indicated that participants likened depression using metaphors connoting darkness, being unable to escape/being lost, devastation and disease. Furthermore, depressed patients produced metaphoric phrases that are somehow pertinent to night time, lower positions, closed places, and hollow objects. In contrast, healthy participants tended to propose phrases related to day time, upper positions, open places, movement, and solid objects.

Discussion. The present finding is in line with a phenomenon called mood congruent memory would be further supported by the construct accessibility model.

Conclusion. The present findings are both similar and different from previous findings. These similarities and differences will be discussed from theoretical, clinical and cultural viewpoints.

metaphor / depression / mood / memory / cultural differences

INTRODUCTION

As inspired by Lakoff and Johnson [1, 2], metaphors play a significant role in many activities of everyday life encompassing language, thinking, and other mental activities. The fact that humans think metaphorically has been recently deemed as a dominant area in cognitive science [3]. This view has gained empirical support in recent research findings [4].

Hossein Kaviani¹, Robabeh Hamedi² Department of Psychology, Faculty of Health and Social Sciences, University of Bedfordshire, Luton, LU1 3JU, UK. ² Tehran University of Medical Sciences, Tehran. Correspondence address: Hossein Kaviani, Department of Psychology, University of Bedfordshire, Park Square, Luton LU1 3JU, UK. E-mail: hossein.kaviani@beds.ac.uk

This research has not been aided by any grant.

Seligman [5] has broadly elaborated about the power of metaphors to elicit thoughts, views, feelings and actions. She pointed out that metaphors may (a) reflect our past experience and (b) act as a filter to represent our present experience and foresee our future. That is, the way we experience and/or think about reality is revealed in the metaphors we use and that existing metaphors in our language have a widespread influence upon the creation of reality. In more technical words, the way we normally think can be detected in metaphors used in our conversation. This approach reflects the assumption that reality is constructed through and can be recognised by language.

Analysis of metaphors as a potentially productive avenue can be employed to explore cultural-

ly embedded concepts and action tendencies [6]. In fact, metaphors are recognised as instances of shared cultural understandings which are fundamental to our conceptual systems [1, 2] and even have a potential to determine our actions and reactions [5].

As Jackson [1] pointed out, three main metaphors expressed by sufferers of melancholia and depression, have prevailed from the time of Hippocrates; namely "being in the state of darkness", "being weighted down or weighted down", and "being slowed down". Scholars have carried out the task of uncovering conceptual metaphors in language of depressed people [1, 7, 8, 9, 10]. Levitt and Colleagues [9] found that helpless metaphors used by depressed people transform into promising metaphors over the course of the psychotherapy. However, Rowat and colleagues [7] found no evidence of a direct link between patient-generated metaphors in pre-metaphor with post-metaphor patient utterances; meaning that verbalising metaphors by patients does not necessarily give rise to cognitive and emotional processing.

Differences in metaphors that participants in different cultural settings reportedly have used to describe their experience of depression may reflect underpinning values that a given culture places on metaphoric expressions. Therefore, research on metaphors in diverse cultures shed more light on the fact that culture might shape experiential grounded metaphors [1, 2, 6]. As the matter of the fact, attempts to contextualise our conceptions of "depression" may enable us to see how evidently they are shaped by cultural contexts. For example, some previous studies in Western countries reveal the notion being weighted or pressed down that people use to describe the experience of depression [6]. One can argue that the term depression used in English may convey the same meaning. As mentioned by Lakoff and Johnson [1], not all cultures give the priority to up-down orientation as Westerners do. For instance, the term used in Farsi as equal to depression (that is, AFSORDEGI) reflect different meaning; namely "being wilted", "being withered". Study of metaphors communicated in different cultural contexts may help psychotherapists deal more effectively with clients from diverse cultural/ethnic background.

Metaphors also enable researches to bridge the gap between quantitative/experimental and qualitative approaches in an integrated design. We took a quantitative/qualitative approach to analyse metaphors, as a particular form of language owing to its capacity to illuminate potential meanings in both depressed and healthy people's thoughts and views, as emphasised by Lakoff and Johnson [1, 2]. The focus of the current study is on the metaphors used by people who have been diagnosed as depressed in order to express their suffering. Approaching this focus by collecting the words and phrases of depressed people would help us construct a sense of the cultural values and imperatives that shape the state of "depression" in a particular cultural context. The multifaceted properties of metaphors allow the study on relationship between language and cognition as well as potential interactions between language/cognition and culture.

We also aimed to qualitatively compare the contents of metaphors used by depressed patients in Iranian cultural context. It was hypothesised that metaphors used by depressed people in order to represent their depressive feelings and cognitions would embody a potential set of clinical orientations and cultural values.

METHOD

Participants

Thirty healthy volunteers (mean age=32.45, SD=4.23, age range=23-47) and 30 depressed patients (mean age=33.76, SD=3.56, age range=23-47) matched for age (± 3 years) and gender took part in this study. There were 14 men and 16 women in each group. The patients were recruited from consecutive admissions referred to two psychiatric private offices. The matched group were convenient sample invited to participate. Healthy participants did not have, as self-reported, any psychiatric disorders including depression in the past, and scored less than 15 on BDI. This cut-off point has been proposed in a previously reported research [11]. Depressed patients were interviewed by a psychiatrist and met DSM IV [12] criteria for MDD without psychotic features. They were not on medication

and were recruited from people being first referred to the psychiatric clinics.

proved to be valid (convergent validity: $r=71$, $p<0.01$) with a high internal consistency (0.92).

ASSESSMENT AND MATERIALS

Beck Depression Inventory (BDI)

The Farsi version of BDI was used in this study. BDI is a 21-item self-report measure to assess severity of depressive symptoms, with higher scores indicating greater severity ranging from 0 to 63 [13]. The Farsi version of this measure proved to have significant test-retest reliability (0.77), concurrent validity (0.70) and high internal consistency (0.91) in an Iranian population [11].

Stem-Sentences Test (SST)

SST [14] consists of 9 stem-sentences in Persian language (Farsi), each to be completed by participants as a complete sentence. The make-up of the items was designed in a way that the complete sentences would reflect attitudes and thoughts of respondents. The stem-sentences are intended to detect the views of respondents on topics such as life, future, past, failure, relationship, ability, and depression. The metaphors extracted from this measure were rated by a psychologist on a seven-point scale from 1 (completely negative) through 4 (neutral) to 7 (completely positive). Therefore, the maximum total score would be 63; lower scores show a tendency to express metaphors with more negative theme. These stem-sentences had been previously piloted in a study on healthy participants between 20 and 49 years of age [15]. In this preliminary study, a significant convergent validity ($r=0.74$, $p<0.01$) and a high internal consistency (0.92) were obtained for SST.

Metaphor Inventory (MI)

MI [14] includes 12 open-ended questions in Persian language designed to elicit metaphors people express for different constructs such as world, future, self, others, failure, sadness, helplessness and failure. A psychologist rates the expressed metaphors on a seven-point rating scale from 1 (completely negative) through 4 (neutral) to 7 (completely positive) with maximum total score of 84; lower scores indicate more negative metaphor contents. In a previous study [15], MI

PROCEDURE

To recruit healthy and depressed volunteers, a convenient sampling method was used. After reading and signing an informed consent form, participants completed BDI, SST and MI. Our assessor was a highly trained female psychologist who held a master in clinical psychology with 5 years experiences in psychological evaluation and clinical interview. She first quantified SST and MI in a pilot study (as training stage), and then in the main study while being unaware of the group assignment conditions, depression score, and other details. The assessor reviewed the answers and rated each item based on a 7-point scale described in previous sub-sections. She extracted each expressed metaphor. From a qualitative viewpoint, she also proposed the emotional valence (positive, neutral and negative) of each single metaphor and sorted them in thematic categories based on their implicit themes. It will be further described in next sub-section.

DATA AND METAPHOR ANALYSIS

Quantitative analysis

Using SPSS 19, a series of independent t-tests was conducted to compare depressed and healthy groups performances on each dependent variable (BDI, SST and MI) separately. Also a number of Pearson's correlations were performed to examine the associations between the dependent variables in whole sample. To compare the non-parametric properties of metaphorical categories between depressed and healthy groups, a series of Chi-squares was performed. Moreover, for agreement rate between first and second ratings, Kappa quotients were used.

Qualitative analysis

Metaphors were identified using Lakoff and Johnson's inclusive definition, in which metaphorical expressions are seen as evoking a conceptual transaction between contexts of meaning [1]. Based on this definition, the transaction

between contexts can be also deemed as transformative so that a new way of seeing the world is created.

1. Metaphors extracted from the SST and MI were listed and then categorised, based on potential characteristics (mostly found in various previous studies); namely, VALENCE (negative, neutral and positive emotional tone) and dichotomous properties such as TIME (day/night), HEIGHT (upper/lower), CLOSURE (open/closed), MOVEMENT (mobile/motionless), WEIGHT (light/heavy), FULLNESS (solid/hollow). The evaluation was carried out by a psychologist who was not aware of the group assignments. Twenty percent of the answers were randomly selected and given to another psychologist who was blind to the conditions of respondents to provide suggestions for emotional valence and theme of each expressed metaphor. Agreement between the two judges was .87 ($p < 0.001$) for emotional valence and .85 ($p < 0.001$) for themes, using Kappa.

2. In a qualitative scrutiny, the expressed metaphoric phrases related to depression were re-analysed separately. An assessor used open-coding method in order to code data in every possible way. This type of thematic analysis can be closely located under the rubric of interpretive phenomenological analysis (IPA) [16]. Within this framework, searching for connections across emergent theme is the ultimate point. In this way, the assessor codes the extracted metaphors into as many sub-ordinate categories as they might fit. The initial sets of categories are then re-examined and compared in order to ensure that it was grounded in the data, and to check for super-ordinate categories. Searching for connections across emergent super-ordinate categories, the assessor finally reviews the data and re-checks them to see if every possible way of making sense of the data has been sufficiently taken into consideration.

Specifically speaking, metaphors used by depressed and healthy participants to describe DEPRESSION were reviewed. The answers given to the items related to depression in SST and MI were inductively sorted into categories based on their thematic similarities. In this way, for instance metaphoric phrases like 'a bird in cage', 'trap' or 'lost in a desert' were clustered under

the generic theme of BEING UNABLE TO ESCAPE/BEING LOST; similarly, metaphors like 'black cloud' or 'dark prison' fell under the generic theme of DARKNESS. Most metaphors were grouped in this manner, with only a few remaining words or phrases regarded as unclassified. Once the generic categories were identified, a fellow psychologist was asked to re-categorise the metaphors. The agreement rate was 86%. Both first and second assessors were blind to the group assignments.

RESULTS

General Characteristics

A total of 497 metaphor phrases in the depressed group and 458 in healthy participants were identified. Of these metaphor phrases, 402 were extracted from SST and 553 from MI. A total of 305 phrases did not appear to convey a metaphoric meaning. All of the metaphor phrases were used in developing categories. The metaphors that were not categorised into themes (24%) were excluded from all further analyses.

Quantitative Analysis

Depressed and healthy groups scored differently on BDI ($t_{58}=12.42$, $p < 0.01$), SST ($t_{58}=8.53$, $p < 0.01$) and MI ($t_{58}=6.76$, $p < 0.01$). Tab. 1 consists of mean scores (SD) in two groups showing that depressed patients were more depressed, and had a tendency to produce metaphors with more negative emotional tone than their counterparts in healthy group.

Table 1. Mean scores (SD) for BDI, SSI, and MI measures in depressed and healthy participants

	BDI	SSI	MI
Depressed	28.03 (8.11)	38.34 (6.45)	53.51 (12.61)
Healthy	7.23 (4.23)	18.89 (3.53)	32.91 (3.72)

Tab. 2 demonstrates Pearson correlation coefficients between BDI, SST and MI scores in whole sample ($n=60$). Significant negative correlations between BDI and two other measures (to assess metaphors) show how higher level of depression is associated with metaphors with more negative content. These correlations can be regard-

ed as additional convergent validity for SSI and MI measures.

Table 2. Pearson correlations between dependent variables for whole sample (n=60)

	BDI	SSI	MI
BDI		-0.63 *	-0.59*
SSI			0.78*
MI			

* $p < 0.001$

Qualitative Findings

Of the metaphors produced by depressed participants, 78% fell under negative, 17% under neutral and 5% under positive themes, as opposed to 43% negative, 22% neutral and 35% positive phrases produced by healthy people. As shown in Tab. 3, metaphors used by depressed participants were more negative than positive compared to those by healthy participants. Use of Chi-square supported this observation.

Table 3. Frequencies (percentages) of the metaphoric valence in depressed and healthy respondents

	Valence			Total
	Negative	Neutral	Positive	
Depressed	388 (78%)	84 (17%)	25 (5%)	497 (52%)
Healthy	197 (43%)	101 (22%)	160(35%)	458 (48%)

Chi-square= 161.1, $p < 0.001$

Tab. 4 presents the percentages of metaphors in six dichotomous categories. Metaphors produced by depressed participants tended to be more related to night time (92%), lower positions (78%), closed places (69%), and hollow objects (61%); while those produced by healthy participants were more associated with day time (81%),

Table 4. Percentages of the themes in depressed and healthy respondents

	Time		Height		Closure		Movement		Weight		Fullness	
	Day	Night	Upper	Lower	Open	Closed	Moving	Motionless	Light	Heavy	Solid	Hallow
Depressed	8%	92%	22%	78%	31%	69%	49%	51%	48%	52%	39%	61%
Healthy	81%	19%	76%	24%	72%	28%	71%	29%	49%	51%	55%	45%
Chi-square	10.42		7.38		8.19		1.45		0.89		5.77	
P	<0.001		<0.001		<0.001		Ns		Ns		<0.001	

upper positions (76%), open places (72%), movement (71%), and solid objects (55%). Depressed participants' responses did not seem different for movement (motion) and also weight dichotomies. Healthy participants only appeared not to be different in producing metaphors with regard to light or heavy objects.

As categorised in Tab. 5 (*next page*), both groups produced metaphoric words or phrases for all themes, namely DARKNESS, BEING UNABLE TO ESCAPE/BEING LOST, DEVASTATION and DISEASE. Apart from the category DISEASE, depressed patients generated more metaphors in all classified categories than healthy respondents, with BEING UNABLE TO ESCAPE/BEING LOST and DISEASE as most frequent categorised themes respectively in depressed and healthy groups.

DISCUSSION

Employing a qualitative/quantitative methodology, the present research aimed to detect various aspects of metaphors produced by Iranian depressed patients compared to those produced by their healthy counterparts. The first aim of current research is analysing the relationship between mood and emotional valence of metaphors used by depressed and healthy participants. Quantitative data analysis showed that depressed patients tended to produce metaphors with more negative emotional tone than healthy participants. This finding is further supported by correlational analysis suggesting that higher level of depression is linearly associated with metaphors with more negative contents. This is also consistent with the qualitative findings on valence suggesting that most of the metaphors produced by depressed participants fell under negative themes, compared to metaphoric phrases produced by healthy people.

Table 5. Categorised themes for metaphors given by depressed and healthy respondents in response to SSI and MI items related to depression

Categories	Depressed	Healthy
Darkness:	dark night black cloud black stone	more black than pitch
Being unable to escape/Being lost:	a bird in cage a companion for ever (2)* phantom (2) trap beast hypnosis	lucked/blocked lost in a desert whirlpool a descanter prison lost in the world paralysis
Devastation:	destruction burned moments death (2)	suffocation scamp rotten fruits
Disease:	flu (2) virus madness	incurable pain cancer malignant tumor leprosy (4)
Unclassified:	food everyday meal	nightmare rook (a malevolent bird)

This finding is in line with a phenomenon called mood congruent memory [17]. Using a mood induction procedure, the authors reported that people in depressed mood, compared with those in happy mood, recalled less positive experiences [18]. In accord with this account of affect-related cognition, the tendency to provide metaphors with negative emotional tone in depressed patients can be elucidated. This would be further supported by the construct accessibility model suggesting depression is associated with a tendency to increased accessibility of negative concepts or constructs [19]. However, there are findings from other studies [20] that are inconsistent with the predictions of the construct accessibility model.

Our results also indicated that depressed patients produced metaphoric phrases that are somehow pertinent to night time, lower positions, closed places, and hollow objects. In contrast, healthy participants tended to propose phrases related to day time, upper positions, open places, movement, and solid objects.

Derived from a systematic categorical analysis of metaphoric words or phrases used by de-

pressed and healthy participants to liken DEPRESSION in our study, both groups produced metaphoric words or phrases connoting DARKNESS, BEING UNABLE TO ESCAPE/BEING LOST, DEVASTATION and DISEASE. Altogether, these may contribute to the sense that depression is experienced as an undesirable, unequivocally unpleasant condition among both groups, no matter if they were depressed or not. Nevertheless, if we look more closely, it becomes evident that metaphoric phrases in all categories (except DISEASE) produced by depressed patients are clearly more frequent than healthy participants.

According to the history of writings on melancholia and depression, one of the earliest and long-standing metaphors has been BEING IN DARKNESS since the time of Hippocrates [21]. By this account,

melancholia is deemed to be caused by an excess of black bile which has a connection to the etymologies of melancholia. In Iranian traditional medicine and even in people conversations, the words melancholia (or as in Farsi, MALIKHOLIA) and black bile (in Farsi SAFRAYE SIAH) as its cause have been commonly circulated over centuries. The descriptions of depression “dark night”, “black cloud”, and “black stone” can therefore be associated with the subjective sense of darkness-induced dejection along with clouding of thought and consciousness that were frequently reported by depressed people. In previous studies [21], the metaphor “rainy day” (subsumed under the conceptual metaphor DEPRESSION IS DARKNESS) has been reported to be used by Westerners to liken depression. We found no one example to liken depression to rainy weather in our study. While, rainy weather in some Western societies might be seen as an unpleasant condition, there are findings that suggest Iranians feel hedonic and energetic in rainy weather [22], the fact that can be associated to dry climate in this country. This might account for the underpinning cultural distinction.

Apart from the category DISEASE, depressed patients generated more metaphors in all classified categories than healthy respondents, with BEING UNABLE TO ESCAPE/BEING LOST as the most frequent metaphoric themes. One of the common metaphors that Solomon [23] found in English in order to describe depression is "falling into an abyss". He suggests that this metaphor may convey the construct DEPRESSION IS LACK OF CONTROL. Furthermore, depression has also been reported as being in jail cell/prison [24]. In line with this finding, McMullen and Conway [8] put forward that the category DEPRESSION IS CAPTOR is clearly recognisable to most speakers of English in the Western world. These metaphors generated by depressed patients can be understood in terms of depressive feelings such as helplessness [25].

In present study, the category DISEASE is the most frequent theme produced by depressed patients. That is, healthy participants tended to see depression more as a disease. They described depression to be like incurable pain, cancer, malignant tumor and leprosy. These are diseases that the public view them as irredeemable even fatal, leading perhaps to feeling of hopelessness. In contrast, depressed patients had a tendency to produce less severe examples related to DISEASE, namely influenza, virus, madness. It seems to be consistent with what Andrew Solomon [23] stated: "Depression is a condition that is almost unimaginable to anyone who has not known it".

As mentioned by Jackson [21], one of the main metaphors regarding depressed mood prevailing since ancient Greece, was HEAVINESS (implying being weighted down or weighted down). Jackson [21] speculated that bent-over head and neck and dropping posture of a depressed person may contribute to the aptness of these metaphors. This could have given rise to an increased use of the term depression in 17th and 18th centuries. In this way, the notion of heaviness, weighted down, and pressed down (as denoted by the term depression) perhaps continued to become central for describing any dejection feeling. In this sense, depressed people use metaphoric phrases more associated with a pervasive feeling of heaviness, seemingly reflecting the metaphoric frame of being weighed down. It is in this sense that implicit contexts of meaning may come to structure and metaphorically ex-

press people's impression about the experience of depression. Despite the notion being weighted or pressed down was explicit in previous studies conducted in Western countries [6], the present study found no support to suggest any difference in producing metaphors with regard to light or heavy objects in both depressed and healthy groups. Interestingly, the term which has been used in Farsi for "depression" is AFSORDEGI, which does not convey the same meaning. Instead, AFSORDEGI denotes "being wilted", "being withered". This might explain the difference as such with previously reported findings. Lakoff and Johnson [1] emphasised that not all cultures give the priority to up-down orientation as Westerners do.

There are other metaphors described by our participants not mentioned by Jackson [21]. One of the findings which stand out in present study is using metaphors subsumed under the theme DEPRESSION IS DEVASTATION. The adoption of this theme by participants also attests to the salience of the devastating effect of depression felt by participants in this cultural context. One might conclude that "the devastating effect" relates to lack of sufficient, optimal therapeutic standards and services in Iran as a developing country and subsequently the feeling of hopelessness. There are studies [26] showing that the depression rate in this country is almost twice as high as that in developed societies, the fact that can be reminiscent of inadequacy in offering clinical services in this respect.

In the present study, depressed respondents provided less metaphors as moving than motionless objects compared to the responses provided by healthy counterparts. Arising out of the central sense of moving are perhaps speculations derived from our knowledge and experience of the concept movement. This metaphor can thus be traced back to this experience that we are moving through life as if moving through space; therefore, life is restricted when we cannot move. It connotes in a way that depression is experienced as if one has got stuck, being less able to move. There is a clear sense that a quite deal of personal efforts and determination are required if one is to move. Motionless-related metaphors used by Iranian participants perhaps are more congruent with the meaning of the Farsi word AFSORDEGI, used in place of depres-

sion in this cultural context. Moreover, participants in the present study also describe depression as black stone inherent in which a sense implying lack of clarity in consciousness and also a feeling of unchangeable/static fate.

The present findings can have clinical implications. For instance, studying metaphors expressed in people communications around their lives might inform us about feelings and cognitions experienced by them. Detecting metaphors in this respect would allow us to modify them in process of change in any change processes such as counselling and psychotherapy. Scholars suggested that changing metaphor would facilitate change in mental function and behaviour [27]. With this in mind, one might suggest that it would be beneficial for therapists to motivate clients to focus on the feelings embedded in their metaphors and comprehend the potential meanings of metaphors in the context of their life. As a result, they may come to this realisation that they feel differently when they modify these language figurative expressions.

In treating clients with diverse cultural/ethnic background, therapists can benefit greatly by learning more about the basic structure of conceptual metaphors in each system. This exercise allows for greater sensitivity to patients, more flexible treatment strategy, and better communication.

However, when interpreting the findings of the present study, caution should be observed owing to its limitations. A limitation of this study results from a convenient sample. This may challenge any generalisation of the findings. In addressing this specific problem, future research should design to replicate the present study in larger, randomly selected samples.

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