Language and the Inner
Development of the Beliefs About Functions of Language Scale

Ömer Faruk Şimşek

Department of Psychology, Izmir University of Economics, Turkey

Abstract. The nexus between language and experience addresses the distinct, qualitative aspects of human experience or qualia. These qualitative aspects are important because, when people perceive a disconnect between language and experience, consequences for psychological health may follow. The research reported herein aimed to develop and validate a psychometric tool to assess perceptions of connection between language and experience. Six studies were conducted to confirm the factor structure of the Beliefs About the Functions of Language scale and to assess its construct validity. Two factors were derived and validated (viz. epistemic and communicative), which were shown to relate to mental health indicators in expected ways.

Keywords: language, inner experiences, mental health, qualia, counseling

The Gap Between Experience and Language

One key issue in the attempt to gain greater understanding of the association between language and mental health is the function of language in connecting inner psychological experiences with verbal symbols. Children's ability to label concrete objects allows for the emergence of a rudimentary sense of self, as language enables the child to view the self as separate from the environment through perspective (Buck, 1993). With this emerging perspective, the child can begin to use words to label inner experiences that are thought of as mental objects (Feldman, 1990). Thus, with an enhanced ability to use symbolic devices, a split between language and experience becomes evident. Accordingly, two realms of reality exist: namely, the world of words and the world of experiences to which the words refer. In this situation, children's experiences are mediated by language, whereas previously they were directly accessible.

Russell (1912) described these situations as "knowledge by description" and "knowledge by acquaintance," respectively. The former refers to the direct and immediate nature of bodily experiences, whereas the latter denotes linguistic accounts for those experiences. Words, therefore, provide a separate internal frame of reference that enables people to distance themselves from ongoing experience and offers the possibility of conscious experience (Vaneechoutte, 2000) in which people can consider their psychological experiences and mental states (Buck, 1993; Ivey, 1986; Morin, 2006; Musacchio, 2002). The self, therefore, may be operationalized as the symbolic organization of phenom-

enal experiences by language in a private and relatively stable framework. By using available linguistic tools, humans have the unique ability to label and organize their experiences into a self system. That is, people construct their phenomenal worlds within this split, which is conceptualized by the interplay between "experiencing I" (experiences or mental states) and "explaining me" (language) in the constructionist paradigm (Guidano, 2002).

Problems arise, however, when this split is perceived as a "gap" between language and psychological experience. Some theoretical considerations in the philosophy of language indicate that individuals are prone to experience such a gap. One of the most important discussions on language, in this regard, has been the problem of reference: "What does a word refer to?" When the topic is inner experiences, the referents are highly fluid, which makes it difficult to accurately label such mental states as desires, beliefs, or emotions. It is evident that people can refer to their experiences using words, but difficulties may arise in explaining the subjective quality of phenomenal experiences (Musacchio, 2002). Using words to refer to experience is insufficient to provide a complete, qualitative description because there is no demonstrative (i.e., concrete) referent. Subjective quality refers to the problem of qualia in the philosophy of mind, according to which intrinsic features of experience are beyond language. Thus, it is evident that the problem of reference and qualia refer to the same phenomenon when the context is inner psychological or mental states: that is, the inevitable gap between language and experience.

Consequently, when individuals conceive of language as an insufficient means of grasping the idiosyncratic nature of their experiences, they are more likely to feel distant from

their private world (Levine, 2000) and the gap between language and experience becomes greater. It is plausible, at this point, to argue that the individuals' private perceptions regarding the (dis)connection between language and experience would have important implications for mental health because individual meaning-making processes are only possible through language (Guidano, 2002). Moreover, it could be argued that the elementary features relating to mental health, such as self-awareness, insight, self-discovery, self-knowledge, and introspection, can be conceptualized by the language-experience connection. Thus, knowledge about the individual differences concerning the gap may make an important contribution to an understanding of the antecedents of psychological health. Moreover, the inquiry into the topic could improve our understanding regarding interventions because this is the gap that makes all therapies possible (Owen, 1991).

Research on this gap, however, has been limited in the psychology literature. Although there are important investigations into the role of language in psychotherapy processes, the research only considers the narrative functions of language. This approach, according to Pennebaker and King (1999), suffers from limitations concerning the determination of the appropriate dimensions of language. The main purpose of this research is to conceptualize the basic functions of language concerning the (dis)connection between language and experience and to operationalize them using a valid and reliable psychometric instrument.

The Functions of Language

Referential Function

The most basic function of language concerns the use of words to refer to inner experiences or states, which marks the beginning of a private, conscious reality. When an individual undergoes an experience, the first thing to be done is to use linguistic markers in order to refer to this experience, a function that can be compared to pointing. A relation between a word and a corresponding referent is believed to be a basic requirement for semantic development (Feldman, 1990; Montgomery, 2002). That is, a word must have a referent in order for it to be meaningful. According to Montgomery (2002), psycholinguists often assume that semantic development is primarily related to reference. The importance of the referential function (RF), therefore, comes from its relation to meaning (Eiland, 1984). Thus, this function measures the degree of confidence in the fact that the words can refer precisely to inner experiences. Accordingly, this function suggests that people who are high on the RF assume that the meaning of words comes from their association with referents.

Chapman (1999) argued that in conversations the concept of referent is the basis for understanding. Thus, mutual understanding requires each party's belief in the correspondence between words and the things to which they refer in a given conversation. Without presupposing such referents for experiences, it is difficult to understand others. Indeed, seeking for a model to explain how understanding works in conversations, Clark and Wilkes-Gibbs (1986) indicate that considering words as corresponding to a definite reference seems to be the most important step in successful dialogs. Furthermore, mental state language as the referential use of words could form a basis for empathy and caring (Symons, 2004), a view also supported by research (Howe, 1991; Howe, Aquan-Assee, Bukowski, Lehoux, & Rinaldi, 2001). The results of these studies suggest that internal state language which is dependent upon the assumption that words refer to some mental objects may be a potential means for empathy. This implies that anyone who thinks that when using words we cannot refer to the corresponding inner experiences may have difficulties in understanding others. Consequently, the association of the RF with empathy seems probable.

Epistemic Function

Garver (1973) stated that there is agreement among individuals, as well as some philosophers, that the primary purpose of language is epistemological, which also seems to be accepted in psychology. Owen (1991), for example, stated that language and words enable us to categorize, develop meaning, and know experiences. The relevant research (McMullen, 1985, 1989) reveals that some types of language use, especially the figurative ones, are perceived as more effective in representing the inner experiential world. The common result of all these studies was that figurative language serves as insight into inner experiences, implying that individuals' unique experiences may be better represented by differential language use. Hence, this dimension is concerned with the ability of language to function as a reliable tool for obtaining knowledge of private experiences.

Research provides some clues that the epistemic function (EF) seems to vary among individuals, which points to implications for important aspects of self and mental health. According to Morin (2006), for example, being knowledgeable about one's private self-aspects represents a higher form of self-awareness and requires inner speech. Similarly, Buck (1993) stated that words convey not only feelings or desires, but also knowledge about them, which in turn makes self-regulation and self-knowledge possible. Moreover, recent research (Walla, Greiner, Duregger, Deecke, & Thurner, 2007) has provided important evidence that certain brain activities of language processing were directly related to self-awareness. It is evident that words serve as bearers of knowledge about one's different aspects of self, which refers to the clarity of self-concept (Galloway, 2000).

The possible effects of the EF on mental health are beyond self-concept and the reflexive component inherent in this function has been a concern for recent works in the mental health literature. The constructionist approach, for example, is partly dependent on the belief that self-understanding and mental health are closely connected to the "I" (experiencing self) and "me" (explaining self) differentiation, which requires language (Guidano, 2002). Indeed, there is some

evidence that language is one of the most important factors in gaining knowledge into inner experiences, which, in turn, facilitates enhanced mental health. Pennebaker and Graybeal (2001) showed that the verbal expression of thoughts or feelings about traumatic experiences to oneself is highly influential in this process. According to these researchers, verbal expression of inner experiences affects the ways people think about their emotions and themselves. Clarke (1991, 1996) similarly gives clear examples of how putting emotionally charged experiences into words makes the therapy successful. According to his results, when the emotional content is expressed in words, what is felt becomes known, reducing the gap between experience and language in the context presented here. In other words, both the expression of emotional content and the feeling of awareness that accompanies it lead to improved mental health.

Communicative Function

Although the communication of "the inner" to others is a familiar issue in psychology (e.g., self-disclosure, mental state talk, and empathy), this function is concerned with understanding this phenomenon in relation to the gap between language and experience. As a natural consequence of the first two functions regarding one's connection with inner experiences through language, the main issue for the third function is the communicability of these experiences. Consequently, the individuals who are high on this dimension tend to consider language as a reliable means for communicating inner experiences, the transfer of meaning from one party to another.

The psychological significance of the communicative function (CF) seems to be related to critical concepts in mental health. For example, Howe et al. (2001) suggest that knowledge regarding internal states can be more successfully gained by sharing personal information, which, they propose, allows for emotional understanding. Other researchers have indicated that by expressing internal states, individuals come to some cognitive understanding of inner experiences (Pennebaker & Graybeal, 2001; Symons, 2004) and remain socially tied to others (Pennebaker & Graybeal, 2001). Indeed, further research has shown that expressing internal states becomes important for personality development and mental health from early childhood. Slomkowski, Nelson, Dunn, and Plomin (1992), for example, provided evidence that expressive language development was related to extraversion in early and middle childhood. Therefore, it is not hard to predict that the individuals who experience difficulties in communicating their inner psychological states to others through language manifest more psychological problems. Adjusting to the community, in this respect, depends on making oneself known using linguistic means. Thus, this function seems to be important for the mental health of individuals as social creatures. Indeed, research indicated that the individuals who cannot express their emotions through language are liable to experience more mental health problems (Pennebaker, 1993).

Overall, the literature on the association between language and experience postulates three functions: referential, epistemic, and communicative. The functions of language stated here concern both interpersonal communication of the inner experiences and intrapersonal dimensions of referring to, and knowing, these experiences through language. These functions were expected to result in relatively independent factors revealing differential associations with some important psychological phenomena, such as self-concept clarity, depression, and empathy.

Study 1 (Scale Development, EFA, CFA, and Initial Reliability)

The purpose of Study 1 was to develop a set of items to tap the hypothesized multidimensionality of the functions of language and to explore the underlying factor structure of the items. This measure, called the Beliefs About the Functions of Language (BAFL) scale, was expected to demonstrate adequate internal consistency and high item-total correlations. Additionally, the factor structure generated by the exploratory factor analysis was predicted to be affirmed through confirmatory factor analysis.

Method

Scale Development and Item Generation

In this phase, I generated items to represent the three dimensions of experiencing language, namely the referential, epistemic, and CFs. The construct being measured was defined as individuals' reliance on the power of language in these three dimensions as a means of expressing their inner experiences. In writing the items for this scale, I took into consideration the three functions of language: referring, knowing, and communicating. Initially, 30 preliminary items reflecting the three dimensions of experiencing language were generated.

The items were evaluated by four Ph.D. linguists and four Ph.D. philosophers and items that were agreed upon as congruent with the content domain were retained. Consequently, the expert evaluators were asked to rate the relevance of each item for measuring the functions on 5-point scales. Responses ranged from 1 = appropriate to 5 = not appropriate. For each dimension, the seven items with the highest ratings were included in the final form. Consequently, 21 items were included in the scale.

Participants

The research sample used for the exploratory factor analysis comprised of 352 undergraduate students (162 male and 190 female) of the Faculty of Educational Sciences, and the Graduate School of Educational Sciences, University of Ankara, with a mean age of 22 years.

Results

Factor Structure of the BAFL Scale: Exploratory Factor Analysis

Prior to conducting exploratory factor analysis, two indicators were examined to determine whether the sample was appropriate. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate the data; the KMO index was .82, indicating that the sample was appropriate for factor analysis. Tabachnick and Fidell (2001) suggested that values greater than .60 are required for factor analysis. Additionally, Barlett's test of sphericity was significant ($p < .001$). To determine the factor structure of the BAFL scale, a principal components exploratory factor analysis was performed on all 21 items using Varimax rotation with Kaiser normalization. The number of components to be extracted was then determined by (a) eigenvalues above 1.0 and (b) Cattell's scree test. However, Kaiser's criterion can yield too many factors; thus, the retention of factors was determined by the scree plot (Zwick & Velicer, 1986), which suggested three components. Additionally, the three-factor solution was chosen for two reasons: (a) it was the most conceptually interpretable and (b) it resulted in the most sound factor structure with stronger item loadings and factor internal consistency. Variables with single-factor loadings

less than .35 and variables with cross-loadings greater than .10 were eliminated. From the original 21 items on the basis of the above criteria, four items were eliminated: "Experiences lose their richness when they are expressed through words," "Words are direct reflections of our inner world," "Our experiences and the words that describe them are two different worlds," and "Experiencing and putting experiences into words are totally different things."

Table 1 presents the item factor loadings for the three factors determined by the factor analysis. The factor structure of the BAFL scale is consistent with the theory on which it is based. Factor 1 contained six items that measured the EF, accounting for 19.37% of the variance. Factor 2 contained six items that measured the RF, accounting for 17.46% of the variance. Factor 3 contained five items that measured the CF, accounting for 14.27% of the variance. These three factors accounted for 51% of the total variance. Cronbach's alpha internal consistency estimates for the final 17-item BAFL total scale and the three factors were .80, .79, .79, and .73, respectively.

Confirmatory Factor Analysis

I used a competing model strategy (MacCallum, Wegener, Uchino, & Fabrigar, 1993) by testing the proposed three-

Table 1. Factor loadings of the items of BAFL

Item/factor	EF	RF	CF	*M*	*SD*	α
Epistemic function						
01. Real meaning is somewhere beyond words.	**.77**	.12	.08	3.42	1.24	.73
11. Reality cannot be reached, and cannot be expressed exactly through words.	**.71**	.01	.22	2.76	1.24	.75
02. Life can never be fitted into words.	**.70**	.08	.15	3.56	1.27	.76
03. What matters is what something actually is, not what it is called.	**.62**	.09	.05	3.71	1.19	.77
10. Words cannot completely reflect the nature of experiences.	**.61**	.07	.24	3.03	1.20	.77
12. No word can precisely describe reality.	**.57**	.12	.15	2.84	1.27	.77
Referential function						
04. Words are things which directly point to what we are trying to express.	−.12	**.75**	.08	3.06	1.17	.76
14. When explaining a particular experience, I feel there is perfect harmony between what I want to explain and the words that I have used.	−.15	**.74**	.32	2.99	1.05	.77
07. The best way to express something is to find the best word that defines it.	.16	**.69**	−.10	2.32	1.25	.76
06. Each word carries inherent meaning; what you mean is quite clear when you use it.	.14	**.68**	−.02	3.64	1.05	.76
05. I think there are words that completely correspond to each experience.	.26	**.67**	−.17	3.70	1.15	.75
13. There is always a perfect word to express anything in human life.	.24	**.63**	−.27	3.69	1.11	.77
Communicative function						
08. When sharing my problems, I suffer from an insufficiency of language.	.07	−.04	**.80**	2.73	1.24	.70
09. I think that the words I choose to express myself cannot be precisely understood by others.	.14	−.02	**.78**	2.77	1.19	.68
16. Nobody can fully communicate what their experiences actually mean through words	.43	−.02	**.54**	2.78	1.33	.66
15. I sometimes feel that my experiences begin to lose their clarity when I try to express them.	.37	.07	**.54**	3.06	1.15	.64
17. Words are no more than labels that we use to name our experiences.	.25	−.14	**.47**	2.87	1.16	.72

Note. Analysis is based on 352 observations. BAFL item ratings range from 1 to 5. Likert scale anchors for Study 1 ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Internal consistency estimates for Factors 1, 2, and 3 were α = .79, α = 79, and α = .73, respectively; α = Cronbach's alpha coefficient if item deleted.

Table 2. The results of confirmatory factor analyses on BAFL

Indices	Null model	Three-factor model	One-factor model
χ^2/df	13.48	2.43	8.15
GFI		0.91	0.69
AGFI		0.88	0.60
RMR		0.04	0.13
RMSEA		0.06	0.17
CFI		0.90	0.50

Note. $N = 352$. Confidence intervals for the RMSEA were as follows: Three-Factor Model = .055–.074; One-Factor Model = .16–.18. BAFL = Beliefs About the Functions of Language; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; RMR = root-mean-square residual; RMSEA = root-mean-square error of approximation; CFI = comparative fit index.

factor model against two others: one-factor model and a null model. Using Lisrel 8.3 (Jöreskog & Sörbom, 1993), a confirmatory factor analysis was conducted on a covariance matrix of the BAFL scores. Several indexes assessing the degree to which the models fit the data were computed for each of the competing models. As noted extensively in the literature, chi-square statistics tend to be affected by large sample sizes and are almost significant despite reasonable fit to the data (Bentler & Bonett, 1980; Byrne, 1998). Therefore, as suggested by Byrne (1998), several alternative indexes of fit as adjuncts to the chi-square statistic were used, including the chi-square to degrees of freedom (χ^2/df) ratio, the comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root-mean-square error of approximation (RMSEA), and root-mean-square residual (RMR). Goodness-of-fit indicators for the competing models for the BAFL scale items are shown in Table 2. An evaluation of fit indexes suggested that an acceptable degree of fit was obtained just for the three-factor model.

Normative Information

The mean values and standard deviations for the BAFL total and three factors are as follows: BAFL total: $M = 53.48$, $SD = 10.12$; EF: $M = 19.34$, $SD = 5.19$; RF: $M = 19.42$, $SD = 4.78$; and CF: $M = 14.71$, $SD = 4.15$. In addition, skewness and kurtosis indices were computed for the total BAFL and factors, ranging from –.092 to –.22 and .22 to –.48, respectively. These low numbers reveal that the distributions of the BAFL and factor scores are approximate to a normal distribution (Tabachnick & Fidell, 2001).

Item Analysis

Corrected item-total correlations were calculated (Table 3). The corrected item-total correlations ranged from .48 to

Table 3. Corrected item-total correlations for BAFL and subscales

Item/factor	r (factor)	r (ELS total)
Epistemic function		
01.	.65*	.56*
11.	.58*	.53*
02.	.55*	.52*
03.	.49*	.42*
10.	.51*	.49*
12.	.48*	.45*
Referential function		
04.	.55*	.23*
14	.52*	.32*
07.	.56*	.32*
06.	.53*	.34*
05.	.58*	.36*
13.	.54*	.28*
Communicative function		
08.	.59*	.30*
09.	.60*	.36*
16.	.49*	.45*
15.	.44*	.44*
17.	.38*	.25*

Note. *$p < .01$.

.65 for EF, from .52 to .58 for RF, from .38 to .60 for CF, and from .23 to .56 for the whole scale.

Factor Intercorrelations

The intercorrelations among the factors suggested that the CF and RF were not correlated significantly ($r = .013$, $p > .05$). The correlation between the communicative and EFs was relatively high ($r = .55$, $p < .01$), indicating that these two factors are somewhat interrelated. Finally, the correlation between the EF and RF was low ($r = −.21$, $p < .01$).

Study 2 (Cross-Validation)

A confirmatory factor analysis was used to investigate the factor stability of the three-factor solution of the BAFL scale. It was hypothesized that the data obtained in Study 2 would fit the factor model established in Study 1 and that the pattern of subscale intercorrelations for the BAFL scale would be similar for that obtained in Study 1.

Method

Participants

To replicate the factor structure of the final version of the scale, a sample, consisting of 227 (104 male, 123 female, and mean age = 21.2 years) undergraduates, was recruited from different faculties of a representative university.

Results

Exploratory Factor Analysis

A principal components analysis using Varimax rotation was computed on the final version of the BAFL scale. Again a three-factor solution was clearly supported by the scree plot. The three factors had eigenvalues of 3.16, 2.61, and 2.56, respectively, and accounted for 49.05% of the variance. All items loaded greater than .40 (most over .60), except for one item of the epistemological function having .26 factor loading, on their intended factors and less than .10 on the other factors.

Confirmatory Factor Analyses

Confirmatory factor analyses were then performed for this sample using maximum likelihood estimation. The results indicated an acceptable fit to the data: $\chi^2 = 205.56$, $df = 116$, $\chi^2/df = 1.77$, GFI = .88, AGFI = .84, SRMR = .071, RMSEA = .066, and CFI = .89. The modification indexes produced by Lisrel indicated only seven modifications for the model. An examination of the possible explanations for the modifications revealed that the error covariance between item 9 ("I think that the expressions I use in order to express myself cannot be understood by others fully") and item 14 ("When I want to tell my experience, I feel the words I use smoothly matches with the thing I want to express") was the result of the specific wording of these items. Adding the covariance between item 14 and 9 improved the fit of the model: $\chi^2 = 187$, $df = 115$, $\chi^2/df = 1.62$, GFI = .89, AGFI = .85, SRMR = .069, RMSEA = .059, and CFI = .91. The chi-square difference test indicated that this modification significantly improved the fit of the model, $\chi^2 (1) = 18.27$, $p < .01$.

Factor Intercorrelations

The intercorrelations among the factors in the exploratory factor analysis revealed a pattern similar to that obtained in Study 1. That is, the correlation between the CF and RF was low ($r = .22$, $p < .01$). The correlation between the CF and EF was again relatively high ($r = .46$, $p < .01$), indicating that these two factors are relatively interrelated. Finally, the correlation between the EF and RF was again low ($r = -.27$, $p < .01$). Even in the confirmatory factor analysis, the correlations were found to be .32, .60, and .33, respectively.

Study 3 (Test-Retest Reliability)

The purpose of Study 3 was to investigate additional reliability estimates, specifically test-retest reliability. Although the functions of language are related to highly fluid experiences and thus hard to capture, it was predicted that the

BAFL scale would be stable over time. Since the CF is the most comprehensible to individuals, it was predicted to be the most stable function over time. The RF, on the other hand, was expected to be the least stable function because of its more abstract nature.

Method

Participants

Fifty-seven undergraduate students (33 female and 24 male) enrolled in a large university completed the BAFL scale. The age of the participants ranged between 18 and 22 years ($M = 18.92$, $SD = .90$). The participants for this study were students recruited from the Introductory Guidance subject pool, who were administered the BAFL scale on two occasions 3 weeks apart.

Results

The correlation coefficients between the first and second implementation for the BAFL total and the subscales were as follows: the BAFL total ($r = .82$), EF ($r = .76$), RF ($r = .68$), and CF ($r = .82$). These findings suggest that both the BAFL scale total and the subscales are acceptably stable over time except for RF as expected.

Study 4 (Construct Validity)

As mentioned in the introduction, if all psychological processes and phenomena are the result of, or at least strictly connected with, language, it was expected that the functions of language would be associated with mental health. The gap between inner psychological states and language, on the other hand, can easily be regarded as a lack of self-awareness or self-knowledge as well as understanding others. The aim of this study, in this regard, was to obtain evidence concerning the construct validity of the BAFL scale by investigating its association with a number of scale scores related to psychopathology, scores of self-concept clarity, and empathic tendency.

Method

Participants

To obtain evidence for construct validity, two sets of data from two additional samples of participants were used. In the first sample, the BAFL scale, brief symptom inventory (BSI), beck depression inventory (BDI), and self-concept clarity scale (SCCS) were administered at the same time to 188 undergraduate students. The second sample consisted of 108 university students who answered the BAFL scale and the empathic tendency scale (ETS).

Measures

BSI

The BSI scale was developed by Derogatis (1992) as a shortened version of the SCL-90-R and was adapted to Turkish by Şahin and Durak (1994). It consists of 53 items rated on a 5-point, Likert-type scale anchored by 1 = not at all distressed to 5 = extremely distressed. The scale was developed in order to measure nine different mental health indicators, such as depression, interpersonal sensitivity, somatization, obsessive-compulsive disorder, anxiety, and paranoid thoughts. The adapted version of BSI revealed 5 subscales as a result of exploratory factor analysis: Anxiety, Depression, Negative Self, Somatization, and Hostility. The Cronbach alpha reliability coefficients have been found to be acceptable, .95 to .96 for the Turkish form.

BDI

The BDI scale with 21 items was developed by Beck, Rush, Shaw, and Emery (1979) and was adapted to Turkish by Hisli (1989). Each of the 21 items consists of four sentences anchored by 0 = absence of a depressive symptom to 3 = the highest degree of the symptom. The Cronbach alpha and split-half reliability coefficients were .80 and .74, respectively. The Pearson correlation coefficient between MMPI-D and BDI was .63.

SCCS

The SCCS was developed by Campbell et al. (1996) as a measure of the internally consistent and temporally stable definitions of personal attributes or of the contents of one's self-concept. The response format of the SCCS is a 5-point Likert scale anchored by 1 = strongly disagree to 5 = strongly agree. Thus, higher scores indicate a more consistent and stable self-concept. The average alpha reliability coefficient with regard to the three studies of the research was .86. The scale was adapted to Turkish by Sümer and Güngör (1999). The Cronbach alpha reliability coefficient of the scale was found to be $\alpha = .89$ in the study. In this study the Cronbach alpha coefficient was again .89.

ETS

The ETS was developed by Dökmen (1988) in order to measure individuals' potentials for empathic understanding in daily life, using a 5-point Likert format anchored by 1 = strongly disagree to 5 = strongly agree, with higher scores indicating higher degrees of empathic tendency. Although there is no factor analytic study on this scale, its reliability was measured by a test-retest method ($r = .82$) and split-half method ($r = .86$). The validity of the scale was defined by the correlation between the ETS and Intraception subscale of Edwards Personal Preference Schedule ($r = .68$). The Intraception subscale measures the need for taking the perspective of and understanding others. The reliability coefficient for the scale in this study was $\alpha = .70$.

Results

The validity of the BAFL scale was investigated in two studies. In the first, with the conceptual and theoretical expectation of their intercorrelations, the BAFL scale was administered with the BSI, the BDI, and the SCCS to a sample consisting of university students ($N = 188$). The correlations between the BAFL scale and other scales were calculated. Pearson correlations are presented in Table 4. The correlations between total BAFL scale scores and other scales were low, whereas they were moderate for the CF subscale. There was no correlation between the RF subscale scores and those of other scales implemented in this first study, except for the lowest significant correlation (.14) with the beck depression scale.

In order to provide further evidence for validity, the correlation between the ETS and the BAFL scale ($N = 108$) was calculated. As can be seen in Table 4, again the CF was the subscale having the highest correlation values. The RF was correlated with the empathic tendency, whereas the EF was not.

Study 5 (Revision of the Scale)

Although the results showed that the scale had good psychometric quality, some revisions were needed. First, the RF

Table 4. Correlations between the BAFL scale and the other psychological tests

	BAFL total	Epistemic	Referential	Communicative
BSI total	.35***	.33***	.04	.38***
Anxiety	.24***	.24***	−.02	.29***
Depression	.39***	.35***	.08	.40***
Negative self	.31***	.31***	.00	.36***
Somatization	.30***	.27***	.05	.33***
Hostility	.25***	.27***	.06	.21**
Interpersonal sensitivity	.27***	.29***	.06	.36***
Beck depression	.31***	.22**	.14*	.32***
Self-concept clarity	−.31***	−.25***	.03	−.40***
Empathic tendency	−.30***	.02	−.27***	−.43***

Note. *$p < .05$; **$p < .01$; ***$p < .001$.

was eliminated from the scale. This subscale seems to add nothing to our understanding of the functions of language, given that it was only found to be associated with empathic understanding with a lower effect size in addition to its relatively low test-retest reliability. Second, the items in the remaining two subscales were edited for clarity to make them more understandable for laypersons and new items were written. In this regard, eight items per each function were created, three of which were reverse-scored. Thus, the aim of this study was to find evidence for the two-factor structure with new items. Additionally, the construct validity of the scale was tested using the same mental health indicators employed in the fourth study for replication.

Pilot Study

Participants and Measures

One hundred thirty-one participants were involved in this study. All of them answered the BAFL scale. The participants were from different age groups with the range of 16–45 ($M = 26.43$) and from different educational background (77 of them were high-school students or having no university education, while 54 of them were university students or having an undergraduate degree).

Results

Exploratory and Confirmatory Factor Analysis

Exploratory factor analysis resulted in five factors explaining the 63.34% of the variance. However, the scree plot indicated a two-factor solution. After eliminating the variables

with single-factor loadings less than .35 and variables with cross-loadings greater than .10, twelve items were kept in this two-factor solution. An inspection of the factors revealed that the first consisted of seven items reflecting the CF, which accounted for 26.17% of the variance. The second factor, EF, consisted of five items, which accounted for additional 22.64% of the variance. The internal consistencies of these factors were determined by the Cronbach alpha coefficients of .78 and .77, respectively. The correlation between the factors was .35. Confirmatory factor analysis for this two-factor model resulted in better goodness-of-fit statistics ($\chi^2/df = 1.94$; GFI = .88; AGFI = .83; RMR = .083, RMSEA = .086; CFI = .89) against one-factor model ($\chi^2/df = 4.42$; GFI = .77; AGFI = .66; RMR = .12, RMSEA = .162; CFI = .68).

Main Study for Factor Structure

Participants and Measures

Three hundred eighty individuals (200 female, 178 male, and two participants did not indicate their gender) having different educational status participated in this study (202 of them had high-school degree, whereas 178 were university students or having an undergraduate degree). Mean age was 23.48 with the range of 15–58.

Results

Exploratory and Confirmatory Factor Analysis

A principal components analysis with Varimax rotation resulted in three factors having eigenvalue greater than 1

Table 5. Factor loadings of the items of the BAFL_R scale

Item/factor	CF	EF	*M*	*SD*	α
Communicative function					
09. No matter how hard I try to express myself to people, I do not believe that anybody can understand me exactly.	**.77**	.23	2.84	1.41	.75
11. I do not feel people can fully understand the words I use to express myself.	**.68**		2.86	1.21	.78
05. I feel words can reflect my feelings exactly to other people.	**−.68**		3.07	1.06	.78
04. I cannot communicate the "Real I" deep inside of me by words.	**.66**	.30	3.10	1.26	.77
12. I feel people can understand me fully when I express myself with words.	**−.65**		3.21	1.05	.79
03. When I start to express my feelings to others, I feel they lose their profundity.	**.55**		2.78	1.29	.81
08. When I communicate myself, I feel I am confined by the boundaries of language.	**.53**	.42	2.76	1.29	.79
Epistemic function					
01. I believe that the real meaning of my experiences is beyond language.		**.80**	3.17	1.20	.64
07. I do not believe that my experiences can fully be named.	.25	**.68**	2.96	1.19	.64
02. Sometimes I think there is a gap between my feelings and the corresponding words.	.22	**.62**	3.11	1.10	.63
06. Sometimes I feel I cannot name the things I experience in myself.	.30	**.59**	2.96	1.25	.61
10. I think there are exact counterparts of my feelings in language.	.36	**−.46**	3.38	1.14	.66

Note. Analysis is based on 380 observations. BAFL item ratings range from 1 to 5. Likert scale anchors for Study 1 ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Internal consistency estimates for CF and EF and the whole scale were α = .81, α = .70, and α = .83, respectively; α = Cronbach's alpha coefficient if item deleted.

with suitable values of KMO (.84) and Barlett's test of sphericity (1361.18; $p < .001$). An inspection of the scree plot indicated that a two-factor solution was suitable for factoring the items. These two factors, namely epistemic and communicative dimensions, accounted for 48% of the total variance with respected items having higher than .45 factor loadings. The correlation between the factors was .38. Table 5 shows factor loadings for the two factors. Confirmatory factor analyses, consistent with the other results, showed that the two-factor solution produced better goodness-of-fit statistics ($\chi^2/df = 3.19$; GFI = .92; AGFI = .87; RMR = .069, RMSEA = .086; CFI = .88) against one-factor model ($\chi^2/df = 5.37$; GFI = .86; AGFI = .80; RMR = .080, RMSEA = .12; CFI = .79).

Study 6 (Construct Validity)

Participants and Measures

Participants of this study were 93 high-school and 99 university students with mean age of 18.23 and range of 15–24. They answered the BAFL scale and the same questionnaires used in Study 4 except for the beck depression scale.

Results

As can be seen from Table 6, the two factors and the total score of the BAFL scale are correlated with all mental health indicators. However, the revised version of the BAFL produced stronger correlations. Some correlations (e.g., anxiety) were as much as two times stronger than those obtained in the earlier studies. Moreover, the correlation of the EF to empathy changed from .02 to .32. It is clear that the new items became more intelligible and, thus, the association of the functions of language to mental health also became more evident.

Table 6. Correlations between the BAFL_R scale and the other mental health indicators

	BAFL total	CF	EF
BSI total	.53***	.49***	.44***
Anxiety	.49***	.45***	.41***
Depression	.50***	.46***	.44***
Negative self	.47***	.45***	.39***
Somatization	.41***	.37***	.34***
Hostility	.40***	.37***	.34***
Empathic tendency	−.37***	−.39***	−.24***
Self-concept clarity	−.47***	−.48***	−.32***

Note. BSI = Brief Symptom Inventory. ***$p < .001$.

General Discussion

The BAFL scale was developed in order to assess individuals' understandings of the association between language and inner experiences. The refinement of the scale resulted in a form that consisted of 12 items reflecting the epistemic and communicative functions of language. The results of the factorial validity studies indicated that the scale consisted of the two factors with acceptable reliability estimates.

In the construct validity study, the findings concerning the relationship between the BAFL Scale scores and various scales of mental health indicated some convergent validity indicators. The language that individuals use is considered as a basic dimension in constructing 'the world' to which one reacts (Neimeyer, 1993; Neimeyer & Mahoney, 2002). Constructivist approaches state that experiencing the word-world connection is the most important aspect of psychopathology (Neimeyer & Mahoney, 2002). Consistent with this view, acknowledging language as a means of knowledge of inner experiences was found to be negatively correlated with psychopathology, and positively with self-concept clarity and empathic tendency. That is, individuals regarding language as a valid means of acquiring knowledge appear to exhibit less psychopathology and have a more differentiated concept of self in addition to being more akin to empathize with others. Language, with regard to its EF, is therefore an important aspect in psychological problems, a finding that is strongly supported by the earlier research concerning mental health and language (Bucci, 1982; Clarke, 1991, 1996; Gonçalves & Machado, 1999; Watson, 1996).

Individuals' use of language seems to be the main tool that renders highly fluid experiences understandable and, thus, controllable. Language, in this regard, is not just a tool by which the expression of the mental realm is processed, but it actually makes this realm possible because of its fundamental mediatory function. Social constructionists interpret this mediation as the main advantage for mental health because it opens the way for epistemic routes. In this approach, mental health is revealed by the continual process of experiencing and then explaining the experiences by self-reflexive ability, enabled by language or symbolic processes (Guidano, 2002). Thus, the advantage of self-reflexivity or self-awareness is less for those who feel language cannot represent the real character of experience. Buck (1993) argued that dealing with the internal environment is partly dependent on putting experience into words. Indeed, research indicates that as individuals come to believe that they can express themselves through language effectively, a sense of self-understanding becomes correspondingly evident which, in turn, results in improved levels of mental health (Pennebaker & Graybeal, 2001; Stiles, Honos-Webb, & Lani, 1999; Watson, 1996). Thus, it seems plausible to argue that the increasing realization that language can accurately represent the inner world brings freedom from anxiety and the power to manipulate their experiences as a more concrete reality.

The association between the CF and mental health indicators could possibly be explained in two ways. On the one hand, the expression of internal states to others brings about

a more effective self-understanding (Pennebaker & Graybeal, 2001; Symons, 2004) because almost all internal states are the result of the interaction with the social environment. Indeed, the research by Howe et al. (2001) produced findings that a child who self-discloses has a better understanding of emotions. It could be argued that effective sharing of personal information will result in better understanding of oneself as a consequence of coordinating the self-other differentiation, which will, in turn, result in improved mental health. The research by Neimeyer, Banikiotes, and Ianni (1979), in this respect, demonstrated that expressing self-relevant issues to others leads to a higher psychological construing. In other words, expressing oneself through linguistic markers provides a base on which higher-order self-representations could be created. On the other hand, an outcome of effective expression of the inner experiential world to others would be better forecasting of social reactions in the future. As people feel more secure and more confident in expressing their inner world, they become better adjusted to social reality and consequently have better mental health (Buck, 1993). Similarly, recent research (Fertuck, Bucci, Blatt, & Ford, 2004) showed that higher levels of symbolic verbal representations, and the effective use of language to express inner states, were related to improvements in social behaviors. It is plausible, then, that the CF would additionally serve as a means to mental health by its effect on social adjustment.

The implications of these results in the helping process are clear. One aim of the counseling and psychotherapy process may be to strengthen the client's belief in the connection between language and inner experiences. It could easily be argued that the linking of experience with words is the essence of all helping processes. Since all psychopathologies are created and sustained in language, it is in this realm that they must be solved (Efran & Fauber, 2002). Thus, the therapist or counselor should be aware of the importance of language quality with regard to the functions of language.

As Ivey (1986) stated, the helping process could be seen as transforming the use of language by the client with regard to self-reflection. This transformation, in this regard, could be achieved by increasing the confidence to use language in exploring and understanding the personal experiences. The research on language use in the helping process indicated that metaphors as well as a variety of figurative uses of language might be the most effective way of establishing such a confidence. Owen (1991), for example, stated that metaphors are considered better approximations of experience than ordinary literary language use because of their great physical quality referring to the embodied nature inherent in experiences. Clarke (1996) referred to the gap between experience and language using the concept of "creation of meaning," implying the individual's need to acknowledge emotionally charged experiences by putting them into words. As a marker of change in the helping process, creation of meaning is the creation of linguistic markers for the felt sense of experiences and can be fostered by using figurative language such as metaphors, according to Clarke. The research, indeed, indicated that successful creation of meaning episodes is related to the change process (Clarke, 1991). Another of Clarke's (1996) research findings indicated that therapists' usage of metaphors and analogy is

an effective intervention with regard to the creation of meaning. Moreover, this research revealed that a therapist's ability to connect language to felt experiences was related to successful creation of meaning events. Thus, it seems obvious that the quality of the therapist's language style helps the clients use more effective language in understanding experiences. One plausible mission of the therapist, in this context, could be teaching of more effective language to clients by encouraging the use of figurative and idiosyncratic language specific to the individual. Such improvements will help clients in expressing the felt experience in higher levels of symbolic representations, which, in turn, allow higher levels of awareness (Levine, 2000).

With the developments in acknowledging the role of language in psychotherapy processes, therapeutic communication has started to be perceived as a reconstruction of reality through dialog between client and therapist (Guidano, 2002; Ivey, 1986). Every improvement with regard to the gap between experience and language will, at the same time, lead to better communication of inner experiences to the helper, which will make the whole process more effective because all processes are dependent on this communication. As clients see their own "language" as a safe "place" to explore personal issues, their relationship with the helper becomes a real dialog through which successful and reconstructive interventions become possible. Thus, all effective uses of language that lessen the gap will, in turn, contribute to the process of therapeutic communication.

Directions for future research are numerous. This two-factor model concerning the gap between language and experience is expected to serve as a stimulus for further research on the relationship between language and mental health. It is evident that inquiries into finding the possible mediators or moderators would be of considerable contribution to an in-depth understanding of the impact of this gap on mental health. The effect of different uses of language on the process of counseling or therapy should also be examined. It is plausible, in this regard, to argue that different schools of counseling or therapy could have different impacts on lessening the gap because they have different approaches to language used in the therapeutic relationship (Ivey, 1986). Additionally, experimental research should examine the causal direction between the gap and mental health. The present study's correlational design and its exclusive reliance on self-report measures of the variables of interest preclude this determination. The causal direction could also be explored in a developmental perspective. It can be speculated that the low quality of the relationship between a child and caregivers would be reflected in the communication, and thus, contribute to the gap. Variables such as attachment, accordingly, should be taken into account by future investigations.

Some limitations might have impacted the outcomes of this study. The first limitation is the small size of the pilot sample used in the revision study, which precluded exploration of the factor structure of the initial item pool. Second, though test-retest indexes were quite good, the participants were a convenience sample composed of relatively young university students. Certainly these parameters limit the inferences that can be made regarding the stability of the BAFL scale scores over time and across populations.

Despite the above-mentioned limitations and noted areas for further exploration, the findings of the present research affirm that the BAFL scale possesses strong psychometric properties and demonstrates that it is promising as a brief and convenient-to-use measure. It is hoped that the availability of this measure will promote empirical study on the gap between language and experience.

References

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588–606.

Bucci, W. (1982). The vocalization of painful affect. *Journal of Communication Disorders, 15*, 415–440.

Buck, R. (1993). What is this thing called subjective experience? Reflections on the neuropsychology of qualia. *Neuropsychology, 7*(4), 490–499.

Byrne, B. M. (1998). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts*. Applications, and Programming. Mahwah, NJ: Erlbaum.

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*(1), 141–156.

Chapman, M. (1999). Constructivism and the problem of reality. *Journal of Applied Developmental Psychology, 20*(1), 31–43.

Clark, H. H., & Wilkes-Gibbs, D. (1986). Referring as a collaborative process. *Cognition, 22*, 1–39.

Clarke, K. M. (1991). A performance model of the creation of meaning event. *Psychotherapy: Theory, Research, and Practice, 28*(3), 395–401.

Clarke, K. M. (1996). Change process in a creation of meaning event. *Journal of Consulting and Clinical Psychology, 64*(3), 465–470.

Derogatis, L. R. (1992). *The brief symptom inventory (BSI), administration, scoring and procedures: Manual II.* Clinical Psychometric Research.

Dökmen, Ü. (1988). Empatinin yeni bir modele dayanýlarak ölçülmesi ve psikodrama ile geliþtirilmesi (Measuring empathy relying on a new model and improving it by psychodrama). *Eðitim Bilimleri Fakültesi Dergisi, 21*(1–2), 155–190.

Efran, J. S., & Fauber, R. L. (2002). Radical constructivism: Questions and answers. In R. A. Neimeyer & M. J. Mahoney (Eds.), *Constructivism in psychotherapy* (pp. 275–304). Washington, DC: American Psychological Association.

Eiland, H. (1984). Beyond psychology: Heidegger on Nietzsche. *Kenyon Review, 6*(1), 74–87.

Feldman, C. F. (1990). Early forms of thought about thoughts: Some simple linguistic expressions of mental state. In J. W. Astington, P. L. Harris, & D. R. Olson (Eds.), *Developing theories of mind* (pp. 126–140). Cambridge: Cambridge University Press.

Fertuck, E. A., Bucci, W., Blatt, S. J., & Ford, R. Q. (2004). Verbal representation and therapeutic change in anaclitic and introjective inpatients. *Psychotherapy: Theory, Research, Practice, & Training, 41*(1), 13–25.

Galloway, B. A. (2000). *Correlates and consequences of self-concept clarity*. Austin: University of Texas. Unpublished Master thesis.

Garver, N. (1973). Preface (D. B. Allison, Trans.). In *Speech and phenomena: And other essays on Husserl's theory of signs* (pp. ix–xxix). Evanston: Northwestern University Press.

Gonçalves, O. F., & Machado, P. P. P. (1999). Cognitive narrative psychotherapy: Research foundations. *Journal of Clinical Psychology, 55*(10), 1179–1191.

Guidano, V. F. (2002). Self-observation in constructivist psychotherapy. In R. A. Neimeyer & M. J. Mahoney (Eds.), *Constructivism in psychotherapy* (pp. 155–168). Washington, DC: American Psychological Association.

Hisli, N. (1989). Beck depresyon envanterinin üniversite öğrencileri için geçerligi, güvenirligi [The reliability and validity of Beck depression Inventory for university students]. *Turkish Journal of Psychology, 7*(23), 3–13.

Howe, N. (1991). Sibling-directed internal state language, perspective taking, and affective behavior. *Child Development, 62*, 1503–1512.

Howe, N., Aquan-Assee, J., Bukowski, W. M., Lehoux, P. M., & Rinaldi, C. M. (2001). Siblings as confidants: Emotional understanding, relationship warmth, and sibling self-disclosure. *Social Development, 10*(4), 439–454.

Ivey, A. E. (1986). *Developmental therapy: Theory into practice*. San Francisco: Jossey-Bass.

Jöreskog, K. G., & Sörbom, D. (1993). *Lisrel 8: Structural equation modeling with the SIMPLIS command language*. Lincolnwood, IL: Scientific Software International.

Levine, S. (2000). Topology of awareness: Therapeutic implications of logical modalities of multiple levels of awareness. *Journal of Poetry Therapy, 14*(2), 79–95.

MacCallum, R. C., Wegener, D. T., Uchino, B. N., & Fabrigar, L. R. (1993). The problem of equivalent models in applications of covariance structure analysis. *Psychological Bulletin, 114*, 185–199.

McMullen, L. M. (1985). Methods for studying the use of novel figurative language in psychotherapy. *Psychotherapy, 22*, 610–619.

McMullen, L. M. (1989). Use of figurative language in successful and unsuccessful cases of psychotherapy: Three comparisons. *Metaphor and Symbolic Activity, 4*(4), 203–225.

Montgomery, D. E. (2002). Mental verbs and semantic development. *Journal of Cognition & Development, 3*(4), 357–385.

Morin, A. (2006). Levels of consciousness and self-awareness: A comparison and integration of various neurocognitive views. *Consciousness and Cognition, 15*, 358–371.

Musacchio, J. M. (2002). Dissolving the explanatory gap: Neurobiological differences between phenomenal and propositional knowledge. *Brain and Mind, 3*, 331–365.

Neimeyer, R. A. (1993). An appraisal of constructivist psychotherapies. *Journal of Consulting and Clinical Psychology, 61*(2), 221–234.

Neimeyer, R. A., Banikiotes, P. G., & Ianni, L. E. (1979). Self-disclosure and psychological construing: A personal construct approach to interpersonal perceptions. *Social Behavior and Personality, 7*(2), 161–165.

Neimeyer, R. A., & Mahoney, M. J. (2002) (Eds.), *Constructivism in psychotherapy*. Washington, DC: American Psychological Association.

Owen, I. R. (1991). Using the sixth sense: The place and relevance of language in counseling. *British Journal of Guidance & Counselling, 19*(3), 307–320.

Pennebaker, J. W. (1993). Putting stress into words: Health, linguistics, and therapeutic implications. *Behavior Research and Therapy, 31*, 539–548.

Pennebaker, J. W., & Graybeal, A. (2001). Patterns of natural language use: Disclosure, personality, and social integration. *Current Directions in Psychological Science, 10*(3), 90–93.

Pennebaker, J. W., & King, L. A. (1999). Linguistic styles: Language use as an individual difference. *Journal of Personality & Social Psychology, 77*(6), 1296–1312.

Russell, B. (1912). *The problems of philosophy*. New York: Galaxy.

Şahin, N. H., & Durak, A. (1994). Kisa semptom envanteri: Türk gençleri için uyarlanmasi (Brief Symptom Inventory: Adaptation for the Turkish youth). *Türk Psikoloji Dergisi, 9*(31), 44–56.

Slomkowski, C. L., Nelson, K., Dunn, J., & Plomin, R. (1992). Temperament and language: Relations from toddlerhood to middle childhood. *Developmental Psychology, 28*(6), 1090–1095.

Stiles, W. B., Honos-Webb, L., & Lani, J. A. (1999). Some functions of narrative in the assimilation of problematic experiences. *Journal of Clinical Psychology, 55*(10), 1213–1226.

Sümer, N., & Güngör, D. (1999). Psychometric evaluation of adult attachment measures on Turkish samples and a cross-cultural comparison. *Turkish Journal of Psychology, 14*(43), 71–106.

Symons, D. K. (2004). Mental state discourse, theory of mind, and the internalization of self-other understanding. *Developmental Review, 24*, 159–188.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn & Bacon.

Vaneechoutte, M. (2000). Experience, awareness, and consciousness: Suggestions for definitions offered by an evolutionary approach. *Foundations of Science, 5*, 429–456.

Walla, P., Greiner, K., Duregger, C., Deecke, L., & Thurner, S. (2007). Self-awareness and the subconscious effect of personal pronouns on word encoding: A megnetoencephalography (MEG) study. *Neuropsychologia, 45*, 796–809.

Watson, J. C. (1996). The relationship between vivid description, emotional arousal, and in-session resolution of problematic reactions. *Journal of Consulting and Clinical Psychology, 64*(3), 459–464.

Zwick, W. R., & Velicer, W. F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin, 99*, 432–442.

About the author

Ömer Faruk Şimşek is an assistant professor at Izmir University of Economics, Department of Psychology. His main areas of interest are subjective well-being and its relation to narrative processes, and the association between language use and mental health.

Ömer Faruk Şimşek

Izmir University of Economics
Department of Psychology
Sakarya Cad. No. 156
35330 Balcova/Izmir
Turkey
E-mail faruk.simsek@ieu.edu.tr/simsekof@gmail.com