



Original

## Examining the Role of Emotioncy in Willingness to Communicate: A Structural Equation Modeling Approach<sup>☆</sup>



Hossein Makiabadi<sup>a</sup>, Reza Pishghadam<sup>a,\*</sup>, Elham Naji Meidani<sup>a</sup>, and Gholam Hassan Khajavy<sup>b</sup>

<sup>a</sup> Ferdowsi University of Mashhad, Iran

<sup>b</sup> University of Bojnord, Iran

### ARTICLE INFO

*Article history:*

Received 22 October 2018

Accepted 13 March 2019

Available online 22 May 2019

*Keywords:*

Individual differences

Willingness to communicate

Emotioncy

Structural equation modeling

### ABSTRACT

Given that willingness to communicate (WTC) as an important individual difference (ID) variable plays a pivotal role in the second language acquisition (SLA) domain and the fact that an array of factors may affect it in English as a foreign language (EFL) classrooms, this study examines the relationship between the sensory emotioncy types and L2 WTC. To this end, 236 EFL learners ranging from intermediate to advanced proficiency levels were asked to take the willingness to communicate and the sensory emotioncy type scales. Afterwards, confirmatory factor analysis (CFA) and structural equation modeling (SEM) were utilized to analyze the data. The results demonstrate that all three types of sensory emotioncy namely, emotional, cognitive, and sociocultural have significantly positive correlations with the L2WTC subscales, including willingness to speak (WTS), willingness to read (WTR), willingness to write (WTW), and willingness to listen (WTL). The findings also reveal that the cognitive type is a significantly positive predictor of WTR and WTL. In the end, the results are discussed, and some suggestions and implications are presented to the benefits of rejuvenating SLA education.

© 2019 Universidad de País Vasco. Published by Elsevier España, S.L.U. All rights reserved.

## Examinar el papel de la “emotioncy” en la voluntad de comunicarse: un enfoque de modelado de ecuaciones estructurales

### RESUMEN

Teniendo en cuenta que la voluntad de comunicarse (WTC) como una importante diferencia individual (ID) desempeña un papel fundamental en el dominio de adquisición de segundo idioma (SLA) y el hecho de que una serie de factores pueden afectarlo en inglés como lengua extranjera (EFL) en las aulas, este estudio examina la relación entre los tipos de emoción sensorial y L2 WTC. Con este fin, se pide a 236 estudiantes de EFL (inglés como lengua extranjera) que van desde niveles de competencia intermedios a avanzados que respondan a los cuestionarios WTC y SETS. Posteriormente, se ha utilizado el análisis factorial confirmatorio (CFA) y el modelo de ecuación estructural (SEM) para analizar los datos. Los resultados demuestran que los tres tipos de emoción sensorial, es decir, emocional, cognitivo y sociocultural, tienen correlaciones significativamente positivas con las subescalas L2WTC, incluida la voluntad de hablar (WTS), la voluntad de leer (WTR), la voluntad de escribir (WTW) y disposición a escuchar (WTL). Los hallazgos también revelan que el tipo cognitivo es un predictor significativamente positivo de WTR y WTL. Al final, se discuten los resultados y se presentan algunas sugerencias e implicaciones a los beneficios de rejuvenecer la educación de SLA.

© 2019 Universidad de País Vasco. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

*Palabras clave:*

Diferencias individuales

Voluntad de comunicarse

Emotioncy

Modelado de ecuaciones estructurales

PII of original article: S1136-1034(18)30256-9.

<sup>☆</sup> Please cite this article as: Makiabadi H, Pishghadam R, Meidani EN, Khajavy GH. Examinar el papel de la “emotioncy” en la voluntad de comunicarse: un enfoque de modelado de ecuaciones estructurales. Rev Psicodidact. 2019;24:120–130.

\* Corresponding author.

E-mail address: [pishghadam@um.ac.ir](mailto:pishghadam@um.ac.ir) (R. Pishghadam).

## Introduction

The psychology field, from the very beginning of its emergence, has been struggling to accomplish two different and almost contradictory goals, first to discover the general principles of the human mind, and second to delve into the uniqueness of the individual mind (Dörnyei, 2006). The second goal has found its way in an independent sub-discipline, known as individual difference (ID) research. Dörnyei (2005) defined IDs as “dimensions of enduring personal characteristics that are assumed to apply to everybody and on which people are assumed to differ by degree” (p. 4). Many investigations have been conducted suggesting that IDs remarkably influence human thinking and behavior (Cooper, 2002; De Raad, 2000), and this influence is also conspicuous in educational settings (Snow, Corno, & Jackson, 1996). IDs have been reported to be strong predictors of learners’ success in SLA, yielding several correlations with language achievement in educational settings (Dörnyei & Skehan, 2003). One of the ID variables which has gained much attention after the emergence of the communicative language teaching (CLT) method is willingness to communicate (WTC). MacIntyre and Charos (1996) believe that “recent trends toward a conversational approach to second language pedagogy reflect the belief that one must use the language to develop proficiency, that is, one must talk to learn” (p. 3). Yet, language learners show contradictory inclinations toward speaking the L2 when they have the chance to do so. Some learners are remarkably willing to speak the L2 in the classroom, while others are more willing to keep quiet.

Many variables have been assumed to have an impact on WTC such as motivation (Peng, 2015; Yashima, 2002), classroom environment (Peng & Woodrow, 2010), attitudes (Yashima, 2002), shyness, and anxiety (Baker & MacIntyre, 2000). Meaning that, to reinforce learners’ WTC, second language teachers’ top priority should be consolidating the learners’ affective factors such as motivation, attitudes, and also emotions. As Schutz and Pekrun (2007) states, the level of learners’ emotions can influence their acquisition processes, performance, and language achievement. In this regard, Pishghadam, Adamson, and Shayesteh (2013) injected an emotion-based perspective into second language learning. Based on this perspective, each word carries a certain emotional load for each individual referred to as *emotioncy*. That is, the words with higher degree of emotions are learned faster and easier compared to the ones with a lower degree. In brief, considering the importance of WTC and also the usefulness of *emotioncy* in the context of language learning, studying the relation of these variables could be considered of high value and may provide us with insightful results and implications. Moreover, this body of quantitative research can be distinguished from prior studies in terms of its focus on exploring the simultaneous effects of three major ID aspects (emotional, cognitive, and sociocultural) in the light of *emotioncy* and their possible relationships with four types of WTC (speaking, writing, listening, and reading).

## Theoretical framework

### *Individual differences*

It is undeniable that, human beings are similar and unique at the same time. Since they belong to the same species, they share the same anatomy; however, they are different from one another in terms of some specific aspects. Many of these individual differences (IDs) are visible while the rest can only be discovered by systematic observation of behavior (Dewaele, 2009). Macaro, Vanderplank, and Murphy (2010) defined IDs as “the personal characteristics that,

it is hypothesized, all learners have but which may measurably differ from learner to learner” (p. 74).

IDs range from a number of variables beyond one’s control such as age, gender, and first language background to motivation, strategy use, language learning beliefs, affective factors (e.g., anxiety and WTC), personality, learning style, metacognition, self-efficacy, self-concept, and identity. As a matter of fact, the number of variables that could be considered as individual differences has recently increased so dramatically that the criteria providing different definitions for IDs are not quite clear anymore (Polat, 2014). In other words, it is difficult to determine where motivation ends and WTC begins; these overlapping areas are so considerable that researchers often study multiple IDs in a single study (e.g., Gao & Zhang, 2011; Murray, 2011). Due to the fact that this study covers emotional, cognitive, and sociocultural aspects as leading to differences among individuals, three relevant concepts namely, emotional intelligence (EI), the need for cognition (NFC), and sociocultural theory (SCT) will be examined here.

EI, a closely-related concept to the emotional side of IDs, was put forward by Salovey and Mayer (1990). Gardner’s (1983) introduction of eight different types of intelligence, particularly personal intelligence, paved the way for the development of EI. Salovey and Mayer (1990) depicted EI as the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action” (p. 189). Subsequently, in 1997, Bar-On emphasized a dire need to measure and operationalize EI since this construct plays a pivotal role in an individual’s life, predicting success and achievement. It is worthy to mention that unlike intelligence quotient (IQ) which is only responsible for 20% of success, EI develops through the whole course of lifetime and has a considerably more important role in one’s success (Goleman, 1995).

An important theory related to the cognitive aspect of IDs is NFC. Initially, Cohen, Stotland, and Wolfe (1955) defined NFC as the necessity for structure and clarity in one’s surroundings. Later, Cacioppo and Petty (1982) conceptualized NFC as the tendency of individuals to get involved in cognitively effortful tasks across a vast array of domains and to enjoy fulfilling them. Research has shown that individuals who hold a high NFC use more cognitive resources in information processing (Enge, Fleischhauer, Brocke, & Strobel, 2008), reflect on relevant information when dealing with cognitive tasks (Cacioppo & Petty, 1982; Coutinho, Wiemer-Hastings, Skowronski, & Britt, 2005), and generate tasks which demand more cognitive and effortful cognitive responses (Dickhäuser, Reinhard, Diener, & Bertrams, 2009). In addition, individuals with a high NFC have intrinsic motivation to delve into strategies despite the demanding challenges found in unenviable tasks; however, individuals with a low NFC tend to be extrinsically motivated, show little interest in challenging intellectual tasks, and usually invest on surface learning strategies (Day, Espejo, Kowollik, Boatman, & McEntire, 2007).

In 1978, Vygotsky put forward SCT and differentiated it from cognitive approaches in terms of its prime emphasis on semiotic processes where engagement in socially-mediated activities is of high importance and is regarded as the main source of gaining knowledge while in cognitive approaches the individual is the only source of knowledge (Donato, 2000). The central premise of SCT is that learning is a social activity and language is used in social interaction as a mediating tool contributing to learning. In a similar vein, Swain (2005) maintained that, from a sociocultural perspective, language learning is significantly affected by the production of language. Speaking (and/or writing) is conceived of as cognitive tools- tools that mediate internalization; and that externalize internal psychological activity, resocializing, and recognizing it for the individual; tools that construct and deconstruct knowledge; and tools that regulate and are regulated by human agency

**Table 1**  
Emotioncy levels (adapted from Pishghadam, Jajarmi, & Shayesteh, 2016)

| Level                 | Experience   |
|-----------------------|--|
| Null emotioncy        | When an individual has not heard about, seen, or experienced an object or a concept. |
| Auditory emotioncy    | When an individual has merely heard about a word/concept.                            |
| Visual emotioncy      | When an individual has both heard about and seen the item.                           |
| Kinesthetic emotioncy | When an individual has touched, worked, or played with the real object.              |
| Inner emotioncy       | When an individual has directly experienced the word/concept.                        |
| Arch emotioncy        | When an individual has done research to get additional information.                  |

CFA-SETS = confirmatory factor analysis of sensory emotioncy type scale, CFA-WTC = confirmatory factor analysis of willingness to communicate, SEM-WTR = structural equation model of willingness to read, SEM-WTW = structural equation model of willingness to write, SEM-WTL = structural equation model of willingness to listen, SEM-WTS = structural equation model of willingness to speak, CFI = comparative fit index, TLI = Tucker-Lewis index, RMSEA = root mean square error of approximation, SRMR = standardized root mean square residual.

(p. 480). Additionally, the significance of language as a tool has been given further support in the prior studies conducted by Donato and Lantolf (1990), Swain and Lapkin (1998), and Nunan (1992). The most prominent and common feature among these studies is the nature of the social processes that learners use during interactions, and how language is utilized as a tool to make meaning of the world.

### Emotioncy

Emotions are assumed to play an important role in the processes of education and learning in general (Pekrun, Goetz, Titz, & Perry, 2002), and in foreign language learning in particular (MacIntyre & Gregersen, 2012). Yet, the significant role of emotions has received little attention from researchers in different fields (Artino, Holmboe, & Durning, 2012). Shanmugasundaram and Mohamad (2011) maintained that the emotional aspect of education has not been given proper consideration and more studies are required to be carried out to underscore the importance of emotions in leaning. Concerning language learning and teaching, the analysis of the emotional side of the learners is not a new phenomenon; however, few studies have investigated the impact of emotions upon English language learners (Imai, 2010; Pishghadam, 2009). In this respect, Pishghadam et al. (2013) placed emphasis on language learners' emotional abilities, notably those they conveyed from their L1 experience. Inspired by Greenspan and Wieder's (1997) individual-differences, relationship-based (DIR) model, they proposed *emotion-based language instruction* (EBLI) as a new perspective in second/foreign language learning. The DIR model is based on three components: Development of emotions in children, Individual differences in children's way of experiencing the world, and relationships of children with their mother or caregiver. The model was designed to help children enhance their intellectual capacities and improve their emotional, social, and language skills through meaningful interactions (Greenspan & Wieder, 1997). The part of this model which inspired Pishghadam et al. (2013) was the role of emotions in language learning. In this line, they believed that words toward which individuals have higher levels of emotions might be acquired easier and faster. Pishghadam, Shayesteh, and Rahmani (2016) pointed out that people might have different degrees of emotioncy toward various items of a language based on their sensory experiences. The different emotioncy levels are the following: null (0), auditory (1), visual (2), kinesthetic (3), inner (4), and arch (5). Table 1 gives a recapitulation of each emotioncy level.

In order to further elaborate the concept, Pishghadam (2015) proposed a hierarchical model for different levels of emotioncy (Figure 1).

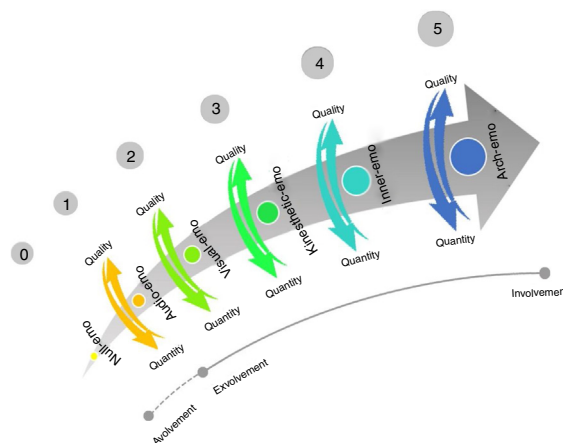
As can be observed, emotioncy moves from avolvement (null level) to exvolvement (auditory, visual, and kinesthetic levels) and eventually to involvement (inner and arch levels). In a classroom

setting, learners can move from avolvement to involvement and become more engaged with the item or language entity with which they are struggling to learn.

### Willingness to communicate

The concept of WTC with respect to native language (L1) was initially introduced into the literature by McCroskey and Baer (1985). They conceptualized WTC as an individual's general orientation toward participating in L1 communication. In previous studies, it has been indicated that WTC in L1 hinges both on individual's prior experience in communication situations (McCroskey & Richmond, 1991), on their personality traits such as perceived competence, social psychological characteristics, and also on anxiety (MacIntyre, Babin, & Clément, 1999). A great deal of attention has been paid to the concept of WTC in L2 education in recent decades. This might be due to the important role of communication in L2 acquisition (Kang, 2005). The construct of L2 WTC was initially broached by MacIntyre, Clément, Dörnyei, and Noels (1998) and was defined as "a readiness to enter into discourse, at a particular time with a specific person or persons, using L2" (p. 547). They also conceptualized L2 WTC through a layered pyramid model and illustrated that learners' personality, intergroup atmosphere, intergroup attitudes, intergroup motivation, L2 self-confidence, and communicative competence are various factors influencing WTC in an L2, and L2 use (Figure 2).

Within this model, the SLA constructs are structured as a multi-layered proximal–distal continuum. Besides, this model shows that a large variety of individual factors such as anxiety, attitude, motivation, and also a number of social factors such as language contact and ethno-linguistic validity affect WTC (MacIntyre, 2007).



**Figure 1.** Hierarchical model of emotioncy (adapted from Pishghadam, 2015).

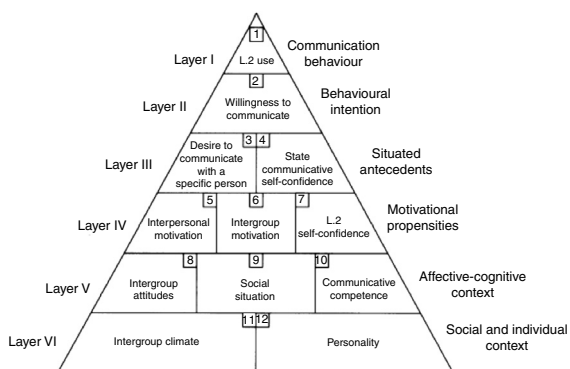


Figure 2. Heuristic model of variables influencing WTC.

The focus of the majority of L2 WTC studies has been only on speaking (Hashimoto, 2002; Khajavy, Ghonsooly, Hosseini, & Choi, 2016; Peng, 2015; Peng & Woodrow, 2010). However, WTC is not merely limited to speaking and includes other language skills as well (MacIntyre, Baker, Clément, & Conrod, 2001; MacIntyre et al., 1998). It is reasonable to claim that a student might be willing to speak in an L2 but not willing to read or willing to write in that language. Therefore, to make the results regarding each skill distinct, WTR, WTL, WTW are used to refer to *willingness to read*, *willingness to listen*, and *willingness to write*, respectively.

#### Purpose of the study

The purpose of the present study is to first design a sensory emotioncy type scale and then to examine its relationship with L2 WTC among Iranian EFL learners. Thus, the present study aims to answer the following questions: (1) Is the sensory emotioncy type scale reliable and valid for the sample studied in this study?; (2) Is the willingness to communicate (WTC) scale reliable and valid for the sample studied in this study?; and, (3) Are there any significant relationships between sensory emotioncy types (emotional, cognitive, and sociocultural) and EFL learners' WTC?

## Method

### Participants

A total of 236 EFL students took part in this study, including 108 females and 128 males aged 11–45 ( $M = 17.06$ ,  $SD = 4.73$ ) with Persian as their first language. They were English learners of intermediate to advanced proficiency levels studying at four private English language institutes (Kish Novin, RahPouyandegan and Shukuh: Two branches) in Mashhad, Iran. The reason behind choosing learners from four language schools was to have a wider range of individuals from different socioeconomic statuses with their own differences so that it may increase generalizability. The participants were selected based on convenience or opportunity sampling. Moreover, the participants were ensured about the confidentiality of this study and verbal consent was obtained from all participants before beginning the study.

### Instruments

#### Sensory emotioncy type scale (SETS)

The researchers developed and validated a sensory emotioncy type scale comprising three components namely, emotional, cognitive, and sociocultural, based on the DIR model, which primarily aims to establish emotional, cognitive, and social foundations to

boost the development of children. As explained earlier, this model was the basis for the development of EBLI in second/foreign languages by Pishghadam et al. (2013). To develop the scale, the researchers attempted to find the most frequent activities for each of these factors so that these activities could be included as the items of the questionnaire. To do so, 20 experts in general psychology were interviewed concerning emotional and cognitive, and sociocultural activities. Finally, six activities with higher frequency for each factor were selected. The categorization of the activities was the following: emotional: keeping a diary, giving gifts, arguing and quarreling, gardening, playing music, and providing emotional support for the poor; cognitive: learning a new language, doing research, playing brain games, computer programming, translating, and reciting poems by heart; sociocultural: participation in elections, presence in religious ceremonies, participation in celebrations, organizing festivals, ceremonies, and exhibitions, visiting historical/religious places collectively, and visiting deprived areas. Participants responded to 18 items presented on a 6-point Likert scale including the six levels of emotioncy: “I tend not to get involved with it at all (null emotioncy)”, “I prefer to hear about it (auditory emotioncy)”, “I prefer to hear about it and see it (visual emotioncy)”, “I prefer to hear about, see and feel close to it (kinesthetic emotioncy)”, “I prefer to hear about, see, feel close to and experience it (inner emotioncy)”, and “not only I prefer to hear about, see, feel close to, and experience it, but I also tend to do some research upon it (arch emotioncy)”. In order to pilot the scale, it was distributed among eight EFL learners. Ultimately, the students were told to pass their suggestions if the items were vague to them. Accordingly, some modifications were made to ensure the comprehensibility of the entire items.

#### WTC scale

To assess L2 WTC of the learners, a 27-item questionnaire developed by MacIntyre et al. (2001) was utilized. The items were presented on a 5-point Likert scale ranging from *almost never willing* to *almost always willing* (with 1 = almost never willing, 2 = sometimes willing, 3 = willing half of the time, 4 = usually willing, and 5 = almost always willing (see the Appendix for sample items). As mentioned earlier, all participants' mother tongue was Persian; therefore, to make the scale more comprehensible and also to increase the return rate, the questionnaire was translated into Persian by the researchers. Then, it was piloted with eight EFL learners and was back-translated into English by an expert in translation. Back translation, which is translating the original instruments into Persian and translating them back to English, was employed to ensure the accuracy of the translated version. Afterwards, the English back-translation version and the original English scale were carefully compared and examined, and some items of the new scale underwent some changes. Finally, an expert in translation double-checked it to guarantee the full accuracy of the scale. Also, it should be mentioned that the WTC questionnaire examined the students' degree of WTC regarding the four language skills, meaning that oral communication was not assumed as the only type of communication. In other words, this scale consists of both productive (i.e. speaking and writing) and receptive skills (i.e. listening and reading), due to the fact that receptive skills might consolidate the learners' WTC in other areas of language use, if they are given the chance. This questionnaire includes 27 items with regard to four skill areas: Speaking (8 items), comprehension (5 items), reading, (6 items), and writing (8 items).

#### Procedure

To collect the data, after gaining the permission of the supervisors of the four language institutes where the study took place, the



two scales were administered to the EFL learners. The data collection was conducted in June and July of 2017 and it took around fifteen minutes for each participant to fill out the scales. Prior to the administration of the questionnaires, all participants were informed that their responses would remain anonymous and that their participation was not mandatory. The data were collected, and then entered into and analyzed with the Statistical Package for Social Sciences (SPSS 22) program. The internal consistency of the scales was measured by Cronbach's alpha ( $\alpha$ ) coefficient. Moreover, we used composite reliability which is commonly used while performing SEM as it measures reliability more accurately than Cronbach's  $\alpha$  (Peterson & Kim, 2013). To substantiate the construct validity of both scales, confirmatory factor analysis (CFA) was employed. Finally, the relationships between the variables were analyzed through using structural equation modeling (SEM), and to examine the structural relations, the proposed model was tested using Mplus (version 7.3). We used robust maximum likelihood (MLR) estimator which can handle non-normal data. Moreover, to check the model fit, we used goodness-of-fit indices including CFI, TLI, RMSEA, and SRMR. To have fit model, CFI and TLI should be above .90 and RMSEA and SRMR should be less than .08 (Hu & Bentler, 1999). However, according to Marsh, Hau, Kit-Tai, and Wen (2004), these values are not golden rules and values close to these values can also be considered as acceptable. To report effect size, we used Cohen's  $f^2$ . It is interpreted as following:  $f^2 = .02$  small,  $f^2 = .15$  moderate and  $f^2 = .35$  large.

## Results

### Preliminary analyses

Before testing the models, preliminary analyses were conducted to check missing data, outliers, and normality (Tabachnick & Fidell, 2007). For missing data, as there were just a few cases with missing data, we performed listwise deletion and removed all cases with missing data. Regarding outliers, we checked both univariate and multivariate outliers. For univariate outliers, we found nine cases for WTC variable, and they were subsequently removed. To examine multivariate outliers, Mahalanobis  $D^2$  was checked. With this regard, 6 cases had Mahalanobis  $D^2$  with  $p < .001$  which were removed. Finally, univariate and multivariate normality were investigated. To check univariate normality, skewness and kurtosis values were examined which should be within the range of  $-2$  and  $+2$ . All items had skewness and kurtosis values within the acceptable range except one item related to WTC which was removed from the study. Moreover, multivariate normality was examined using Mardia's critical ratio coefficient which should be less than 5. In this study, all variables had Mardia's critical ratio coefficient less than 5 except one variable (Mardia's critical ratio coefficient = 6.15). However, as we used MLR estimator, having non-normal data is not a problem.

### Validity of the scales

In order to answer the first research question and to examine the validity of the sensory emotioncy type scale, CFA was employed. Based on the CFA, the association between each sub-factor of the proposed model was analyzed. This scale includes three sub-constructs of emotional, cognitive, and sociocultural. Standardized factor loadings and standard errors can be seen in Figure 3. Each subscale had six items. Items which had very low factor loadings ( $< .40$ ) were removed from the model. Goodness-of-fit indices are reported in Table 2. As Table 2 indicates, the measurement model showed good fit to the data. Hence, the factor structure of the sensory emotioncy type scale was confirmed by CFA. In order to

examine the construct validity of the WTC scale and answer the second research question, CFA was used. This scale includes four sub-constructs of WTR, WTW, WTL, and WTS. Standardized factor loadings and standard errors can be seen in Figure 4. WTR, WTW, WTL, and WTS had 6, 8, 4, and 8 items, respectively. Items which had very low factor loadings ( $< .40$ ) were removed from the model. Goodness-of-fit indices are reported in Table 2. As Table 2 indicates, the measurement model showed acceptable fit to the data. Hence, the factor structure of the WTC scale was confirmed by CFA.

### Reliability of the scales

To assure the reliability of the scales, Cronbach's alpha and composite reliability were calculated. Table 3 summarizes the information obtained from reliability analyses. As Table 3 indicates, three variables had low reliability values and therefore, interpretations about these three variables should be taken into account with more caution. Moreover, all composite reliability values are higher than average variance explained (AVE) which confirms the convergent validity of the variables.

### Descriptive statistics and correlations

Descriptive statistics including mean and standard deviation can be seen in Table 4.

Table 5 shows the relationships between all the sub-components of SETS and four types of WTC. As the results show, all emotioncy types had positive correlations with WTC subscales. The *emotional type* had a small correlation with WTS ( $r = .28, p < .01$ ), WTR ( $r = .18, p < .01$ ), WTW ( $r = .27, p < .01$ ), and WTL ( $r = .25, p < .01$ ). Moreover, the *cognitive type* had a moderate correlation with WTR ( $r = .34, p < .01$ ) and WTL ( $r = .31, p < .01$ ), and a small correlation with WTS ( $r = .20, p < .01$ ) and WTW ( $r = .29, p < .01$ ). Finally, the *sociocultural type* had a moderate correlation with WTS ( $r = .30, p < .01$ ), and small correlation with WTR ( $r = .15, p < .05$ ), WTW ( $r = .25, p < .01$ ), and WTL ( $r = .22, p < .01$ ).

### The structural models of the EFL learners' sensory emotioncy types and WTC

Four separate SEM models were conducted to examine the relationship between sensory emotioncy types and students' WTC subscales. The four models for WTR, WTW, WTL, and WTS can be seen in Figures 5–8, respectively. Goodness of fit indices are reported in Table 2. All four models showed adequate fit to the data. Regarding the relations between EFL Learners' sensory emotioncy types and WTC subscales, no significant relations were found for WTS and WTW models. However, the *cognitive aspect* of emotioncy was a significant predictor of WTR ( $\beta = .66, p < .01, R^2 = .44, f^2 = .78$ , large effect) and WTL ( $\beta = .42, p < .05, R^2 = .18, f^2 = .22$ , moderate effect).

## Discussion

The findings of the study revealed a significant and positive correlation between all three types of sensory emotioncy and the subscales of WTC. Prior studies have also indicated that an increase in learners' EI would lead to greater WTC (Alavinia & Alikhani, 2014; Tabatabaei & Jamshidifar, 2013), and that there is a significantly positive correlation held between learners' emotioncy and their WTC (Pishghadam, 2016). It can be concluded that the emotional learners due to their assertive, interpersonal abilities, and also their ability to manage their stress (Bar-On, 2000) are more willing to communicate. Furthermore, as learners' cognition mounts in the light of emotioncy

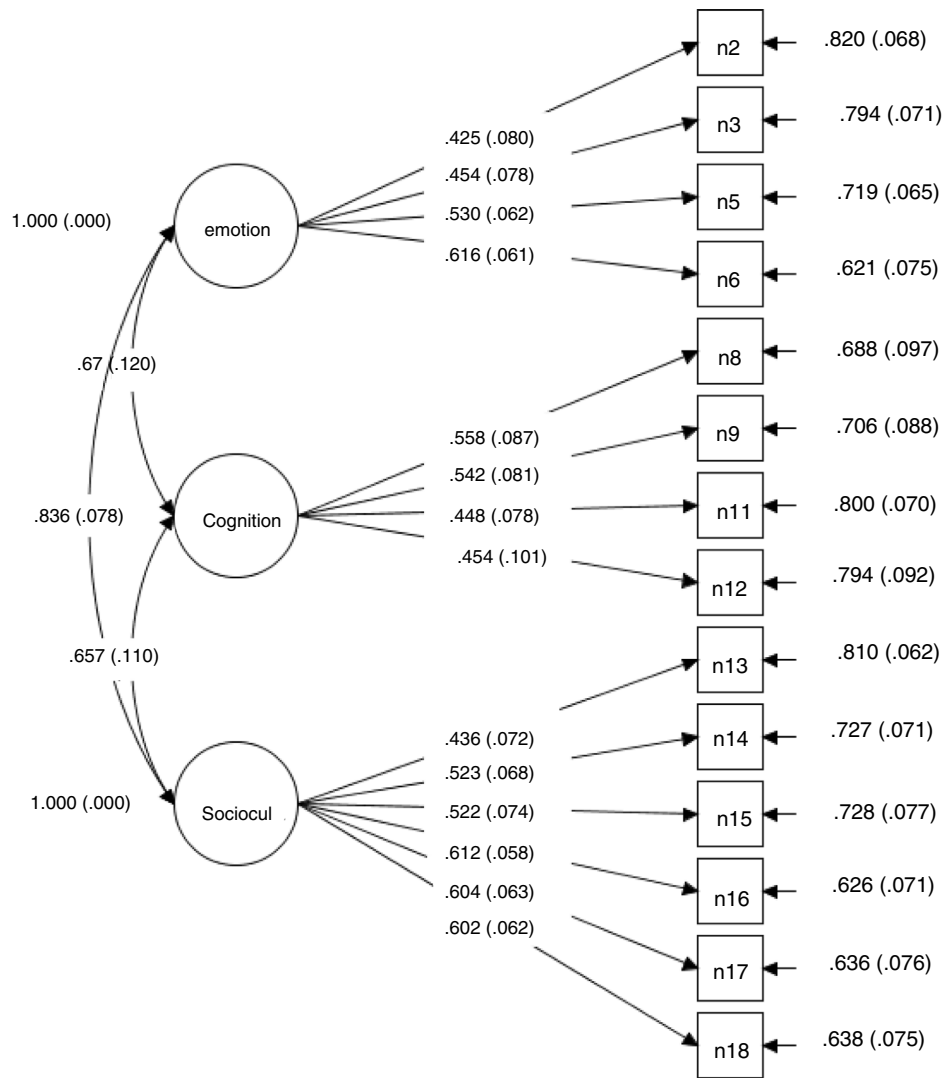


Figure 3. Measurement model of the sensory emotioncy type scale.

levels, the more willing they will be to communicate in the L2 domain. Additionally, the positive correlation between the sociocultural type and WTC implies the fact that, as learners progress toward higher levels of emotioncy and become more involved in sociocultural factors, the more they are willing to read, write, listen, and especially speak. This finding can be interpreted more comprehensively in the light of examining the fundamental tenets of sociocultural theory. The fact that learning is a social activity and that language is used as a tool in

a social interaction for learning is at the heart of sociocultural theory (Wells, 1999). The obtained result is also in line with that of Swain (2005), arguing that from a sociocultural perspective, the production of language is of utmost importance. Furthermore, delving into the sociocultural type items provides some insight regarding this finding. This construct comprised items such as visiting the deprived areas, visiting the historical/religious places collectively, and holding exhibitions/festivals, which demand social interactions. Therefore, it can be said that

Table 2  
Goodness of fit indices for measurement and structural models

|          | $\chi^2$ | df  | CFI | TLI | RMSEA | SRMR |
|----------|----------|-----|-----|-----|-------|------|
| CFA-SETS | 105.74   | 74  | .93 | .91 | .04   | .05  |
| CFA-WTC  | 297.67   | 161 | .89 | .87 | .06   | .05  |
| SEM-WTR  | 210.24   | 145 | .92 | .90 | .04   | .06  |
| SEM-WTW  | 259.63   | 162 | .88 | .86 | .05   | .06  |
| SEM-WTL  | 187.26   | 129 | .91 | .90 | .04   | .06  |
| SEM-WTS  | 219.95   | 145 | .89 | .87 | .04   | .05  |

Note. CFA-SETS = confirmatory factor analysis of sensory emotioncy type scale, CFA-WTC = confirmatory factor analysis of willingness to communicate, SEM-WTR = structural equation model of willingness to read, SEM-WTW = structural equation model of willingness to write, SEM-WTL = structural equation model of willingness to listen, SEM-WTS = structural equation model of willingness to speak, CFI = comparative fit index, TLI = Tucker-Lewis index, RMSEA = root mean square error of approximation, SRMR = standardized root mean square residual.

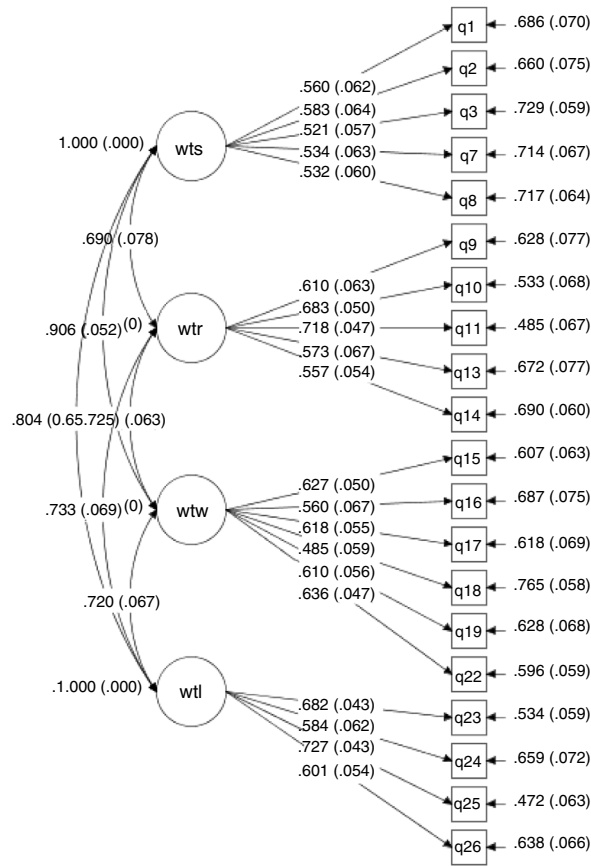


Figure 4. Measurement model of the willingness to communicate scale.

Table 3 Reliability and average variance explained for all variables

|               | N of items | Cronbach's α | Composite reliability | AVE |
|---------------|------------|--------------|-----------------------|-----|
| Emotional     | 4          | .57          | .58                   | .26 |
| Cognitive     | 4          | .58          | .57                   | .25 |
| Sociocultural | 6          | .72          | .72                   | .30 |
| WTR           | 5          | .78          | .76                   | .39 |
| WTW           | 6          | .76          | .76                   | .35 |
| WTL           | 4          | .74          | .74                   | .42 |
| WTS           | 5          | .67          | .68                   | .29 |

Note. AVE = average variance explained, WTR = willingness to read, WTW = willingness to write, WTL = willingness to listen, WTS = willingness to speak.

Table 4 Descriptive statistics for all variables

|               | Possible range | Mean | SD   |
|---------------|----------------|------|------|
| Emotional     | 1–5            | 2.95 | 1.03 |
| Cognitive     | 1–5            | 2.92 | 1.05 |
| Sociocultural | 1–5            | 2.70 | 1.11 |
| WTR           | 1–5            | 3.71 | .86  |
| WTW           | 1–5            | 3.11 | .86  |
| WTL           | 1–5            | 3.14 | .94  |
| WTS           | 1–5            | 3.42 | .73  |

Note. SD = standard deviation, WTR = willingness to read, WTW = willingness to write, WTL = willingness to listen, WTS = willingness to speak.

Table 5 Results of correlation between the sub-scales of SETS and the sub-scales of WTC

|                       | Emotional | Cognitive | Sociocultural |
|-----------------------|-----------|-----------|---------------|
| Willingness to Speak  | .28**     | .20**     | .30**         |
| Willingness to Read   | .18**     | .34**     | .15*          |
| Willingness to Write  | .27**     | .29**     | .25**         |
| Willingness to Listen | .25**     | .31**     | .22**         |

Note. WTC = willingness to communicate.

\*  $p < .05$

\*\*  $p < .01$

from a sociocultural point of view, WTC is a social and also a cultural construct influenced by language and other tools (Suksawas, 2011).

As the cognitive aspect was found to be a significant predictor of WTL and WTR, it can be seen as a significant factor in the promotion of receptive skills. Concerning the receptive skills, many scholars such as Bae and Bachman (1998), Park (2004), and

Vandergrift (2006) believe that both skills entail essential language processes, world knowledge, and also engagement in comprehension as well as decoding. In addition to this, perceiving receptive input requires a systematic cognitive process to modify, analyze, and interpret the cognitive representations which both listeners and readers construct while receiving input. Similarly, NFC holds positive relationship with the tasks demanding cognitive effort and processing (Richardson, Abraham, & Bond, 2012). NFC involves seeking, learning, reasoning, and thinking to boost the

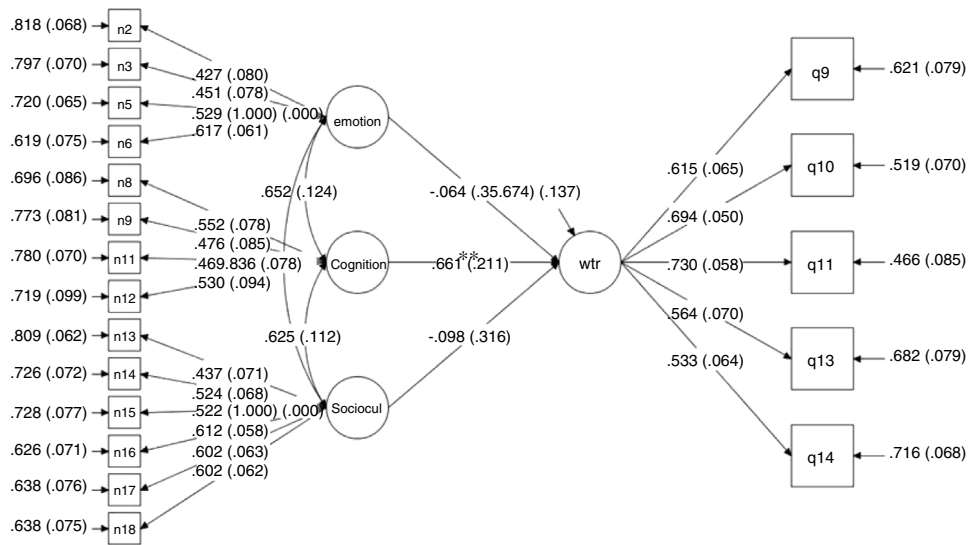


Figure 5. The schematic representation of the relationships among EFL learners' sensory emotioncy types and WTR.

Note.  $^{**} p < .01$ .

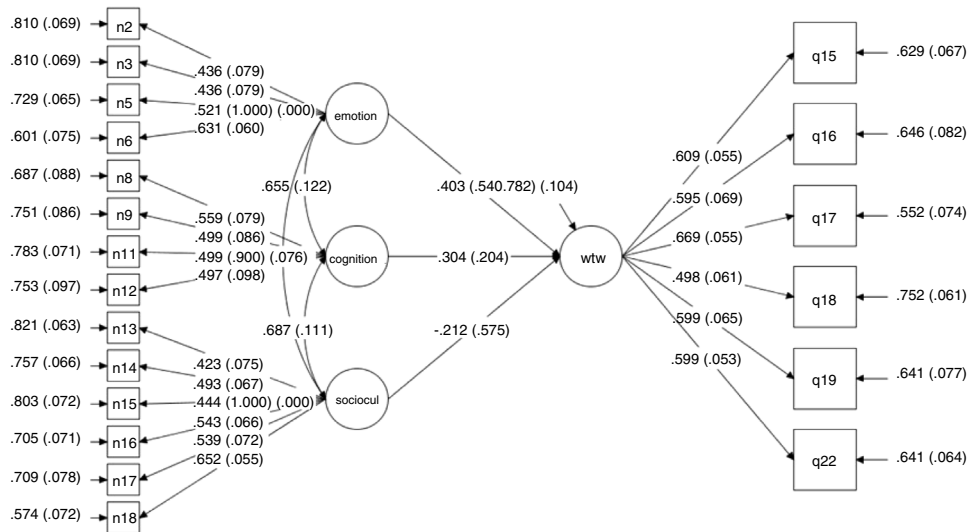


Figure 6. The schematic representation of the relationships among EFL learners' sensory emotioncy types and WTW.

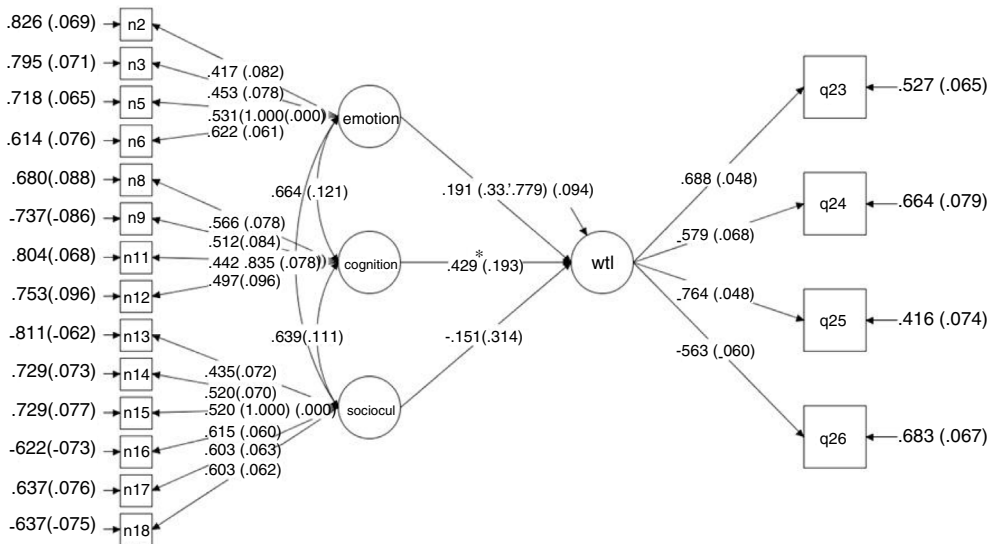


Figure 7. The schematic representation of the relationships among EFL learners' sensory emotioncy types and WTL.

Note.  $^{*} p < .05$ .



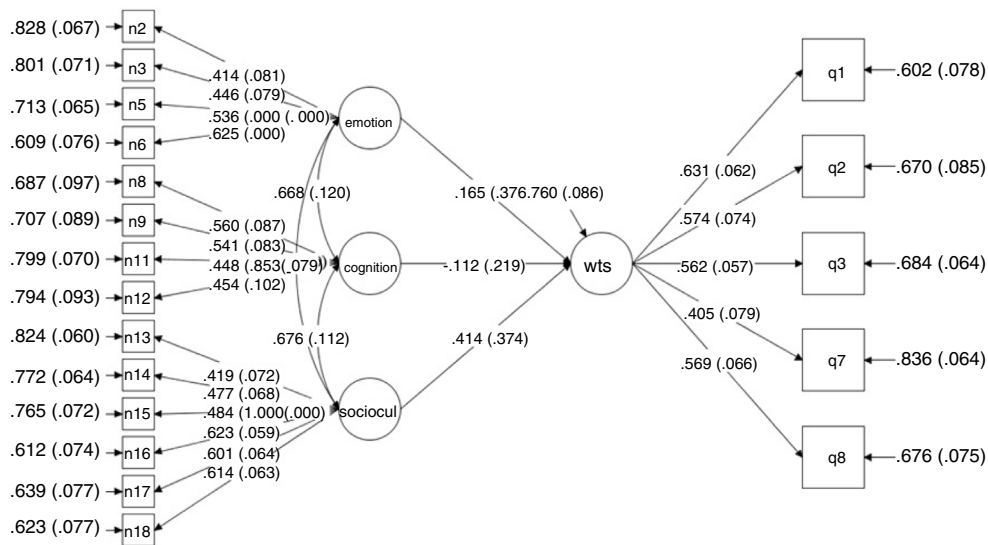


Figure 8. The schematic representation of the relationships among EFL learners' sensory emotion types and WTS.

meaning of stimuli and experience (Dai & Wang, 2007). Therefore, individuals with a high need for cognition are more likely to be process-oriented as opposed to product-oriented. As a result, it can be concluded that the cognitive processes are necessary in receptive skills; therefore, that might explain why cognitive learners are more likely to be inclined to read and listen in their L2.

To conclude, the findings of the present study can be employed to the benefit of the educational system, teachers, and teacher training courses (TTC). In other words, making teachers aware of learners' IDs can help them provide their students with the most suitable tasks. In fact, not every learner can be willing to communicate or be influenced by other psychological factors in the same way. As Richards and Schmidt (2002) rightly put, "given the same learning environment, it is often observed that some learners are highly successful and others are not" (p. 254). That is, if teachers happen to identify individuals' sensory emotion types, then they can easily provide their students with perfectly proper tasks to work on. For instance, if a teacher identifies a group of his/her students as cognitively involved, he/she would place more emphasis on the receptive skills (reading and writing) rather than the productive (speaking and writing) ones, consequently when individuals' right senses are touched, they will be more motivated and more willing to communicate. With regard to TTC, trainers can also familiarize the trainees or novice teachers with such findings so that they would not treat individuals with numerous differences equally. In addition, given that this study is the first endeavor in the EFL literature that has examined the role of emotion types and four types of WTC, it can be seen as a prelude to initiate other studies. Emotion types as a new concept in the EFL context is certainly an uncharted territory that awaits further research.

The results of the present study should be interpreted in the light of some limitations as well. First of all, this study examined the role of sensory emotion types in WTC in four separate models, while other types of modeling could be done. Secondly, although participants took part in this study from different private language institutes, all of them were chosen from the context of Mashhad. Therefore, the results are merely generalizable to this population and widening the regional scope may lead us to different results. Third, the results may not be generalizable to other types of

settings, such as public schools or universities. Furthermore, as with all questionnaire-based surveys, there is a possibility that not all questions were answered with due care. Another possibility is that the participants may have not responded honestly. Finally, the questionnaires were merely used for data collection, which to a great extent depend on participants' self-reports. Hence, to have a more comprehensive understanding of the concepts, qualitative methods like observation and interview could also be used.

## Appendix A.

### Sample Items of the WTC Scale

#### Willingness to speak

1. I am willing to speak in a group.

#### Willingness to read

9. I am willing to read part of an English novel.

#### Willingness to write

18. I am willing to write a story.

#### Willingness to listen

27. I am willing to understand an English movie.

## References

- Alavinia, P., & Alikhani, M. A. (2014). Willingness to communicate reappraised in the light of emotional intelligence and gender differences. *Procedia - Social and Behavioral Sciences*, 98, 143–152. <http://dx.doi.org/10.1016/j.sbspro.2014.03.400>
- Artino, A. R., Jr., Holmboe, E. S., & Durning, S. J. (2012). Control value theory: Using achievement emotions to improve understanding of motivation, learning, and performance in medical education. *Medical Teacher*, 34(3), 148–160. <http://dx.doi.org/10.3109/0142159X.2012.651515>
- Bae, J., & Bachman, L. F. (1998). A latent variable approach to listening and reading: Testing factorial invariance across two groups of children in the Korean/English two-way immersion program. *Language Testing*, 15(3), 380–414. <http://dx.doi.org/10.1177/026553229801500304>
- Baker, S. C., & MacIntyre, P. D. (2000). The role of gender and immersion in communication and second language orientations. *Language Learning*, 50(2), 311–341. <http://dx.doi.org/10.1111/0023-8333.00224>
- Bar-On, R. (1997). *The emotional quotient inventory (EQ-I): Technical manual*. Toronto, Canada: Multi-Health Systems.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Intelligence Inventory (EQ-I). In R. Bar-On, & J. D. A. Parker (Eds.), *The handbook of emotional intelligence*. San Francisco: Jossey-Bass.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131. <http://dx.doi.org/10.1037/0022-3514.42.1.116>

- Cohen, A. R., Stotland, E., & Wolfe, D. M. (1955). An experimental investigation of need for cognition. *The Journal of Abnormal and Social Psychology*, 51(2), 291–294. <http://dx.doi.org/10.1037/h0042761>
- Cooper, C. (2002). *Individual differences* (2nd ed.). London: Arnold.
- Coutinho, S. A., Wiemer-Hastings, K., Skowronski, J. J., & Britt, M. A. (2005). Metacognition, need for cognition and use of explanations during ongoing learning and problem solving. *Learning and Individual Differences*, 15, 321–337. <http://dx.doi.org/10.1016/j.lindif.2005.06.001>
- Dai, D. Y., & Wang, X. (2007). The role of need for cognition and reader beliefs in text comprehension and interest development. *Contemporary Educational Psychology*, 32, 332–347. <http://dx.doi.org/10.1016/j.cedpsych.2006.05.002>
- Day, E. A., Espejo, J., Kowollik, V., Boatman, P. R., & McEntire, L. E. (2007). Modeling the links between need for cognition and the acquisition of a complex skill. *Personality and Individual Differences*, 42, 201–212. <http://dx.doi.org/10.1016/j.paid.2006.06.012>
- De Raad, B. (2000). Differential psychology. In A. E. Kazdin (Ed.), *Encyclopedia of psychology* (pp. 41–44). Oxford: American Psychological Association and Oxford University Press. <http://dx.doi.org/10.1037/10518-012>
- Dewaele, J. M. (2009). Individual differences in second language acquisition. *The New Handbook of Second Language Acquisition*, 2, 623–646.
- Dickhäuser, O., Reinhard, M., Diener, C., & Bertrams, A. (2009). How need for cognition affects the processing of achievement-related information. *Learning and Individual Differences*, 19, 283–287. <http://dx.doi.org/10.1016/j.lindif.2008.11.003>
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 27–50). Oxford: Oxford University Press.
- Donato, R., & Lantolf, J. P. (1990). The dialogic origins of L2 monitoring. In L. F. Bouton, & Y. Kachru (Eds.), *Pragmatics and language learning* (pp. 83–98). IL: Urbana-Champaign.
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dörnyei, Z. (2006). Individual differences in second language acquisition. *AILA Review*, 19(1), 42–67. <http://dx.doi.org/10.1075/aila.19.05dor>
- Dörnyei, Z., & Skehan, P. (2003). Individual differences in second language learning. In C. J. Doughty, & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 589–630). Oxford: Blackwell. <http://dx.doi.org/10.1002/9780470756492.ch18>
- Enge, S., Fleischhauer, M., Brocke, B., & Strobel, A. (2008). Neurophysiological measures of involuntary and voluntary attention allocation and dispositional differences in need for cognition. *Personality and Social Psychology Bulletin*, 34, 862–874. <http://dx.doi.org/10.1177/0146167208315556>
- Gao, X., & Zhang, L. J. (2011). Joining forces for synergy: Agency and metacognition as interrelated theoretical perspectives on learner autonomy. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation, and autonomy in language learning* (pp. 21–39). Bristol, UK: Multilingual Matters. <http://dx.doi.org/10.21832/9781847693747-004>
- Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Greenspan, S. I., & Wieder, S. (1997). Developmental patterns and outcomes in the infants and children with disorders in relating and communicating: A chart review of 200 cases of children with autistic spectrum diagnoses. *The Journal of Developmental and Learning Disorders*, 1, 87–141.
- Hashimoto, Y. (2002). Motivation and willingness to communicate as predictors of reported L2 use: The Japanese ESL context. *Second Language Studies*, 20(2), 29–70.
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55. <http://dx.doi.org/10.1080/10705519909540118>
- Imai, Y. (2010). Emotions in SLA: New insights from collaborative learning for an EFL classroom. *The Modern Language Journal*, 94(2), 278–292. <http://dx.doi.org/10.1111/j.1540-4781.2010.01021.x>
- Kang, S. J. (2005). Dynamic emergence of situational willingness to communicate in a second language. *System*, 33, 277–292. <http://dx.doi.org/10.1016/j.system.2004.10.004>
- Khajavy, G. H., Ghonsooly, B., Hosseini, A., & Choi, C. W. (2016). Willingness to communicate in English: A microsystem model in the Iranian EFL classroom context. *TESOL Quarterly*, 50(1), 154–180. <http://dx.doi.org/10.1002/tesq.204>
- Macaro, E., Vanderplank, R., & Murphy, V. (2010). *A compendium of key concepts in second language acquisition*. In E. Macaro (Ed.), *Continuum companion to second language acquisition* (pp. 29–36). London: Continuum.
- MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal*, 91(5), 564–576. <http://dx.doi.org/10.1111/j.1540-4781.2007.00623.x>
- MacIntyre, P. D., Babin, P. A., & Clément, R. (1999). Willingness to communicate: Antecedents and consequences. *Communication Quarterly*, 47, 215–229. <http://dx.doi.org/10.1080/01463379909370135>
- MacIntyre, P. D., Baker, S. C., Clément, R., & Conrod, S. (2001). Willingness to communicate, social support, and language learning orientations of immersion students. *Studies in Second Language Acquisition*, 23(3), 369–388. <http://dx.doi.org/10.1017/S0272263101003035>
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15(1), 3–26. <http://dx.doi.org/10.1177/0261927X960151001>
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82(4), 545–562. <http://dx.doi.org/10.1111/j.1540-4781.1998.tb05543.x>
- MacIntyre, P. D., & Gregersen, T. (2012). Affect: The role of language anxiety and other emotions in language learning. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 103–118). UK: Palgrave Macmillan. <http://dx.doi.org/10.1057/9781137032829.8>
- Marsh, H. W., Hau, Kit-Tai, & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, 11(3), 320–341. [http://dx.doi.org/10.1207/s15328007sem1103\\_2](http://dx.doi.org/10.1207/s15328007sem1103_2)
- McCroskey, J. C., & Baer, J. E. (1985). Willingness to communicate: The construct and its measurement. In *Paper presented at the annual convention of the Speech Communication Association*.
- McCroskey, J. C., & Richmond, V. P. (1991). Willingness to communicate: A cognitive view. In M. Booth-Butterfield (Ed.), *Communication, cognition, and anxiety* (pp. 19–37). Newbury Park, CA: Sage.
- Murray, G. (2011). Imagination, metacognition, and the L2 self in a self-access learning environment. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation, and autonomy in language learning* (pp. 75–90). Tonawanda, NY: Multilingual Matters. <http://dx.doi.org/10.21832/9781847693747-007>
- Nunan, D. (1992). *Research methods in language learning*. Victoria, Australia: Cambridge University Press.
- Park, G. P. (2004). Comparison of L2 listening and reading comprehension by university students learning English in Korea. *Foreign Language Annals*, 37(3), 448–458. <http://dx.doi.org/10.1111/j.1944-9720.2004.tb02702.x>
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Positive emotions in education. In E. Frydenberg (Ed.), *Beyond Coping: Meeting goals, visions, and challenges* (pp. 149–174). Oxford, UK: Elsevier. <http://dx.doi.org/10.1093/med/psych/9780198508144.003.0008>
- Peng, J. E. (2015). L2 motivational self system, attitudes, and affect as predictors of L2 WTC: An imagined perspective. *The Asia-Pacific Education Researcher*, 24(2), 433–443. <http://dx.doi.org/10.1007/s40299-014-0195-0>
- Peng, J. E., & Woodrow, L. (2010). Willingness to communicate in English: A model in the Chinese EFL classroom context. *Language Learning*, 60(4), 834–876. <http://dx.doi.org/10.1111/j.1467-9922.2010.00576.x>
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, 98(1), 194–198. <http://dx.doi.org/10.1037/a0030767>
- Pishghadam, R. (2009). Emotional and verbal intelligences in language learning. *Iranian Journal of Language Studies*, 3, 43–64.
- Pishghadam, R. (2015, October). Emotionality in language education: From involvement to involvement. In *Paper presented at 2nd conference of interdisciplinary approaches to language teaching, literature, and translation studies*.
- Pishghadam, R. (2016, May). Emotionity, extroversion, and anxiety in willingness to communicate in English. In *Paper presented at the 5th international conference on language, education, and innovation*.
- Pishghadam, R., Adamson, B., & Shayesteh, S. (2013). Emotion-based language instruction (EBLI) as a new perspective in bilingual education. *Multilingual Education*, 3(9), 1–16. <http://dx.doi.org/10.1186/2191-5059-3-9>
- Pishghadam, R., Jajarmi, H., & Shayesteh, S. (2016). Conceptualizing sensory relativism in light of emotionity: A movement beyond linguistic relativism. *International Journal of Society, Culture & Language*, 4(2), 11–21.
- Pishghadam, R., Shayesteh, S., & Rahmani, S. (2016). Contextualization–emotionalization interface: A case of teacher effectiveness. *International and Multidisciplinary Journal of Social Sciences*, 5(6), 1–22. <http://dx.doi.org/10.17583/rimcis.2016.1907>
- Polat, B. (2014). *Words of experience: Semantic content analysis and individual differences among successful second language learners* (Unpublished doctoral dissertation). USA: Georgia State University.
- Richards, J. C., & Schmidt, R. (2002). *Longman dictionary of language teaching & applied linguistics* (3rd ed.). Essex: Pearson Education Limited.
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, 138, 353–387. <http://dx.doi.org/10.1037/a0026838>
- Salovey, P., & Mayer, J. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9(3), 185–211. <http://dx.doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Schutz, P. A., & Pekrun, R. (Eds.). (2007). *Emotion in education*. San Diego, CA: Elsevier.
- Shanmugasundaram, U., & Mohamad, A. R. (2011). Social and emotional competency of beginning teachers. *Procedia-Social and Behavioral Sciences*, 29, 1788–1796. <http://dx.doi.org/10.1016/j.sbspro.2011.11.426>
- Snow, R. E., Corno, L., & Jackson, D. N. (1996). Individual differences in affective and conative functions. In D. C. Berliner, & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 243–310). New York, NY: Macmillan.
- Suksawas, W. (2011). *A sociocultural study of EFL learners' willingness to communicate* (Doctoral dissertation). Australia: University of Wollongong.
- Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471–484). Mahwah, NJ: Lawrence Erlbaum Associates.

- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal*, 82(3), 150–159. <http://dx.doi.org/10.1111/j.1540-4781.1998.tb01209.x>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Multivariate analysis of variance and covariance: Using multivariate statistics*. Boston: Allyn and Bacon.
- Tabatabaei, O., & Jamshidifar, M. (2013). The relationship between emotional intelligence and willingness to communicate among EFL learners. *International Journal of English Language Education*, 2(1), 90–99. <http://dx.doi.org/10.5296/ijele.v2i1.4650>
- Vandergrift, L. (2006). Second language listening: Listening ability or language proficiency? *The Modern Language Journal*, 90(1), 6–18. <http://dx.doi.org/10.1111/j.1540-4781.2006.00381.x>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher mental functions*. MA: Harvard University Press.
- Wells, G. (1999). *Dialogic inquiry: Towards a socio-cultural practice and theory of education*. Cambridge: Cambridge University Press.
- Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *Modern Language Journal*, 86(1), 54–66. <http://dx.doi.org/10.1111/1540-4781.00136>