

# English Language Identity: Schema and Factor Based Approach

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**Abstract**—This study aimed to revalidate the Foreign Language Identity Scale developed by Khodadady and Navari (2012) and explore the factors underlying the construct from theoretical as well as empirical perspectives. To this end, the scale was first analyzed linguistically and cognitively by employing the microstructural approach of schema theory. The analysis showed that the scale deals basically not with *foreign* but *English* language and was, therefore, renamed as English Language Identity Scale (ELIS). It was then administered to 381 students learning English at advanced levels in nine private and semi private institutes in Mashhad, Iran. The subjection of the data to Principal Axis Factoring and rotating the extracted factors via Varimax with Kaiser Normalization showed that the 30 statements comprising the ELIS loaded acceptably on six latent variables treated as cognitive genera in the microstructural approach, i.e., Idealized Society, Idealized Opportunities, Idealized Conditions, Idealized Connections, Idealized Character and Idealized Personality. The findings are discussed and suggestions are made for future research.

**Index Terms**—learning, English, identity, schema

## I. INTRODUCTION

The concept represented by the schema “identity” is similar to other schemata such as “language” whose meaning is, according to Brown (2007), too complex to be captured by single or one-statement definitions. Gee (2000), for example, defined identity as “particular kind of person” (p. 109) leaving it to his readers to create the kind themselves. Similarly, Piironen and Timonen (2007) approached “identity” as self-image or self-concept without specifying its features. These scholars seem to be following the macrostructural approach of schema theory and approach “identity” as a schema defined as “a conventional knowledge structure that exists in memory” (Yule 2006, p. 132) or “increasingly intricate and differentiated mental structures” (Oxford, 2002, p. 125), respectively.

Realizing the complexity involved in defining and determining the nature of “identity” as a construct, Sade (2009) followed Kramsch (2002), Larsen-Freeman (2002) and Van Lier (2004) and adopted a Chaos / Complexity view to address its nature. Surprisingly, however, instead of defining “identity” from the adopted perspective assuming “*no* [italic added] permanence in human relations, more than in the stock market, in the weather, in national ‘security’ and so on” (Giddens, 2002, p. 73), she resorted to the macro-structural definition of “word” offered by Bakhtin (1981) to theoretically support her chaotic position, i.e.,

all words have the “taste” of a profession, a genre, a tendency, a party, a particular work, a particular person, a generation, an age group, the day and hour. Each word tastes of the context and contexts in which it has lived its socially charged life; all words and forms are populated by intentions. Contextual overtones (generic, tendentious, individualistic) are inevitable in the word. (p. 293)

Bakhtin’s (1981) predominantly socialistic view towards “words” as reflected in the concepts represented by the schemata “party”, “generation”, “age group” and “socially charged life” led Sade (2009) to equate “identity” with “interaction” (p. 519) which necessitates the inclusion of others in the formation of identity. She did in fact tie the existence and development of “identity” to society whose maintenance requires *permanence in human relations* and asserted that “*social* identity is marked by the interaction among the individual, the social context and the other individuals, and it is due to this interaction that new identities emerge [italics is added]” (p. 519).

The present researchers, however, disagree with a macrostructural view towards defining and exploring “identity” and believe that the micro structural approach explains its formation and development not intuitively but theoretically and empirically. While acknowledging the contribution of society to identity, the microstructural approach considers it as an individualistic concept first and foremost. For this very reason, microstructural studies recruit as many individuals as possible to explore “identity” (e.g., Khodadady & Navari, 2012) whereas macro structural ones confine themselves to few individuals and pass intuitive and authoritative judgments based on these non-reprehensible individuals. As an advocate of a macrostructural approach, Sade (2009), for example, employed the *narratives* of a Japanese and a Brazilian student to support her sweeping conclusions.

According to Khodadady (2013), concepts represented by schemata are acquired, classified, stored and produced together as *language* making it a “defining attribute of the individual,” that “represents and mediates the crucial element of identity” (Aronin & Laoire, 2004, p. 11). The indispensable role of language in identity formation led Edwards (1985) to define sociolinguistics as a field of study which “*is essentially about identity*, its formation, presentation and maintenance” (p. 3, emphasis in original).

Microstructurally, words used in the formation of identity, i.e., schemata, not only represent specific concepts by themselves but also are combined with each other within a hierarchical relationship to establish broader and more comprehensive concepts identified as linguistic statements or cognitive species, linguistic paragraphs or cognitive genera, linguistic texts or cognitive domains (see Khodadady & Bagheri, 2014, Khodadady & Dastgahian, 2015). The schemata constituting species, genera and domains evolve through *internal* and *external* experience as individuals encounter or produce them in texts. Much of the literature focuses on the external experiences as reflected in Menard-Warwick’s (2005) conceptualization of identity as “multiple, fluid, dynamic, and constituted in discourse”, Gee’s (2000) D-identity and Davies and Harré’s (1990) notion of interactive positioning without providing any theoretical explanation to determine and explain its levels of complexity.

The *internal* experiences reflected in the schemata as they are understood or expressed by individuals in a given society are, however, as important as, if not more important than, *external* experiences reflecting power relations or authorities’ interpretation of identity. Along with, if not instead of, employing the schemata employed by a few elite members of the society such as researchers and politicians describing or wielding the power structure of the society in which “identity” is said to be established, the individual members of specific domains or communities of practice such as Wenger’s (2000) family and school must be asked to talk about their own identity themselves.

Moafian and Pishghadam (2008), for example, developed a 47-item scale to measure the effectiveness of English language teachers. When Feizbakhsh (2010) administered the scale to over 1000 learners of English, her results did not reveal any relationship between their teachers’ effectiveness and language achievement. Khodadady, Fakhrabadi and Azar (2012) expanded their scale into the 102-item English Language Teachers' Attributes Scale (ELTAS) by including the characteristics found in evaluation forms as well as those expressed by learners themselves and reported a significant relationship between teacher effectiveness and grade three senior high school (G3SHS) students’ English achievement ( $r = .111, p < .01$ ). Their results also showed that out of eight factors underlying the ELTAS, six related significantly to English achievement, i.e., Qualified, Organized, Social, Lenient, Stimulating and Humanistic genera.

Similarly, no researcher, to the best knowledge of present researchers, has developed a scale such as ELTAS to measure the construct of “identity” due to following a macrostructural approach. Khodadady and Navari (2012), however, scratched the surface by limiting it to a very specific domain, i.e., foreign language identity. They asked their advanced English language (AEL) learners who they thought they were while they were learning the language, they developed and validated the 30-statement Foreign Language Identity Scale (FLIS) by pooling their answers and subjecting them to factor analysis. By replicating their study, the present project aims to find out whether the statements constituting the FLIS will generate the same factors established by Khodadady and Navari a short while ago.

## II. METHODOLOGY

### A. Participants

Three hundred and ten female (69.8%) and 134 male (30.2%) EFL learners totaling four hundred forty four took part in the present study. They were studying English at upper intermediate ( $n=63, 14.2\%$ ) and advanced ( $n=381, 85.8\%$ ) levels at Azaran, Hafez, ILI, Jihad, Khorasan, Kish, Momtaz, Safir, and Shokouh language institutes in Mashhad, Iran in 2013. In order to control the proficiency level of participants, the responses of 265 (69.6%) female and 116 (30.4%) male learners totaling 381 were, however, analyzed in the present study. They were studying English at Azaran ( $n = 54, 14.2\%$ ), Hafez ( $n = 16, 4.2\%$ ), ILI ( $n = 48, 12.6\%$ ), Jihad ( $n = 49, 12.9\%$ ), Khorasan ( $n = 65, 17.1\%$ ), Kish ( $n = 21, 5.5\%$ ), Momtaz ( $n = 34, 8.9\%$ ), Safir ( $n = 56, 14.7\%$ ), and Shokouh ( $n = 38, 10.0\%$ ) language institutes in 2013. The participants were 14 to 51 years old (mean = 22.43, SD = 6.45). Among those who had specified their educational level 162 (42.5%), 22 (5.8%) and six (1.6%) were holding bachelor, master and PhD degrees in fields ranging from agriculture to sciences. Three hundred and seventeen (83.2%) were single and the rest had married ( $n=64, 16.8\%$ ). Out of 381, 126 (33.1) had visited Afghanistan, America, Austria, Azerbaijan, Canada, China, Dobbie, England, France, Germany, India, Iraq, Italy, Lebanon, Malaysia, Qatar, Russia, Saudi Arabia, Singapore, Slovakia, Sweden, Syria, Thailand, Turkey, Turkmenistan and Uzbekistan with a duration of one to 15 days ( $n=86, 22.6\%$ ), one to three months ( $n=29, 7.6\%$ ), four months to one year ( $n=2, .5\%$ ) and more than one year ( $n=9, 2.4\%$ ). Their mother language was Persian ( $n=377, 99.0\%$ ), Turkish ( $n=3, .8\%$ ) and Arabic ( $n=1, .3\%$ ).

### B. Instruments

Three instruments were employed in the study: a Demographic Scale, Foreign Language Identity Scale and the Cultural Intelligence Scale (CQS). This study is limited to foreign language identity because the results and findings related to the CQS are already reported by Khodadady and Hasanzadeh (2014).

#### 1. Demographic Scale

The Persian Demographic Scale (DS) developed by Khodadady and Hasanzadeh (2014) was used in this study. It consisted of twelve short answer and multiple choice items dealing with the name of participants' language institutes, their field of study at university, year of study, age, gender, marital status, degree of education, language spoken at home, foreign languages known, travelling abroad, the countries visited and duration of visit.

### 2. Foreign Language Identity Scale

Khodadady and Navari's (2012) [henceforth K&N] Persian Foreign Language Identity Scale (FLIS) was used and renamed the English Language Identity Scale (ELIS) in this study. (The reason for changing the name of the scale is presented in the Discussion Section.) Upon reviewing the literature on identity, they brought up the topic in their general English classes and collected their learners' views to develop the 30-statement scale. One learner, for example, stated "speaking English makes me have a better feeling of my personality inside and outside of the class". They presented the statements with seven alternatives to 470 female AEL learners to 1) strongly disagree, 2) disagree, 3) almost disagree, 4) express no idea, 5) almost agree, 6) agree and 7) strongly agree with them. K&N's results showed that the FLIS is a highly reliable measure ( $\alpha = .90$ ) which consists of six factors. The sixth factor, Global Self-Expression, lacked reliability because of consisting of one statement. The fifth factor, Global Connection comprised two items and had an alpha of .38. The reliability coefficient of other four factors were .90 (Idealized Society), .85 (Idealized Communication), .81 (Idealized Means) and .70 (Idealized Opportunities).

### C. Procedure

The authorities of nine private and semi-private language institutes in Mashhad, i.e., Azaran, Hafez, ILI, Jihad, Khorasan, Kish, Momtaz, Safir, and Shokouh, were contacted and their approval to administer the instruments of the study under their EFL teachers' supervision was obtained. On specified dates, the second author of the present paper attended the classes in person and distributed the instruments explaining what the participants were required to do. As they were answering the questions, she walked along the aisles drawing their attention to various sections of the scales and emphasizing the importance of their responses. She encouraged the participants to ask whatever questions they had. Other than a few questions related to the demographic section, no particular questions were raised regarding the statements of the FLIS.

### D. Data Analysis

The descriptive statistical analyses of the indicators comprising the FLIS were run to determine how well they had functioned. For the ease of presentation and discussion, the seven points on the scale were reduced to three by collapsing strongly agree, agree, and almost agree to one, i.e., agree, as were almost disagree, disagree and completely disagree to another, i.e., disagree. For estimating the reliability level of the FLIS, Cronbach's alpha was employed. Principal Axis Factoring (PAF) method was utilized to determine the structure of latent variables (LVs) underlying the scale. The initial eigenvalues of one and higher were adopted as the main criterion to determine the number of LVs. The extracted LVs were then rotated via Varimax with Kaiser Normalization (VKN) to have a clear understanding of what underlies the foreign language identity of the AEL learners sampled in the study. Following Tabachnick and Fidell (2001), .32 was adopted as the minimum loading of an item and the loadings less than the minimum were removed. So were the second or third acceptable loading of an item on more than one LV. All analyses were conducted via the IBM SPSS Statistics 20 to test the hypotheses below.

H1. The 30 statements comprising the Persian FLIS will load on the same factors extracted by K&N.

H2. The factors underlying the FLIS will correlate with each other almost in the same magnitude as they did in K&N's study.

## III. RESULTS

The descriptive statistics of items comprising FLIS is presented in Table 1. As can be seen, most mean values have generally clustered above the expected value of 4. These values show that AEL learners have agreed with the majority of foreign language identity statements, i.e., 1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 28. Statement thirteen, for example, reads, "By learning English, I'd get better job opportunities and prosper". As can be seen, 91 percent of the learners have agreed with this statement (Mean = 5.92) while three and six percent have disagreed and had no idea, respectively. Similarly, 85 percent of AEL learners have agreed with statement nine, "I believe by learning English I can make more foreigner friends" (Mean = 5.67).

TABLE 1  
DESCRIPTIVE STATISTICS OF ITEMS COMPRISING THE PERSIAN FLIS

| Item | N   | Mean | SD   | Skewness | Kurtosis | Disagree % | No Idea % | Agree% |
|------|-----|------|------|----------|----------|------------|-----------|--------|
| 1    | 381 | 4.57 | 1.65 | -0.048   | -1.075   | 36         | 12        | 51     |
| 2    | 381 | 3.90 | 1.56 | 0.205    | -0.652   | 43         | 24        | 33     |
| 3    | 381 | 4.04 | 1.77 | 0.117    | -1.083   | 46         | 11        | 43     |
| 4    | 381 | 5.30 | 1.27 | -0.669   | 0.884    | 7          | 14        | 79     |
| 5    | 381 | 4.66 | 1.48 | -0.055   | -0.676   | 22         | 27        | 51     |
| 6    | 381 | 5.40 | 1.59 | -0.871   | 0.059    | 13         | 15        | 72     |
| 7    | 381 | 3.77 | 1.6  | 0.383    | -0.51    | 48         | 26        | 27     |
| 8    | 381 | 4.29 | 1.69 | 0.005    | -0.674   | 32         | 28        | 40     |
| 9    | 381 | 5.67 | 1.15 | -0.969   | 1.053    | 5          | 10        | 85     |
| 10   | 381 | 5.13 | 1.54 | -0.517   | -0.73    | 20         | 14        | 66     |
| 11   | 381 | 5.30 | 1.69 | -0.846   | -0.111   | 16         | 15        | 69     |
| 12   | 381 | 3.77 | 1.92 | 0.152    | -0.975   | 47         | 20        | 33     |
| 13   | 381 | 5.92 | 1.08 | -1.373   | 2.87     | 3          | 6         | 91     |
| 14   | 381 | 5.43 | 1.26 | -0.727   | 0.717    | 6          | 15        | 78     |
| 15   | 381 | 5.00 | 1.46 | -0.379   | -0.531   | 19         | 16        | 65     |
| 16   | 381 | 4.41 | 2.08 | -0.25    | -1.24    | 33         | 17        | 50     |
| 17   | 381 | 5.70 | 1.42 | -1.175   | 1.049    | 7          | 13        | 80     |
| 18   | 381 | 4.66 | 1.5  | -0.627   | 0.324    | 17         | 25        | 58     |
| 19   | 381 | 4.95 | 1.39 | -0.492   | 0.333    | 12         | 23        | 65     |
| 20   | 381 | 4.91 | 1.44 | -0.521   | -0.034   | 14         | 25        | 61     |
| 21   | 381 | 4.57 | 1.72 | -0.629   | -0.551   | 28         | 13        | 58     |
| 22   | 381 | 4.81 | 1.53 | -0.631   | 0.029    | 19         | 15        | 66     |
| 23   | 381 | 2.58 | 1.7  | 0.942    | 0.02     | 75         | 11        | 14     |
| 24   | 381 | 4.24 | 1.95 | -0.079   | -1.226   | 38         | 14        | 48     |
| 25   | 381 | 3.67 | 1.76 | 0.35     | -0.765   | 51         | 20        | 29     |
| 26   | 381 | 3.86 | 1.89 | 0.184    | -1.085   | 47         | 16        | 37     |
| 27   | 381 | 3.53 | 1.77 | 0.361    | -0.846   | 53         | 19        | 28     |
| 28   | 381 | 4.10 | 1.79 | 0.065    | -1.027   | 40         | 19        | 41     |
| 29   | 381 | 3.74 | 1.94 | 0.179    | -1.167   | 49         | 13        | 38     |
| 30   | 381 | 2.49 | 1.81 | 1.083    | 0.206    | 77         | 9         | 14     |

Table 2 presents the Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy and Bartlett's Test. As can be seen, the KMO statistic obtained in this study is .91. Similar to the statistic obtained by Khodadady, Sarraf, and Mokhtari (2013) [henceforth KS&M], i.e., .92, and K&N, i.e., .94, it is in .90s. According to Kaiser and Rice (1974), KMO statistic in the .90s is marvelous and the factor analysis employed would probably provide the best common LVs. The significant Bartlett's Test of Sphericity, i.e.  $p < .001$ , indicated that the correlation matrix was not an identity matrix.

TABLE 2  
KMO AND BARTLETT'S TEST

|   | This study         | KS&M     | K&N      |
|---|--------------------|----------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | .911               | .921     | .936     |
| Bartlett's Test of Sphericity                   | Approx. Chi-Square | 5913.494 | 4569.221 |
|   | df                 | 435      | 435      |
|   | Sig.               | 0.000    | 0.000    |

Table 3 presents the initial (I) and extraction communalities (EC) obtained via PAF in this and K&N's study. As can be seen, the ECs of this study range between .25 (item 13 and 22) and .56 (item 29) whereas those of K&N range from .18 (item 12) to .59 (item 2). As it will be presented shortly, the relatively higher low ECs of the FLIS items in this study heralded their acceptable loadings on the extracted factors. Items having very low ECs in K&N's study, i.e., items 12 (.18) and 18 (.22), did not, however, load acceptably on any factor, indicating that the indicators comprising the FLIS attract different responses either from samples to samples or from years to years.

TABLE 3  
INITIAL (I) AND EXTRACTION COMMUNALITIES (EC) OF ITEMS COMPRISING THE FLIS

| Item | This study |     | K&N |     | Item | This study |     | K&N |     | Item | This study |     | K&N |     |
|------|------------|-----|-----|-----|------|------------|-----|-----|-----|------|------------|-----|-----|-----|
|      | IC         | EC  | IC  | EC  |      | IC         | EC  | IC  | EC  |      | IC         | EC  | IC  | EC  |
| 1    | .45        | .40 | .44 | .45 | 11   | .47        | .52 | .42 | .44 | 21   | .36        | .56 | .25 | .24 |
| 2    | .52        | .47 | .52 | .59 | 12   | .5         | .50 | .20 | .18 | 22   | .24        | .21 | .15 | .50 |
| 3    | .53        | .56 | .30 | .36 | 13   | .32        | .30 | .25 | .29 | 23   | .49        | .53 | .40 | .47 |
| 4    | .44        | .39 | .34 | .29 | 14   | .45        | .50 | .42 | .47 | 24   | .67        | .64 | .32 | .35 |
| 5    | .52        | .70 | .18 | .22 | 15   | .51        | .51 | .42 | .47 | 25   | .56        | .49 | .44 | .55 |
| 6    | .47        | .60 | .43 | .48 | 16   | .52        | .52 | .26 | .23 | 26   | .56        | .58 | .53 | .54 |
| 7    | .49        | .51 | .43 | .47 | 17   | .32        | .36 | .38 | .41 | 27   | .53        | .50 | .52 | .53 |
| 8    | .49        | .53 | .44 | .46 | 18   | .42        | .43 | .26 | .26 | 28   | .54        | .53 | .55 | .56 |
| 9    | .37        | .38 | .27 | .37 | 19   | .37        | .41 | .36 | .46 | 29   | .69        | .68 | .50 | .48 |
| 10   | .42        | .50 | .15 | .22 | 20   | .3         | .33 | .36 | .35 | 30   | .52        | .52 | .33 | .36 |

Table 4 presents the rotated factor matrix of FLIS. As can be seen, all 30 items have loaded acceptably on at least one of the six factors extracted in this study. In K&N’s study, however, item 12, “By learning English, I’m getting more interested in taking part in ceremonies like Christmas, Valentine, ...” and item 18, “In my dreams for reaching freedom, I believe I need knowing English” did not load acceptably on any factors. These results show that cognitive species expressed by linguistic statements contribute to different cognitive genera when they are presented to different respondents whose levels of English proficiency is almost the same, i.e., advanced, indicating that the dynamic nature of identity domain is reflected not only in species but also in genus. Furthermore, as can be seen, the number of species forming the genera of this study differs from those established by K&N. They will be discussed very shortly.

TABLE 4  
ROTATED FACTOR MATRIX OF FLIS ADMINISTERED IN THIS STUDY AND K&N’S

| Item | Factors of this study |     |     |     |     |     | K&N’s factors |     |     |     |     |    |
|------|-----------------------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|----|
|      | 1                     | 2   | 3   | 4   | 5   | 6   | 1             | 2   | 2   | 4   | 5   | 6  |
| 1    | .52                   | *   | *   | *   | *   | *   | .46           | *   | .36 | *   | *   | *  |
| 2    | .59                   | *   | *   | *   | *   | *   | .37           | *   | .57 | *   | *   | *  |
| 3    | .57                   | *   | *   | .44 | *   | *   | *             | *   | .51 | *   | *   | *  |
| 4    | *                     | .36 | *   | .42 | *   | *   | .39           | *   | *   | *   | *   | *  |
| 5    | .43                   | *   | *   | .69 | *   | *   | *             | *   | .44 | *   | *   | *  |
| 6    | *                     | *   | .76 | *   | *   | *   | .63           | *   | *   | *   | *   | *  |
| 7    | .59                   | *   | *   | .34 | *   | *   | *             | *   | .55 | *   | *   | *  |
| 8    | .46                   | *   | .51 | *   | *   | *   | .56           | *   | *   | *   | *   | *  |
| 9    | *                     | .52 | *   | *   | *   | *   | *             | *   | *   | *   | .47 | *  |
| 10   | *                     | .58 | *   | *   | *   | *   | *             | *   | *   | *   | .45 | *  |
| 11   | *                     | *   | .67 | *   | *   | *   | .59           | *   | *   | *   | *   | *  |
| 12   | .64                   | *   | *   | *   | *   | *   | *             | *   | *   | *   | *   | *  |
| 13   | *                     | .47 | *   | *   | *   | *   | *             | *   | *   | .43 | *   | *  |
| 14   | *                     | .60 | *   | *   | *   | *   | .41           | *   | *   | .5  | *   | *  |
| 15   | .44                   | .51 | *   | *   | *   | *   | *             | *   | *   | .57 | *   | *  |
| 16   | .61                   | *   | *   | *   | *   | *   | .35           | *   | *   | *   | *   | *  |
| 17   | *                     | *   | .37 | *   | *   | .42 | .46           | *   | *   | *   | *   | *  |
| 18   | .34                   | *   | .35 | *   | *   | .35 | *             | *   | *   | *   | *   | *  |
| 19   | .35                   | *   | *   | *   | *   | .46 | *             | *   | *   | .59 | *   | *  |
| 20   | *                     | *   | *   | *   | .48 | *   | .36           | *   | .31 | *   | *   | *  |
| 21   | *                     | *   | *   | *   | .69 | *   | *             | *   | *   | .31 | *   | *  |
| 22   | *                     | *   | *   | *   | .43 | *   | *             | *   | *   | *   | *   | .7 |
| 23   | .64                   | *   | *   | *   | *   | *   | *             | .58 | *   | *   | *   | *  |
| 24   | .67                   | *   | *   | *   | *   | .33 | *             | .5  | *   | *   | *   | *  |
| 25   | .63                   | *   | *   | *   | *   | *   | *             | .67 | *   | *   | *   | *  |
| 26   | .71                   | *   | *   | *   | *   | *   | .48           | .46 | *   | *   | *   | *  |
| 27   | .67                   | *   | *   | *   | *   | *   | .45           | .47 | *   | *   | *   | *  |
| 28   | .67                   | *   | *   | *   | *   | *   | .52           | .37 | .32 | *   | *   | *  |
| 29   | .80                   | *   | *   | *   | *   | *   | .43           | .43 | *   | *   | *   | *  |
| 30   | .67                   | *   | *   | *   | *   | *   | *             | .43 | .31 | *   | *   | *  |

a. Rotation converged in 8 iterations \* Loadings less than .32

As can be seen in Table 4 above, while nine items loaded acceptably on two factors, i.e., 3, 4, 5, 7, 8, 15, 17, 19, and 24, item 18 loaded on three, i.e., factors 1, 3 and 6. Following Khodadady and Dastgahian (2015), the highest loading of these items on a factor was considered as the best index of its relevance to that specific factor and its lower acceptable loadings on other factors were removed to render their meaning genus-specific as well. Thus out of 30 item 14 loaded acceptably on factor one, i.e., 1, 2, 3, 7, 12, 16, 23, 24, 25, 26, 27, 28, 29, and 30. Fourteen items loaded acceptably on the first factor in K&A’s study as well, i.e., 1, 2, 4, 6, 8, 11, 14, 16, 17, 20, 26, 27, 28, and 29. A comparison of the items loading on factor one in the two studies, however, showed that seven items constituting the K&N’s, did not contribute to the same factor in this study, i.e., species 4, 6, 8, 11, 14, 17, and 20. These results *reject* the first hypothesis that *the 30 statements comprising the Persian FLIS will load on the same factors extracted by K&N.*

Table 5 presents the rotation sums of squared loadings in the present study and those of K&N. As can be seen, the percentage of variance explained by each factor in the two studies differs quite noticeably. While the first factor, for example, explains 22.72% of variance in this study, it drops to 12.44 in K&N’s study. Compared to the 28 items loading acceptably on six factors in K&N’s study, all 30 items have loaded on the same number of factors differently and thus increased the total percentage of variance explained by these factors from 40.1% to 48.8%, indicating that psychological measures such as the FLIS need to be validated with similar samples at different periods of time to find out what differences they produce in the cognitive structure of learners as it deals with a specific domain such as identity.

TABLE 5  
ROTATION SUMS OF SQUARED LOADINGS IN TWO STUDIES

| Factor | This Study |               |              | K&N's Study |               |              |
|--------|------------|---------------|--------------|-------------|---------------|--------------|
|        | Total      | % of Variance | Cumulative % | Total       | % of Variance | Cumulative % |
| 1      | 6.815      | 22.716        | 22.716       | 3.730       | 12.435        | 12.435       |
| 2      | 2.25       | 7.501         | 30.217       | 2.640       | 8.800         | 21.234       |
| 3      | 2.008      | 6.692         | 36.909       | 2.151       | 7.171         | 28.405       |
| 4      | 1.305      | 4.35          | 41.259       | 1.971       | 6.571         | 34.976       |
| 5      | 1.293      | 4.311         | 45.57        | .827        | 2.757         | 37.734       |
| 6      | 0.962      | 3.206         | 48.776       | .708        | 2.358         | 40.092       |

Table 6 presents the descriptive statistics and reliability estimates of the FLIS and its underlying factors. As can be seen, the alpha reliability coefficient (RC) of the scale in this study (.91) is almost the same as the RC (.90) reported by K&N, indicating that it provides a reliable measure of learners' foreign language identity. (It must, however, be emphasized that K&N did not exclude the items having acceptable but lower loadings on other factors from their reliability analysis. Neither did they remove cross loading items from the structure of those factors, rendering comparing the factors extracted in the two studies untenable.) The RCs of six factors in this study, nonetheless, range from .50 (factor 6) to .92 (factor 1). The lowest RC belongs to factor six, which is considered acceptable because it consists of only two items.

TABLE 6  
DESCRIPTIVE STATISTICS OF THE FLIS AND ITS FACTORS

| Factors | This study  |      |    |       | K&N's study |        |        |       |
|---------|-------------|------|----|-------|-------------|--------|--------|-------|
|         | No of items | Mean | SD | Alpha | No of items | Mean   | SD     | Alpha |
| 1       | 14          |      |    | .92   | 14          | 72.89  | 16.095 | .90   |
| 2       | 5           |      |    | .71   | 8           | 34.70  | 11.013 | .85   |
| 3       | 4           |      |    | .71   | 8           | 36.93  | 9.525  | .81   |
| 4       | 2           |      |    | .64   | 5           | 26.24  | 5.456  | .70   |
| 5       | 3           |      |    | .54   | 2           | 10.61  | 2.518  | .38   |
| 6       | 2           |      |    | .50   | 1           | 4.72   | 2.186  | -     |
| FLIS    | 30          |      |    | .91   | 30          | 148.11 | 29.355 | .90   |

Table 7 presents the correlations between the six factors extracted in two studies. As can be seen, the magnitude of correlation coefficients (CCs) differs in both studies, indicating that they are dependent on the items comprising the factors. While the magnitude of CC obtained between factors one and two is .46 ( $p < .01$ ) it reaches .85 ( $p < .01$ ) for that of K&N, rejecting the *second* hypothesis that *the factors underlying the FLIS will correlate with each other almost in the same magnitude as they did in K&N's study*. Furthermore, factor six extracted in this study correlates significantly with the other five factors whereas it reveals no significant relationships with those factors in K&N's study, providing further evidence to question the inclusion of cross loading items in the structure of more than one factor as K&N did.

TABLE 7  
CORRELATIONS BETWEEN THE SIX FACTOR EXTRACT IN THIS STUDY AND K&N'S

| Factors | This study |        |        |        |        | K&N's study |        |        |        |        |
|---------|------------|--------|--------|--------|--------|-------------|--------|--------|--------|--------|
|         | 1          | 2      | 3      | 4      | 5      | 1           | 2      | 3      | 4      | 5      |
| 1       | 1          | .460** | .331** | .532** | .142** | 1           | .850** | .840** | .654** | .252** |
| 2       | .460**     | 1      | .372** | .437** | .277** | .850**      | 1      | .768** | .524** | .172** |
| 3       | .331**     | .372** | 1      | .303** | .271** | .840**      | .768** | 1      | .542** | .205** |
| 4       | .532**     | .437** | .303** | 1      | .136** | .654**      | .524** | .542** | 1      | .260** |
| 5       | .142**     | .277** | .271** | .136** | 1      | .252**      | .172** | .205** | .260** | 1      |
| 6       | .347**     | .345** | .427** | .287** | .254** | .055        | .083   | .103*  | .070   | .052   |

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

#### IV. DISCUSSIONS

Similar to other domains, foreign language identity (FLI) is defined and discussed either macrostructurally or microstructurally. The former approach demarcates the FLI domain as an all-encompassing domain consisting of certain logically established genera whose validity is documented by factor analysis as Ang et al (2007) and Costa and McCrae (1992) did with the domains of cultural intelligence and personality, respectively. The microstructural approach, however, starts with each and all concepts dealing with the domain under investigation and elicits them as schemata and species, i.e., words and statements, respectively, and then relates them to each other by restoring to factor analysis. This procedure is followed both linguistically and cognitively to explain the domain under investigation quantitatively and qualitatively. K&N followed the microstructural approach and asked their AEL learners to tell them who they thought they were when they spoke English and pooled their responses to develop their 30-species FLIS. Parsing the species into their constituting schemata in this study showed that 170 schema types determine the AEL learners' FLI domain.

The linguistic identification and categorization of schemata used in the FLIS showed that it consisted of 115 semantic (67.6%), 44 syntactic (25.9%) and 11 parasyntactic (6.5%) domains describing its language quantitatively. As Khodadady (2008, 2013) indicated the genera forming the linguistic semantic domain of all authentic texts, including the FLIS, were many in type but few in tokens because they represented the main concepts expressed in the texts in general and those explored in the FLIS in particular, i.e., 12 adjectives (7.1%), four adverbs (2.4%), 60 nouns (35.3%) and 39 verbs (22.9%). The 12 linguistic adjectives, for example, represent the cognitive schema types of “better”, “early”, “favorite”, “foreign”, “illiterate”, “interested”, “interesting”, “Iranian”, “living”, “mental”, “new” and “second” in the FLIS. Among these concepts “better” and “living” had tokens of three and two, respectively,

In contrast to linguistic semantic genera which were many in type, only two abbreviations (1.2%), two names (1.2%) and seven para-adverbs (4.1%) formed the linguistic genus of parasyntactic domain in the FLIS. Similar to syntactic schemata, parasyntactic ones might be many in tokens. (They can also be many in type as semantic schemata are. However, they must attach themselves to semantic schemata in order to be specified, hence parasyntactic.) One of the two names, for example, represent the concept of “English” which has a token of 33 whereas the adjective “foreign” has been used just once in the entire scale, indicating that the identity measured by the scale must be “English” rather than “foreign”. For this very reason, its name was changed from FLIS to ELIS in the present study. The microstructural analysis is, therefore, suggested to be employed in naming not only the scale but also its factors as it is done for the ELIS as shown in Figure 1.

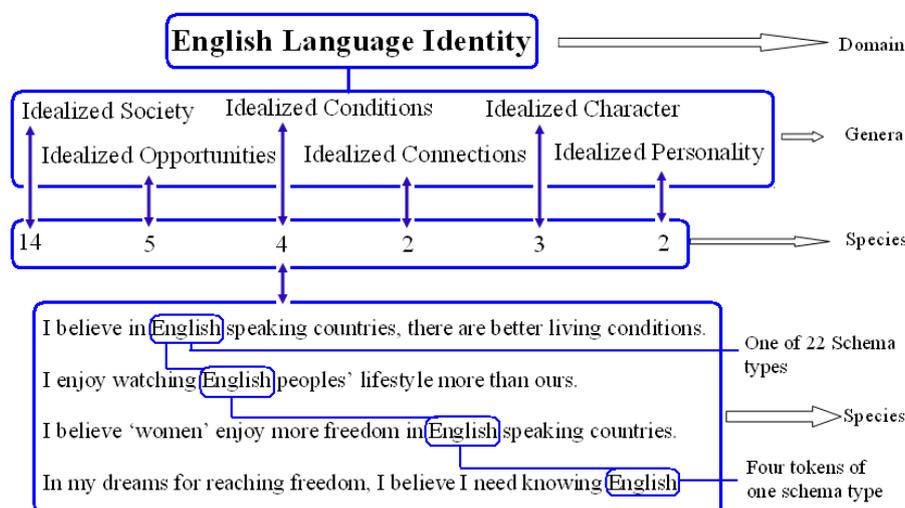


Figure 1. Schema types and tokens comprising the cognitive species, genera and domain of English language identity

As can be seen in Figure 1 above, 26 cognitive schema types comprise the four cognitive species constituting the third factor called Idealized Conditions, i.e., “are”, “believe”, “better”, “conditions”, “countries”, “dreams”, “English”, “enjoy”, “for”, “freedom”, “I”, “in”, “knowing” “lifestyle”, “living”, “more”, “my”, “need”, “ours”, “people”, “reaching”, “speaking”, “than”, “there”, “watching”, and “women”. Among them “I”, “English” and “believe” have the highest number of tokens, i.e., 5, 4, and 3, respectively. However, based on the AEL learners’ responses, species six, “I believe in English speaking countries, there are better living conditions”, has the highest loading on the factor (.76). Since the cognitive schema “conditions” is the main concept described in the species, the genus is called *Idealized Conditions* in this study.

The contribution of microstructural approach to determining the nature of scales and their constituting factors is unique and of great importance because scholars such as Gorsuch (1983) have neither touched upon its necessity nor provided others with any guidelines to do so, resulting in the adoption of some names which bear little relevance to what the scales measure. Costa and McCrae (1992), for example, developed a 60-statement scale macrostructurally to measure personality and called it NEO Five Factor Inventory (NEO-FFI). Khodadady and Mokhtari (2014), however, revised its Persian version by rendering its 24 reverse statements positive and administered it to 610 grade three senior high school (G3SHS) students in Mashhad, Iran. The application of PAF and VKN to the data showed that instead of five factors, 17 genera underlie G3SHS students’ personality, i.e., Extravert, Relaxed, Conscientious, Organized, Thorough-Going, Open, Field-Dependent, Unorthodox, Domineering, Agreeable, Friendly, Welcoming, Respectful, Fast-Paced, Proud, Considerate, and Curious. They, therefore, named the scale the Personality Inventory without confining it to a set number of factors.

As the first factor underlying the ELIS, the *Idealized Society* in this study consists of 14 species and 193 schema tokens. The species comprising this genus loaded not only on the factor bearing the same title but also on the Idealized Communication and Idealized Means in K&N’s study. The difference in the structure of the factors extracted in the two studies is due to K&N’s inclusion of a single species in the structure of two or more genera because of its acceptable loadings on these factors. For this reason no comparison will be made in the factors extracted in the two studies. Since

each species is developed to express a unique concept contributing to a particular genus as similarly unique but broader concept, it is suggested that researchers employ the highest acceptable loading of a species on a single genus as its sole contribution to that particular genus and remove it from other genera upon which it an *acceptable* but *lower* loadings. This is because each species must of necessity contribute to one genus if it is designed to have a unique contribution to the measurement of a specific domain.

The *Idealized Society*, for example, specifies the AEL learners who enjoy the products having English names, adopt English speaking (ES) celebrities as their favorites, value ES Iranian artists, teach English to their children to have a better personality, select an English name when travelling to an ES country, connect better to their English teachers if they have had their education in ES countries, get more interested in Western ceremonies and prefer to have their marriage ceremony held in English style, connect better to their parents or spouses if they speak English, prefer the Western characters to locals, express themselves better in English, overcome their problems and reach their goals by learning English. They also consider learning English as the only way through which they can be connected with their favorite celebrities abroad.

The second factor underlying the ELIS, i.e., *Idealized Opportunities*, is a less complex genus of English language identity (ELI) domain because instead of 14 species, it consists of only five species and 58 schema tokens. The AEL learners envision their *Idealized Opportunities* when they assume that by learning English, they can meet more interesting people, join the world village, make more foreign friends, attract the admiration of their family, relatives, friends and the society at large and get better job opportunities and prosper.

As the third genus, the *Idealized Conditions*, however, specifies the AEL learners who believe that there are better living conditions in ES countries and women enjoy more freedom there. They enjoy watching ES peoples' lifestyle more than their own and believe they need to know English if they dream of reaching freedom. Among the six genera constituting the ELI domain, the *Idealized Conditions* correlates the highest and lowest with the *Idealized Personality* and *Idealized Character* ( $r = .427$  and  $.271$ ,  $p < .01$ ), respectively, indicating that the pursuit of idealized conditions requires developing a personality whose realization ultimately leads to having a foreign character.

Two species consisting of 28 schema tokens comprise the genus of *Idealized Connections* extracted as the fourth factor underlying the ELIS. The AEL learners who have developed this particular genus believe that the natives in ES countries will mentally connect to and welcome them if they learn English. It must, however, be emphasized that K&N developed the species of the ELIS by reporting their participants' statements verbatim. Future research must show whether homogenizing statements by adopting a common syntactic structure will bring about any differences in the factors upon which they load.

The two species which comprise the *Idealized Connections* genus, i.e., "after learning a new topic in English, I can make mental connections with the natives" and "If I knew English, the natives in English speaking countries would welcome me", for example, differ from each other in terms of their situations. While the former sets the species in a real context, the second poses an unreal condition. These statements can be rewritten by following the guidelines provided by Khodadady (1999). The incomplete theme "by learning English, I will ..." can, for example, introduce all the 30 species comprising the ELIS and then pose each species as phrasal schemata such as "... make mental connections with the natives" and "... be welcome by the natives." the *Idealized Connections* genus, nonetheless, correlates the highest with the *Idealized Society* ( $r = .532$ ,  $p < .01$ ), empathizing their interconnectedness.

Three species consisting of 61 schema tokens comprise the fifth genus of ELI domain called *Idealized Character* in this study. AEL learners who develop an *Idealized Character* for themselves consider monolinguals illiterate people. They believe that English is the only channel through which they can not only communicate electronically and have themselves heard but also introduce their culture and history to people in other countries. Although it correlates significantly with other genera, its highest correlation is with the *Idealized Opportunities* ( $r = .277$ ,  $p < .01$ ), specifying them as the main reasons for developing such a character.

And finally, species 17 and 19 constitute the sixth genus of AEL learners' ELI domain called *Idealized Personality* in this study. They develop it by believing that speaking English makes them have a better feeling of their personality inside and outside of the class. Therefore, they love the image of living in an English speaking country. Its highest correlation with *Idealized Conditions* ( $r = .427$ ,  $p < .01$ ) indicates that the AEL learners develop an *Idealized Personality* in order to place themselves in idealized conditions within an idealized society ( $r = .347$ ,  $p < .01$ ) providing them with idealized opportunities ( $r = .345$ ,  $p < .01$ ) and idealized connections ( $r = .287$ ,  $p < .01$ ) to enjoy their idealized character ( $r = .254$ ,  $p < .01$ ). Although the degree and direction of relationships these genera hold with a host of variables are worth exploring, they will be investigated in relation to the cultural intelligence domain and its genera in a separate paper to fill a discerned gap in the literature.

## V. CONCLUSION

The microstructural analysis of ELIS showed that AEL learners who participated in this study read the 170 schema types comprising its 30 statements in order to determine what identity they had established for themselves in the English language. The learners' understanding of the schema types within the context of statements resulted in the creation of 30 concepts which were broader than the schemata themselves and referred to as species in the microstructural approach of schema theory. The participants' degree of agreement with the 30 species made on a scale

of seven choices indicated that the species themselves combined together in certain numbers to create six cognitively broader and hierarchically higher concepts called genera, i.e., Idealized Society, Idealized Opportunities, Idealized Conditions, Idealized Connections, Idealized Character and Idealized Personality. The findings of this study thus showed that 170 schema types combined with each other in certain order and tokens by K&N's participants were understood by the participants of this study in terms of 30 species. The species themselves contributed to six genera through which the AEL learners created the English language identity as a specific cognitive domain for themselves. While future research projects must show what relationship the domain holds with educationally important variables such as personality, the present researchers will address it in connection with cultural intelligence in a separate study.

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