SOCIAL BEHAVIOR AND PERSONALITY, 2013, *41*(5), 819-826

http://dx.doi.org/10.2224/sbp.2013.41.5.819

IMPACT OF EXTROVERSION AND INTROVERSION ON LANGUAGE-LEARNING BEHAVIORS

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Despite the fact that personality factors and learning strategies are of great importance in success with language learning, the link between extroversion and introversion and language-learning strategies has received little attention from researchers. Therefore, I investigated whether or not there is any correlation between these personality traits and language-learning strategies. Participants in the study were 106 extroverted and 94 introverted students. The Eysenck Personality Questionnaire (EPQ) and the Strategy Inventory for Second Language Learning (SILL) were employed. The findings indicated that, with the exception of communicative strategies, introverted learners used a greater range of metacognitive and cognitive strategies than did extroverted learners.

Keywords: extroversion, introversion, language-learning strategies, personality factors, Eysenck Personality Questionnaire, Strategy Inventory for Second Language Learning.

Although introverted and extroverted personality types have been identified in studies as significant factors in other areas of educational and psychological research, they have received only sporadic attention in studies of language-learning strategies, which are very often associated with success in language learning. Whether or not extroverts or introverts are better language learners has been a subject of much debate. Some researchers tend to associate extroversion with better language-learning performance (Dewaele & Furnham, 2000; Sidek, 2012), and some suggest counterevidence in favor of introverted learners (Gan, 2011).

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Ellis (1994) stated that there are two major hypotheses about the possible relationship between the dichotomy of introversion/extroversion and language learning. It is argued in the first hypothesis that extroverts are more successful language learners as they are better at basic interpersonal communication strategies. Conversely, it is claimed in the second hypothesis that introverts are better language learners as they have developed cognitive academic ability. In a rare study on personality types and language-learning strategies, Ehrman and Oxford (1989) found that extroverts tended to employ more affective strategies. Extroverts favored the use of visualization strategies whereas introverts were keen to communicate meaning. Introverts were found to be slow to initiate, or respond to, a conversation because they were concerned about meaning and context.

Of the various psychological measurement inventories that researchers have used to determine personality traits, the Myers-Briggs Type Indicator (MBTI) has been widely used (Dörnyei, 2005; Ehrman & Oxford, 1989). In addition, the MBTI has served well as a psychometric tool to determine personality traits of language learners in various studies (Chamorro-Premuzic & Furnham, 2003; Dewaele & Furnham, 2000; Gan, 2011; Sidek, 2012).

Language-Learning Strategies and Personality Types

Learning strategies are generally *deliberate, planned, and consciously engaged behaviors, techniques, approaches, or activities undertaken by learners to ease the acquisition, storage, retrieval, and use of information* (Chamot, 1987; Oxford, 1990). Although the definition of learning strategies varies among researchers, there appears to be some agreement that strategies are (a) learner-based processes, (b) approaches, actions, and techniques, (c) problem- and goal-oriented, (d) intentional behavior, (e) conscious and unconscious activities, (f) changeable and identifiable, (g) purposeful, (h) physical or mental, and (i) particular tactics (Kayaoğlu, 2011, 2012).

Various inventories of learning strategies have been developed (Bialystok, 1985; Chamot, 1987; Cohen & Macaro, 2007). Oxford (1990), building on earlier classification schemes, has provided the most comprehensive and detailed classification of learning strategies, and I employed it in this study. Oxford divides language-learning strategies into two major categories, direct and indirect. Direct strategies are subdivided into three subgroups, that is, memory, cognitive, and compensation strategies, and indirect strategies involve metacognitive, affective, and social strategies. *Memory strategies* are concerned with *mental activities designed to improve encoding and retrieval*, whereas *cognitive strategies* refer to *the steps or operations used in learning or problem solving*. *Compensation strategies* are *those that help learners make up for their lack of knowledge in the target language*. *Metacognitive strategies* refer to *knowledge about cognition*

and regulation of cognition. *Affective strategies* involve *the management of affection and emotions*, and *social strategies* are concerned with *interaction with other people*.

Method

Participants and Procedure

The quantitative research tradition was used as the basis in this study, because I was concerned with the comparison between introverted and extroverted learners with regard to their use of language-learning strategies. From 1,640 students, 106 extroverted and 94 introverted students were chosen as a result of completing the Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975). They were all enrolled in the intensive English preparatory program at the School of Foreign Languages at Karadeniz Technical University in Trabzon, Turkey. This school offers students a year of intensive, compulsory English study prior to study in their respective departments. The participants, whose ages ranged from 18 to 20 years, were at intermediate language proficiency level.

In addition to the EPQ, the Strategy Inventory for Second Language Learning (SILL; Oxford, 1990) was employed to investigate the participants' strategy use. I decided the SILL was the most appropriate tool for the following reasons: (a) it addresses both formal and informal setting and language use, (b) it has a high degree of structure so that the type of strategy and also the type of task and setting are defined, and (c) it has been tested in various settings for internal consistency, reliability, and content validity (Oxford, 1990).

Data Analysis

The use of language-learning strategies by introverted and extroverted students (as defined in the EPQ) was analyzed on the basis of Oxford's (1990) strategy classifications. As the data were basically ordinal, the nonparametric Mann-Whitney *U* test was used to analyze ranked data to compare the two independent groups.

Results

The use of strategies by introverted and extroverted learners is shown in Table 1. Of the six major strategies, the introverted learners were observed to use a significantly greater number than were the extrovert learners, despite some variations in the use of certain specific strategies (see Appendix for statistical information on specific strategies). I considered it to be important that the introverted learners were found to use a significantly greater number of cognitive strategies (including analyzing expression, using formulas and

patterns, repeating, and formally practicing with sounds and writing systems) than were the extrovert learners (see Appendix). The fact that the analysis of metacognitive strategies resulted in a statistically significant difference between the introverted and extroverted learners may have some practical implications, because metacognitive strategies are related to knowledge about cognition, regulation, and actions that involve learners coordinating, organizing, and arranging their learning, and setting goals, objectives, and plans for a language task in an efficient way. The only metacognitive strategy in which the score for extroverted learners were significantly higher than that of the introverted learners was seeking practice opportunities. It is logical to anticipate that extroverts create more opportunities and social situations for themselves to engage in conversation in the target language. It has been shown that the self-monitoring strategy is used significantly more often by proficient language learners who are considered to be extroverts (Ellis, 1994). However, a result that I found surprising was that the introverted students significantly more often used the self-monitoring strategy than did the extroverted students ($Z = 6.406$, $p < .000$). This strategy is of great importance because it enables learners to evaluate their overall progress and learning performance. With regard to social strategies, the extroverted students chose to cooperate with peers as a social strategy more frequently than did the introvert learners, who, in contrast, preferred interaction with their teachers, who were proficient users of the language being studied. In regard to affective strategies, there was no statistically significant difference between introverts and extroverts in terms of lowering anxiety level ($Z = 5.014$, $p < .933$).

Table 1. *Use of Strategies by Introverted and Extroverted Learners*

Strategy	Personality	*N*	Mean rank	Sum of ranks	Two-tailed Mann-Whitney *U* test
Cognitive	Introvert	83	66.67	5534.00	$Z = -5.156$
	Extrovert	90	105.74	9517.00	$p < .000$
Compensation	Introvert	93	81.46	7576.00	$Z = -4.094$
	Extrovert	104	114.68	11927.00	$p < .000$
Social	Introvert	92	88.64	8155.00	$Z = -2.491$
	Extrovert	106	108.92	11546.00	$p < .013$
Metacognitive	Introvert	92	76.80	7066.00	$Z = -4.883$
	Extrovert	102	116.17	11849.00	$p < .000$
Affective	Introvert	94	82.80	7783.00	$Z = -4.090$
	Extrovert	106	116.20	12317.00	$p < .000$
Memory	Introvert	93	84.43	7852.00	$Z = -3.578$
	Extrovert	106	113.66	12048.00	$p < .000$

Conclusion

Contrary to the results in several studies in favor of the correlation between introverted and extroverted personality types and success mediated by language-learning strategies, the results in this study strongly indicate that introverted learners use all the strategies more often than extroverted learners and both extroverted and introverted learners reported a similar level of use of several specific language-learning strategies.

The overall findings indicate that introverted learners consciously employed goal-oriented specific behaviors and mental operations to ease the acquisition, retrieval, storage, and use of information for both comprehension and production and extroverted learners used more interpersonal communication strategies. Yet, the fact that extroverted learners are relatively prone to start a conversation does not necessarily enable them to be better learners, in view of the intricate nature of the language-learning processes. It is, however, a mistake to equate success only with speaking and to assess second-language achievement solely on the basis of observable oral production, ignoring the comprehension and internal mechanism in language learning. It appears that many researchers have undertaken their studies with the premise that introverted learners are reticent, and, therefore, deemed to be less successful than extroverted learners, because introversion is associated with quiet, unsociable, reserved, passive behavior. This premise very much appeals to high-context cultures, for example, USA and the United Kingdom, in which communication exists mainly through speech. In contrast, in high-context cultures such as Japan and Turkey, communication includes body language and the use of silence (Würtz, 2005). Being quiet in these cultures is, therefore, not necessarily a negative trait. Furthermore, in an English as a foreign language setting, the use of English is not limited to simple conversational communication. It includes the construction of knowledge or pragmatic needs in a non-English-speaking environment. As this study took place in Turkey, a high-context culture, it would, therefore, be reasonable to include low- and high-context cultures as variables in further research.

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Appendix
Statistical Information on Specific Strategies

	Extrovert Mean rank	Introvert Mean rank	Two-tailed Mann-Whitney *U* test
Memory Strategies			
Associating/Elaborating	112.72	86.72	$Z = 6.277$, $p < .000$
Using sounds	90.77	111.47	$Z = 3.951$, $p < .009$
Using imagery	112.63	86.82	$Z = 6.268$, $p < .001$
Representing sounds in memory	109.31	90.56	$Z = 5.916$, $p < .012$
Using mechanical technique	113.11	86.28	$Z = 6.319$, $p < .001$
Structured reviewing	117.51	81.32	$Z = 6.785$, $p < .000$
Cognitive Strategies			
Repeating	112.67	86.78	$Z = 6.272$, $p < .001$
Formally practicing with sounds and writing systems	110.26	89.49	$Z = 6.017$, $p < .009$
Practicing naturalistically	74.43	123.62	$Z = 7.433$, $p < .000$
Using formulas and patterns	118.79	79.54	$Z = 6.852$, $p < .000$
Reasoning deductively	97.98	103.34	$Z = 4.715$, $p < .500$
Analyzing expression	101.90	98.93	$Z = 5.130$, $p < .709$
Translating (into mother tongue)	122.48	81.01	$Z = 2.916$, $p < .000$
Compensation Strategies			
Using mime or gestures	81.94	118.83	$Z = 3.062$, $p < .000$
Coining words	87.83	111.74	$Z = 6.173$, $p < .002$
Using a circumlocution or synonym	119.58	78.98	$Z = 7.005$, $p < .000$
Adjusting or approximating the message	116.54	82.41	$Z = 6.682$, $p < .000$
Using linguistic clues	115.61	83.46	$Z = 6.584$, $p < .004$
Getting help	81.28	122.17	$Z = 2.945$, $p < .000$
Metacognitive Strategies			
Paying attention-directed	87.52	112.01	$Z = 6.202$, $p < .002$
Paying attention-selected	119.07	79.56	$Z = 6.950$, $p < .000$
Seeking practice opportunities	90.09	109.74	$Z = 5.961$, $p < .014$
Organizing	104.38	96.13	$Z = 5.393$, $p < .289$
Setting goals and objectives	103.72	91.73	$Z = 5.325$, $p < .128$
Self-monitoring	113.83	85.35	$Z = 6.406$, $p < .000$
Affective and Social Strategies			
Making a positive statement	74.80	123.29	$Z = 7.398$, $p < .000$
Discussing feelings	93.86	106.39	$Z = 5.605$, $p < .044$
Taking emotional temperature	110.84	88.84	$Z = 6.078$, $p < .000$
Lowering anxiety level	100.80	100.16	$Z = 5.014$, $p < .933$
Cooperating with peers	92.10	107.95	$Z = 5.772$, $p < .116$
Cooperating with proficient users of the studied language	120.53	75.27	$Z = 7.105$, $p < .000$