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Communicative competence and personality dimensions in first and second language learners

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ABSTRACT
The purpose of the present study was to examine the relations between communicative competence and five dimensions of personality in 241 first and second language–learning children in The Netherlands. To determine the underlying communicative competence of the first and second language learners of Dutch, a broad array of linguistic measures and teacher judgments were collected. Observational scales referring to the Big Five personality factors were used to characterize the children's personalities. The results showed that three basic components underlie both the monolingual and bilingual children's communicative competence: organizational competence, involving lexical, syntactic, discourse, and functional abilities; pragmatic competence, involving sociocultural routines and illocutionary force; and strategic competence, involving the planning and monitoring of communicative behavior. The relations between the different dimensions of personality and the components of communicative competence revealed the following patterns to characterize first language learners: conscientiousness and emotional stability correlated with basic organizational skills; openness to experience correlated with pragmatic competence; and a broad range of personality characteristics with the acquisition of communicative strategies. In contrast, primarily openness to experience and, to a lesser extent, conscientiousness and extraversion were found to be related to the buildup of basic organizational skills, the acquisition of pragmatic skills, and the development of monitoring strategies in second language learners.

The acquisition of a first (L1) or second (L2) language involves more than the learning of a linguistic system. A communicative system associated with the linguistic system must also be learned. For that reason, Hymes (1971, 1972) introduced the notion of "communicative competence" in which knowledge of the social rules for the actual use of a language for daily interaction plays an important role, in addition to knowledge of grammatical rules. Hymes was also one of the first to stress the importance of children learning the social rules for

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language use. Children must learn "not only what may possibly be said, but also what should and should not be said" (Hymes, 1971, p. 26). Particularly in an immigration context, where newcomers must learn a L2 or third language, "cultural interference" can arise due to different norms and values with regard to what constitutes appropriate linguistic behavior. For example, the Islamic cultural rule that children should bow their heads and not look into the face of an adult who rebukes them implies that the language learning child misses a wealth of information, including the articulation of the lips, the frowning of the eyebrows, and the wink of an eye suggesting a light rebuke. In other words, when children obey such a rule, they can only gather information from the acoustic signal. Other examples of sociocultural rules that can hamper communication are an indirect way of requesting or responding positively to a question (answering "yes") based on the status of the addressee as opposed to the content of the question. In the research literature, different labels have been proposed for the sociocultural component of communicative competence. Hymes (1985, p. 17) mentions, for instance, "conversation," "interactional," "social," "sociolinguistic," and "pragmatic" competence.

Few researchers have looked at how the personality variables that L1 and L2 language learners bring to the task might affect their acquisition of communicative competence. There is reason to believe that personality dimensions interact with the individual variation in communicative competence across L1 and L2 learners (cf. Scarcella, Andersen, & Krashen, 1990). To examine personality, the five-component, or so-called Big Five, model of personality is widely used within the field of psychology (cf. Digman, 1989). The five dimensions are agreeableness, extraversion, conscientiousness, openness to experience, and emotional stability. Children with high scores on the Big Five personality dimensions have demonstrated high flexibility in adapting to changing circumstances, resourcefulness in problem solving, and adequate functioning in social domains (Block & Block, 1980; Funder, Block, & Block, 1983). Flexibility, resourcefulness, and adequate social functioning have also been shown to relate to such domain-specific competencies as prosocial behavior and communicative competence (Funder, Parke, Tomlinson-Keasey, & Widaman, 1993).

MODELING AND ASSESSING COMMUNICATIVE COMPETENCE

Hymes' attention to communicative competence inspired a number of models of such competence. In the context of L2 teaching, Canale and Swain (1980, p. 20) defined communicative competence as "a synthesis of knowledge of basic grammatical principles, knowledge of how language is used in social contexts to perform communicative functions, and knowledge of how utterances and communicative functions can be combined according to the principle of discourse" (see also Canale, 1981, 1983; Swain, 1984). A similar theoretical framework for communicative competence was developed by Bachman (1988, 1990) and Bachman and Palmer (1982, 1996). In their 1996 model of communicative ability, Bachman and Palmer distinguished three components: "organizational knowledge," "pragmatic knowledge," and "strategic competence." Organizational knowledge includes both grammatical knowledge and textual knowledge

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(covering cohesion). Pragmatic knowledge includes both knowledge of sociolinguistic rules and functional knowledge ("illocutionary competence," as in Bachman, 1990). Strategic competence involves the ability to make the most effective use of available abilities to carry out a given task. Strategic competence is conceived of "as a set of metacognitive components, or strategies, which can be thought of as higher order executive processes that provide a cognitive management function for language use, as well as in other cognitive activities" (Bachman & Palmer, 1996, p. 70). Three basic areas of strategic competence are identified: goal setting, planning, and assessment.

There have been subsequent modifications to the models and numerous inconsistencies in learner's knowledge versus the ability to use the relevant rules (for discussion, see McNamara, 1996; Shohamy, 1988). However, only a few empirical studies have addressed communicative competence as a multifaceted construct encompassing organizational, pragmatic, and strategic abilities. Most of the relevant studies are confined to one or two components of communicative competence, as in Erickson and Omark (1981), Rivera (1984), and Scarcella et al. (1990). One of the main impediments to a more comprehensive analyses of communicative competence is that the various components are difficult to assess in an objective manner and are thus difficult to compare across subsamples of language learners (cf. Hyltenstam & Pienemann, 1985; Verhoeven & Vermeer, 1992).

THE PRESENT STUDY

The purpose of the present study is to examine the communicative competence of L1 and L2 learning children in The Netherlands in relation to their personality type. Following Bachman's theoretical framework, the children's communicative competence was assessed with separate tasks aimed at their organizational, pragmatic, and strategic competence. In order to assess the personalities of the children, an observational scale involving the Big Five dimensions of personality was utilized.

The children in the present study were in 6th grade (e.g., 11–13 years of age). The L2 learners had a Mediterranean background (i.e., either Turkish or Moroccan) and generally belonged to the second generation of immigrant workers coming to The Netherlands during the past decades. For a detailed overview of the sociolinguistic background of these ethnic groups, see Extra and Verhoeven (1993, 1998). The largest minority group in The Netherlands is Turkish. In 1998 there were 241,000 Turkish people known to be living in The Netherlands and 35,000 Turkish children attending Dutch elementary schools. In 1998 the 195,000 Moroccans living in The Netherlands constituted the second largest minority group and there were 34,000 Moroccan children enrolled in Dutch elementary schools. The language patterns of these children can be characterized by the fact that they primarily live in homes in which ethnic language is spoken with mothers who are almost always monolingual speakers of the ethnic group language. The early language input to the children is thus restricted to this language, and the Dutch language only gradually enters their lives via Dutch playmates and school. Earlier research (Verhoeven & Vermeer, 1993) showed that

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the grammatical proficiency of this group of children at both the beginning and the end of elementary school tends to lag far behind their native Dutch peers.

In the present study, an attempt is therefore made to answer the following questions.

1. How do L1 and L2 learners at the end of elementary school differ with regard to the various aspects of Dutch communicative competence?
2. Is there empirical evidence for a similar componential structure underlying the communicative competence of children learning Dutch as a L1 or L2?
3. How do the various personality traits relate to the proficiency levels of the L1 and L2 learners?

The first research question is interesting because L1 learners set the "norm" for what 12-year-olds know. On the basis of previous research, we predict the L2 learners will lag behind their monolingual peers on measures of organizational competence but not on pragmatic and strategic measures or personality measures. With respect to the second question, we expect to find evidence for a three-factor representation of communicative competence, referring to similar grammatical, pragmatic, and strategic abilities in the L1 and L2. As regards the third question, our prediction is that consciousness and stability primarily relate to aspects of communicative competence in L1 and L2. Earlier studies showed conscientiousness and emotional stability to relate to the development of grammatical competence, discourse competence, and strategic competence (see Ellis, 1994; Eisenberg, 1997). For L2 learners, we also expect a substantial contribution from personality aspects facilitating contact with peers, such as agreeableness, extraversion, and openness to experience. From previous studies we know that particularly the acquisition of the pragmatic aspects of communicative competence is dependent on such personality characteristics (cf. R. Ellis, 1985; Erickson & Omark, 1981; Larsen–Freeman & Long, 1991; Rivera, 1984; Wong–Fillmore, 1991).

STUDY DESIGN

Subjects

A group of 213 children was recruited from the 6th grades of 12 different schools in three industrial cities in the southern part of The Netherlands. Some 20–60% of each class consisted of minority group members. All of the children selected for inclusion in the study came from working-class families. A total of 144 children were native Dutch speakers; the other 69 children were nonnative speakers of Dutch of a primarily Turkish or Moroccan background (46). Half of the children were boys and half were girls. All of the children had attended a Dutch school since kindergarten. The age of the children ranged from 11;5 to 13;6, and the mean was 12;4.

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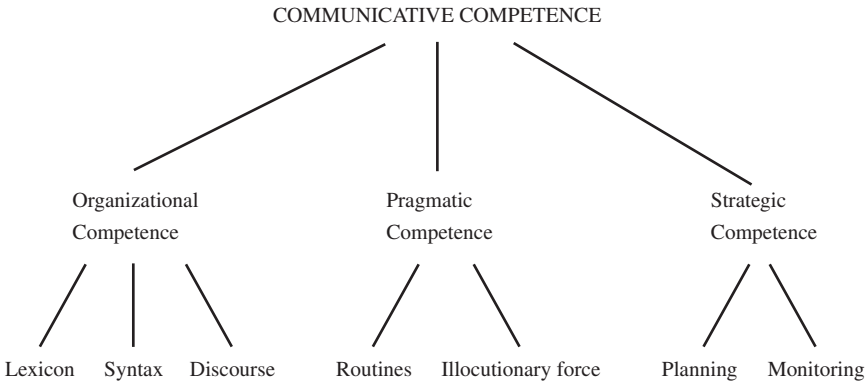


Figure 1. The model for describing communicative competence.

Instruments

Figure 1 shows how the children's communicative competence was operationalized for the present study.

Organizational competence. The children's organizational competence in Dutch was evaluated using four different tests. These included the Word Definition, Sentence Reproduction, and Text Comprehension subtests from the Taaltoets Allochtone Kinderen (Language Test for Nonindigenous Children), which is a standardized discrete-point test for the assessment of Dutch proficiency in L1 and L2 learning children between grades 3 and 6 (9- to 12-year-olds; Verhoeven & Vermeer, 1993). In the Word Definition task, children are asked to give a synonym, definition, description, or example of 25 words. Each answer is assigned 0, 1, or 2 points, depending on the quality of the answer; thus, the maximum score is 50. In the Sentence Reproduction task, the children are asked to reproduce sentences in which 20 function words and 20 sentence patterns are judged for their correctness. The maximum score is thus 40. The Text Comprehension task consists of a cloze text (i.e., incomplete piece of text) with 40 function words to be selected from a list of three options and filled in. The maximum score is 40.

In addition to these tests, the standardized Functional Reading test (Cito, 1992) was also administered. This test consists of 20 multiple-choice items indicating the ability of the child to combine and interpret linguistic forms and meanings within the different genres of written texts, and the maximum score is 20. An example is given below.

> You want to know something about keeping fish in your room. Which book gives you the best information on that subject?
> A *Fishing Around*
> B *Aquarium handbook*

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C *Fishing in Holland*
D *Fish and Fish Products*

Pragmatic competence. In order to assess children's pragmatic competence, an observational instrument was developed. More specifically, eight pragmatic tasks involving different role playing situations were constructed. In an individual testing situation, each child was asked to react to a role being played by the experimenter (i.e., the roles of butcher, mayor, policeman, etc.). For each task, the performance of the child was then scored with regard to the number of well-defined elements. An example is presented below.

> You walk on the street and want to know the time. A policeman walks by. Ask the policeman what time it is. I will play the policeman."
> [Experimenter stands up and walks by the student.]
> Elements to be scored: (a) greeting (e.g., *dag, hallo*); (b) complementary phrase (e.g., *weet u ook, kunt u mij*); (c) politeness of address forms (e.g., *u*); (d) thanking formula (e.g., *dank u, bedankt*); and (e) supportive gesture (e.g., pointing at the place where a watch is usually worn).

The total number of observations was 37: 17 of the observations pertained to the sociocultural routines of greeting, apologizing, and thanking (as illustrated in the first example above); the remaining 20 observations were related to illocutionary force and the provision of necessary supportive information (as in the second example above). For each of the two subscales, the Cronbach's alpha was greater than .71, which is reasonable. We will refer to the tasks as routines and illocutionary force in the following.

Strategic competence. A rating scale for teachers to judge children's strategic competence was developed: 12 items pertain to the planning of communicative behavior and 12 items pertain to the monitoring of communication. Items included strategies in both oral and written language use. For each of the 24 observational categories, two pairs of statements were formulated to represent the positive and negative poles of a 5-point scale. All of the items are later recoded to have all communication-promoting behavior rated 5 and communication-harming behavior rated 1. An example of such an item for monitoring is given below.

Makes no use of gestures 1 2 3 4 5 Talks with hands and feet

After removal of one item from the monitoring scale, the reliability of the two scales proved to be good. For the planning and monitoring scales (each with a maximum score of 60), the Cronbach's alphas were found to be .87 and .89, respectively.

Personality traits. On the basis of the Big Five personality traits (extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience), 30 pairs of judgments were formulated for the teacher to assess children's personality traits (cf. Lieshout & Haselager, 1992). The scoring procedure is

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similar to the rating scale developed for strategic competence: the minimum score is 30 and the maximum is 150. The reliability was high, as indicated by a Cronbach's alpha value of .94.

Procedure

The organizational competence Word Definition and Sentence Reproduction tests and the pragmatic competence tasks were individually administered by an experimenter in a separate room in the school. The other organizational competence tests (Text Reading, Text Writing, and Functional Reading) were administered by the teachers in the classroom. The teachers were also asked to assess the children's strategic competence and personality traits using the relevant rating scales. They were asked to closely observe each child before completion of the rating scales.

Significant differences in the mean scores for the native Dutch children versus the minority children were tested for using *t* tests. In order to explore the structure of the communicative competence of the L1 and L2 learners, principal components analyses were conducted with the different measures of organizational, pragmatic, and strategic competence. The dimensions underlying the Big Five personality trait questionnaire were also evaluated using a principal components analysis. Finally, correlational analyses were conducted to reveal the relations between the grammatical, pragmatic, and strategic knowledge of the children, on the one hand, and their personality traits, on the other hand.

RESULTS

Differences in communicative competence between L1 and L2 learners

Table 1 presents the means and standard deviations for the children speaking Dutch as the L1 and L2.

On all measures of organizational competence, the differences between the L1 and L2 learners proved significant. The native Dutch children obtained higher scores than the minority children on Word Definition ($p < .001$), Sentence Reproduction ($p < .001$), Text Comprehension ($p < .001$), and Functional Reading ($p < .01$). For pragmatic competence, the differences between the mean scores for the two groups of children were found to be significant for illocutionary force ($p < .001$), but not for routines. For strategic competence, we found significant group differences for planning ($p < .01$), but not for monitoring. No significant differences were found for the teacher ratings of the children on the Big Five dimensions of personality.

Components of communicative competence

In Table 2, the correlations between the measures of communicative competence for the children with Dutch as their L1 and L2 are presented in two separate matrices. As can be seen, for both L1 and L2 learners, the correlations within organizational measures, pragmatic measures, and strategic competence mea-

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Table 1. *Means (M) and standard deviations (SD) on the instruments for communicative competence for children speaking Dutch as a first language (DFL) and as a second language (DSL)*

	DFL		DSL		*t* Test		
	M	*SD*	*M*	*SD*	*t*	*df*	*p*
Organizational competence							
Word Definition	40.53	6.40	31.37	9.44	7.70	196	<.001
Sentence Reproduction	36.89	3.03	33.52	5.34	5.01	195	<.001
Text Comprehension	37.25	3.27	34.06	6.00	4.84	196	<.001
Functional Reading	16.13	2.96	14.55	3.53	3.26	196	<.01
Pragmatic competence							
Routines	8.60	2.12	8.38	1.91	0.34	206	*ns*
Illocutionary Force	16.76	2.88	15.22	3.20	3.48	206	<.001
Strategic competence							
Planning	49.20	12.46	43.12	13.75	3.22	211	<.01
Monitoring	34.62	9.45	2.49	9.59	1.63	210	*ns*
Big Five	106.18	26.05	106.13	26.30	0.14	211	*ns*

Table 2. *Correlations between communicative competence measures in Dutch as a first language (DFL) and as a second language (DSL)*

	WD	SR	TC	FR	RT	IF	PL	MO
Word Definition (WD)	—	.52	.43	.50	.27	.44	.45	.26
Sentence Reproduction (SR)	.57	—	.30	.36	.10	.21	.35	.14
Text Comprehension (TC)	.39	.34	—	.59	.05	.23	.38	.17
Functional Reading (FR)	.52	.35	.55	—	.00	.21	.54	.21
Routines (RT)	.29	.14	.00	−.03	—	.46	.02	.09
Illocutionary Force (IF)	.40	.18	.17	.29	.38	—	.19	.15
Planning (PL)	.38	.15	.51	.45	−.06	.18	—	.62
Monitoring (MO)	.27	−.07	.07	.07	.07	.37	.38	—

Note: The DFL and DSL values are above and below the diagonal, respectively.

sures are relatively high. In addition, there are substantial correlations between the different tests of organizational competence and the ratings of strategic planning.

The principal components analysis (with varimax rotation) produced three components with eigenvalues greater than 1 for both the L1 and L2 learners. These components were found to explain 65.1 and 64.6% of the variance in the measures of communicative competence for the two groups of children, respectively. In Table 3, the separate component structure matrices for the two groups of children are presented. Maximum-likelihood testing showed no significant differences between the two matrices.

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Table 3. *Component structure matrices of children with Dutch as a first language (DFL) and as a second language (DSL)*

	DFL			DSL		
	C1	C2	C3	C1	C2	C3
Word Definition	.69	.43	.14	.60	.59	.11
Sentence Reproduction	.62	.12	.07	.51	.49	−.36
Test Comprehension	.75	.01	.07	.80	.00	.01
Functional Reading	.84	−.02	.23	.83	.11	.05
Routines	−.07	.79	.03	−.20	.77	−.01
Illocutionary Force	.28	.87	.08	.13	.57	.56
Planning	.46	.00	.78	.41	−.21	.38
Monitoring	.03	.11	.94	.09	−.02	.88

For the L1 learning group, a clear pattern of loadings can be seen. The four tests of organizational competence dominate the first component, the two measures of pragmatic competence dominate the second component, and the two measures of strategic competence dominate the third component. For the L2 learning group, a more or less similar pattern of loadings was detected. However, some differences emerge. Word Definition and Sentence Reproduction loaded not only on the first but also on the second component, the pragmatic measure of illocutionary force loaded on both the second and third components, and the strategic measure of planning loaded on the third component, as well as the first component.

Correlations between communicative competence and personality factors

Separate principal components analyses were conducted on the personality judgments made by the teachers for the L1 and L2 learning groups. Five components with eigenvalues greater than 1 could be extracted to explain 71 and 73% of the total variance in the item scores for the two groups of children, respectively. The loadings of the items on these five components show a clear pattern reflecting the Big Five personality factors of agreeableness, extraversion, conscientiousness, openness to experience, and emotional stability. Maximum-likelihood testing showed no significant differences between the matrices for the L1 versus L2 learning groups.

Table 4 presents the correlations between the measures and components of communicative competence versus the Big Five personality factors.

With respect to the measures of organizational competence, the following pattern can be detected. For the L1 learners, we see moderate but mostly significant correlations between conscientiousness, openness, and stability and the linguistic abilities of the children. For the L2 learners, only the openness dimension of personality appears to correlate substantially with the linguistic abilities of the children. Furthermore, it can be seen that only openness to experience significantly correlates with the two measures of pragmatic competence for both the

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Table 4. *Correlations between measures and components of communicative competence and the Big Five for Dutch as a first language (DFL) and as a second language (DSL) groups*

	Agreeableness		Extraversion		Consciousness		Openness		Stability	
	DFL	DSL	DFL	DSL	DFL	DSL	DFL	DSL	DFL	DSL
Word Definition	.05	−.12	−.11	.04	.26	.02	.30***	.32***	.34***	.11
Sentence Reproduction	.07	.05	−.12	−.20	.20*	.01	.13	.13	.31***	.08
Text Comprehension	−.01	.13	−.19*	−.20	.27***	.28*	.16	.43***	.32***	.07
Functional Reading	.17*	.13	−.17*	−.12	.42***	.16	.18	.42***	.39***	−.05
Routines	.06	.03	−.11	.12	−.04	−.01	.22**	−.05	−.08	.18
Illocutionary Force	.19*	.12	−.11	.22*	.05	−.11	.24***	.38**	.08	.03
Planning	.25**	.29**	.10	−.03	.69***	.50***	.38***	.64***	.10	.14
Monitoring	.20*	.02	.44***	.63***	.24**	−.01	.64***	.44***	.23**	.20
Organizational Competence	.10	.19	−.29**	−.21	.37***	.28*	.09	.51***	.44***	.07
Pragmatic Competence	.12	−.18	−.09	−.02	−.09	−.12	.27**	.29**	−.06	−.09
Strategic Competence	.27**	.04	.40***	.51***	.42***	−.06	.55***	.48***	.16	.10

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

L1 and L2 learners. With the exception of emotional stability, substantial correlations were found for both the L1 and L2 learners between the different personality factors and the ratings of strategic competence. For extraversion, only a significant relation to monitoring was found.

Table 4 also presents the correlations between the Big Five personality factors versus the component scores of organizational, pragmatic, and strategic competence. For the L1 learners, the following relatively high correlations were observed: the extraversion (negative), conscientiousness, and emotional stability dimensions of personality with organizational competence; the openness dimension of personality with pragmatic competence; and the extraversion, conscientiousness, and openness dimensions of personality with strategic competence. For the L2 learners openness yields significant correlations with all measures of competence, conscientiousness yields significant correlations with the tests of organizational competence, and extraversion yields significant correlations with the ratings of strategic competence.

DISCUSSION AND CONCLUSIONS

Several conclusions can be drawn from the present study. First, it can be concluded that minority children fall behind native Dutch children on a variety of linguistic tasks by the end of elementary school. On standardized tests of vocabulary, syntactic knowledge, text comprehension, and functional reading, the minority children showed substantially lower levels of achievement than their native Dutch peers. The differences in the scores were found to be largest for vocabulary and sentence reproduction. Given that the mastery of basic linguistic skills is critical for the development of higher linguistic abilities, these findings suggest that the children's text comprehension and functional reading are also at risk as a result of their low levels of lexical and syntactic knowledge.

With regard to their pragmatic skills, differences between the L1 and L2 language learners were found for illocutionary force, but not for routines. Minority children appear to successfully acquire the pragmatic routines while showing some difficulty in acquiring the strategies for illocutionary force associated with the Dutch language. At the level of strategic competence, teacher judgments showed the minority children do not use planning and monitoring strategies to the same extent as Dutch children. For planning, the differences in strategy use between the two groups were significant.

The results of this study show children's communicative competence encompasses much more than the relatively superficial aspects of the interpersonal routines typically observed by researchers. There is clear evidence that communicative competence can best be regarded as multidimensional. We found the children's performances and teacher judgments of the children clustered into three separate groups. About two-thirds of the variance in the scores for both the native Dutch children and the minority children could be explained by components of their organizational competence, pragmatic competence, and strategic competence. Lexical, syntactic, textual, and functional reading skills are all part of the children's organizational competence. Children's communicative routines and devices for illocutionary force are part of their pragmatic competence. And

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their strategies for planning and monitoring linguistic processing are part of their strategic competence. The present model guided by empirical data on L1 and L2 learners closely resembles the theoretical models proposed by both Bachman and Palmer (1996) and Canale and Swain (1980). The present results and model are also in keeping with the results of our previous empirical study (Verhoeven & Vermeer, 1992). Only a few minor differences between the studies emerged for the component matrices characterizing the L1 and L2 learners. We generally found the planning strategies of the minority children to correlate substantially with measures of their organizational competence (i.e., their basic lexical and syntactic skills) and measures of their pragmatic competence (i.e., their demonstrated level of illocutionary force). It can be assumed that L2 learners with different competence levels use a broad variety of skills in order to implement the communicative goal appropriate to the features of the current context (Bachman, Kunnan, Vanniarajan & Lynch, 1988).

The results of the present study also show the Big Five dimensions of personality to similarly characterize L1 and L2 learners of Dutch. The high correspondence in the clustering of the personality judgments provided for the native Dutch children and minority children in terms of agreeableness, extraversion, conscientiousness, openness, and emotional stability can be seen as cross-cultural validation of the Big Five framework (cf. Digman, 1989). The relations between different configurations of personality factors and different aspects of communicative competence show some remarkable associations for both the L1 and L2 learners. The organizational competence of L1 learners highly correlates with their scores on the conscientiousness and emotional stability dimensions of personality; the organizational competence of L2 learners, in contrast, highly correlates with their scores on the conscientiousness and openness to experience dimensions of personality. At the level of pragmatic competence, moderate correlations are found for both L1 and L2 learners between the illocutionary force aspect of pragmatic competence and openness to experience. Finally, we see substantial correlations between the strategic competence of L1 learners and their ratings on the conscientiousness and openness dimensions of personality and substantial correlations between the strategic competence of L2 learners and their ratings on the openness and extraversion dimensions of personality. Bachman and Palmer (1996, p. 70) conceive of strategic competence as "higher order executive processes that provide a cognitive management function in language use, as well as in other cognitive activities." This makes the strategic competence planning and monitoring scores difficult to interpret as measures of communicative competence because they are more language independent than the other components of communicative competence.

We can conclude that L1 learning at the level of elementary school is promoted by the following associations: conscientiousness and emotional stability to strengthen basic skills; openness to acquire pragmatic skills; and both conscientiousness and openness to develop important communicative strategies. These findings are in line with earlier research (see Eisenberg, 1997). In contrast, L2 learning at this age appears to depend primarily on openness to experience and, to a lesser extent, conscientiousness in building basic and pragmatic skills and monitoring strategies. Given the crucial role of openness to experience in the

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processes of both L1 and L2 acquisition, a social network approach can be viewed as very promising for both understanding and promoting L2 learning. There is clear evidence from the literature that some sort of integrative motivation influences L2 development. Children who display a great desire to belong to and identify with target language speaking peers tend to make the best progress in L2 learning (Larsen-Freeman & Long, 1991; McLaughlin, 1985). It can be hypothesized that openness to experience will facilitate such integrative processes. Learners who find it easy to interact will have a greater number of the social contacts needed for language learning than learners who are less able to manage such social contacts (Wong-Fillmore, 1991). It is interesting to note that extraversion is positively related to the strategic competence of both L1 and L2 learners but negatively related to their organizational competence. This suggests that more extraverted learners may generally find strategies to compensate for limited language skills more easily than introverted learners, although further research along these lines is needed.

An important implication of the present findings is that the organizational, pragmatic, and strategic skills of children should all be assessed in order to gain greater insight into their language development. With the evaluation of the communicative competence of a child from a broad perspective, moreover, the teacher can monitor the influence of one component of the child's communicative competence on the other components. Earlier research, for example, has shown organizational competence to be a necessary but not sufficient condition for effective communication (cf. Ellis, 1994; Swain & Canale, 1982). In order to better understand and explain the individual differences often observed in communicative competence, moreover, it is important that learner variables such as the different dimensions of personality be assessed. Personality traits can be seen as dynamic but nevertheless relatively stable dispositions and indicators of personal needs. In addition, only with clear specification of how the components of communicative competence interact with different dimensions of personality can the process of language teaching be optimally geared to the needs of the individual learner.

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