

Communication Traits in First and Second Languages: Puerto Rico

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Early research relating to communication apprehension (CA) indicated a strong association between CA in first and second language interactions in Puerto Rico and Micronesia. More recent research has indicated similar associations involving individuals from a variety of Asian cultures. The study discussed in this paper broadens the focus of attention to a variety of communication traits rather than a single trait. In addition to CA, the other traits studied include shyness, assertiveness, responsiveness, compulsive communication, self-perceived communication competence, and willingness to communicate. This report is directed toward communication traits in Puerto Rico in both Spanish and English. This report includes discussion of relationships among communication traits in each language and the differences and similarities in those traits between the languages.

Keywords: Communication Traits; Second Language Learning; Puerto Rico

In 1982 the first research relating to communication apprehension in a second language was reported (Fayer, McCroskey, & Richmond, 1982). This research and its follow-up

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study (McCroskey, Fayer, & Richmond, 1985) determined that students in Puerto Rico were less apprehensive when speaking in their first language (Spanish) than they were when speaking in a second language (English). It also discovered that communication apprehension in the first language was a better predictor of communication apprehension in the second language than was self-reported competence in the second language. This was one of the earlier examinations of communication apprehension in a culture other than that represented by the mainland US. It was the first to investigate communication apprehension in the second language context.

Subsequent research has examined communication apprehension in many other cultures (e.g., Australia, Canada, China, Finland, Hawaii, Hong Kong, Japan, South Korea, Micronesia, New Zealand, Philippines, South Africa, Sweden, Taiwan, Thailand). Some of this research has looked at communication apprehension in a second language context (Burroughs & Marie, 1990; Burroughs, Marie, & McCroskey, 2003; MacIntyre, Baker, Clement, & Donovan, 2003; MacIntyre, Noels, & Clement, 1997; Matsuoka & Evans, 2005; McCroskey, Gudykunst, & Nishida, 1985; Yung & McCroskey, 2004) and some of these have also examined communication traits other than communication apprehension.

Since our original work in Puerto Rico, several communication traits have been identified and scales have been developed to measure those traits. These include two dimensions (assertiveness and responsiveness) of socio-communicative orientations (McCroskey & Richmond, 1996; Richmond & McCroskey, 1990), behavioral shyness (McCroskey & Richmond, 1982), self-perceived communication competence (McCroskey & McCroskey, 1988), willingness to communicate (McCroskey, 1992; McCroskey & Richmond, 1987), and compulsive communication—also known as “talkaholism” (McCroskey & Richmond, 1993, 1995).

While the early research in Puerto Rico indicated a strong relationship between communication apprehension in first (Spanish) and second (English) language, similar data are not available for the other communication traits noted above. Hence, the present research was conducted with the assumption that it would be the first of several studies examining the association of these variables across first and second languages as well as within those languages. The design of the research permits a replication of the earlier research on communication apprehension as well as exploration of the relationships among the communication traits both within and across first and second languages.

Hypotheses

Our first hypothesis was directed toward the replication of the results of the earlier research in Puerto Rico with regard to communication apprehension and our extension of the communication traits studied in the current research. This hypothesis was:

- 111 In comparison to individuals speaking a first language (Spanish), individuals speaking a second language (English) will report higher scores for

communication apprehension and shyness but will report lower scores for assertiveness, responsiveness, compulsive communication, self-reported communication competence, and willingness to communicate.

Since these constructs are presumed to be cross-cultural (not unique to US culture) it should be expected that while the mean scores (and possibly the standard deviations of those means) on the instruments should be expected to vary, the relationships among the traits in first and second languages should be substantially similar. Therefore we posed the following general hypotheses:

- H2 Positive communication traits (responsiveness, assertiveness, self-perceived communication competence, willingness to communicate, and compulsive communication) will be positively correlated with each other.
- H3 Negative communication traits (communication apprehension and shyness) will be positively correlated with each other.
- H4 Positive communication traits and negative communication traits will be negatively correlated with each other.

A possible exception to these hypotheses was anticipated. Assertiveness and responsiveness have produced very small, often not statistically significant, correlations in numerous US studies (e.g. Richmond & McCroskey, 1990). However, many interactions with people in Puerto Rico, with regard to their culture, have indicated that assertiveness is considered a very positive trait in that culture. In the US there is a much more mixed cultural view of assertiveness, but there is a very positive view of responsiveness, as there is in Puerto Rico. Hence, it was recognized that these traits could operate differently in the two cultures—absence of correlation in the US culture, positive correlation in Puerto Rico. Since there was no reason to anticipate a negative correlation in Puerto Rico, a positive correlation was predicted.

Methods

Participants

A total of 181 students at a major university in Puerto Rico volunteered to participate in this study and provided data related to communication in their first and second languages. Of these, 126 were female and 55 were male. No additional demographic data were collected. All of these participants completed the seven measures for both languages.¹

Measures

Communication apprehension

The Personal Report of Communication Apprehension (PRCA-24) was employed as the measure of communication apprehension (McCroskey, 1982). Alpha estimates for first and second language were 0.96 and 0.93, respectively.

Willingness to communicate

The Willingness to Communicate (WTC) scale was employed as the measure of willingness to communicate (McCroskey, 1992). Alpha estimates for first and second language were 0.91 and 0.88, respectively.

Self-perceived communication competence

The Self-Perceived Communication Competence scale (SPCC) was employed as the measure of the participants' perceptions of their competence in first and second languages (McCroskey & McCroskey, 1988). Alpha estimates for first and second language were 0.91 and 0.95, respectively.

Shyness

The McCroskey Shyness Scale was employed as the measure of the participants' perception of their behavioral shyness (McCroskey & Richmond, 1982). Alpha estimates for first and second language were 0.90 and 0.91, respectively.

Compulsive communication

The Talkaholic Scale was employed as the measure of compulsive communication (McCroskey & Richmond, 1993, 1995). Alpha estimates for first and second language were 0.87 and 0.85, respectively.

Socio-communicative orientations

Assertiveness and responsiveness were measured by the Assertiveness-Responsiveness Scale (Richmond & McCroskey, 1990). Alpha estimates in first and second language for assertiveness were 0.86 and 0.79, respectively. Estimates in first and second language for responsiveness were 0.88 and 0.83, respectively.

Data analyses

The first hypothesis was tested employing a series of analyses of variance, one for each communication trait. The results of these analyses are reported in Table 1, including eta square estimates for variance accounted for. Hypotheses 2-4 were independently tested by Pearson correlations among the variables for the first and second language data. The results of these tests are reported in Tables 2 and 3.

Results

The first hypothesis was supported by the data analyses. As indicated in Table 1, the tests between languages on all of the measured communication traits were found to be statistically significant. Communication apprehension and behavioral shyness scores were higher for the second language than the first. In contrast, willingness to communicate, self-perceived communication competence, compulsive communication, assertiveness, and responsiveness were higher for the first language than the second.

Table 1 Means, standard deviations, and alpha reliability estimates.

Variable	First language			Second language			Eta Square	F	p
	Mean	SD	Alpha	Mean	SD	Alpha			
Responsiveness	42.3	5.2	0.88	40.6	6.2	0.83	0.02	7.77	<0.01
Assertiveness	37.9	6.1	0.86	34.8	7.5	0.79	0.05	18.79	<0.0001
Talkaholic	24.8	8.8	0.87	21.9	8.0	0.85	0.03	10.45	<0.002
Shyness	40.1	12.0	0.90	43.1	11.8	0.91	0.02	5.80	<0.02
Self/competence	80.7	15.6	0.91	68.8	21.9	0.85	0.09	34.73	<0.0001
PRCE	60.3	17.0	0.96	69.7	20.2	0.93	0.06	22.41	<0.0001
Group	14.3	5.1	0.86	17.1	5.9	0.84	0.06	23.11	<0.0001
Meeting	15.5	5.4	0.89	17.7	5.5	0.87	0.04	15.04	<0.0001
Dyad	13.2	4.5	0.81	16.3	5.8	0.82	0.08	32.67	<0.0001
Public	17.3	5.3	0.84	18.9	5.4	0.83	0.02	5.61	<0.02
Willingness/comm	72.6	19.0	0.91	65.7	22.3	0.88	0.03	9.91	<0.002
Stranger	54.1	29.9	0.88	49.5	29.8	0.87	0.01	2.19	<0.14
Acquaintance	71.3	26.2	0.86	63.5	29.3	0.87	0.02	7.01	<0.01
Friend	91.8	13.9	0.79	84.4	21.4	0.81	0.04	15.35	<0.0001
Group	76.1	20.5	0.55	68.8	23.6	0.60	0.03	9.72	<0.002
Meeting	67.9	23.1	0.62	60.5	26.2	0.61	0.02	8.10	<0.005
Dyad	74.3	20.5	0.55	69.1	25.0	0.55	0.01	4.69	<0.03
Public	71.5	21.2	0.56	64.9	24.6	0.58	0.02	7.33	<0.005
Competence/Lang	8.2	0.9	NA	6.8	1.5	NA	0.02	7.77	<0.01

Table 2 Correlations among communication traits—first language.

	Res	Ass	CC	CA	Shy	SPCC
Responsiveness (Res)	—					
Assertiveness (Ass)	0.33	—				
Compulsive Comm (CC)	0.05*	0.31	—			
Comm Apprehension (CA)	-0.16	-0.39	-0.31	—		
Shyness (Shy)	-0.08*	-0.39	-0.70	0.61	—	
Self-Perceived Comp (SPCC)	0.28	0.34	0.22	0.62	-0.47	—
Willingness to Comm (WTC)	0.29	0.40	0.24	-0.48	-0.45	0.66

*Not Significant at $p < 0.05$.**Table 3** Correlations among communication traits—second language.

	Res	Ass	CC	CA	Shy	SPCC
Responsiveness (Res)	—					
Assertiveness (Ass)	0.46	—				
Compulsive Comm (CC)	0.09*	0.36	—			
Comm Apprehension (CA)	-0.21	-0.45	-0.44	—		
Shyness (Shy)	-0.13*	-0.44	-0.67	0.68	—	
Self-Perceived Comp (SPCC)	0.24	0.35	0.31	0.65	-0.47	—
Willingness to Comm (WTC)	0.28	0.35	0.30	-0.54	-0.44	0.78

*Not Significant at $p < 0.05$.

The second hypothesis was supported by all of the data analyses except one (see Tables 2 and 3). All of the positive traits were significantly positively correlated with one another, except the relationship between responsiveness and compulsive communication. The correlations between these traits were non-significant in both languages.

The third hypothesis was supported by the data analysis. The positive correlations between the two negative traits, communication apprehension and behavioral shyness, were significant in both languages.

The final hypothesis was supported by all data analyses except one. All of the positive traits were negatively correlated with the negative traits except the relationship between responsiveness and behavioral shyness. The correlations between these traits were non-significant in both languages.

Because a single item scale was used in the original Puerto Rican study to measure participants' perceptions of their own language competence in both first and second language (because the SPCC had not yet been developed), a comparable single-item scale (ranging from 1 "totally competent" to 9 "totally incompetent") was included in this study. As noted in Table 4, the scores on this scale indicated the participants differed significantly in their perceptions of their communication competence between languages. This result is consistent with the results in the original study.

Discussion

These results replicate those of the 1985 research, and also suggest a consistent pattern which indicates more negative and less positive trait orientations in the second language. These results, however, indicate that a relatively small amount of variance is accounted for as a function of language being spoken. Only 2-9 percent of the variance could be accounted for as a function of language. We can infer from these results that these are strong traits which are not likely to be seriously impacted by even strong situational factors, such as moving from one language to another. This observation is also supported by the scores on the self-reports of the participants' competence in the two languages. The single-item self-report of communication competence accounted for only 2 percent of the variance in competence between languages. The self-report of communication competence scale, a much more reliable and valid measure, still accounted for only 9 percent of the variance in competence between languages.

This may be interpreted as a "learning effect." Children are programmed to learn the languages to which they are consistently exposed in the early years of their lives, primarily between ages 2 and 6. The impact of this programming steadily declines as children age. Hence, it is normal that competence in a first language is likely to be higher than that in another language (or languages) if it is learned early and any language that is learned later.

In contrast, it is theorized that communication trait orientations are heavily influenced by genetic factors which vary widely in all populations (Beatty & McCroskey, 2001). A comparison of the correlational patterns of the communication traits for the first and second languages reported in Tables 2 and 3 indicates very similar patterns of relationships. Small, moderate, and strong relationships are observed in both sets of correlations, and these relationships are consistent across both first and second languages. The observed positive correlations range from 0.05 to 0.78, and the observed negative correlations range from -0.08 to -0.70 . The magnitude of the differences in correlations between the first and second language, however, only ranges from 0.01 to 0.13. This indicates that very little variance in the relationships can be attributed to language spoken. While these results do not prove that these traits are primarily a function of genetic factors, they certainly are consistent with that theoretical position.

The moderate correlations between assertiveness and responsiveness for both first and second languages, although not unexpected, indicate a meaningful difference in the relationship between these two traits in Puerto Rico and the mainland US. While the reason for this difference is unknown, it begs explanation. It appears to us that this may be a function of differences in the two cultures. Masculinity and femininity are defined differently in different cultures. In the mainland US culture masculinity is associated with assertiveness and femininity is associated with responsiveness, and these two communication traits are typically uncorrelated. Discussions we have had with Puerto Rican natives have led us to believe that this distinction may be much different in Puerto Rico. While masculinity and femininity are differentiated in the Puerto Rican culture, as is the case with most if not all other cultures, levels of assertiveness and responsiveness may play a much smaller (or even nonexistent) role in the definition of sex roles in that culture.

Future research is needed to determine whether the results observed in this study are consistent with those in other cultures. In particular, comparable studies in the US mainland culture and in Asian and African cultures are needed. Typical members of the US culture are monolingual. However, many individuals who have attended college and high school have studied a second language for four or more years. Unlike Puerto Rico, where Spanish is spoken by virtually everyone, and English is commonly spoken, in the US mainland culture virtually everyone (except more recent immigrants) speaks English and people who have studied a second language have minimal opportunities (or mandatory situations) where they are expected to speak another language, except in a few geographical areas. Particularly in the Western US, there are many people whose first language is an Asian language, but who also speak English as a second language. The generalizability of the present findings needs to be tested in these contexts.

The fact that in the present study the correlations among the communication traits studied were highly variable in both first and second languages suggests the uniqueness of these variables. Future research needs to determine whether this is also the case in other cultures. Such studies also need to explore other

communication traits, such as argumentativeness, tolerance for disagreement, and verbal aggressiveness, which have been found to be important in other communication trait research.

Note

- [1] All of the participants completed both sets of questionnaires, split in order for first or second language. Unfortunately, these reports were not coded so that the scores on various measures between the two languages could be correlated. Hence, we employed analyses of variance to determine the differences in scores between the languages.

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