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Evaluational Reactions to Spoken Languages

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Spoken language is an identifying feature of members of a national or cultural group and any listener's attitude toward members of a particular group should generalize to the language they use.

From this viewpoint, evaluational reactions to a spoken language should be similar to those prompted by interaction with individuals who are perceived as members of the group that uses it, but because the use of the language is one aspect of behavior common to a variety of individuals, hearing the language is likely to arouse mainly generalized or stereotyped characteristics of the group. Thus, when one hears a radio broadcast of an international meeting and encounters passages of a foreign language, one's evaluational reactions to the communication are attributable, in part, to the language used and likely reflect generalized attitudinal reactions to the group that uses it.

The purpose of the present investigation was to determine the significance spoken language has for listeners by analyzing their evaluational reactions to English and French. Since we were interested in reactions that are attributable primarily to the language itself, we attempted to minimize the effects of both the voice of the speaker and his message by employing bilingual speakers reading the same message in two languages. In view of previous studies (see Licklider and Miller, 1951, p. 1070f) which have shown that evaluations of personality based solely upon voice have little or no reliability, it was predicted that the differences in the favorableness of any S's evaluations of the French and English guises of speakers would reflect his attitude toward members of his own and members of the other language group. The study was carried out with Ss living in Montreal, a community whose history centers largely in a French-English schism

which is perhaps as socially significant for residents of the Province of Quebec as that between the North and the South is for Southerners in the United States.

METHOD

Procedure

A 2 1/2 min. passage of French prose of a philosophical nature was translated into fluent English and tape recordings were made of the voices of four male bilinguals each of whom read both French and English versions of the passage. Recordings were also made of the voices of two other men, one reading the passage in English, the other in French. There were, then, 10 taped voices, four of which were "matched," each speaker using both languages, and two used as "filler" voices and for practice. The 10 voices were presented to Ss in alternating French-English order starting with the two filler voices and allowing the maximum possible interval between successive presentations of the English and French guises of any speaker. Evaluational reactions to the matched voices only were examined.

The study was introduced as an experimental investigation of the extent to which peoples' judgments about a speaker are determined by his voice and Ss were reminded of the common phenomenon of having a voice on the radio or telephone summon up a picture in the listener's mind of the person speaking. Ss were not told that they were going to hear some of the voices twice, but rather that they would hear 10 recorded male voices, all reading the same passage, five in French and five in English. The two languages, it was said, were being used to give greater scope to the experiment. In this regard, Ss were given copies of the French and English versions of the text they were to hear so that they could be acquainted with the message and the languages and be better prepared to pay attention only to the voices of the speakers. There was no indication that any S became aware of the fact that bilingual speakers were used.

The Ss were also given a response sheet for each voice which directed them to rate each of 14 traits on 6 point scales

ranging from "very little" (fort peu, for French Ss) to "very much" (beaucoup). The traits used were: height (taille), good looks (attrait physique), leadership (apte à diriger), sense of humor (sens de l'humour), intelligence (intelligence), religiousness (pieux), self-confidence (confiance en soi), dependability (digne de confiance),¹ entertainingness (jovialité), kindness (bonté), ambition (ambition), sociability (sociabilité), character (caractère) and general likeability (est-ce qu'il est sympathique?). Each voice was played once and Ss rated that voice on the scales both while it was playing and during the 90 sec. interval between voices. At the bottom of each response sheet Ss were asked to indicate in what occupation this man would likely be found.

Attached to the back of the 10 response sheets, facing down and covered by a blank sheet, were several questionnaires to be completed. This packaging of questionnaires and response sheets discouraged Ss from looking ahead in the booklet and also permitted them to answer all items anonymously. Ss were asked only their age, place of birth and religious affiliation. After the ratings were obtained on all voices, Ss were directed to turn to the first questionnaire.

Importance ranks of traits. The list of traits used to describe each voice was presented again and Ss were asked to rank the traits in terms of their desirableness in friends. It was felt that this information would offer a more personally relevant set of traits for analysis.

Prejudice scale. In view of its wide use as an index of generalized prejudice and ethnocentrism, we incorporated Forms 40 and 45 of the California F Scale (Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950) as one of the independent measures of attitude toward outgroups.

Attitude scales. Ss were asked to complete 14 incomplete sentences designed to elicit attitudes toward both their own and the other language group. Examples are: English Canadians think. . . , Children of French Canadian parents. . . ; The more I get to know French Canadians. . . ; French Canadians. . . ; English Canadians. . . ; and The more I get to know English Canadians. . . . The items were translated into French for the French speaking Ss. Two

separate scores were assigned each S on the basis of his completions: an "attitude toward English group" score and an "attitude toward French group" score each comprising the number of favorable statements made minus the number of unfavorable statements made about each group. Two judges independently scored the items for each sample and the interjudge reliabilities are, for the English sample, $r = .69$ and $r = .86$ for attitudes toward English and French respectively and for the French sample $r = .75$, and $r = .80$.

Preference scale. Ss indicated their preference for English or French Canadians as: marital partners, friends, neighbours, tenants, colleagues, and political candidates, by ranking which they would rather have for each case. Preference scores were the sum of differences in ranks given to French and English Canadians for all items.

Degree of bilingualism. We reasoned that differences in evaluational reactions to the English and French guises would be less pronounced for those Ss who had experience with both languages and presumably both linguistic communities as well. Ss checked their degree of facility in the use of the other group's language by indicating how well they could speak, read, and write, and whether they could do so: not at all, a little, fairly well, or fluently. An index of bilingualism was computed for each S by assigning zero to "not at all" 3 to "fluently." We doubled the score for ability to speak the language on the assumption that speaking experience was most important for the purpose of the study. A maximum score would be 12. A bimodal distribution of scores was obtained from both samples and both were split at the same point so that Ss with scores 0 to 7 are categorized as being less bilingual and those with scores 8 to 12 as being more bilingual.

Subjects

The English speaking sample comprised 64 students, taking the first course in Psychology at McGill University, who volunteered to participate. The average age for the group was 18.8 years and both sexes were approximately equally represented.² The introduction and procedures were presented to the group by the first two authors

in English. All Ss used English as their school and primary social language, and all but nine who were born in Europe learned English as their first language.

The French speaking sample was made up of 66 male students in their final year at a classical French collège in Montreal who were at approximately the same educational level as the English sample, with an average age for the group of 18.2 years. The study was presented to the students by a professor of the collège and Wallace Lambert, in French. The experiment took the place of a regular lecture. All but one of these Ss were born in Canada and all but four in the province of Quebec. All used French as their home, school, and primary social language. The faculty and students speak grammatically correct French, of course, but in general they have a distinctive French Canadian accent.

Speakers

Much care was taken to select appropriate speakers who could take on both French and English guises (in the sense of habitual manners of speaking). We chose from acquaintances in the English speaking community three bilinguals (Bla, Cou, and Leo) who spoke faultless English and yet were trained in French schools in Canada through the graduate level and used French in their homes, or, in the case of Leo, in social or work situations. Several recordings had to be made of each speaker to have errorless readings and in the case of Bla to perfect the pronunciation of a few English words. The final recordings of all four speakers were judged to be spoken in perfect French and English by three bilingual judges. The judges agreed that speakers Bla and Cou spoke with French Canadian accents and that Leo spoke with a marked French Canadian accent characteristic of those who work "in the bush" where, in fact, his style of pronunciation was acquired. The fourth speaker, Tri, spoke French with an accent that was judged as indistinguishable from that used in France. It was felt that these variations in accent and style would not only make the task more interesting for Ss but would also lead to new aspects of the problem for further study, e.g., the reactions of both samples to Parisian French (Tri) and to caricatured French Canadian French (Leo). However, since the present study was not

TABLE I
t Values for Significance of Differences in Evaluations of English and French Guises of Speakers

Trait	English Ss' Judgment of Speakers				French Ss' Judgments of Speakers					
	Cou	Bla	Leo	Tri	Over-all	Cou	Bla	Leo	Tri	Over-all
Height	8.63**	4.67**	4.05**	2.59*	8.83**	5.50**	2.32*	2.41*	1.04	4.58**
Good Looks	7.16**	4.10**	2.66**	-.90	5.78**	7.50**	6.00**	7.26**	1.73	9.77**
Leadership	1.72	.69	1.41	-1.82	1.20	4.05**	9.32**	12.10**	.82	11.96**
Sense of Humor	-.58	-.14	2.25*	-3.48**	-2.16*	2.67**	.58	.64	-.30	1.40
Intelligence	1.44	.11	2.25*	1.98*	2.40*	4.54**	9.17**	11.73**	1.00	10.22**
Religiousness	-.67	-.33	-.26	1.81	.27	-1.79	-3.11**	-1.60	-1.14	-2.94**
Self-confidence	-.50	-.47	1.13	-1.33	-.69	5.37**	7.56**	10.00**	-2.00*	8.28**
Dependability	1.61	-.15	3.51**	2.74**	3.11**	2.89**	4.36**	7.50**	1.89	6.44**
Entertainingness	1.77	1.67	.00	-4.44**	-.84	.44	-.27	-.81	.22	-.21
Kindness	2.40*	2.47*	1.67	.74	3.37**	.10	-4.12**	-2.65*	-.74	-2.96**
Ambition	.45	2.43*	2.33*	.84	2.83**	3.06**	4.64**	7.53**	-1.53	5.89**
Sociability	.24	-.16	-.17	-4.13**	-1.44	3.44**	2.10*	3.47**	.29	3.72**
Character	3.07**	1.00	3.17**	.12	3.08**	3.95**	6.81**	8.68**	.31	8.51**
Likability	2.38*	.26	1.33	-1.21	1.22	1.83	.80	2.05*	.79	2.00*

Note.—Positive entries indicate that English guises are evaluated more favorably than French, and minus entries indicate a more favorable evaluation for French guises. This is so for both French and English Ss' judgments.

*Significant at .05 level.

**Significant at .01 level, two-tailed tests.

designed to deal comprehensively with variations in accent, attention will be mainly given to over-all comparisons of French and English languages until the final section where accent differences will be discussed.

RESULTS

Favorableness of reactions: English Ss' judgements. For each S on each of the 14 traits the difference (D) between the evaluations of the English and French guises of each speaker was noted, with account taken of the direction of the difference. These D values were then summed over the 4 speakers and over Ss and the departure of the D scores from zero was examined. As can be seen in the over-all column of Table 1, the English Ss evaluated the following seven traits significantly more favorably for the English than for the French guises: Height, Good looks, Intelligence, Dependability, Kindness, Ambition, and Character.³ There were no significant differences in evaluations of Leadership, Religiousness, Self-confidence, Entertainingness, Sociability, and Likability. The French guises were evaluated significantly more favorably on Sense of Humor, but this finding is not clearcut since for one speaker the English guise was evaluated significantly more favorably on this trait. There was considerable consistency in the data for three of the four voices but the fourth (Tri) differed from the others on a number of traits.

Ss had ranked the 14 traits for their desirability in friends. For each S two ED scores were obtained, one for the three traits judged most desirable and one for the three traits judged least desirable, by noting the difference in evaluations of the English and French guises for each set of traits. English Ss evaluated the English guises significantly more favorably both for desirable traits ($t_{55df} = 2.13$) and the less desirable traits ($t_{53df} = 4.33$). There was no difference between the most and least desirable traits with regard to this preference ($t_{49df} = 1.72$).

Favorableness of reactions: French Ss' judgments. A similar analysis was carried out for the French Ss. They evaluated the English guises of the speakers significantly more favorably than the French guises for the following 10 traits: Height, Good looks,

Leadership, Intelligence, Self-confidence, Dependability, Ambition, Sociability, Character, and Likability (Table 1). There was no difference in evaluations with regard to Sense of Humor and Entertainingness, and the French guises were evaluated significantly more favorably on Religiousness and Kindness. The results for three of the four speakers were consistent and again speaker Tri was the exception. The English guises were evaluated significantly more favorably both for the three most desirable traits ($t_{27} = 7.17$) and for the three least desirable traits ($t = 7.58$) and, as in the case of the English Ss, there was no difference between the most and least desirable traits ($t < 1$).

TABLE 2
t Values for Significance of Mean Differences
in Evaluations, English vs. French Judges

Trait	English Guises	French Guises
Height	3.76**	0.30
Good Looks	1.78	4.59**
Leadership	-2.55*	6.19**
Sense of Humor	0.62	3.10**
Intelligence	-2.87**	2.82**
Religiousness	2.44*	-0.15
Self-confidence	-3.02**	4.85**
Dependability	-1.32	1.97*
Entertainingness	-0.52	-0.42
Kindness	1.82	-3.18**
Ambition	-0.57	2.28*
Sociability	-1.87	2.14*
Character	-1.22	3.60**
Likability	-1.34	-0.31

Note. — Positive entries indicate that English judges evaluated a particular trait more favorably on the average than did French judges; minus entries indicate more favorable evaluation for French than English judges.

*indicates a t is significant at the .05 level, on two-tailed tests.
**indicates a t is significant at the .01 level, on two-tailed tests.

Favorableness of reactions: English Ss' vs. French Ss' judgments. The evaluations of the English guises given by the English judges were compared with the evaluations of the English guises given by the French judges, and a similar analysis was carried out for the evaluations of the French guises by the two groups of Ss. Table 2 shows that for the English guises the English Ss evaluated Height and Religiousness significantly more favorably than did the French Ss. There were no differences between English and French Ss with regard to: Good Looks, Sense of Humor, Dependability, Entertainingness, Kindness, Ambition, Sociability, Character, and Likability, and the French Ss evaluated the English guises significantly more favorably than did the English Ss on Leadership, Intelligence, and Self-confidence. The comparisons with respect to the French guises are also given in Table 2. It can be seen that the English Ss evaluated the French guises significantly more favorably than did the French Ss on the following nine traits: Good looks, Leadership, Sense of Humor, Intelligence, Self-confidence, Dependability, Ambition, Sociability, and Character. There were no differences in evaluations for: Height, Religion, Entertainingness, and Likability, and the French Ss evaluated the French guises significantly more favorably than did the English Ss on Kindness.

Attitudinal measures. The correlations between the various measures of attitude and the comparative favorableness of evaluations of guises are given in Table 3 for the English Ss. It is striking that none of the attitude measures correlate with the degree of favorableness of reactions to English and French guises, with the exception of attitudes to their own group as reflected in responses to the incomplete sentences, a measure that just meets significance requirements.

Although the pattern of correlations is also low for the French Ss, the comparative favorableness of evaluations of guises for this sample is somewhat more clearly related to both attitudes toward and preference for own group. It should be noted that the French Ss on the average clearly showed more favorableness to English than French guises, in fact only 14% of the Ss showed the expected trend of more favorable reactions to French over English versions. This was not the case for either the preference or attitude measures where the majority of Ss (85% and 62% respectively) preferred and showed more favorable attitudes toward the French over the English

TABLE 3
Relation of Attitudinal Measures to Other Variables; English Sample

Variables	1	2	3	4	5	6
Prejudice (F scale)	X	.29*	-.22	-.01	.20	.19
Preference (Bogardus)		X	-.40**	.17	.13	.13
Attitudes to French (incomplete sentences)			X	-.18	-.04	-.08
Attitudes to English (incomplete sentences)				X	.26*	.25
Favorableness of evaluations (English over French; all traits)					X	.77**
Favorableness of evaluations (English over French; desirable traits)						X

Note. — The *N*'s vary around 55 for all entries except Variable 6 where they drop to around 50.

*Significant at .05 level.

**Significant at .01 level.

TABLE 4
Relation of Attitudinal Measures to Other Variables; French Sample

Variables	1	2	3	4	5	6
Prejudice (F scale)	X	.17	.03	-.07	-.05	-.11
Preference (Bogardus)		X	.38**	-.45**	.26*	.27
Attitudes to French (incomplete sentences)			X	-.43**	.25*	.45**
Attitudes to English (incomplete sentences)				X	-.21	-.20
Favorableness of Evaluations (French over English; all traits)					X	.72**
Favorableness of Evaluations (French over English; desirable traits)						X

Note. — The *N*'s vary around 55 for all entries except Variable 6 where they drop to around 35.

Since the French Ss in general showed more favorableness to English than French guises, Variables 5 and 6 mainly represent degrees of nonfavorableness to English guises.

*Significant at .05 level.

**Significant at .01 level.

group. The significant correlations in Table 4 therefore indicate that the more the French Ss show preference for and favorable attitudes toward their own group the less they overrate English guises.

The relation of bilingualism to other variables. Ss categorized as having a high degree of bilingualism were compared with those having little experience or skill in the other group's language on all attitudinal variables as well as the comparative favorableness of evaluations to the spoken languages. For the English sample, the more bilingual subgroup had a reliably lower mean F score than did the less bilingual group, $t_{60} = 2.20$, a finding consistent with another study (Gardner and Lambert, 1958) on the relation of bilingualism to attitudes. The two bilingual groups did not differ reliably on any other variable, however. For the French sample, the only significant difference between the more and less bilingual subgroups was on the modified Bogardus scale: the more bilingual group showed reliably less own group preference than did those with little facility in English, $t_{62} = 2.43$.

DISCUSSION

Evaluational reactions. It is not unexpected that English speaking Ss should show more favorableness to members of their linguistic group, but the finding that French Ss also evaluate English guises more favorably is as unexpected as the finding that these Ss judge French guises less favorably than do the English Ss.

The traits given to Ss for evaluation included several of those commonly considered necessary for social and economic success (e. g., looks, leadership, confidence, ambition), but we attempted to balance these with personality characteristics generally considered of greater value such as likability and kindness. It is possible that we were biased in the selection of traits and, through ignorance, presented a list which omitted characteristics which have value for French-speaking Canadians. However, the French sample chose dependability, intelligence, and kindness as the most desirable traits for friends of those given them for consideration, and two of these were rated more favorably with the English guises, a fact which

argues against the view that no opportunity was given the French sample to evaluate the speakers on culturally important traits.

In view of the greater probability of finding English people in more powerful social and economic positions in the Montreal community, both samples of Ss might more likely think of an English speaker as having higher status and then evaluate the English voice of the putative lawyer as having more ambition, intelligence, etc., than the French voice of the putative store employee. If the French Ss had a greater tendency to do so, this might account in part for their evaluational reaction pattern. Data were available to test this notion in an indirect fashion by making use of Ss' estimations of each speaker's likely occupation in his French and English guises. These occupational assignments were categorized as either professional or non-professional by two judges working independently. For the English sample, the ascribed status of English guises was markedly higher than for French guises, $\chi^2 = 38.14$ with 1 df. For the French sample, the same trend was noted but was much reduced in magnitude, $\chi^2 = 5.38$. The fact that the French Ss ascribe higher status to a larger proportion of French guises (44%) than do English Ss (33%) and also evaluate the French guises less favorably than do English Ss argues against an interpretation in terms of differences in perceived status of the two groups.

The findings can also be interpreted as meaning that the French Ss actually perceive members of the English speaking group as having various desirable personality traits. The characteristics ascribed to the English speakers are generally the same as those ascribed by the English Ss to the same guises with the exception of the English-French conflict over which group is more kind. The French Ss may well regard themselves as members of an inferior group, one that is nonetheless kind and religious. Several recent studies (Adelson, 1953; Sarnoff, 1951; Steckler, 1957) which document the manner in which minority groups sometimes adopt the stereotyped values of majority groups indicate that a parallel process may be taking place in the French Canadian community (cf. Stewart and Blackburn, 1956).

An examination of the common descriptions given by the French Ss in the open-ended questionnaire suggests that they have

ambivalent feelings about both French Canadians and English Canadians, an interpretation that is analogous to the attitude of American Jews toward both Jews and non-Jews as described by Lewin (1948, p. 145ff). The French Ss describe their own group as progressing and having a potential (18 occurrences); feeling inferior or without confidence (16); having good qualities and being likable (16); being uninformed or uneducated (16); being intelligent or as intelligent as English Canadians (14); being individualistic or disunited (11); lacking ambition (11); and as being prejudiced or narrow-minded (10). They describe the English Canadians as being likable, good, or nice (27); thinking badly of French Canadians (19); feeling superior to French Canadians (13); being too Americanized (12); lacking knowledge of or appreciation for French Canadians (11); and as being less mannered or more rude (11).

The findings presented here take on somewhat more significance in view of two pilot studies using other samples of Ss which show essentially the same results. In the first study, 17 English speaking college students listened to three of the four speakers used in the present study. In this case, English guises were evaluated more favorably on all five traits presented. In the second study, 22 male and 25 female French speaking members of Catholic religious orders were Ss and three of the four speakers and 12 of the 14 scales used in the present study were administered. Ss evaluated the English guises significantly more favorably on most traits except for kindness (*bonté*) on which French guises were more favorably evaluated. Speaker Tri, as in the present study, was not subject to this trend.

Attitude data. The general trend of correlations indicates that certain measures of attitude, particularly attitudes toward one's own group, are associated with the favorableness of evaluational reactions to the spoken languages, but this relation is clearly not a marked one, especially for the English Ss. Furthermore, the prediction was not supported that more skill with the other group's language, which would permit more intimate interaction, would lead to smaller differences in favorableness of evaluational responses to the guises.

In view of the striking tendency for both English and French speaking Ss to evaluate the English guises more favorably, a possible reason for the generally low correlations may be that generalized

characteristics of French speaking and English speaking people are so widely accepted in the Montreal community that even those English Ss with positive attitudes toward French may still perceive them as inferior on many traits. Likewise, French Ss with negative attitudes toward English speaking people may still perceive them as superior in many respects. That is, both French and English Ss regardless of their attitude may have come to believe that English speaking Canadians are taller and possibly more "intelligent" in the sense that they have more educational opportunities. To this extent, the attitude factor would be submerged by powerful community-wide stereotypes. This argument is limited, however, in that attitudes would certainly be expected to play the dominant role when the two guises are compared on such traits as good looks or character. To check this possible interpretation, correlations for the English sample were computed between the comparative favorableness of reactions to the guises and attitudes toward English Canadians for each trait examined separately. The correlations for character, intelligence, and dependability reach significance at about the .05 level but none of the others do, even those for good looks or kindness which would also be expected to reflect an attitude factor. We conclude, therefore, that the comparatively unfavorable perception of French speakers is essentially independent of the perceivers' attitudes toward French and English groups. The correlations for the French sample are not large or consistent enough to make French Ss an exception to this generalization. Furthermore, experience with both groups, as inferred from the degree of skill in using both languages, also appears to be independent of the tendency to downgrade French speaking individuals. Further research is necessary to determine the influence of community-wide stereotypes and majority-minority feelings of members of the two language groups in Montreal.

Although the findings may be considered consistent and reliable, the generality of the results will become clear only after extensions to other samples of Ss and a larger sample of speakers. It will be recalled that the four speakers used here were chosen to represent different linguistic communities: three speakers were educated in French Canadian universities but Leo spoke more naturally with a caricatured French Canadian accent. Only speaker Tri spoke French with a Parisian accent. A comparison of the evaluational reactions made to these speakers suggests that further study

of accent differences of speakers from different linguistic communities may well extend the usefulness of the technique developed here. It can be seen in Table 1 that speaker Tri was not downgraded by the French Ss when speaking French as were the other speakers; in fact he was considered significantly more self-confident in French than in English. Nor do the English Ss treat him adversely in French, for they perceive him as having reliably more humor, entertainingness, and sociability in French than English. Clearly more than one speaker with a Parisian speech style is needed to test this notion but the data suggest that the Montreal community may differentiate between Parisian and Canadian French in their attitudes. Note also in Table 1 that speaker Leo, the caricatured French Canadian, is particularly downgraded in his French guise by both English and French Ss, if we interpret the size of t values as an index of differential favorableness of evaluation.

SUMMARY

Samples of French speaking and English speaking Montreal students were asked to evaluate the personality characteristics of 10 speakers, some speaking in French, others in English. They were not made aware that actually bilinguals were used as speakers so that the evaluational reactions to the two language guises could be matched for each speaker. The comparative favorableness of evaluations of the two guises was correlated with various measures of attitudes toward French and English Canadians for both samples of Ss.

The results indicate that English Ss evaluate the English guises more favorably on most traits. French Ss not only evaluate the English guises more favorably than French guises, but their evaluations of French guises are reliably less favorable than those of English Ss. This finding is interpreted as evidence for a minority group reaction on the part of the French sample.

The correlations between comparative favorableness of English and French guises and measures of attitude toward own and other groups were generally low and insignificant, especially for the English sample. The essential independence of evaluational reactions to spoken languages and attitudes is interpreted as a reflection of the

influence of community-wide stereotypes of English and French speaking Canadians.

NOTES

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¹Digne de confiance translates to both "dependable" and "trustworthy."

²Thirty-two Ss indicated that their religion was Jewish, and, to determine their comparability with the rest of the sample, a separate analysis was carried out for Jewish and non-Jewish Ss. For both subgroups, correlations were calculated between each of the four attitude measures and the comparative favorableness of evaluations of the English and French guises considering all traits as well as those most desirable for friends. The comparison of correlations indicated that there were no statistically significant differences between the two subgroups at any point and therefore the Jewish and non-Jewish Ss were combined.

³Although a rating toward the upper end of the scale does not necessarily indicate favorableness in the cases of "height" or "ambition," the term "favorableness" is a meaningful description for the majority of the judgments.

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9

Verbal Satiation and Changes in the Intensity of Meaning

In Collaboration with Leon A. Jakobovits

Several investigators have demonstrated that Ss experience a change or loss of meaning for words which have been continuously repeated or fixated for a certain period of time (Basette and Warne, 1919; Mason, 1941; Smith and Raygor, 1956; Wertheimer and Gillis, 1956). For instance, Basette and Warne (1919) reported that the meanings of familiar nouns which were repeated aloud "dissipated" for their Ss within 3 or 4 sec. More recently, it was found that if Ss fixated a word exposed on a screen for 20 sec., their first association to the word is uncommon as measured by the Kent-Rosanoff Word Association Test (Smith and Raygor, 1956). The lapse or radical change of the meaning of a word as a result of its continued repetition is known as verbal satiation. Before the full implication of this concept for theories of learning and meaning can be determined, it is necessary to develop a method for reliably measuring the extent of meaning change which can be attributed to the satiation experience. The purpose of the present study is to extend the significance of the concept of verbal satiation by introducing a more comprehensive method of measuring the phenomenon and thereby relating it to a contemporary theory of meaning.

Osgood, Suci, and Tannenbaum (1957) have proposed an objective and reliable instrument for the measurement of certain aspects of connotative meaning. This instrument, the "semantic differential," consists of a series of scales each representing a 7-point, bipolar dimension. The meaning of a word, such as "father," is given by its position on an evaluative factor (its degree of goodness or badness), on an activity factor, and on a potency factor. The theory underlying this method assumes that the meaning of a word has a place in a multidimensional semantic space. A word without