



Article scientifique

Article

1972

Published version

Open Access

This is the published version of the publication, made available in accordance with the publisher's policy.

---

## Mediating interpersonal expectancies via vocal cues: Differential speech intensity as a means of social influence

---

Scherer, Klaus R.; Rosenthal, Robert; Koivumaki, Judy

### How to cite

SCHERER, Klaus R., ROSENTHAL, Robert, KOIVUMAKI, Judy. Mediating interpersonal expectancies via vocal cues: Differential speech intensity as a means of social influence. In: European Journal of Social Psychology, 1972, vol. 2, n° 2, p. 163–175. doi: 10.1002/ejsp.2420020205

This publication URL: <https://archive-ouverte.unige.ch/unige:101793>

Publication DOI: [10.1002/ejsp.2420020205](https://doi.org/10.1002/ejsp.2420020205)

## **Mediating interpersonal expectancies via vocal cues: Differential speech intensity as a means of social influence\***

KLAUS R. SCHERER\*\*

ROBERT ROSENTHAL

JUDY KOIVUMAKI

*Harvard University*

### *Abstract*

*Differential vocal emphasis in the tape-recorded instruction reading for a standard person perception task was manipulated by mechanically raising or lowering the volume of the key words describing the success or failure response alternatives on the rating scale. In a series of three experiments, Ss exposed to success emphasis in the instructions rated the stimulus persons as more successful than did Ss exposed to failure emphasis. This trend was reversed for Ss who listened twice to the instructions. None of the Ss reported awareness of the influence attempt.*

A question that puzzles researchers in the area of experimenter expectancy effects is exactly *how* the experimenter conveys his self-fulfilling prophecies to the subjects. The nature of the experimental situations employed require that there be subtle, non-linguistic variables operating in the interpersonal communication process that mediate E's expectancy. There is some evidence that certain patterns of expressive behavior of the E such as those relating to his warmth and his competence seem to provide the proper 'climate' for successful influence attempts on the part of the E (Rosenthal, 1966, 1967). However, in order successfully to bias the Ss' responses in a certain direction it cannot be sufficient for E to adopt molar patterns of expressive behavior that will lead the S to notice and accept influence attempts but E must also provide distinctive cues providing information about the specific type of response that is expected.

\* This research was supported by a research grant (GS-2654) from the Division of Social Sciences of the National Science Foundation. We thank Mr. Bruce Humphrey, Director, Modern Language Center,

Harvard University, for providing access to the language laboratory facilities. Portions of the results were reported at the EPA Meeting, New York City, April, 1971.

\*\* Now at the University of Pennsylvania.

Duncan and Rosenthal (1968) have suggested that differential vocal emphasis on available response alternatives in the E's instruction reading is one type of unintended cue that can bias the Ss' responses in the expected direction. An analysis of the suprasegmental phonemes and paralanguage in the instruction reading by three E's who had shown expectancy effects with 10 Ss in an earlier experiment revealed a correlation of  $r = .72$  ( $p < .01$ ) between differential vocal emphasis and the Ss' subsequent ratings. In an attempt to replicate these findings under more controlled conditions, Duncan, Rosenberg and Finkelstein (1969) were able to show that different versions of pre-recorded instructions for the standard person perception task, which had been 'slightly shaded' in either a positive or negative direction by the readers produced Ss' photo ratings that were significantly biased in the direction of the differential vocal emphasis.

In both of these studies differential vocal 'emphasis' was measured by paralinguistic transcription using the Trager-Smith system (Trager, 1958; Duncan, Rosenberg and Finkelstein, 1969, p. 211). Differential emphasis, in this sense, is a relatively complex phenomenon consisting of various combinations of molecular speech patterns such as paralinguistic pitch and intensity as well as tempo. The types of combinations are bound to vary over speakers and it is not immediately obvious that they are fully functionally equivalent. The possibility cannot be excluded that differential emphasis was accompanied and amplified by other, more molar variations in the speech behavior of the readers. For example, an E trying to 'shade' his reading towards a positive, success-oriented bias might in addition to stressing the anchor points of the scale change his general voice quality, perhaps in the direction of 'sounding' more successful and thereby providing a model.

The present study was designed to eliminate these ambiguities by manipulating only one aspect of vocal emphasis, intensity, for only one instruction reading by only one E. A tape-recorded, balanced reading was re-recorded four times and the intensity or volume of the words describing the scale anchor points (success or failure response alternatives) was raised or lowered depending on the condition, by mechanical manipulation of the recording level control. It was hypothesized that Ss listening to the instruction tapes (consisting of the same reading by the same speaker with the exception of the varied intensity levels of key words) would respond in the direction of the response alternatives or scale ends that they heard emphasized. To test this hypothesis, a  $2 \times 2$  factorial design was employed in which the success and the failure words on the instruction tape were either raised or lowered in volume, resulting in either increasing or decreasing emphasis on the respective response alternative.

## **Methods**

*Experimental tapes.* A male adult speaker was asked to read the instructions for the standard person perception task (Rosenthal, 1966, p. 144) in such a way as to place equal paralinguistic emphasis on the key words of the instructions describing the bipolar rating scale.

The text was read several times and recorded under normal acoustic conditions. Three judges then decided on the final version that was judged to have no systematic differences in terms of the emphasis placed on the words describing the success-related part of the scale (success, +10, extreme success, +1, mild success) as compared to the words describing the failure-related part of the scale (failure, -10, extreme failure, -1, mild failure) in the instructions.

Using the master tape containing this final version, differential vocal emphasis was manipulated by re-recording the tape and turning the recording level control up (or down) by 2.5 units from the optimal level determined by instrument just before the onset of the key words and turning it back to standard before the next non-essential word. In this manner four different instruction tapes for four different conditions of combinations of differential success and failure emphasis (cf. Table 1) were produced.

In order to check the effectiveness of the manipulation in differentially raising or lowering the playback volume of the key words, the difference in decibel level (db) between success- and failure-related words was assessed by voltmeter. The db values were read independently by two observers, whose judgments differed by less than 0.2 db on the average for the various experimental conditions.

The difference between raised and lowered recording level for the stressed vowels of the key words amounted to an average of 2.75 db (in a range from -33 to -20 db approximately) in the differential emphasis conditions and to an average of only 0.3 db in the equal emphasis conditions. These results show that the manipulation succeeded.

To assess the possibility that the differential emphasis was so obvious as to arouse suspicion in listeners, the differential emphasis recordings were played back to 5 naive judges (graduate students) asking them to determine whether the tapes were the same or somewhat different. It was not before the manipulation had been explained and tapes had been heard several times, that the judges reliably perceived the differential emphasis. Although the physical differences between conditions were rather large, the psychological differences were rather subtle and it appeared unlikely that listeners would be aware of the differential emphasis on certain words.

## **Experiment I**

*Subjects.* Sixty women between the ages of 17 and 27 ( $M = 20.4$ ) were recruited by advertisements in the college newspaper. Most of them were college students or graduates, and most were attending the college summer school. The Ss were paid for their services.

*Procedure.* The experiment took place in the college language laboratory facility, where each S was assigned to a listening booth which was channeled to one of the 4 tapes containing the instructions for the rating experiment. The room was divided into 4 imaginary  $4 \times 4$  Latin squares, the numbers of the squares corresponding to the numbers of the 4 conditions. This was done for two reasons: to assign equal numbers of subjects in each treatment group to each quadrant of the room, and to ensure that no two subjects in the same treatment group sat next to each other. At the time of the experiment it was necessary to relocate some subjects because of broken headsets and because the projector obscured several subjects' view of the screen. This resulted in an unequal distribution of the different treatment groups: the left-hand side of the room had more subjects in all conditions than did the right-hand side of the room, the difference varying from 2 more to 5 more, depending on the condition.

The E, standing at the left front of the room, explained how to use the headsets, what to do in case of defective earphones or broken pencils, and which rating sheet to use. After the instructions were played over the headsets, black and white slides of ten faces were projected on a screen at the front of the room, and Ss rated each photo according to the instructions.

## **Experiment II**

*Subjects.* 23 male and 21 female college students enrolled in an introductory psychology class at a different university volunteered to participate in the experiment. They were not paid.

*Procedure.* Only two conditions were run in this experiment: (a) Success Emphasis Increase/Failure Emphasis Decrease and (b) Failure Emphasis Increase/Success Emphasis Decrease. Ss came to the laboratory at different times in small groups determined by sign-up sheets. The sequence of conditions for the various groups had been systematically assigned in advance. Ss listened to the tape-recorded instructions and rated the ten photos in the same order used in Experiment I.

After the ratings had been completed, Ss filled out a questionnaire designed to assess their evaluation of the task and possible suspicion about differential vocal emphasis in the instructions. None of the Ss appeared to suspect the real purpose of the experiment or reported anything unusual about the taped instructions.

### **Experiment III**

*Subjects.* Fifty-seven college undergraduate girls between the ages of 17 and 21 ( $M = 19.0$ ) were recruited by advertisements in the college newspaper (same as Experiment I). They were paid for their services.

*Procedure.* The experiment took place in the same college language laboratory used in Experiment I. Ss were randomly assigned to the booths. As in Experiment II only the two differential emphasis conditions were run. All odd-numbered booths (28 Ss) were channeled to the Success Emphasis Increase/Failure Emphasis Decrease instruction tape, and all even-numbered booths were channeled to the Success Emphasis Decrease/Failure Emphasis Increase instruction tape.

In addition to the different emphasis manipulation of the instruction tapes, a second manipulation (resulting in a  $2 \times 2$  design) was introduced to replicate the finding by Duncan, Rosenberg and Finkelstein (1969) that the differential emphasis effect is stronger under high evaluation apprehension on the part of the Ss. Thus, each booth contained, in addition to the rating sheet for the person-perception task, a sheet with an 'explanation' of the experiment. This explanation had two forms, both of which were adapted from Rosenberg (1969, pp. 326-7): 28 Ss read the 'high evaluation apprehension' explanation, which claimed that subjects who did poorly on the person-perception task had been found in previous research to be psychologically maladjusted, and that the present experiment was designed to replicate those results; the remaining 29 Ss read the 'low evaluation apprehension' explanation, which claimed that the present experiment was designed to gather preliminary data on how people perceive others when factors such as fatigue and prior practice are not present, and that these data would be averaged to provide a standardized baseline against which future data, collected in the presence of factors such as fatigue and prior practice, might be compared.

As in Experiment I, the room was subdivided into quadrants and Ss were assigned in such a way that each quadrant contained approximately equal numbers of cases for each condition. The E explained the details of the procedure (as in Experiment I) and asked the Ss to read the 'explanation' for the experiment on the sheet in front of them. During the ensuing play-back of the instruction tapes, Ss in

the rear half of the room indicated by show of hand (as they had been instructed) that they had not heard any instructions over their headphones. It was discovered that the jack connecting all the booths in the rear was unplugged. After this connection was made, and after E had explained the error, *all* Ss were requested to listen again. Hence Ss in the rear heard the instructions once, as did the Ss in the two earlier experiments, while Ss in the front heard the instructions *twice*. After the instructions had been played back for the second time Ss rated the projected stimulus faces as in the earlier experiments. The number of exposures to the instruction tapes, the accidental 'manipulation', was added as an additional factor in the data analysis.

After the rating period, Ss filled out an evaluation questionnaire (as in Experiment II). None of the Ss guessed the real purpose of the experiment; one S said she found something unusual about the instructions but offered no explanation.

## Results

### Experiment I

Table 1. *Experiment I. Mean photo ratings in four conditions of differential vocal emphasis*

		Failure Emphasis		Mean
		Increase	Decrease	
Success Emphasis	Increase	+.10 <sup>b</sup>	+.54 <sup>a</sup>	+.32
	Decrease	— .23 <sup>b</sup>	— .38 <sup>c</sup>	— .31
	Mean	— .07	+.08	

<sup>a</sup>n = 14

<sup>b</sup>n = 15

<sup>c</sup>n = 16

Table 1 presents the mean photo ratings obtained in each of the four experimental conditions of differential vocal emphasis. Examination of the column means suggests that there was very little effect on Ss' photo ratings of increasing or decreasing the emphasis with which the failure response alternatives were presented to Ss though the small effect obtained was in the expected direction. Examination of the row means shows a much larger effect on Ss' photo ratings of increasing or decreasing the emphasis with which the success response alternatives were presented to Ss and again the effect was in the expected direction.

Table 2. *Experiment I. Analysis of variance of photo ratings*

Source	df	MS	F
Success Emphasis	1	5.87	2.42 <sup>a</sup>
Failure Emphasis	1	0.31	—
Interaction	1	1.27	—
Residual	56	2.43	

<sup>a</sup>  $t = 1.56$ ,  $p = .065$ , one-tail

Table 2 shows the analysis of variance of the data of Table 1. Only the mean square for the differential emphasis on success response alternatives was appreciably larger than we would often expect to obtain by chance in the expected direction ( $p = .065$ ).

Table 3. *Experiment I. Effects of success emphasis in four quadrants*

Quadrant	Success Emphasis		Effect
	Increase	Decrease	
Right Rear	+0.15	—0.27	+0.42
Right Front	+1.02	—0.68	+1.70
Left Rear	+0.30	—0.46	+0.76
Left Front	—0.10	+0.02	—0.12
Mean	+0.34	—0.35	+0.69

Because all four conditions of the experiment were replicated in the four quadrants of the language laboratory in which the experiment was conducted, it was possible to check the homogeneity over quadrants of the effects of the differential emphasis on the success response alternatives. In three of the four quadrants, when the instructions emphasized success response alternatives, Ss went on to rate the photos as being of substantially more successful people. In the fourth quadrant, the left front, there was very little effect of vocal emphasis but the trend of the difference was in the wrong direction (Table 3). One possible explanation of this reversal may be the fact that the experimenter, an unusually attractive young female, was positioned directly in front of this quadrant while Ss were receiving instructions. Thus, E may have led to Ss' decreasing their attention to the instructions and to the rating process because the Ss were engaging in unfavorable social comparison processes.

The four experimental conditions were made up of two conditions that were biased with respect to net emphasis and two conditions that were unbiased with respect to net emphasis. Thus, those Ss who heard both success and failure re-



sponse alternatives equally overemphasized or equally underemphasized were not exposed to a biased instruction reading. However, those Ss who heard an overemphasis on one type of response alternative and an underemphasis on the other type of response alternative were exposed to a biased instruction reading. Table 4 shows for each quadrant of the language laboratory the mean photo ratings obtained by the two oppositely biased groups of Ss: those hearing success overemphasized and failure underemphasized (success bias) and those hearing failure overemphasized and success underemphasized (failure bias). In all four quadrants

Table 4. *Experiment I. Effects of biased instructions in four quadrants*

Quadrant	Direction of Bias		Effect
	Success	Failure	
Right Rear	+1.05	+0.20	+0.85
Right Front	—0.07	—1.13	+1.06
Left Rear	+0.64	—0.12	+0.76
Left Front	+0.60	+0.02	+0.58
Mean	+0.56	—0.26	+0.82 (—)

subjects rated photos as being of more successful people, on the average, when the instructions were biased in that direction than when the instructions were biased in the opposite direction.

### *Experiment II*

The results of the second experiment were consistent with the results of the first experiment. When differential vocal emphasis favored the success response alternatives, Ss rated the photos as being of more successful people (mean =  $-0.34$ ) than they did when differential vocal emphasis favored the failure response alternatives (mean =  $-1.12$ ). The difference between these means was associated with a  $t$  of  $+1.82$ ,  $df = 42$ ,  $p < .04$ , one-tail. Because both male and female Ss had been employed in this study, an additional analysis of variance employing sex as a second factor was computed but the Fs for the main effect of sex and for the interaction were both less than unity.

### *Experiment III*

Table 5 presents the mean photo ratings obtained under the two conditions of differential vocal emphasis and the two levels of Ss' evaluation apprehension separately for those Ss who heard their instructions read once and those Ss who

heard their instructions read twice. Table 6 shows the analysis of variance of these data. The only nontrivial effect ( $p < .08$ ) was the interaction of differential vocal emphasis with single or double exposure to the instructions.

Table 5. *Experiment III. Mean photo ratings in eight experimental conditions*

	Evaluation Apprehension	Emphasis Success	Failure	Difference
Single Instruction	High	—0.43 <sup>a</sup>	—0.67 <sup>b</sup>	+0.24
	Low	—0.22 <sup>c</sup>	—0.57 <sup>b</sup>	+0.35
	Mean (weighted)	—0.31	—0.62	+0.31
Double Instruction	High	—1.04 <sup>b</sup>	—0.17 <sup>d</sup>	—0.87
	Low	—0.51 <sup>b</sup>	+0.42 <sup>a</sup>	—0.93
	Mean (weighted)	—0.78	+0.07	—0.85

<sup>a</sup>  $n = 6$       <sup>c</sup>  $n = 8$

<sup>b</sup>  $n = 7$       <sup>d</sup>  $n = 9$

Table 6. *Experiment III. Analysis of variance of photo ratings*

	Source	df	MS	$F > 1$	$p$
A	Vocal Emphasis	1	1.31	—	—
B	Evaluation Apprehension	1	1.77	1.20	—
C	Instruction Readings	1	0.31	—	—
	A B	1	0.00	—	—
	A C	1	5.01	3.41	.075
	B C	1	0.57	—	—
	A B C	1	0.02	—	—
	Residual	49	1.47	—	—

The nature of this interaction was such that Ss who heard their instructions read only once, as is the custom in this type of research, rated the photos in the direction in which E's vocal emphasis had been biased. Surprisingly, however, Ss who heard their instructions read twice rated the photos in the direction opposite to that in which E's vocal emphasis had been biased.

Table 7 contrasts the three samples in which Ss listened only once to the instruction reading with the sample in which Ss listened twice to the instruction reading. The former set of three samples showed good homogeneity of effect with  $ps$  ranging from .25 to .04, one-tail, and a combined  $p$  of .015 was obtained, based on the method of summing the standard normal deviates and dividing by the square root of the number of standard normal deviates summed (Rosenthal, 1969).

Table 7. *Mean photo ratings in four samples taken in three experiments*

	Sample	Success	Failure	Difference	$z^f$	One-tail $p$
Single Instruction Reading	Harvard (I)	+0.54 <sup>a</sup>	—0.23 <sup>b</sup>	+0.77	+1.31	.10
	Penn (II)	—0.34 <sup>d</sup>	—1.12 <sup>c</sup>	+0.78	+1.77	.04
	Harvard (III)	—0.31 <sup>a</sup>	—0.62 <sup>a</sup>	+0.31	+0.67	.25
	Combined <sup>e</sup>	—0.04	—0.66	+0.62	+2.17	.015
Double Instruction Reading	Harvard (IV)	—0.78 <sup>a</sup>	+0.07 <sup>b</sup>	—0.85	—1.84	(—).03

<sup>a</sup> $n = 14$ <sup>b</sup> $n = 15$ <sup>c</sup> $n = 18$ <sup>d</sup> $n = 18$ <sup>e</sup> Unweighted<sup>f</sup> Standard normal deviate

## Discussion

The results support the hypothesis that Ss tend to respond in the direction of response alternatives that have been differentially emphasized in the E's instruction reading. Although the present manipulation was much weaker than the one used by Duncan, Rosenberg and Finkelstein (1969), a relatively small mechanical manipulation of one single variable compared to intentional multi-variable variations by human speakers, the results are in line with the findings by Duncan et al. except for the failure to replicate the effect of the evaluation apprehension induction. The latter may be due to the fact that the E in Experiment III may have been perceived as a peer by the Ss, thus reducing evaluation apprehension, whereas an older, white-coated and horn-rimmed-glasses wearing male E might have better substantiated the 'explanation' of the purpose of the experiment. Furthermore, the equipment failure in Experiment III may have reduced the Ss' esteem for the experimental set-up.

This equipment failure, however, did produce an important serendipitous finding: Those Ss who listened twice to the biased instruction readings appeared to respond in the direction opposite to the alternative emphasized in the respective instruction reading. One possible explanation of this result might be that though the differential vocal emphasis employed in these studies was very subtle on first hearing, with repeated listenings the biased vocal emphasis became more noticeable to S. The subject may then have felt that E's instruction reading was designed to

manipulate him or perhaps to test his susceptibility to social influence. The reactions to these influence attempts in the psychological experiment may include a 'bending over backward' to avoid being seen as a 'conformist' (e.g. McGuire, 1969; Orne, 1969; Rosenberg, 1969; Rosenthal, 1969).

More research would of course be required to strengthen or weaken the plausibility of this interpretation, but for the interim it seems reasonable to conclude that the differential vocal emphasis given by E to his reading of the response alternatives can serve as an effective determinant of Ss' responses in the psychological experiment. It is important to note that this influence process does not seem to enter the awareness of the Ss. None of the Ss who yielded in the direction of the response alternative that was emphasized in the instruction reading expressed any suspicion with respect to the taped instructions or any notion of having expressed an opinion other than their own.

In general, the present data provide further evidence that vocal cues alone are sufficient to mediate the experimenter expectancy effect and underline the general importance of the auditory channel of communication for this phenomenon (Adair and Epstein, 1968; Conn, Edwards, Rosenthal and Crown, 1968; Rosenthal, 1969; Zoble, 1969). Given that interpersonal expectancies can be communicated via paralanguage, it seems reasonable to attempt a detailed analysis of the types and functions of the relevant non-linguistic cues both in isolation, as in the present study, and in various kinds of controlled combinations. If more is learned about the interpersonal effects of paralinguistic behaviors, and if reliable and practicable measurements can be developed, control of possible bias in instruction procedures may become more feasible. Duncan, Rosenberg and Finkelstein (1969) have suggested that taped instructions should be evaluated for paralinguistic behaviors in order to minimize bias. As variation in speech intensity seems to be one important carrier of differential emphasis, investigators using taped instructions (or having tape-recorded 'natural' instructions) could use the relatively inexpensive, uncomplicated and reliable method of obtaining meter readings or pen recordings of the speech intensity distribution on the critical sections of their instructions to check for possible bias.

The present findings do seem to have implications beyond those for the further understanding of the psychological experiment. Vocal communication is a central aspect of interpersonal influence and mass persuasion, and there is little doubt that intensity and pitch variations in the spoken message have a strong impact on audience reaction (cf. Scherer, London and Wolf, 1970). A skilled communicator/persuader may be able to influence an audience without appearing to pursue a persuasive intent, by subtly emphasizing key parts of the message. It is most important that such influence occurs outside of the influencee's awareness and con-

sequently does not call forth any defensive reactions against being influenced. As yet, little is known about the relevant non-linguistic communicator and message variables (McGuire, 1969, p. 171) that are capable of producing attitude change in the receiver. The research approach adopted in the present study, i.e. the mechanical manipulation of paralinguistic variables, may provide a useful tool for further studies on non-verbal cues in social influence.

## REFERENCES

- Adair, J. C., and Epstein, J. S. (1968) Verbal cues in the mediation of experimenter bias. *Psychol. Rep.* 22, 1045-53.
- Conn, L. K., Edwards, C. N., Rosenthal, R., and Crowne, D. (1968) Perception of emotion and response to teachers' expectancy by elementary school children. *Psychol. Rep.* 22, 27-34.
- Duncan, S., Rosenberg, M. J., and Finkelstein, J. (1969) The paralinguistic of experimenter bias. *Sociometry*, 32, 207-219.
- Duncan, S., and Rosenthal, R. (1968) Vocal emphasis in experimenters' instruction reading as unintended determinant of subjects' responses. *Language and Speech* 11, 1, 20-26.
- McGuire, W. J. (1969) The nature of attitudes and attitude change. In: G. Lindzey and E. Aronson (Eds.) *Handbook of Social Psychology*. Vol. 3, Reading, Mass., Addison-Wesley, pp. 136-314.
- McGuire, W. J. (1969) Suspiciousness of experimenter's intent. In: R. Rosenthal and R. L. Rosnow (Eds.) *Artifact in behavioral research*. New York, Academic Press, pp. 13-57.
- Orne, M. T. (1969) Demand characteristics and the concept of quasi-controls. In: R. Rosenthal and R. L. Rosnow (Eds.) *Artifact in behavioral research*. New York, Academic Press, pp. 143-179.
- Rosenberg, M. J. (1969) The conditions and consequences of evaluation apprehension. In: R. Rosenthal and R. L. Rosnow (Eds.) *Artifact in behavioral research*. New York, Academic Press, pp. 279-349.
- Rosenthal, R. (1966) *Experimenter effects in behavioral research*. New York, Appleton-Century-Crofts.
- Rosenthal, R. (1967) Covert communication in the psychological experiment. *Psychol. Bull.* 67, 356-367.
- Rosenthal, R. (1969) Interpersonal expectations: Effects of the experimenter's hypothesis. In: R. Rosenthal and R. L. Rosnow (Eds.) *Artifact in behavioral research*. New York, Academic Press, pp. 181-277.
- Scherer, K. R., London, H., and Wolf, J. J. (1970) The voice of confidence: Paralinguistic cues and audience evaluation. Unpublished manuscript, Harvard University.
- Trager, G. L. (1958) Paralinguistic: A first approximation. *Stud. Linguistics* 13, 1-12.
- Zoble, E. J., and Lehman, R. S. (1969) Interaction of subject and experimenter expectancy effects in a tone length discrimination task. *Behav. Sci.* 14, 357-363.

### *Résumé*

L'emphase vocale différentielle dans la lecture des instructions enregistrées sur bande, destinées à la tâche de perception d'une personne normale, a été manipulée en augmentant ou en diminuant mécaniquement le volume des mots clés servant à décrire les alternatives de réaction de succès ou d'échec, sur l'échelle de graduation. Au cours d'une série de trois expériences les sujets exposés à l'emphase de succès ont placé les personnes jouant le rôle de stimulants à un niveau de succès plus élevé que ne l'ont fait les sujets exposés à une emphase d'échec. Cette tendance a été renversée chez les sujets qui ont écouté les instructions deux fois. Aucun des sujets n'a rapporté avoir pris conscience de la tentative d'influence.

### *Zusammenfassung*

Die auf Tonband gesprochene Instruktion für eine Standardaufgabe der Personenwahrnehmung wurde dadurch manipuliert, daß ihre Schlüsselwörter, die die Erfolgs- oder die Mißerfolgs-Alternativen einer Beurteilungsskala bezeichneten, in der Lautstärke entweder herauf- oder herabgesetzt wurden. In einer Folge von drei Experimenten kamen die Vpn, deren Instruktion die Erfolgs-Alternative betonte, zu einer positiveren Beurteilung des Erfolgs der Stimuluspersonen als Vpn, deren Instruktion die Mißerfolgs-Alternative betonte. Bei Vpn, die die Instruktion zweimal hörten, kehrte sich dieser Trend um. Keine Vp gab an, von dem Beeinflussungsversuch etwas gemerkt zu haben.