PUPIL EVALUATIONS OF TEACHER MESSAGES IN
THREE CHANNELS OF COMMUNICATION

Hannelore Wass
University of Florida

SUMMARY

This study explored pupils' perception and integration of multi-channel information contained in teacher-to-pupil communications. A set of videotaped scenes was produced in which three female elementary teachers enacted messages with varied positive (praising, friendly), neutral (without valuative content), and negative (blaming, unfriendly) connotations in three channels of communication: verbal (content), vocal (tone of voice), and visual (facial expression, smile or frown). Three hundred seven elementary pupils in grades three to six were asked to rate these messages as either "Good," "Bad," or "Not Good - Not Bad." Results indicate that the verbal channel has the strongest impact, determining 80 per cent of the pupils' over-all evaluation of a teacher's message. Differences between grades were found, showing decreasing influence of the verbal channel with advancing grades. Negative verbal messages are perceived with similar strength at all four grade levels. Non-verbal messages tend to strengthen or weaken verbal messages. When the verbal channel carries neutral messages more children in lower grades than in upper grades turn to non-verbal channels for valuative clues.

INTRODUCTION

Teachers communicate a multitude of messages in their daily face-to-face encounters with pupils. These messages are sent through different channels simultaneously. While a teacher communicates by talking, at the same time she sends non-verbal messages through gestures, body movements, tone of voice, and facial expressions. Verbal communications are deliberate and intentional while typically the accompanying non-verbal messages are spontaneous. Thus verbal and non-verbal meanings do not necessarily correspond. They may even be in direct conflict with one another. Regardless of whether a teacher's message carries intended or unintended, consistent or inconsistent meanings, one of the main issues concerns the perception of the message by the pupil to whom it is directed. The purpose of this study was to explore the problem of how elementary school pupils integrate the information they receive through different channels, how pupils interpret and evaluate messages with conflicting meanings, and whether one channel is more prominent than another in influencing pupils' over-all evaluation of a message.

A set of videotaped scenes was produced in which three experienced female elementary school teachers enacted messages directed at one pupil (shown on the screen with back to the viewer). Messages were systematically varied from positive connotations (praising, friendly), neutral (without valuative content), to negative connotations (blaming, unfriendly) in all possible combinations of three channels of communication. The three channels were Verbal (script, content of the actual words spoken); Vocal (tone of voice); and Visual (facial expression). Each teacher was asked to enact all messages if possible. Separate voice recordings were made of each teacher using meaning-free syllables to obtain measures of the vocal mode independent from the script. Following are examples of scripts. Positive: "Bill, you have had another great day today. I really liked the way you got along with everybody. I am proud of you, Bill." Neutral: "Here is your new library card, John. You may check out two books at a time during library hours or after school." Negative: "Jim, this has been another one of those bad days. It seems you just can't stay out of trouble. I am really disappointed, Jim."

Teachers were asked to use a broad smile for positive connotation in the visual channel, a frown for negative connotation, and a matter-of-fact "business-like" face for a neutral connotation. No attempt was made to control expressions of the eyes, but attention to the eyes was minimized as the teachers were in eye-contact with a pupil on the screen rather than with the viewer.

During a practice session each teacher was asked to speak in a friendly, unfriendly, and neutral voice using both meaningful and meaning-free verbal materials. Each teacher spontaneously produced a well-modulated, fuller, lower-pitched tone for positive connotation, a more abrupt, higher-pitched tone for negative connotation, and a relative monotone for neutral meaning. Prior to videotaping, teachers were given the scripts and instructions as to the valuative meanings to be communicated through the vocal and visual channels.

In addition to informal ratings by staff members, a class of advanced graduate students were asked to rate the channel meanings (scripts, voice recordings, script + voice, and pictures on the TV monitor) as either positive, neutral, or negative. Sixteen scenes from a total of 43 received 85 percent or higher rater agreement in each channel. These served as the pool to draw eight from for this study.

The videotaped scenes were presented on a TV monitor to 307 elementary pupils in grades three to six from two public schools and a university-affiliated laboratory school, at a specially assigned location in the absence of teachers. Global evaluations were obtained for each scene by asking pupils to decide how the teacher made the child feel, Good, Not Good - Not Bad, or Bad and to check their judgments on a Pupil Questionnaire. Pupils were instructed to leave a blank when they could not decide.

RESULTS

The findings reported here are partial and preliminary results of a more extensive research project in progress. Pupils' global evaluation of eight videotaped scenes with varying valuative teacher messages in verbal, vocal, and visual channels are summarized in Table 1. The great majority of pupils give an over-all evaluation of a message that corresponds with the meaning in the verbal channel. That is, over 80 percent of the pupils appear to resolve inconsistent and conflicting messages by considering the verbal channel only, five percent or less by attending to the non-verbal channels, 15 percent or less appear to cancel out the positive-negative effects to produce a neutral over-all judgment.

As shown in Table 1, scenes with positive verbal messages (A - D) receive a global positive rating by 80 percent or more pupils regardless of neutral or negative inputs in the vocal/visual channels. Similarly, scenes with negative verbal messages (F - H) are rated as negative by 80 percent or more pupils regardless of the differing valuations in the non-verbal channels. These results indicate the decisive influence of the verbal channel in the over-all evaluation of a message for the large majority of pupils in this study. The impact of the verbal channel is also shown when the evaluations of Scenes B and E are compared. Scene B carries positive meaning in the verbal channel linked with neutral meaning in the non-verbal channels, while the valuative contents in Scene E are just reversed, with neutral verbal meaning accompanied by positive non-verbal meaning. If the verbal and the two combined non-verbal channels were given equal attention, one would expect similar proportions of positive pupil ratings for both scenes. However, the results in Table 2 show a proportionately higher positive pupil evaluation for Scene B (positive verbal input) compared with Scene E (positive non-verbal input.[1]

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[1] The failure of the entries of a row in Table 2 to meet the Chi-square assumption of independence will tend to reduce the obtained Chi-squares. Therefore the indicated significances are conservative.

TABLE 1
Evaluation of Videotaped Teacher Messages in Three Channels of Communication by Elementary Pupils in Grades Three to Six

| Scenes | Verbal | Vocal | Visual | Pupil Evaluation in % (N=307) | | |
				Good	Not Good-Not Bad	Bad
A	+	+	0	88.6	10.1	1.3
B	+	0	0	79.7	18.7	1.6
C	+	+	-	83.8	12.9	3.3
D	+	-	-	81.8	14.3	3.3
E	0	+	+	42.3	49.4	8.3
F	-	0	0	2.9	16.6	80.5
G	-	+	+	5.0	16.1	78.9
H	-	-	+	2.6	7.5	89.9

\+ Positive
\- Negative
0 Neutral

TABLE 2
Pupil Evaluations of Two Videotaped Teacher Messages with Positive/Neutral Inputs in Verbal/Non-Verbal Channels of Communication

| | Scene B | Verbal | Vocal | Visual | Scene E | Verbal | Vocal | Visual | Chi-Square |
		+	0	0		0	+	+	
Category		Pupil Evaluation in %							
Good		79.7				42.3			35.29**
Not Good-Not Bad		18.7				49.4			43.18**
Bad		1.6				8.3			13.33**
									91.78**

\+ Positive
\- Negative   N=307   **p=.01
0 Neutral

While the vocal and visual channels are not of critical impor-
tance, they do influence the evaluations to a degree. Scene A (Table 1)
with positive verbal and vocal messages receives a positive rating by
89 percent of the pupils; however it decreases to 80 percent when the
vocal input becomes neutral (Scene B). A comparable change is shown
between Scenes G and H (Table 1) with 90 percent negative pupil ratings
when both verbal and vocal connotations become positive.

TABLE 3
Percent Responding in Various Categories to Videotaped Teacher
Messages by Grade Level

Scenes	Channels Verbal	Vocal	Visual	Third N=65 Good	Not Good Not Bad	Bad	Fourth N=70 Good	Not Good Not Bad	Bad	Fifth N=63 Good	Not Good Not Bad	Bad	Sixth N=109 Good	Not Good Not Bad	Bad	Chi- Square
A	+	+	0	93.9	4.6	1.5	91.4	5.7	2.9	90.5	7.9	1.6	82.6	17.4	0.0	12.55*
B	+	0	0	89.1	9.4	1.5	90.0	10.0	0.0	85.7	12.7	1.6	64.2	33.0	2.8	26.24**
C	+	+	-	92.3	3.1	4.6	85.7	12.9	1.4	82.5	17.5	0.0	78.9	18.4	2.7	12.00*
D	+	-	-	92.1	4.8	3.1	88.6	7.1	4.0	96.8	3.2	0.0	64.2	31.2	4.6	43.28**
E	0	+	+	59.4	28.1	12.5	40.0	52.6	7.4	33.3	61.9	4.8	31.2	66.9	1.9	28.96**
F	-	0	0	4.6	7.7	87.7	2.9	15.7	81.4	3.2	22.2	74.6	1.8	19.3	78.9	6.63
G	-	+	+	4.6	4.6	90.8	4.3	5.7	90.0	1.6	11.1	87.3	.9	7.4	91.7	5.47
H	-	-	+	4.6	20.0	75.4	2.9	10.0	87.1	1.7	26.9	71.4	3.6	19.3	77.1	7.33

+ Positive
- Negative
0 Neutral

* p = .05
** p = .01

These findings are corroborated in studies on parent-child com-
munications by Bugental, Kaswan, and Love (1970) and Bugental, Kas-
wan, Love, and Fox (1970). They found that verbal and vocal channels
consistently more important than the visual channel in young children's
perceptions of parents' messages.

The relative importance of the verbal and non-verbal channels
appears to vary with grade levels. Table 3 shows the distribution of
pupil ratings in grades three through six. The proportions of posi-
tive judgments of messages with positive verbal input tend to decrease
in upper grades with the largest proportion shown in third grades and
a sharp drop in sixth grades (Scenes A - D). A corresponding in-
crease in neutral ratings is shown from lower to upper grades with
the highest increment again at the sixth grade level. These differ-
ences are statistically significant at the .01 level for three of the
four scenes.

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Pupil evaluations of Scenes A and C indicate the specific influence of the visual channel (Table 3). Both scenes send positive verbal and vocal messages linked with a neutral visual message in Scene A and a negative visual message in Scene C. The proportions of positive pupil ratings decrease steadily from grades three to six for both scenes with a corresponding increase in neutral ratings. Approximately 5 percent of the third graders give a neutral over-all rating when the visual message is neutral and 3 percent when it is negative. The proportions increase with each grade to approximately 18 percent at the sixth grade level. Apparently the visual message has the least influence on third graders and gains in importance with advancing grade levels.

Bugental's studies showed similar results. She found significant differences between age groups particularly in the impact of the visual channel indicating that five to eight-year-olds are least influenced and thirteen to eighteen-year-olds are most influenced by the valuative meanings in the visual channel.

While significant differences between grades are shown in the relative importance of the verbal and non-verbal channels, these differences are limited to teacher messages with positive verbal inputs (Scenes A and D, Table 3). Teacher messages carrying negative verbal meaning did not produce significant differences between grades (Scenes F - H, Table 3). It appears that negative verbal teacher messages have similar strength of impact for pupils at all four grade levels.

While the majority of pupils appear to deal with inconsistent messages by attending primarily to the verbal channel, this is indicated when the verbal message is positive or negative, but not when it is neutral. In Scene E (Table 1) the verbal message is neutral, linked with positive vocal and visual inputs. This scene yields pupil ratings that are fairly evenly distributed between the positive and neutral categories (42 percent and 49 percent) that is, roughly half of the pupils attend to the verbal channel and the other half to the non-verbal channels. However, significant differences between grades can be observed (Table 3) showing a reversed trend compared to the other scenes. While primary attention is given to the verbal message at the third grade level with a consistent decrease through the upper grade levels in scenes with positive and negative verbal inputs, the ratings of Scene E show a consistent increase in attention to the verbal channel from 28 percent of the pupils at the third grade level to 70 percent at the sixth grade level.

CONCLUSIONS

It is possible that despite careful instructions some pupils used the neutral (Not Good - Not Bad) rating synonymously with "Can't decide," so that a neutral rating may not be clear indication that pupils resolved conflicting messages by cancelling out the positive and negative effects. In addition, the present study used videotaped messages enacted by teachers unfamiliar to the pupils. While this procedure allows for systematic variation in valuative meanings of the three channels, at the same time, it may introduce an element of artificiality that could affect pupils' evaluations. Therefore, the findings should be viewed with caution. The results suggest that elementary school pupils are "tuned in" primarily to evaluative teacher messages in the verbal channel, the more so the younger they are. Non-verbal valuative meanings seem to strengthen or weaken the impact of the verbal message to some degree. When the teacher's verbal message is neutral, a good many children seem to turn to the non-verbal channels for evaluative signs, particularly in the lower grades.

REFERENCES

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