

Exploring the Dimensionality of Positive and Negative Performance Feedback

Deanna Geddes and Frank Linnehan

Positive and negative performance feedback may best be examined not as opposite ends of a single continuum, but as two separate, unique constructs, each with its own dimensional structure. This study explores the nature of these distinct structures by applying multidimensional scaling techniques to performance feedback messages given in organizational settings. The results indicate that positive feedback messages are characterized by two underlying dimensions (no instruction/praise versus instruction/guidance; process versus product focus), and that negative messages reflect a four-dimensional structure (explicit versus ambiguous; destructive versus constructive criticism; high versus low knowledge of performance conditions; mixed/inconsistent versus clear standards of evaluation). Implications of these constructs are discussed with regard to the delivery, cognitive processing, and responses associated with performance feedback.

KEY CONCEPTS: performance feedback; performance appraisal; employee evaluation; positive feedback; negative feedback; superior-subordinate communication; organizational communication; multidimensionality; perceptions; information processing.

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The centrality of the performance feedback construct to organizational behavior and organizational communication is evidenced by its prominent place in both scholarly and popular writings. Feedback's impact on critical outcome variables such as organizational performance, satisfaction, commitment and motivation is well established (for reviews see Annett, 1969; Cusella, 1987; Ilgen, Fisher, & Taylor, 1979; Jablin, 1979; Nadler, 1979; Redding, 1972). This substantial body of knowledge reflects contributions from various theoretical perspectives. For instance, learning theory, operant conditioning, and other behavior modification-based approaches view feedback ("knowledge of results") as an organizational intervention, and promote research on feedback's reinforcing function (Adams, 1968; Annett, 1969; Komaki & Collins, 1982; Komaki, Collins & Temlock, 1987; Prue & Fairbank, 1981).

More typical of communication scholars, however, are control theory orientations to feedback that stem from Wiener's (1948) cybernetic-based model (Clement & Frandsen, 1976; see also Carver & Scheier, 1982; Powers, 1973). This theoretical framework establishes the feedback process as an interaction and emphasizes the informational function of feedback (Cusella, 1987; Ilgen et al., 1979; Taylor, Fisher, & Ilgen, 1984). Performance feedback is defined as messages conveyed about task performance that facilitate self-regulation of behavior (Cusella, 1987; Jablin, 1979; Redding,

1972). From this perspective, feedback recipients are viewed as active information-processors who perceive, evaluate and respond to feedback in unique ways (Campion & Lord, 1982; Ilgen et al., 1979; Taylor et al., 1984). Thus, studies rooted in this orientation frequently consider organizational member's perceptions when accounting for both the beneficial and problematic effects of performance feedback (Baron, 1988; Einhorn & Hogarth, 1978; Geddes, 1994; Hammond & Summers, 1972; Jacoby, Troutman, Mazursky, & Kuss, 1984; Podsakoff & Farh, 1989; Steinman, 1976).

A significant amount of the variation in recipient responses to feedback is attributed to message valence or "sign," i.e., whether the information was perceived as "positive" (favorable) or "negative" (unfavorable) regarding one's job-related performance (Cusella, 1987; Ilgen et al., 1979; Landy & Farr, 1983). Cusella (1987) details the current perspective on positive and negative feedback in the field of organizational communication:

Conceptually, feedback valence refers to the perceived attractiveness or value of the information conveyed in the message. Operationally, positive feedback consists of messages that...indicate satisfactory or high performance, while negative feedback consists of messages that refer unfavorably to the recipient's behavior. (p. 632)

This orientation to positive and negative feedback differs from cybernetic-based definitions utilized in Wiener's (1948) original model. From a cybernetic perspective, negative and positive feedback are system signals that 1) maintain stability (deviation-counteracting) and 2) facilitate change (deviation-amplifying) (Masuch, 1985; Powers, 1973). Such definitions are rarely used in organizational feedback studies, however, due to suggested limitations in applicability to human behavior (see Nadler, 1979).

Dilemmas remain with regard to conceptualizations of performance feedback, and message valence, in particular. Inconsistency and confusion exist over what constitutes positive, and, certainly, *negative* feedback, given differences between "cybernetic" and "psychological/perceptual" orientations (Clement & Frandsen, 1976). Concerns have been voiced regarding overly simplistic and unidimensional treatments of feedback in research (Clement & Frandsen, 1976; Ilgen et al., 1979; Herold & Greller, 1977). These issues have prompted feedback scholars to reexamine and reconceptualize not only performance feedback as a more complex construct, but message valence as well (Ilgen et al., 1979; Taylor et al., 1984; Tracy, Van Dusen, & Robinson, 1987).

Most studies utilizing message valence, however, even those examining feedback multidimensionality (Dorfman, Stephan, & Loveland, 1986; Geddes, 1990; Herold & Greller, 1977; Ilgen et al., 1979; Larson, Glynn, Fleenor, & Scontrino, 1986; O'Reilly & Anderson, 1980; Pritchard & Montagno, 1978), characterize positive and negative feedback simply as opposite poles along a single continuum. No research has explored positive and negative feedback as two separate, unique constructs, each with its own dimensional structure; nevertheless, feedback scholars suggest this approach may be more appropriate for understanding distinct communication behaviors, information-processing, and work-related responses by organizational members participating in the feedback interaction (Geddes, 1990; Herold & Parsons, 1985; Landy & Farr, 1980).

For instance, we find that feedback sources adopt distinctive delivery strategies depending on the valence of the message (Fisher, 1979; Hobson, Mendel, & Gibson, 1981; Larson, 1989; Larson, et al., 1986). With negative feedback, in particular, managers tend to delay, distort, positively skew, and/or sandwich negative comments between various forms of praise. How might the negative (vs. positive) message structure reflect these encoding and transmission differences? Further, evidence is continuing to emerge regarding the discriminably different ways individuals process positive and negative feedback (Dugan, 1989; Gioia & Sims, 1986; Shrauger, 1975; Wofford & Goodwin, 1990). Findings suggest that positive feedback is more likely to be forgotten and/or ignored, while negative

feedback tends to receive significantly more cognitive attention. What unique features of positive (vs. negative) feedback contribute to this difference in information processing?

Recent studies of feedback's impact on performance found that participants receiving positive feedback, and those receiving negative feedback, reported a wide range of responses to these messages (Geddes, 1991; 1994; Geddes & Baron, 1995). It was found, for instance, that some recipients of negative feedback regarded this information as appropriate and helpful, and adjusted their performance accordingly; however, others considered it inappropriate, even hurtful, and, in a surprising number of cases, retaliated with hostile/aggressive acts such as work slowdowns, machinery sabotage, and project abandonment. How can we account for the response variations that appear not only between, but also *within* positive and negative feedback conditions? Identifying distinctive characteristics of positive and negative performance feedback may help answer these questions.

Our purpose here is to address concerns over the use of positive and negative feedback constructs in organizationally-oriented research, and to determine if salient features of message valence can be both conceptually and empirically distinguishable (Larson et al., 1986). In particular, this study explores the dimensional structures of positive and negative feedback as determined by individuals' perceptions of these messages. Toward this end, the following two research questions are pursued:

RQ1: What dimensions are perceived in positive feedback messages?

RQ2: What dimensions are perceived in negative feedback messages?

Method

A two-phase, inductively-based data collection procedure helped identify underlying structures of positive and negative feedback messages. In an effort to generate a representative sample of naturally-occurring feedback messages (Cody, 1982; Cody & McLaughlin, 1980; Forgas, 1976), participants in Phase One were asked to provide feedback messages they had received recently. Further, although researchers who study message multidimensionality traditionally use *a priori* dimensions along which messages are rated, it was decided that this approach precludes the possibility of detecting message features not previously conceived or expected by the investigator. Thus, in Phase Two, a separate subject group created novel conceptual frameworks by sorting positive (Condition One) or negative (Condition Two) feedback according to perceived similarities among the messages.

Phase One

A total of 158 participants volunteered from three sources: upper division communication courses at a large midwestern university (25%), upper division business courses in a large eastern university (38%), and several eastern businesses (37%). Sixty-two percent of the participants were female. Most participants were Caucasian (70%), with 22% African-American and 8% "other." Ages ranged from 18 to 57 years old, with a mean of 26 and a mode of 21 years old. Seventy percent of the participants occupied support- or operating-staff positions in organizations, 21% were in low-level management, and 9% indicated they held other positions.

Procedure. To generate a pool of feedback messages, participants completed and returned a questionnaire entitled "Performance Feedback," within a one week period of time. Students received credit for their own participation, and earned additional points for a questionnaire completed by a co-worker. All participants were asked to recall a recent instance in which they had received feedback about a job or assignment. With this situation in mind, participants wrote the exact words or at least the "essentials" of what was said to them. Participants then rated this feedback along a 7-point "positive-negative" Likert scale. These original perceptions regarding

message valence were used in Phase Two for the purpose of classifying messages as either "positive" (1-3) or "negative" (5-7). This was done to ensure that the initial interpretation of the message was maintained. In total, thirty messages² rated by the recipients as positive and thirty rated negative were randomly selected as items for Phase Two.

Phase Two

In this phase, a second group of participants judged the degree of similarity/dissimilarity among the feedback messages (generated in Phase One) by completing a message-sorting task. Given the number (N=30) of feedback message items used, a significant sample (N=483) of volunteers was utilized to increase statistical power. Participants in the message-sorting task were business undergraduates at a large eastern university, all of whom received class credit for their efforts. In Condition One (N=242), 52% of the participants were male, 93% were between 20-25 years old, and 70% were Caucasian, 15% African-American, 10% Asian and 5% indicated another race. In Condition Two (N=241), 44% of the participants were female, 86% were between 20-25 years of age, 58% were Caucasian, 20% African-American, 12% Asian, and 10% indicated "other" races. In both conditions, *all* volunteers indicated they were currently employed either part- or full-time.

Procedure. Participants arrived at the interaction laboratory, read and signed a subject consent form, received a materials packet, and had the opportunity to ask questions before performing the task. The task took approximately 30 minutes to complete.

From the packet, volunteers extracted an instruction sheet, an answer sheet, and an envelope with 30 cards on which were typed either positive (Condition One) or negative (Condition Two) feedback messages obtained from Phase 1. No alterations were made to the original messages. Working independently, participants were directed to sort the numbered (1-30) messages into mutually exclusive groupings. Cards were sorted on the basis of perceived similarity of the feedback messages without any forced-choice regarding topic, number of cards per group, or number of card piles (Kruskal & Wish, 1978; Stephen, 1985). It was emphasized to participants that there was no right or wrong way to sort or label messages. This unstructured sorting allowed participants to utilize their own frames of reference in combining items, without the potentially biasing effects of investigator-determined factors/dimensions.

After all 30 cards were put into piles, participants recorded the feedback item numbers for each group on an answer sheet, then labeled these groupings based upon the content of the messages. Finally, participants completed a short demographic questionnaire.

Multidimensional Scaling. Studies utilizing multidimensional scaling (MDS) techniques are common in communication research, especially when perceptions of social actors are examined (e.g., Burgoon & Hale, 1984; 1987; Cody, Jordan, & Woelfel, 1983; Forgas, 1976; Geddes, 1990; Jones, 1983; McCallum, McCallum, & Gurwitch, 1987; Rusbult & Zembrodt, 1983; Wiseman & Schenck-Hamlin, 1981; Wish, D'Andrade, & Goodnow, 1980). MDS produces a geometric dimensional solution representing the underlying structure of the stimulus domain (Kruskal & Wish, 1978). The basic input datum required for the MDS procedure is a measure of association or co-occurrence between pairs of stimuli. For purposes of this study, the raw datum was the number of times a pair of feedback messages were grouped in the same message pile--aggregated over all subjects in each condition. A PASCAL program was developed to facilitate the creation of this co-occurrence or similarity matrix of feedback messages. The subsequent matrix was subjected to SPSSx's version of ALSCAL, which uses the alternating least-squares approach. The scaling specification was Euclidean and nonmetric.

Results

Determining Dimensionality

The dimensionality of a construct is determined by obtaining MDS solutions specifying one-, two-, three-, and so on dimensions, until a satisfactory fit of the data is reached. This is indicated by an acceptable stress value (typically below .20) that cannot be significantly improved upon by adding additional dimensions (Kruskal & Carroll, 1969). For the positive feedback condition, an acceptable stress value (.165) with minimal improvement was obtained after only two dimensions, whereas in Condition Two, a similarly acceptable stress value (.171) was observed after three dimensions (see Table 1).

Table 1. Stress Values and R² for Derived MDS Configurations (Dimensions One Through Six)

Positive Feedback			Negative Feedback		
Dimensions	Stress	R ²	Dimensions	Stress	R ²
1	.263	.835	1	.448	.445
2	.165	.894	2	.274	.594
3	.118	.926	3	.171	.753
4	.082	.956	4	.121	.836
5	.066	.966	5	.094	.877
6	.052	.975	6	.076	.907

Beyond the stress values, however, consideration of the more extreme message item loadings for one- through six-dimensional solutions helped identify specific messages that could be used in dimension interpretation.

Interpreting Dimensions

The most difficult aspect of multidimensional scaling is interpreting the geometric solution. To identify feedback dimensions, it was critical to first, select messages at extreme ends of dimension coordinates (and hence, at greatest distances in the geometric space) that were not highly loaded on other dimensions; that is, if the same message loads at the "ends" of different dimensions, meaningful interpretation of the solution is hindered, if not impossible. Second, the content of the feedback messages is examined for discernible ways with which these items at opposite ends differ. Further, examination of the message group labels provided by participants in the message sorting exercise helps to validate proposed dimension titles.

For Condition One (Positive), message item placement in the two-dimensional solution facilitated interpretation. However, for Condition Two (Negative), the three-dimensional solution had several messages with similar loadings on dimensions two and three, making these dimensions uninterpretable. Because the two-dimensional solution had not produced an acceptable stress score (.274), the four-dimensional solution (stress = .121) was reexamined. In this solution, primary message items did not overlap; hence, a four-dimensional solution was considered most appropriate for interpretation purposes³ (see Tables 2 and 3).

Table 2. Stimulus Coordinates for MDS Configuration Derived in Two Dimensions (Positive Feedback)

Message	Plot	Dimension Coordinates	
Number	Symbol	One	Two
1	1	2.1344	0.3461
2	2	-1.1682	0.2074
3	3	2.3075	0.9745
4	4	-0.7676	0.6685
5	5	-0.0921	-1.7618
6	6	-1.0672	-0.0042
7	7	-1.2067	0.3691
8	8	-0.3939	-1.2085
9	9	2.4357	0.3918
10	A	1.3162	-0.0686
11	B	-0.7823	-0.4611
12	C	-1.1525	0.2246
13	D	-0.5775	1.0038
14	E	1.4415	0.8846
15	F	-0.1824	-0.4993
16	G	-0.3893	-1.6938
17	H	-0.5974	-0.4836
18	I	-0.9989	0.2504
19	J	0.4070	1.0315
20	K	2.0499	0.6585
21	L	-0.9311	0.3044
22	M	-0.4128	-0.6139
23	N	-0.6850	-0.4004
24	O	-0.3093	-0.7611
25	P	1.7415	1.5428
26	Q	-1.0973	0.0137
27	R	-0.7645	-1.3331
28	S	0.1623	0.4013
29	T	0.1095	0.9644
30	U	-0.5296	-0.9481

Positive Feedback. The two dimensions identified for positive feedback were labeled "No Instruction/Praise vs. Instruction/Guidance" and "Process vs. Product Focus" (see Figure 1). Interpretation of Dimension One (Praise vs. Guidance) was relatively straightforward. Messages at opposite ends of the continuum (and geometric space) suggested either a need for improvement, indicated by instructions or direction of some sort, or no need for improvement, exemplified by some form of praise, rather than instruction. Two examples of message items along this dimension, Message 9 ($X_1 = 2.436$) and Message 2 ($X_1 = -1.168$), respectively, read:

Commented on need to better organize time management in terms of reevaluating where emphasis needed to be placed in order to accomplish daily/weekly tasks with more efficiency. Suggested some specifics as well as general ideas on how this might be accomplished.

Table 3. Stimulus Coordinates for MDS Configuration Derived in Four Dimensions

Message		Plot		Dimension Coordinates	
Number	Symbol	One	Two	Three	Four
1	1	1.0956	-0.1736	0.5975	-0.0485
2	2	1.6584	-0.1699	-0.866	0.3089
3	3	-0.1249	-0.8611	2.2527	-0.6521
4	4	-1.4732	-0.5825	0.5676	1.3216
5	5	0.5541	1.7559	0.2119	0.4991
6	6	-0.4735	0.9625	-1.3162	0.3880
7	7	-1.0418	-0.7529	0.5960	1.4310
8	8	0.4254	1.7142	-0.5113	0.5323
9	9	-2.0457	-0.8831	-0.2829	0.2199
10	A	1.1960	1.2953	-0.4436	-1.2719
11	B	-2.0946	0.7536	0.0108	0.5206
12	C	0.9200	-0.9540	1.0126	-0.2375
13	D	1.1392	1.6650	0.9295	0.0126
14	E	1.4145	-0.3486	2.3737	-0.2270
15	F	-0.2785	0.4662	1.6192	0.0106
16	G	0.7043	0.6101	-0.0945	1.6746
17	H	0.3644	-0.1667	-1.5396	0.1533
18	I	0.6978	-1.3087	0.0228	-0.0242
19	J	-0.4690	-0.7656	-1.4380	0.4443
20	K	-0.7877	-0.7850	-1.3314	0.1649
21	L	0.8771	-1.1888	0.0767	0.1099
22	M	-0.1640	1.8953	0.2691	-0.3447
23	N	1.4862	0.2093	0.4321	0.8737
24	O	1.0455	0.9604	-1.2745	-0.3653
25	P	-0.2677	-0.4134	-0.7404	-2.8037
26	Q	1.3359	-0.6568	-0.5776	0.5289
27	R	0.0488	-1.1009	-0.5304	-0.0261
28	S	0.8864	-0.9931	-0.3287	-1.0157
29	T	-1.5322	-0.9758	0.3205	-1.7652
30	U	-2.2676	0.7924	-0.7972	0.4125

I was told: Simply (from my boss, store owner), Good job, keep up the good work! and he thanked me.

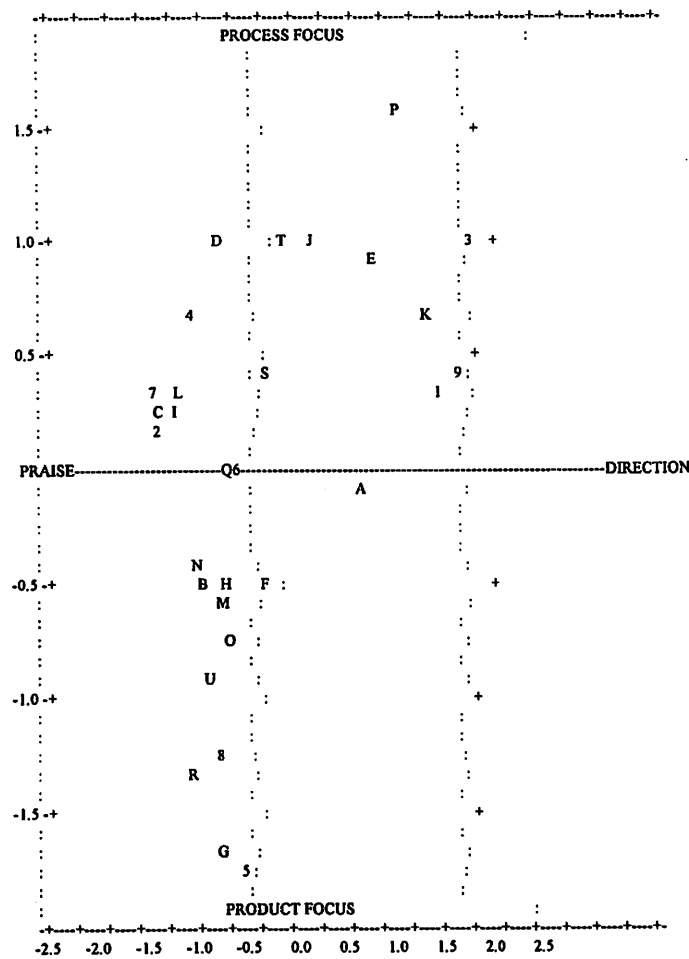


FIGURE 1
Derived Mds Configuration for Positive Feedback Items:
Dimension 1 (Praise Vs. Direction) and Dimension 2 (Process Vs. Product Focus).

Other items loading on extremes of the dimension also reflected this "praise-guidance" difference. It is understandable why praise would be considered positive feedback, but it is more interesting to note that receipt of information indicating a lack of adequate performance is viewed as "positive." Traditionally, indications of a need for improvement would reflect a corrective (negative) designation consistent with the cybernetic model of feedback (Clement & Frandsen, 1976, p. 21). However, from a psychological perspective, the fact that instruction or guidance was provided (rather than criticism) may have caused recipients to perceive such information useful and encouraging, and thus, favorable (positive) for their needs. Evidence supporting the notion that instructive feedback may be classified as "positive" to the recipient is found in previous research that reported instructive feedback was perceived as more sensitive than feedback providing no

direction (Geddes, 1990). In this same study, individuals who reported positive changes in attitude and performance following feedback identified their messages as "instructive."

Dimension Two differentiated among messages based upon a process versus product orientation. On one end of the continuum, message items consisted of immediate, on-going feedback apparently given during the individual's actual performance. On the other end, the feedback praised performance outcomes, often with the promise of a reward for their proven good work. Examples along this second dimension include Message 13 ($X_2 = 1.003$) which read: "I was told: Wow, look how fast you can go now, see, you picked it up quick," and Message 5 ($X_2 = -1.762$) which read:

I was told: You have very good management skills, also you work well with people. This is very important in your line of work. Therefore, the company has decided to promote you to account manager.

This dimension seems to capture the difference between what feedback scholars label "knowledge of *results*" (Komaki & Collins, 1982) or "outcome feedback" and "knowledge of *process*" (Annett & Kay, 1957) or "action feedback" (Hammond, McClelland, & Mumpower, 1980). Although knowledge of process often is considered task or self-generated, the messages obtained in this study help establish the salience of process-oriented feedback from management (Greller, 1992). However, receipt of such messages is infrequent, and most likely during training or performance sampling (Komaki, Collins, & Temlock, 1987). Further, while product or outcome-based feedback tends to be more common than process feedback, the latter was found more effective in improving task performance (Hammond et al., 1980); nevertheless, disagreement exists regarding which tasks benefit the most (see Jacoby et al., 1984).

Negative Feedback. The four dimensions of negative feedback messages were labeled "Explicit vs. Ambiguous," "Destructive vs. Constructive Criticism," "Low vs. High Knowledge of Conditions of Performance," and "Mixed/Inconsistent vs. Clear Standards of Evaluation." The fact that four dimensions emerged from negative feedback, compared to the two identified for positive feedback, suggests negative feedback is a more complex message domain. Recent studies examining increased cognitive load and controlled (vs. automatic) processing associated with negative feedback tend to support this claim (Drake & Moberg, 1986; Gioia & Sims, 1986; Wofford & Goodwin, 1990). Further, because delivery of negative feedback is found to be discriminably different than positive feedback (Larson, 1989; Veiga, 1988), the message itself is more likely to be complex and distorted due to the hesitancy and increased rhetorical strategy involved in transmission (Fisher, 1979; Larson et al., 1986; Tesser & Rosen, 1975).

This "complexity" associated with negative feedback is apparent in Dimension One, labeled "Explicit-Ambiguous" (see Figure 2). On one end of the continuum, messages were straightforward and direct, while on the other end, there was significant room for inference and interpretation by the recipient. For example, Message 2 ($X_1 = 1.658$) read: "I was told that in order to keep my job, I had to work longer and take less breaks," while Message B ($X_1 = -2.094$) read:

The feedback that I get from my boss consists of little appreciation. The nonverbal face expressions are the 'essentials' with her. The eye contact and smile are the extent of a job well done.

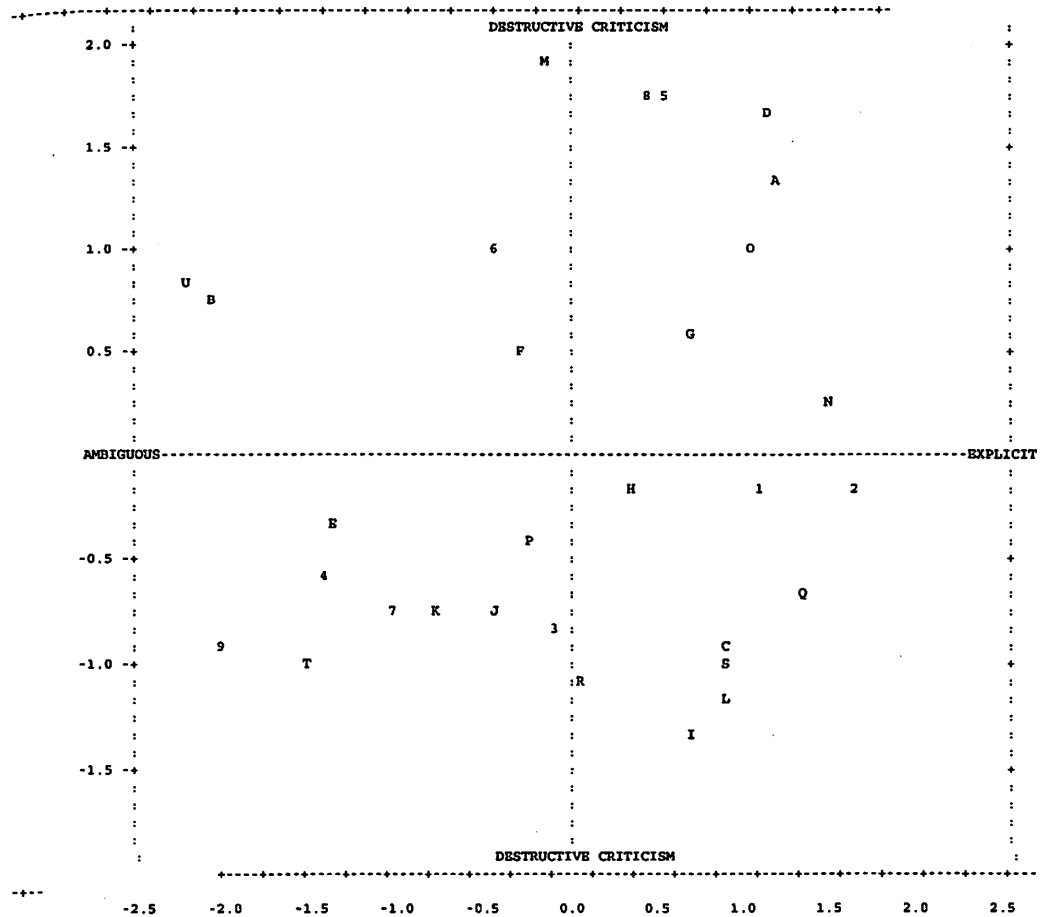


FIGURE 2
Derived Mds Configuration for Negative Feedback Items:
Dimension 1 (Ambiguous Vs. Explicit) and Dimension 2 (Destructive Vs. Constructive Criticism).

In the second message, the recipient relied on occulesic (face and eye) displays in order to determine the supervisor's evaluation. Nonverbal messages are generally held to be more ambiguous ("broadly" interpretable) than verbal feedback messages. But perhaps the pinnacle of ambiguity is the lack of any feedback about one's performance. For example, one individual reported receiving no feedback for an entire year. This particular description utilized in the study surfaced prominently within the ambiguity section of the geometric space. Not surprisingly, lack of communication with employees regarding their job performance (whether performance is acceptable or in need of improvement) is viewed unfavorably by organizational members (Jablin, 1979).

Individuals who do communicate with employees regarding their performance are, nevertheless, likely to employ ambiguity more often when their evaluation is not favorable in an effort to "soften the blow" (Bavelas, Black, Chovil, & Mullett, 1990; Eisenberg, 1984). However, since ambiguity was not found to be a salient feature characterizing positive feedback, supervisors should consider that the more ambiguous a message, especially one containing unfavorable information, the less likely it will be perceived as positive by employees. Research supports this

claim with findings that individuals react more negatively toward feedback that is ambiguous in evaluation of task performance than feedback which explicitly states how well or poorly a task was performed (Hammond & Summers, 1972; see also Baron, 1988; Tracy et al., 1987).

Dimension Two, labeled "Destructive Criticism--Constructive Criticism," reflects specific *stylistic* features of the feedback (Tracy et al., 1987). For instance, "destructive" messages incorporate negative language and suggest a harsh delivery, two characteristics found to be associated with "bad" criticism in previous research. Messages identified as destructive also reflect a lack of concern for the recipient's self-esteem and "face" concerns (see Fairhurst, Green, & Snavely, 1984). For instance, Message 8 ($X_2 = 1.714$) and Message 5 ($X_2 = 1.755$) read:

Anything my boss would say he would shout it to us. He always tried to be such a strict, difficult person, trying to make everyone scared of him. He would speak like, "Hey boy, what are you doing? Well, then do this!

When I tell him how hard I worked earlier, he'll say something like 'that's what you're paid to do,' etc.

In contrast, Message I ($X_2 = -1.308$) and Message L ($X_2 = -1.188$) read:

He told me that I was too lenient with the staff and that I need to get motivated as far as doing my job because I was slipping.

I was told that my work as a security guard was not satisfactory. My boss told me to be more aware of what is going on around me and that I should keep my attention on my job and not on other things.

Unlike the first set of messages, Messages I and L are not harsh or inherently insensitive to the individual; instead, they indicate where improvement should occur. This *direction* feature distinguished good from bad criticism in previous research (Tracy et al., 1987). The instruction and implied respect within these messages, as well as others in the constructive criticism geometric space, reflect a more "alter-centric" orientation of the sender, as opposed to the ego-centric, self-serving approach illustrated in Messages 5 and 8.

Given the ego-threatening potential of negative feedback, information perceived by recipients to be constructive, that is, respectful and offering some direction for improvement, is more likely to be responded to *favorably* than feedback containing destructive criticism (Baron, 1988). Past research has shown that the features indicative of destructive criticism contribute more to increased negative emotion and perceptions of inappropriateness by feedback recipients (Tracy et al., 1987). Further, in the Tracy et al. (1987) study, "good" criticism resulted in positive consequences 27% of the time, in contrast to "bad" criticism, which almost never produced favorable outcomes (1%).

The third dimension (see Figure 3) reflected a high to low knowledge of performance conditions (see Evans & McShane, 1988). In particular, some messages exhibited a high awareness of the circumstances under which the recipient performed. For example, Message F ($X_3 = 1.619$) read: "The woman with the inefficient manner thought I was doing this wrong, and she continued to correct me and have me do everything very slow." Although the woman was perceived to be not particularly efficient herself, she was, apparently, very cognizant of the individual's behavior and work environment.

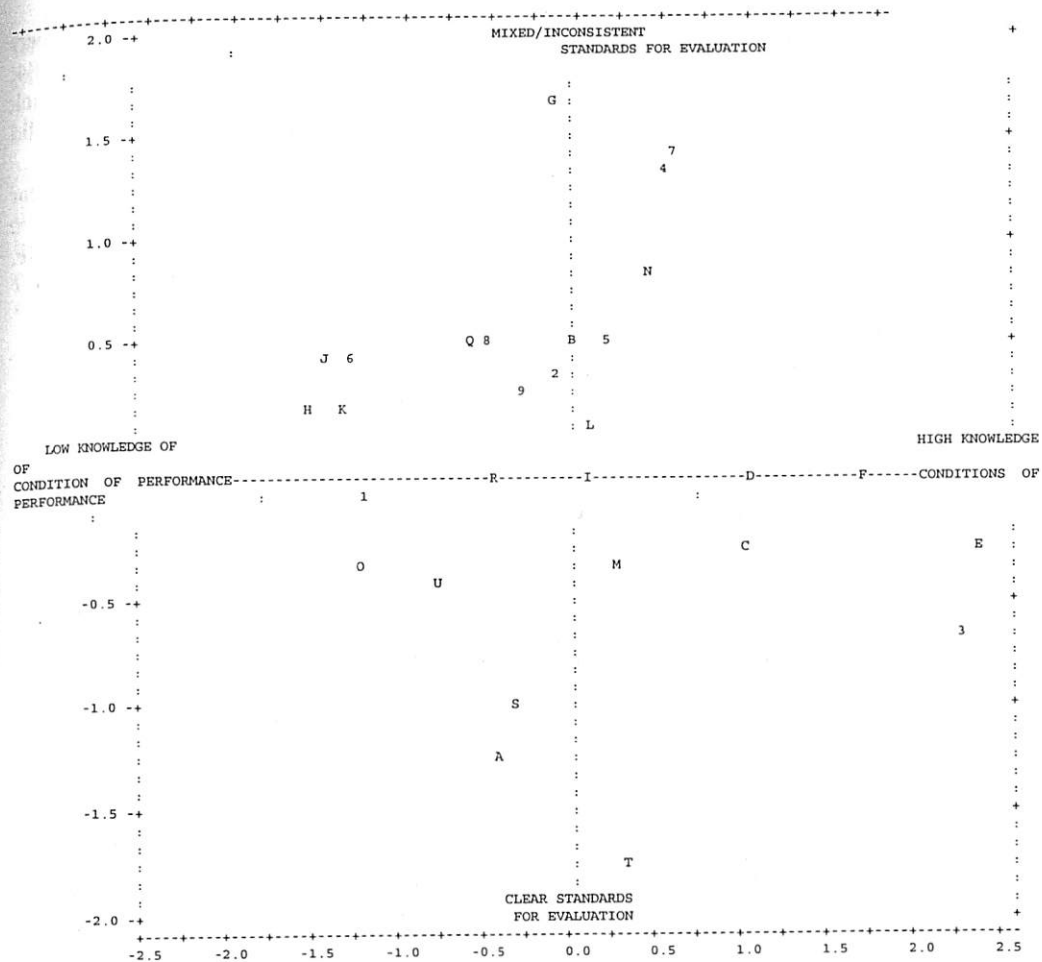


FIGURE 3
Derived Mds Configuration for Negative Feedback Items:
Dimension 3 (Low Vs. High Knowledge of Performance Conditions) and
Dimension 4 (Mixed/inconsistent Vs. Clear Standards for Evaluation).

At the opposite end of the continuum were messages reflecting low knowledge about the conditions of performance, as evidenced by Message H ($X_3 = -1.539$):

I wasn't performing my job well which I received little to no training for. I would receive monthly reviews stating if my level of performance didn't improve after three months, I would be fired.

This message implies the employee was improperly trained and had no personal contact with a supervisor to discuss or remedy the situation. Those reviewing the employee seem unaware of the lack of training that supposedly led to the unsatisfactory performance. Misunderstanding what an organizational member has accomplished, come up against, or been unaware of often results when supervisors are removed from the conditions within which the employee functions.

This reprimand and other examples at the low-knowledge end of the dimension are feedback that employees might label "unfair" (Fulk, Brief, & Barr, 1985; Greenberg, 1986). Thus, responses

by less-informed feedback providers may lead to perceptions of injustice by organizational members and may contribute to low morale and perhaps other unfavorable responses (see Jacoby et al., 1984; Taylor, Tracy, Renard, Harrison, & Carroll, 1993). In contrast, recipients who believe the feedback reflects a good understanding of their working conditions will more likely find this information valid and appropriate.

The fourth and final dimension of negative feedback was labeled "Mixed/Inconsistent-Clear Standards of Evaluation." On one end of the continuum, feedback recipients seem frustrated by the inconsistency of standards (i.e., rules, policies, goals) by which they are evaluated. For example, Message G ($X_4 = 1.674$) and Message 7 ($X_4 = 1.674$) read respectively:

I remembered being 3 minutes late for work one day and was told about it by my supervisor. He stressed the point that June (the section's manager) is very strict with time. The reason this had such an impact on me was because my supervisor is at least 5 minutes late, 3 times a week. I ask myself--"who are these rules for?"

Supervisor stated to me and my reporting boss that I "could not follow instructions but that I was a good worker." Just prior to this event, he said that I was doing an excellent job and I was in for a raise.

The recipient of the first message (Message G) seems upset by what is believed to be *inconsistent standards* for employee performance. This feedback implies one set of standards for the employee and another for the supervisor. Organizational members may become confused, then frustrated when certain company rules of behavior appear to be applied selectively--especially when these are utilized for performance appraisal purposes.

Message 7 is a classic example of potential problems when providing negative feedback that has been *mixed* with positive feedback. Standards met and those that were not are combined in ways that confuse the recipient. Was one standard more crucial than another? How were each weighted for the final evaluation? When managers distort and sandwich unfavorable information between more favorable comments, they are attempting to minimize negative effects on the recipient (Drake & Moberg, 1986; Larson, 1984; Stone, Gueutal, & McIntosh, 1984; Tesser & Rosen, 1975). Nevertheless, because such efforts to soften bad news may be misconstrued by a hopeful, even naive receiver, providers of feedback should consider the potentially negative effects of such strategies. Scholars also may wish to reexamine phenomena such as order effects of positive or negative feedback with this issue in mind.

Messages exhibiting a "clear" (unequivocal) standard for evaluation were not as easily distinguished in this particular data set.⁴ For instance, Message S ($X_4 = -1.015$) read:

I was told: You haven't studied enough. You don't know the things you're suppose to know, and your performance is slipping.

This example *implies* that there were clearly established standards by which the individual was evaluated, as indicated by the phrase, "...[what] you're suppose to know...." Another example may better illustrate this concept of the clarity of criteria (standards) by which an individual has been judged. Message A ($X_4 = -1.2719$) read, "I was told no matter how hard or good of a job I did, because of my race and that I am a woman, I would never succeed." Although this message is both racist and sexist, with regard to the *standards* (race-sex) by which this individual's future success was being evaluated, the source was "clear." The appropriateness of the standards is not the issue here, only the clarity with which these standards were established for the feedback recipient. Negative feedback recipients, in particular, undoubtedly prefer to know *clearly* the standards by

which they were evaluated. This clarity of standard is a fundamental concept associated with Management-by-Objectives (MBO) performance appraisals (Drucker, 1954; Locke, 1967).

Discussion

Some scholars argue that while various dimensions of feedback may be conceptually distinct, they may not be empirically distinguishable; thus, it may be more appropriate to examine the overall quality of performance feedback rather than to consider its multidimensionality (Larson et al., 1986, p. 1084). However, this study provides dimensional structures of feedback that appear to be both empirically-derived and conceptually distinguishable. Thus, we propose that discussion should shift from *whether* performance feedback is a complex construct to *when* it is more or less complex and multidimensional. Study findings suggest this discussion is relevant for examining performance feedback valence.

In comparison with positive feedback's bi-dimensional structure, negative feedback emerges considerably more complex. The findings also suggest that positive and negative feedback are perceived as distinct constructs, comprised of unique, salient features. These identified differences in complexity among positive and negative feedback messages may help explain variations in cognitive processing and behavioral responses of organizational members. In particular, the research results have implications for fundamental organizational behaviors such as decision-making and performance evaluation.

For example, Wofford and Goodwin's (1990) work on decision-making reflects the relative ease with which individuals process positive (versus negative) feedback messages (see also Dunegan, 1992; Thomas, Clark, & Gioia, 1993). They also find that negative feedback elicited a greater variety of cognitive processing in the receiver. Relatedly, Dunegan (1992) proposes that positive feedback tends to produce *mindless* thinking patterns during decision making, in contrast to the *mindful* information processing following negative feedback. In both instances, performance was impaired if feedback did not result in more diligent, active thought processes.

This study offers one explanation for why positive feedback tends to reduce cognitive load and increase automatic processing. First, positive feedback's structure is found to be less complex than negative feedback. Praise for previous efforts, for example, "You've always done great work in the past," is easily processed and more likely ignored due to the relatively small informational value to the recipient (Jacoby et al., 1984). In contrast, negative feedback's complex structure, with expanded task- and ego-relevant information, requires more controlled cognitive processing, which in turn contributes to behavioral adjustments.

In addressing this issue, supervisors may find value in *adding* complexity to positive feedback messages to increase its effectiveness. For instance, it is likely recipients will engage in more controlled processing of *guidance* rather than *praise*. Further, because *process* feedback is rarer than *product* feedback, it may also be given more mindful attention. By modifying the contexts within which feedback is provided, for example, providing immediate, first-hand observations, supervisors may expand cognitive space devoted to performance input. Overall, with increasing feedback complexity³, recipients are more likely to consciously process, remember, and apply these messages. Thus, future research should assess how certain message features (e.g., instruction, ambiguity, mixed standards, and ego threat) contribute more to increased cognitive load than others.

Examining positive and negative messages as distinct forms of feedback also provides insights into the supervisor's behavior during performance evaluation. For example, the general reluctance to give negative feedback [i.e., when the manager wants to improve performance, yet not insult the employee or damage the relationship](Fisher, 1979; Larson, 1984) may reflect the complexity associated with pursuing *multiple goals simultaneously* (Greene & Lindsey, 1989; Greene, Lindsey, & Hawn, 1990; Tracy & Eisenberg, 1991). Thus, examining mixed-signals and non-explicit messages may provide information on the increased cognitive load and message delivery problems

experienced by managers. Future research could devote more attention to the relationships among managers' salient goals and their subsequent messages in performance appraisals, rather than viewing these interactions primarily as goal-setting situations. Current research in this area appears promising (see Geddes, Lieb, & Linnehan, 1994; Tracy & Eisenberg, 1991).

Attention to feedback's salient features also may help explain unfavorable and problematic employee responses. It is likely that explicit, constructive criticism, reflecting clear evaluation standards and a high knowledge of task performance produces a more desirable response by organizational members than feedback characterized as ambiguous, destructive criticism, reflecting mixed standards and minimal knowledge of employee behavior. Supervisors who adopt the mode of "coach" more than "judge" are more likely to engage in ongoing guidance, rather than reflective praise. Future research should address how these various message features tend to produce more or less favorable and predictable responses among employees. Studies on organizational aggression are considering the potentially serious consequences resulting from negative feedback (Geddes & Baron, 1995).

The complexity of positive and negative feedback messages also has implications for various organizational structures. Formal appraisal systems, for instance, often force managers to use a single rating when evaluating employee performance. Given these findings, such serious constraints on both the supervisor and the employee may so over-simplify the feedback as to render this process meaningless to all involved. Other organizational structures, including managerial training programs, could explain feedback's multidimensionality and increase sensitivity to potential problems with providing negative feedback messages. Studies indicate that negative feedback is least likely to evoke unfavorable responses when it is perceived as considerate and constructive in its goals—that is, when it is perceived as stemming from a genuine desire to help recipients improve (e.g., Baron, 1988; 1990; Ghorpade & Chen, 1995). Thus, constructive criticism that is specific and appropriate, given the conditions under which the individual works, should prove less problematic than other forms of negative feedback. Training could focus as well on problems of mixed messages and the value of clear standards (goals) from which more accurate assessments of performance may be based (Locke, 1967; Locke, Shaw, Saari, & Latham, 1981).

In general, this research is a preliminary effort to better understand the distinct structures of positive and negative feedback and their potential effects on organizational members. Nevertheless, the findings and implications proposed here should be considered in light of the study's limitations. Similar to other research conducted in non-field settings, concerns regarding the generalizability of the results are relevant to this study. Since these findings are based on student responses, limitations regarding the use of "convenient" student samples are acknowledged (but see Kenrick, 1986). However, since participants were all employed at lower levels of their respective organizations and, as such, were likely to be feedback recipients (the focus of our study), the use of such a population was not seen as unduly problematic. Further, although the results of this exploratory study are intuitively appealing, future research is needed to substantiate the stability of the dimensional solutions reported here. Similar dimensional structures for positive and negative feedback found using different methodologies and/or message items, could reinforce the validity and establish reliability for these preliminary findings.

In conclusion, future research should continue to address the complexity of the feedback process, especially with regard to the issue of message valence. In so doing, communication scholars may better understand how participants' perceptions impact this process, and further identify and track causal linkages among feedback and various cognitive, affective and behavioral responses by organizational members. In addition, practitioners may better facilitate training and decision-making practices, as well as formal and informal performance evaluation of organizational members.

NOTES

¹The terms "feedback" and "performance feedback" are used interchangeably in this manuscript.

²The general rule of thumb associated with multidimensional scaling techniques suggests that the number of stimuli minus 1 should be at least four times as great as the identified dimensionality (Kruskal & Wish, 1978). Because the number of potential positive and negative dimensions was not known, this study utilized the number of messages (30) deemed appropriate for an earlier MDS study on performance feedback dimensionality (see Geddes, 1990).

³Kruskal and Wish (1978) comment on the appropriateness of this technique. They note that interpretability may play a critical role in selecting an appropriate dimensional solution. For instance, if one solution has more equivocal interpretations, and another solution has an acceptable stress value and a more certain interpretation, they suggest that the latter solution be adopted.

⁴For instance, the two examples utilized in this discussion also load highly on the "explicit" dimension. As noted by an anonymous reviewer, although *evidence of a clearly established standard* is being conceptually distinguished from an *explicit* (vs. ambiguous) *evaluation*, certain dimension "mixes" may be more typical among negative feedback messages. In this particular case, explicit messages combined (perhaps appropriately) with clear standards.

⁵Moderate amounts of feedback complexity are likely to be more effective than either low or high feedback complexity since the former may contribute to automatic information processing and the latter to information overload.

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