

# WORK FEEDBACK AND THE ACCURACY OF PERFORMANCE SELF-ASSESSMENTS

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*Work feedback and the accuracy of performance self-assessments. An accurate assessment of work is highly advantageous for personnel management. This paper aims to assess the accuracy of performance self-assessments, defined as the agreement between self and supervisor ratings, according to work feedback contexts, and in terms of sources and signs. The Job Feedback Survey and a performance rating scale were administered to a sample of 775 employees in a Municipal Council in the Spanish region of Asturias. Ages ranged between 21 and 64, with 68.7% males and 31.3% females. The study included 72 different jobs. Data analysis performed covered several t-tests, Pearson r, analysis of variance, and discriminant analysis. Results showed little significant relationship between feedback and self-assessment accuracy. The best feedback source for discrimination was negative organisation/supervisor, which underlines the importance of taking into account both sources and signs of the feedback when looking into the relationship between feedback and self-assessment.*

*Evaluar con la mayor precisión posible el trabajo que estamos realizando presenta numerosas ventajas para la dirección de personal. El objetivo de la presente investigación es evaluar la precisión de las autoevaluaciones de desempeño, entendidas como el grado de ajuste entre éstas y las evaluaciones del supervisor, según los distintos contextos de feedback laboral, en función de las distintas fuentes y de su señal. Dos cuestionarios (Job Feedback Survey y una Escala de Evaluación de Desempeño) fueron administrados a una muestra compuesta por 775 trabajadores de un Ayuntamiento asturiano, siendo el 68.7% varones y el 31.3% mujeres, cuyas edades estaban comprendidas entre los 21 y 64 años. El total de puestos diferentes es de 72. El análisis de datos incluye diversos t-test, Correlación de Pearson, Análisis de Varianza y Análisis Discriminante. Los resultados no han sido demasiado concluyentes para establecer la relación que mantiene el feedback con el grado de precisión de las autoevaluaciones. Sin embargo, a pesar de ello, se puede decir que la fuente de feedback que mejor ha discriminado es Organización/Supervisor negativo, lo que confirma la importancia de tener en cuenta la fuente y el signo del feedback, así como distintos aspectos del desempeño cuando se quieren relacionar ambos.*

## INTRODUCTION

The ability to assess as accurately as possible the work we do is highly advantageous for personnel management, as numerous authors have pointed out (Carver and Scheider, 1981; Fedor 1991; Herold and Parsons, 1985; Ilgen and Moore, 1987; Ivancevich and McMahon, 1982; Locke, Shaw, Saari and Latham, 1981; Rodríguez, 1992). Nevertheless, one of the problems most frequently associated with self-assessments (SAs) is the tendency of subjects to overrate themselves. This raises

the question of the accuracy of SAs, which, in the absence of objective criteria, is considered as the degree of correlation with supervisors' assessments –themselves subject to numerous errors.

Discrepancies between supervisor assessments and SAs may indeed have problematic consequences, in that they can create interpersonal friction and decrease employee satisfaction and acceptance of administrative decisions that are presumably based on assessments by the supervisor (Larson, 1989). We must also take into account their negative effects on performance (Arnold and Davey, 1992) and on the assessments of the supervisor, who avoids transmitting negative information (Bernardin and Beatty, 1984; Blakely, 1993; Fisher, 1979). Several suggestions have been made for reducing this discrepancy, among which is an improvement in the

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feedback environment within the organisation. However, very little empirical research into the effects of work feedback and the accuracy of self-assessments (SAs) has been carried out, partly due to the fact only recently has the importance of self-assessments as a means of evaluating performance in organisations been recognised.

Steel and Ovalle (1984) consider performance feedback to be a highly appropriate reference point for assessing performance. Work feedback, be it formal or informal, written or oral, contains evaluative information shared by supervisor and subordinates. That information may prove fundamental in improving self-assessment skills so that SAs more closely resemble those of supervisors. This idea is in line with what would later be proposed by Farh and Dobbins (1989), that is, to offer comparative information regarding performance in order to reduce discrepancies between assessments.

Steel and Ovalle (1984), in fact, carried out their research with the intention of clarifying the influence of feedback (in this case in the shape of formal and informal instructions from supervisors to subordinates), on the degree of agreement or disagreement of assessments. They developed a method called Feedback Self-Appraisal (FBSA) for isolating the effects of performance feedback on self-assessments. Employees were asked to assess themselves on the basis of the performance feedback they had received from their immediate supervisors. The sample consisted of 401 managers in a financial organisation that completed conventional SA questionnaires and FBSAs. The main difference between the two was in the instructions. The conventional self-assessments were based on what they thought of their performance, and the FBSAs on the feedback they had received from the supervisor. Two months after receiving the self-assessments, the supervisors were asked for their assessments of these managers. All of them had a Likert-type answer format with seven points for five dimensions of performance (quantity, quality, efficiency, problem-solving and adaptability). The results showed that there was a much closer relationship between the FBSAs and the supervisors' appraisals than between the conventional self-assessments and those of the supervisors. With regard to the tendency of the subjects to overrate themselves in their SAs, the results showed that there was very little positive overrating in self-assessments when there was a high degree of feedback

from superiors. That is, employees who receive very little feedback from their superiors believe themselves to be more able than those who receive more feedback.

Self-assessments can also play a very important role as a back-up for traditional systems of formal assessment. DeGregorio and Fisher (1988) assessed the reactions of subordinates to feedback that had been given in four different ways. One hundred students were invited to discuss unilateral feedback from top to bottom, feedback from the supervisor when there had been a participation of the subordinate in the discussions, and two other types of feedback that included previously-administered SA instruments. In the third condition, the self-assessment was not explicitly discussed, whereas in the fourth one it constituted the main discussion point. All of the participative methods produced much more positive perceptions from the subordinates than the unilateral methods, though none of them were consistently superior. Bearing this in mind, it would appear that in order to improve self-assessments, in addition to feedback it is important that there is participation in discussions regarding performance.

The accuracy of self-assessments is also an important element in managerial work. In order to carry out this kind of work successfully, the manager needs, among other things, to have a capacity for evaluating his/her work accurately, and for this purpose s/he needs to know whether s/he is doing it according to the established criteria. Managerial work is complex and ambiguous, and becomes more intensive the further one rises in the organisational hierarchy. This complexity makes it difficult to determine what should be done at any given moment. Traditional mechanisms of control such as job descriptions, established functional processes and formal systems for assessing performance cannot be applied with any degree of accuracy to managers. Taking this into account, self-regulating activities for achieving control and co-ordinated actions would appear to be necessary.

Research into self-management has generally focused on discrete, specific and objectively measurable behavioural controls, in situations in which the only assessment being made is the self-assessment of the individual in question. Furthermore, assessment of managerial effectiveness carried out by the organisation is often based, at least partially, on the subjective judgements of others (Mills, 1983), since self-regulation is not in itself sufficient for achieving effectiveness, and other subjec-

tive judgements have to be taken into account. Ashford and Tsui (1991) suggest that there may be a different type of self-management in work situations, of a more interpersonal nature than that which is usually considered in the literature (Luthans and Davis, 1979; Luthans and Kreitner, 1985; Manz and Sims, 1980).

Ashford and Tsui's concept of self-regulation (1991) is based, like SAs, on the framework of control theory and symbolic interactionism (Ashford, 1989). From this perspective, managers first adopt the criteria or objectives to be achieved; second, they seek information and feedback from social sources such as superiors, subordinates and colleagues, all of these being important judges for managers (Tsui, 1984), in order to compare their behaviour with the established criteria; finally, they take measures to reduce any discrepancies they may detect. The regulatory objective of managers is to reduce to a minimum the discrepancy between the criteria and their behaviour, so that, once the objectives have been established, managers can use the available feedback or seek additional feedback in order to assess how others view their behaviour. Thus, the search for feedback would be the essential question for the detection of discrepancies and thus constitutes the central aspect in the framework of self-regulation. Ashford and Tsui (1991) base their research on the role of the active quest for feedback. As Ashford and Cummings (1983) had previously argued, those individuals who actively seek feedback will do a better job than those who do not, since they will have more strategies for correcting behaviour that strays from appropriate paths for achieving the established objectives. In spite of these arguments, the search for feedback is not considered to be a simple process; the type of feedback and the method used in the search will affect the quality or accuracy of the information obtained. Moreover, this process becomes even more complex when we take into account power differences and structural relationships between managers and appraisers –that is, the very sources of that information.

The research carried out by Ashford and Tsui (1991) considered managers as active agents directing their working environments, which includes the request for feedback from those who play an important part in its social structures. They aimed to study the influence of the active search for feedback on the accuracy of SAs, considering these as one more element in managerial

efficiency. These authors designed a field study in which 387 middle managers of a public service company and 2,447 appraisers (345 superiors, 1,056 colleagues and 1,046 subordinates) participated. Their dependent variables were the degree of accuracy in the manager's knowledge about how appraisers assessed his/her performance, and the appraisers' judgement of the managers' general performance. There were two independent variables: the type of feedback usually sought (positive or negative) and the strategy used in obtaining feedback (research or control). In order to measure the positive or negative trend, six items on a response scale of five points were used for the appraisers. In order to measure the feedback strategies, 14 items on a five-point response scale were used, these being adapted from Ashford (1986). These were also answered by the appraisers. The results suggest that although the tendency to seek positive feedback does not prejudice managers, the search for negative feedback appears to be related to a more precise knowledge of how others assess their work. Inaccurate knowledge of the work clearly involves a certain cost, since managers will not be able to have any influence over the appraisers' demands if they are not able to accurately assess how they respond or how they evaluate their work. The consequences of this situation are that unrealistic goals are set, effort is wasted or the wrong decisions are made. Seeking negative feedback and controlling the relevant indications would appear to be associated with social benefits, and both are positively related to the perception of general effectiveness. On the other hand, seeking positive feedback and controlling indirect or less relevant indicators would seem to involve some social costs, and is negatively related to the opinion of the sources on the general effectiveness of managers.

With respect to the strategies for seeking feedback, Ashford and Tsui's results (1991) revealed that research strategies are positively related to precise knowledge of the assessments of one of the sources, subordinates, whilst control was not related to any of them. It might be the case that different feedback-seeking strategies require different types rather than different amounts of inference. In order to explain accuracy, the authors suggest that other types of variable, apart from inference, may be required, such as the type of environmental indicators sought by individuals, self-knowledge or the ability for self-control of those seeking feedback, the accuracy

with which the feedback obtained is interpreted, or the frequency of interactions with the sources.

As far as results on the sources of feedback are concerned, it could be said that there are several factors affecting the feedback seeker's choice of source. When relating the sources of feedback with its sign, it is considered that the superior's feedback, whether negative or positive, is important for correcting performance and increasing one's confidence, respectively. With colleagues, however, importance is placed on maintaining a good image, as these are normally seen as competitors. With respect to subordinates, the opposite occurs: feedback is sought if it helps to build or maintain an image of responsibility and interest.

Ashford and Tsui's results (1991) would seem to indicate that if the objective of self-regulation in managers is to obtain precise information on how appraisers view their work, then managers should concentrate on finding negative, rather than positive feedback, and they should not worry about the type of strategy that they use to seek it, as none of them seems to be more accurate than any other. It has also been demonstrated that feedback-seeking behaviour is associated with the accuracy of managers' knowledge about the opinions of others in their workplace and about opinions regarding the overall effectiveness of managers. Moreover, this behavioural pattern varies according to the different feedback sources. It would seem that managers seek more feedback from their superiors than from their colleagues or subordinates, which would be in line with the logic of *impression management*, according to which managers aim to highlight their own positive performance among their colleagues and present an image of being responsible bosses to their subordinates.

In sum, the active search for feedback is an important step in the process of self-regulation through which managers control the opinions of several appraisers. This makes it easier for managers to be more effective and increases the accuracy of SAs through the use of different strategies and different types of feedback, depending on the source.

Taking into account all of the aforementioned points, the aim of the present research is to assess the distance or degree of similarity between the supervisor's assessments and performance SAs, that is, the accuracy of SAs in different contexts of work feedback, as a function of the different sources and of its signs.

## **METHOD**

### **Participants**

The sample consisted of 775 employees (contracted and established workers) in a Municipal Council in the Spanish region of Asturias. Of the 661 that completed valid questionnaires, 68.8% were male and 31.2% women, with ages ranging from 21 to 64. Mean age was 39.93 years and standard deviation was 10.04. 23.2% were single, 70.1% married and 6.7% of other status. 90.4% of the participants had a fixed work contract. Average years served in the council was 9.39, with a standard deviation of 7.86; average years in that post was 7.18, with a standard deviation of 6.8. With regard to educational background, 3.3% had no formal education, 30.8% had primary education, 20.9% secondary education, 28.8% further education, 7% a higher education qualification (non-degree) and 8.7% a university degree. The total number of different jobs was 72.

All departments of the municipal council participated (Sanitation, Transport and Water Departments, Municipal Employers' Associations, Schools, Fire Services, Local Police and Town Hall employees).

### **Variables**

Six work feedback scales: Positive Organisation/Supervisor, Negative Organisation/Supervisor, Positive Colleagues, Negative Colleagues, Positive Job/Self and Negative Job/Self.

Supervisor Assessments, Worker Self-Assessments and differences between the two in the following dimensions; Quantity of Work, Quality of Work, Diligence and Punctuality, Ability for the Job, Co-operation and Overall Score.

### **Measurement instruments**

The Spanish version (García, A. and Ovejero, A., 1998, in press) of the Herold and Parsons "Job Feedback Survey" Questionnaire (1985) was used to measure work feedback. It consists of 55 items on a five-point Likert-type response scale.

For performance assessment, the Performance Assessment Scale, created by the researchers, was used for the subjects themselves and for the supervisors. A graphic scale was used, with levels of performance (in this case, five levels) referring to each feature or dimension of the job: Quality of work, Quantity of work, Diligence and punctuality, Ability for the job, Co-opera-

tion and Overall opinion of the job. The classification consists in the scores for each feature or item on the scale, which in this case would function as an assessment with multiple criteria, along the lines of that used by Becker and Klimoski (1989). A global score can also be obtained, which would be the mean of the total scores. In all cases it was made clear that performance assessment would not lead to any kind of reward. Performance, and not results, is evaluated, in line with Quijano's (1992) indications.

### Procedure

A contract was signed with the Town Council, in which the terms of the agreement and the services to be provided by both parties were specified. The Town Council offered to collaborate, and placed at our disposal the appropriate people for enabling contact with the employees of the various organisations and for co-ordinating these contacts and the application sessions. The researchers undertook to provide, once data collection had been completed, a general report on the results obtained in the different departments of the Council, so that they could be analysed and any appropriate improvements made. The municipal authorities would not have access to individual answers. It was therefore agreed that only one person would attend data collection sessions, which were carried out over seven months on working days (various shifts). The approximate completion time was one hour.

Supervisors filled out the sheets in which their subor-

dinates' performance was assessed in interviews arranged for this purpose, or in some cases they were given the sheets to be filled out and handed in later.

### DATA ANALYSIS

In order to achieve the objectives various t-tests, Pearson Correlations, Variance Analyses and Discriminant Analyses were carried out. The statistical package used was SPSS+ for PC.

### Results

Below we present the results of the analyses carried out for assessing the distance or degree of similarity between supervisor ratings and SAs on performance, and to establish the possible relationship between subjects' degree of accuracy in assessing themselves and the positive or negative feedback they receive from each source.

#### *Difference of means between assessors*

Firstly, the difference of means was found by applying a t-test for related or dependent samples, in order to see whether there were differences between the supervisor ratings and those of the employees themselves (SAs). This test was applied to each of the work assessment dimensions and to the total score, which is the sum of the six dimensions: Quality, Quantity, Diligence and punctuality, Ability for the job, Co-operation and Overall opinion, divided by the number of dimensions. The results are shown in Table 1.

In all cases the SAs are more favourable than the supervisor ratings. That is, employees are more positive than their supervisors when it comes to judging their own work. In three cases, these differences are not significant (in a two-tailed test): in "Quality of work", "Diligence and punctuality" and "Overall opinion". The greatest differences were found in "Co-operation", suggesting that employees believe that they are always willing to help, whilst their supervisors believe they are co-operative, but not especially so.

#### *Correlation between the two assessment sources*

The correlations matrix between SAs and supervisor ratings in each of the dimensions is shown in Table 2. It can be seen that there are significant correlations between all of the SAs and also between all of the supervisor ratings. There are also highly significant correlations between the self-assessments (SA) and the supervisor

ASSESSMENT DIMENSIONS		MEAN	S.D.	t	df	p
<b>Quality of Work</b>	- Self Assessment	3.87	.91	1.76	393	.079
	- Supervisor Rating	3.76	.89			
<b>Quantity of work</b>	- Self Assessment	3.61	.86	4.88	393	.000
	- Supervisor Rating	3.34	.82			
<b>Diligence and punctuality</b>	- Self Assessment	4.41	.64	.73	392	.464
	- Supervisor Rating	4.38	.76			
<b>Ability for the job</b>	- Self Assessment	4.17	.50	4.83	392	.000
	- Supervisor Rating	3.98	.68			
<b>Co-operation</b>	- Self Assessment	4.51	.69	10.33	390	.000
	- Supervisor Rating	3.91	.97			
<b>Overall opinion of the job</b>	- Self Assessment	3.65	.84	.29	390	.772
	- Supervisor Rating	3.64	.83			
<b>Total score</b>	- Self Assessment	4.04	.47	5.04	381	.000
	- Supervisor Rating	3.85	.66			

ratings (SR) in the dimensions “Diligence and punctuality” (SA3 and SR3) and “Overall opinion” (SA6 and SR6), confirming the results of the t-test.

The correlations between the scores from the two sources in the same dimension reflect the agreement between the two assessors, and are shown in bold type. Apart from the two dimensions referred to above, significant correlations are obtained in the dimensions “Quantity of work” (SA2 and SR2), “Ability for the job” (SA4 and SR4) and “Total score” (SA7 and SR7). No significant correlations are found for two of the dimensions “Quality of work” (SA1 and SR1) and “Co-operation” (SA5 and SR5).

### Degree of accuracy of SAs

To determine the accuracy of SAs, the difference between SAs and supervisor ratings was found (SAs – super-

visor ratings). The results can be seen in Table 3. It should be borne in mind that since in each category the scale of answers is from 1 to 5 points, the possible range of differences is from 0 to 4 points.

In order to interpret this information correctly we must remember that negative differences refer to overratings by supervisors, while positive differences refer to overratings by the employees themselves, that is, employees give themselves a higher rating than that given by their supervisors. A “0” rating means that there is no difference between the two ratings. The number of subjects per cell is presented in percentages.

As it can be seen, the dimensions in which the greatest number of subjects coincide completely with the supervisor ratings (a difference of zero) are “Ability for the job” (55.2%) and “Diligence and punctuality” (50.9%). The dimensions in which fewest subjects coincide are

**Table 2**  
Correlations matrix

	SA1	SA2	SA3	SA4	SA5	SA6	TOTSA	SR1	SR2	SR3	SR4	SR5	SR6	TOTSR
SA1	--													
SA2	2.28**	--												
SA3	.22**	.27**	--											
SA4	.30**	.32**	.32**	--										
SA5	.28**	.22**	.21**	.23**	--									
SA6	.38**	.44**	.31**	.44**	.30**	--								
TOTSA	.68**	.68**	.57**	.61**	.57**	.76**	--							
SR1	<b>.06</b>	.08	.09	.05	.00	.16*	.12*	--						
SR2	.04	<b>.13*</b>	.05	.02	.01	.13*	.11*	.67**	--					
SR3	-.01	.06	<b>.31**</b>	.03	-.05	.09	.11*	.40**	.38**	--				
SR4	.01	.14*	.06	<b>.11*</b>	-.05	.14*	.10*	.66**	.57**	.25**	--			
SR5	.07	.07	.10*	.05	<b>.09</b>	.18**	.15*	.61**	.58**	.38**	.45**	--		
SR6	.08	.12*	.07	.08	.02	<b>.21**</b>	.15*	.80**	.75**	.43**	.63**	.66**	--	
TOTSR	.06	.12*	.14*	.07	.01	.20**	<b>.16*</b>	.87**	.84**	.59**	.73**	.80**	.90**	--

\*=p<.05 \*\*p<.001 (with a two-tailed test)

**Table 3**  
Differences between SAs and supervisor ratings

Differences between assessments	Quality of work	Quantity of work	Diligence and punctuality	Ability for the job	Co-operation	Overall opinion of the job
-4	.5					
-3	.8		.5			.3
-2	6,1	5,3	.5	.5	2,6	5,6
-1	23,6	15,5	23,4	15	12,3	25,6
0	<b>34,3</b>	<b>43,7</b>	<b>50,9</b>	<b>55,2</b>	<b>34,8</b>	<b>38,4</b>
1	21,1	19,3	20,6	23,9	29,9	22,3
2	11,4	15	3,8	4,8	14,3	6,9
3	2	1	.3	.3	5,9	1
4	.3	.3		.3	.3	

“Quality of work” (34.3%) and “Co-operation” (34.8%). It is in this latter dimension in which the greatest proportion of subjects (41.1%) have positive differences –i.e., they give themselves a higher rating than that given by their supervisor. The dimensions in which there are most negative differences, that is, in which the supervisors give a higher rating than that of the subject him/herself, are “Overall opinion of the job” (31.5%) and “Quality of work” (31%).

**Differences in accuracy of SAs according to feedback**

To determine whether there are differences in the accuracy of SAs according to the frequency with which an employee receives feedback, a number of Variance Analyses were performed. Accuracy of ratings in each of the dimensions (from “0” to “4” points) was used as a dependent variable. Absolute rating differences, that is, regardless of whether the difference was positive or negative, were used, since what we are interested in is

the distance between the ratings of the subjects themselves and that of the supervisors. The smaller the distance, the more accurate the rating. Frequency of feedback was used as an independent variable. In this case, the points obtained were divided into two groups: 50% with lower feedback frequency (Group 1) and 50% with higher feedback frequency (Group 2), for the 6 dimensions. The results can be seen in Table 4. In most cases, there were no significant differences in accuracy of the SAs of workers with lower or higher feedback frequency. The most significant differences were found in negative feedback from the organisation, for the dimensions “Quality of work”, “Co-operation” and “Overall score”.

In all of these cases, those subjects who report most negative feedback are less accurate in their ratings than those subjects who report less negative feedback.

In “Positive organisation/supervisor” feedback, the differences of means are significant in the cases of “Co-operation” and “Overall opinion”, where subjects with low feedback are less accurate than those with high feedback.

In “Positive colleagues” feedback, significant differences were only found in the case of “Overall opinion”, where those with low feedback points are more accurate than those with high feedback.

In the case of “Negative colleagues” and “Positive Job/Self” feedback, there are no significant differences in any of the rating dimensions.

For “Negative Job/Self” feedback, there are significant differences in the case of “Diligence and punctuality”, those workers who report least negative feedback being the most accurate.

**Discriminant analyses for accuracy of SAs and feedback**

A number of Discriminant Analyses were also carried out, using the feedback ratings for the questionnaire’s six dimensions as predictor variables for accuracy of assessments. Three classification groups were established for the degree of accuracy: those with “0” difference between SAs and supervisor ratings (no difference), those with a difference of “1” between the ratings, and those with more than one point of difference, which in this case have been given the value “2”. This was carried out for each of the performance assessment dimensions and for the total score, which in this case was grouped as follows: those with a difference of “0-1” points were placed in Group

FEEDBACK	PERFORMANCE RATING	df	F	p	MEANS	
					1	2
POSITIVE ORGANISATION/ SUPERVISOR	Quality of work	341	.638	.425	.95	.88
	Quantity of work	341	.630	.428	.72	.79
	Diligence and punctuality	341	.491	.484	.52	.57
	Ability for the job	336	.900	.334	.46	.53
	Co-operation	336	5.004	.026	1.04	.82
	Overall opinion	336	4.588	.033	.85	.69
NEGATIVE ORGANISATION/ SUPERVISOR	Quality of work	360	15.452	.000	.76	1.10
	Quantity of work	360	1.034	.310	.71	.79
	Diligence and punctuality	360	.931	.335	.51	.57
	Ability for the job	356	.035	.851	.51	.50
	Co-operation	356	8.007	.005	.82	1.09
	Overall opinion	356	.003	.955	.75	.76
POSITIVE COLLEAGUES	Quality of work	346	.111	.739	.89	.92
	Quantity of work	346	1.665	.198	.73	.85
	Diligence and punctuality	346	.073	.786	.55	.56
	Ability for the job	341	.470	.493	.50	.56
	Co-operation	341	3.045	.082	.99	.82
	Overall opinion	341	4.583	0.33	.71	.88
NEGATIVE COLLEAGUES	Quality of work	349	.133	.716	.89	.92
	Quantity of work	349	.016	.899	.74	.73
	Diligence and punctuality	349	1.764	.185	.50	.59
	Ability for the job	342	.001	.977	.51	0.50
	Co-operation	342	1.207	.273	.88	.98
	Overall opinion	342	.710	.400	.77	.71
POSITIVE JOB/SELF	Quality of work	334	1.456	.228	.88	.99
	Quantity of work	334	3.539	.061	.68	.84
	Diligence and punctuality	334	.032	.859	.54	.55
	Ability for the job	329	2.927	.088	.45	.57
	Co-operation	329	.509	.476	.88	.95
	Overall opinion	329	.721	.396	.76	.82
NEGATIVE JOB/SELF	Quality of work	338	.583	.446	.86	.93
	Quantity of work	338	.749	.387	.78	.71
	Diligence and punctuality	338	4.512	.034	.46	.60
	Ability for the job	333	.074	.786	.48	.50
	Co-operation	333	2.751	.098	.85	7.01
	Overall opinion	333	.299	.585	.79	.75

Note: 1= Low feedback 2= High feedback

“0”, those with a difference of “2-3” points were placed in Group “1”, and those with a difference of “4-16” points were placed in Group “2”. With three groups, the starting probability of correct grouping is .33 (in all cases standardized coefficients were used to find the relative importance of each discriminant variable with regard to the rest within the discriminant function).

The analysis results for the dependent variable Quality of work (see Table 5) show two discriminant functions, the first of which explains 77.96% of intergroup variance, and the second 22.04%. The variable that carries most weight in the first function is “Negative Organisation/Supervisor” (1.13). Those which carry most weight in the second function are “Positive Job/Self” (1.05), “Negative Colleagues” (.69) and “Positive Organisation/Supervisor” (-.60). The classification results with these functions show that, of the 285 cases used, 43.86% are correctly classified. The best classified group is that in which the employees show no difference in ratings (53.0%), followed by that with the

greatest differences (45.5%), and finally by the group with a difference of one in the ratings (36.2%). It would seem that the “Negative Organisation/Supervisor” and “Positive Job/Self” feedback scales are those which best differentiate between the most or least accurate subjects in the “Quality of work” assessment.

The analysis results for Quantity of work (see Table 6) show two discriminant functions, the first of which explains 66.35% of intergroup variance, and the second 33.65%. The variables that carry most weight in the first function are “Negative Organisation/Supervisor” (.78), “Positive colleagues” (.58) and “Positive Organisation/Supervisor” (.40). Those which carry most weight in the second function are “Negative Organisation/Supervisor” (-.81), “Positive Organisation/Supervisor” (.63) and “Negative Job/Self” (.46). The classification results with these functions show that, of the 285 cases used, 44.21% are classified correctly. The best classified group is that in which the employees show no difference in ratings (47.7%), follo-

**Table 5**  
Discriminant Analysis (Quality of work)

FUNCTION 1		FUNCTION 2		
Negative Organisation/supervisor	1.133	Positive job/self	1.048	
		Negative colleagues	.694	
		Positive Organisation/Supervisor	-.597	

  

GROUP	No. CASES	0	1	2
0	100	53 (53%)	27 (27%)	20 (20%)
1	130	46 (35.4%)	47 (36.2%)	37 (28.5%)
2	55	18 (32.7%)	12 (21.8%)	25 (45.5%)
Ungrouped	190	65 (34.2%)	53 (27.9%)	72 (37.9%)

Cases classified correctly: 43.86%

**Table 7**  
Discriminant Analysis (Diligence and punctuality)

FUNCTION 1		FUNCTION 2		
Positive organisation/supervisor	.74	Positive job/self	.75	
Negative job/self	-.68	Negative organisation/supervisor	.50	
Positive colleagues	-.47	Positive organisation/supervisor	-.44	
Positive job/self	.32	Positive colleagues	.42	

  

GROUP	No. CASES	0	1	2
0	144	42 (29.2%)	50 (34.7%)	52 (36.1%)
1	126	26 (20.6%)	55 (43.7%)	45 (35.7%)
2	14	5 (35.7%)	3 (21.4%)	6 (42.9%)
Ungrouped	191	71 (37.2%)	60 (31.4%)	60 (31.4%)

Cases classified correctly: 36.27%

**Table 6**  
Discriminant Analysis (Quantity of work)

FUNCTION 1		FUNCTION 2		
Negative organisation/supervisor	.78	Negative organisation/supervisor	-.81	
Positive colleagues	.58	Positive organisation/ supervisor	.63	
Positive organisation/supervisor	.40	Negative job/self	.46	

  

GROUP	No. CASES	0	1	2
0	130	62 (47.7%)	27 (27%)	20 (20%)
1	105	36 (34.3%)	43 (41%)	26 (24.8%)
2	50	15 (30%)	14 (28%)	21 (42.0%)
Ungrouped	190	65 (34.2%)	55 (28.9%)	70 (36.8%)

Cases classified correctly: 44.21%

**Table 8**  
Discriminant Analysis (Ability for the job)

FUNCTION 1		FUNCTION 2		
Positive organisation/supervisor	.75	Negative organisation/supervisor	1.06	
Negative job/self	.55	Negative colleagues	-.77	
Negative organisation/supervisor	-.52	Positive organisation/supervisor	.48	
Positive colleagues	-.45			

  

GROUP	No. CASES	0	1	2
0	160	65 (40.6%)	54 (33.8%)	41 (25.6%)
1	108	35 (32.4%)	52 (48.1%)	21 (19.4%)
2	15	3 (20.0%)	6 (40%)	6 (40%)
Ungrouped	192	56 (29.2%)	56 (34.4%)	70 (36.5%)

Cases classified correctly: 43.46%



wed by the group with the greatest differences (42.0%), and finally by the group with a difference of one in the ratings (41.0%). The scales that best discriminate accuracy of SAs in "Quantity of work" would be both positive and negative feedback from the organisation and supervisor, and positive colleagues.

The results of the analyses for Diligence and punctuality (see Table 7) show two discriminant functions, the first of which explains 56.39% of intergroup variance and the second 43.61%. The variables that carry most weight in the first function are "Positive organisation/supervisor" (.74), "Negative job/self" (-.68), "Positive colleagues" (-.47) and "Positive job/self" (.32). Those carrying most weight in the second function are "Positive job/self" (.75), "Negative organisation/supervisor" (.50), and "Positive organisation/supervisor" (-.44) and "Positive colleagues" (.42). The classification results with these functions show that, of the 284 cases used, 36.27% are correctly classified. The best classified group is that with a difference in ratings of one (43.7%), followed by the group with the most differences (42.9%), and finally by the group in which the employees showed no difference in ratings (29.2%). In this case it would appear that feedback does not help too much in discriminating between subjects making more and less accurate SAs for "Diligence and punctuality", perhaps because in this dimension there were no great differences between SAs and supervisor ratings.

With regard to Ability for the job, the analysis results (see Table 8) show two discriminant functions, the first of which explains 68.50% of intergroup variance, and the second 31.50%. The variables carrying most weight in the first function are "Positive organisation/supervisor" (.75), "Negative job/self" (.55), "Negative organi-

sation/supervisor" (-.52) and "Positive colleagues" (-.45). Those that carry most weight in the second function are "Negative organisation/supervisor" (1.05), "Negative colleagues" (-.77) and "Positive organisation/supervisor" (.48). The classification results with these functions show that, of the 283 cases used, 43.46% are correctly classified. The best classified group is that with a difference in ratings of one (48.1%), followed by the group in which the employees show no difference in ratings (40%) and, with a similar classification, the group with the most differences (40.6%). This would seem to indicate that feedback received from various sources is to some extent capable of discriminating between more and less accurate subjects, especially those with a difference of one point.

With regard to Co-operation, the analysis results (see Table 9) show two discriminant functions, the first of which explains 66.20% of intergroup variance, and the second 33.80%. The variables that carry most weight in the first function are "Negative organisation/supervisor" (.91) and "Positive organisation/supervisor" (-.40). Those carrying most weight in the second function are "Positive job/self" (.91), "Negative job/self" (-.55) and "Negative organisation/supervisor" (.43). The classification results with these functions show that, of the 282 cases used, 44.68% are correctly classified. The best classified group is that in which the employees show no difference in ratings (50.5%), followed by the group with a difference in ratings of one (43.6%), and finally by the group with the greatest differences (37.5%). In this case, both positive and negative feedback from the organisation seem to discriminate better than in any other case between subjects that made accurate SAs and those who did not. It should be pointed out that the lar-

FUNCTION 1		FUNCTION 2		
Negative organisation/supervisor	.91	Positive job/self		.91
Positive organisation/supervisor	-.40	Negative job/self		-.55
		Negative organisation/supervisor		.43

  

GROUP	No. CASES	0	1	2
0	101	51 (50.5%)	31 (30.7%)	19 (18.8%)
1	117	38 (32.5%)	51 (43.6%)	28 (23.9%)
2	64	22 (34.4%)	18 (28.1%)	24 (37.5%)
Ungrouped	193	61 (31.6%)	62 (32.1%)	70 (36.6%)

Cases classified correctly: 44.68%

FUNCTION 1		FUNCTION 2		
Negative organisation/supervisor	.85	Positive colleagues		.80
Positive colleagues	.73	Positive job/self		-.71
Positive organization/supervisor	-.65	Negative organization/supervisor		-.60
Negative colleagues	-.52	Negative colleagues		.43

  

GROUP	No. CASES	0	1	2
0	106	49 (46.2%)	32 (30.2%)	25 (23.6%)
1	146	53 (36.3%)	48 (32.9%)	45 (30.8%)
2	33	7 (21.2%)	10 (30.3%)	16 (48.5%)
Ungrouped	190	58 (30.5%)	58 (30.5%)	74 (38.9%)

Cases classified correctly: 39.65%

gest number of discrepancies between SAs and supervisor ratings were found in this category.

With regard to Overall opinion, the analysis results (see Table 10) show two discriminant functions, the first of which explains 71.71% of intergroup variance, and the second 28.29%. The variables that carry most weight in the first function are "Negative organisation/supervisor" (.85), "Positive colleagues" (.73), "Positive organisation/supervisor" (-.65) and "Negative colleagues" (-.53). Those that carry most weight in the second function are "Positive colleagues" (.80), "Positive job/self" (-.71), "Negative organisation/supervisor" (-.60) and "Negative colleagues" (.43). The classification results with these functions show that, of the 285 cases used, 39.65% are correctly classified. The best classified group is that in which the employees show most differences (48.5%), followed by that in which there are no differences in ratings (46.2%), and finally by the group in which the difference in ratings was one (32.9%). In this case it would appear that feedback does not especially help in discriminating between accurate and inaccurate SAs, since the percentage of well classified cases is low. In any case, the sources that would help most are organisation/supervisor and colleagues. It is interesting to note that in this dimension no significant differences between SAs and supervisor ratings were found.

Finally, the analysis results for Total score (see Table 11) show two discriminant functions, the first of which explains 82.64% of intergroup variance and the second 17.36%. The variables that carry most weight in the first function are "Negative organisation/supervisor" (.77) and "Negative job/self" (.48). Those carrying most weight in the second function are "Negative job/self" (.75), "Positive job/self" (.75) and "Negative organisation/supervisor"

(-.64). The classification results with these functions show that, of the 280 cases used, 43.93% are correctly classified. The best classified group is that in which the employees showed a difference in ratings of two or three points (56.4%), followed by those that showed most differences (38.8%), and finally by those with a difference in ratings of zero or one (36.4%). In this case, it would seem to be negative feedback that most aids discrimination between subjects that make SAs of greater and lesser accuracy, especially in the case of those that show a difference of two or three points (Group 1).

## DISCUSSION

The capacity of individuals to assess themselves accurately has important implications for performance rating (Ashford, 1989; DeGregorio and Fisher, 1988), training and the type of feedback that can be offered to employees (Herold and Parsons, 1985).

The results of the analyses carried out for evaluating the accuracy of assessments and the possible influence of feedback frequency on this accuracy would suggest, first of all, that workers tend to assess themselves more positively than their supervisors do, which once again confirms the findings of other research (Anderson, Warner and Spencer, 1984; Bass and Yammarino, 1991; Fedor, 1991; Furnham and Stringfield, 1994; Meyer, 1980; Muchinsky, 1990; Shore and Thorton, 1986; Steel and Ovalle, 1994).

Our findings show discrepancies between supervisor ratings and SAs, the greatest being those related to "Quantity of work", "Ability for the job" and "Co-operation"; in the cases of "Quality of work", "Diligence and punctuality" and "Overall opinion", although discrepancies do exist, they are not statistically significant.

With regard to feedback frequency, the subjects perceiving the most positive feedback from the organisation and the supervisor assess themselves in a significantly more accurate way in "Co-operation" and "Overall opinion". By contrast, the subjects that receive the most negative feedback from this same source are more inaccurate in their assessments. With regard to feedback from colleagues, only the positive feedback is relevant, and only in the "Overall opinion" dimension, in which the subjects who say they receive most feedback are more inaccurate than those who say they receive less. With regard to feedback from oneself and from the job, statistically significant differences were found, but only

**Table 11**  
Discriminant Analysis (Total score)

FUNCTION 1		FUNCTION 2	
Negative organisation/supervisor	.77	Negative job/self	.76
Negative job/self	.48	Positive job/self	.75
		Negative organisation/supervisor	-.64

  

GROUP	No. CASES	0	1	2
0	88	32 (36.4%)	32 (36.4%)	24 (27.3%)
1	94	23 (24.5%)	53 (56.4%)	18 (19.1%)
2	98	26 (26.5%)	34 (34.7%)	38 (38.8%)
Ungrouped	195	52 (26.7%)	74 (37.9%)	69 (35.4%)

Cases classified correctly: 43.93%

in the case of negative feedback. Those subjects who report less negative feedback are more accurate in their self assessment in the dimension "Diligence and punctuality" than those who report more feedback.

The results obtained in the discriminant analyses are not particularly conclusive. However, it can be stated that the SA dimensions in which feedback frequency has proved most capable of differentiating between assessors of greater or lesser accuracy are "Co-operation", "Quantity of work", "Total score", "Quality of work" and "Ability for the job", in order of greatest to least percentage of correct classification. It is also in these dimensions that significant differences between SAs and supervisor ratings were found. No significant differences between ratings were found in "Overall opinion of the job" and "Diligence and punctuality", and the discriminant analyses gave a percentage of groups classified only slightly higher (.36 and .39) than the starting probability of correct classification (.33).

The feedback source that best discriminated in these SA dimensions was negative feedback from the organisation/supervisor. It would appear that it is the negative feedback from this source that best differentiates between employees who assess themselves in accordance with their supervisor's assessment and those whose assessments differ greatly from it. This source was followed, in terms of the capacity for differentiating between these subjects, by positive feedback from the organisation/supervisor and negative feedback from the job and oneself.

These results concur with the position of Eder and Fedor (1989), who argue that people tend to seek feedback from superiors, since rewards and punishments are dependent upon them more than on any other person. Moreover it is superiors who are usually responsible for making performance assessments, and therefore it is they who can provide us with information regarding impressions. This would, however, partially contradict the argument of Ashford and Tsui (1991), for whom the seeking of negative feedback is associated with more accurate knowledge of how others assess one's work, since, in our case, the subjects who claim to receive most negative feedback from the organisation and the supervisor are those with more inaccurate SAs in "Quality of work" and "Co-operation". In any case, the capacity to discriminate between the groups was not especially great, so that these results are not really conclusive.

With regard to the accuracy of SAs, no really conclusive results were obtained for the relationship between feedback and the degree of accuracy in carrying out SAs, understood as the degree of proximity between these and supervisor ratings. The lack of consistency in the results may be due to a number of factors, among which is the fact that no great discrepancies were found between the assessors, especially in certain dimensions. A response scale of seven points instead of five might have better detected differences between the assessors and their relation to the various feedback sources. However, and in spite of the scant capacity of the feedback scales to differentiate between subjects' greater and lesser accuracy, it can be stated that the feedback source which best discriminated was "Negative organisation/supervisor". This would once again support the importance of taking into account both this source and the feedback sign in designing informative environments within organisations, as well as different aspects of performance when wishing to find relationships between source and sign.

## REFERENCES

- Anderson, C.D., Warner, J.L. and Spencer, C.C. (1984). Inflation bias in self-assessment examinations: implications for valid employee selection. *Journal of Applied Psychology*, 69(4), 574-580.
- Arnold, J. and Davey, K.M. (1992). Self-ratings and supervisor ratings of graduate employees competences during early career. *Journal of Occupational and Organizational Psychology*, 65, 235-250.
- Ashford, S. (1986). Feedback seeking in individual adaptation. A resource perspective. *Academy of Management Journal*, 29, 465-487.
- Ashford, S.J. (1989). Self-assessments in organizations: a literature review and integrative model. In L.L. Cummings and B.M. Staw (Eds.), *Research in Organizational Behavior*, (Vol. 11, pp. 133-174). Greenwich, CT: JAI Press.
- Ashford, S.J. and Cummings, L.L. (1983). Feedback as an individual resource: personal strategies of creating information. *Organizational Behavior and Human Performance*, 32, 370-398.
- Ashford, S.J. and Tsui, A.S. (1991). Self-regulation for managerial effectiveness: the role of active feedback seeking. *Academy of Management Journal*, 34(2), 251-280.

- Bass, B. and Yammarino, F. (1991). Congruence of self and others leadership ratings of naval officers for understanding successful performance. *Applied Psychology: An International Review*, 40, 437-454.
- Becker, T.E. and Klimoski, R.J. (1989). A field of the relationship between the organizational feedback environment and performance. *Personnel Psychology*, 42, 343-358.
- Bernardin, H.J. and Beatty, R.W. (1984). *Performance appraisal: assessing human behavior at work*. Boston: Kent Publishing.
- Blakely, G.L. (1993). The effects of performance rating discrepancies on supervisors and subordinates. *Organizational Behavior and Human Decision Processes*, 54, 57-80.
- Carver, C.S. and Scheier, M.F. (1981). *Attention and self-regulation: a control theory approach to human behavior*. New York: Springer-Verlag.
- DeGregorio, M. and Fisher, C.D. (1988). Providing performance feedback: reactive to alternate methods. *Journal of Management*, 14(4), pp. 605-616.
- Eder, R.W. and Fedor, D.B. (1989). Priming performance self-evaluations: moderating effects of rating purpose and judgment confidence. *Organizational Behavior and Human Decision Processes*, 44, 474-493.
- Farh, J.L. and Dobbins, G.H. (1989). Effects of comparative performance information on the accuracy of self-ratings and agreement between self- and supervisor ratings. *Journal of Applied Psychology*, 74, 606-610.
- Fedor, D.B. (1991). Recipient responses to performance feedback: a proposed model and its implications. In K.M. Rowland and G.R. Ferris (Eds.), *Research in Personnel and Human Resources Management*, (Vol. 9, pp. 73-120). Greenwich, CT: JAI Press.
- Fisher, D.D. (1979). Transmission of positive and negative feedback to subordinates: a laboratory investigation. *Journal of Applied Psychology*, 64, 533-540.
- Furnham, A. and Stringfield, P. (1994). Congruence of self and subordinate ratings of managerial practices as a correlate of supervisor evaluation. *Journal of Occupational Psychology*, 67, 57-67.
- García, A. and Ovejero, A. (1998, in press). La medida del feedback laboral en las organizaciones: adaptación del cuestionario Job Feedback Survey (Measuring work feedback in organisations: adaptation of the Job Feedback Survey). *Psicothema*, 10.
- Herold, D.M. and Parsons, C.K. (1985). Assessing the feedback environment in work organizations: Development of the job feedback survey. *Journal of Applied Psychology*, 70, 290-305.
- Ilggen, D.R. and Moore, C.F. (1987). Types and choices of performance feedback. *Journal of Applied Psychology*, 72, 401-406.
- Ivancevich, J.M. and McMahon, J.T. (1982). The effects of goal setting, external feedback and self generated feedback on outcome variables: a field experiment. *Academy of Management Journal*, 25(2), 359-372.
- Locke, E.A., Shaw, K.N., Saari, L.M. and Latham, G.P. (1981). Goal setting and Task performance: 1969-1980. *Psychological Bulletin*, 90(1), 125-152.
- Luthans, F. and Davis, (1979). Behavioral self-management, the missing link in managerial effectiveness. *Organizational Dynamics*, 8, 42-60.
- Luthans, F. and Kreitner, R. (1985). *Organizational Behavior and Beyond*. Glenview, IL.: Scott Foresman.
- Manz, C.C. and Sims, H.P., Jr. (1980). Self-management as a substitute for leadership: a social learning theory perspective. *Academy of Management Review*, 5, 361-367.
- Meyer, H.H. (1980). Self-appraisal of job performance. *Personnel Psychology*, 33, 291-296.
- Mills, P.K. (1983). Self-management: its control and relationship to other organizational properties. *Academy of Management Review*, 8, 445-453.
- Muchinsky, P.M. (1990). *Psychology applied to work. An introduction to industrial and organizational psychology*. Pacific Grove, CA.: Brooks/Cole Publishing (3rd Revised Edition, orig. 1983).
- Quijano, S.D. (1992). *Sistemas efectivos de evaluación del rendimiento: resultados y desempeños (Effective systems for performance assessment: results and performances)*. Barcelona: P.P.U.
- Rodríguez Fernández, A. (1992). *Psicología de las organizaciones: teoría y método (Organizational psychology: theory and method)*. Barcelona: P.P.U.
- Shore, L.M. and Thornton, G.C.III (1986). Effects of gender on self and supervisory ratings. *Academy of Management Journal*, 29, 111-129.
- Steel, R.P. and Ovalle, N.K. (1984). Self-appraisal based upon supervisory feedback. *Personnel Psychology*, 37, 667-686.
- Tsui, A.S. (1984). A multiple-constituency framework of managerial reputational effectiveness. In J.G. Hunt, C.A. Hosking, C.A. Schriesheim and M. Stevart (Eds.), *Leaders and managers: International perspectives on managerial behavior and leadership*, (pp. 28-44). New York: Pergamon Press.