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Sufficiency of Justification: Field Test and Extension of a Hypothesis

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ABSTRACT

A field test of the sufficiency of justification hypothesis is reported. It is hypothesized that volunteers will experience insufficient justification for their efforts, which will be reflected in their job attitudes and motivation. The hypothesis is supported, except for reported intrinsic motivation; the implications of this exception are explored.

INTRODUCTION

The theoretical propositions of de Charms [1968] and Deci [1975] about the reciprocal influence of extrinsic and intrinsic rewards have generated great research attention. Although the evidence concerning their generalization to work motivation is mixed, these propositions have initiated a healthy debate on the ways in which organizational rewards might interact in their effects on work motivation. This paper reports a test of the presence of sufficiency of justification effects in work settings.

In his dissonance theory Festinger [1961] proposed an interaction between sufficiency of justification for engaging in the task, commitment to the task, and attitudes toward the task. That is, when the rewards for engaging in a task are experienced as insufficient but the individual is committed he or she will create sufficient justification by more positively evaluating the task. Staw [1976] generalizes this proposition to organizational rewards. He argues that when both extrinsic and intrinsic rewards are abundant the individual experiences "overjustification" for the task and is likely to reduce dissonance by devaluing the less tangible intrinsic rewards. Similarly when an individual is performing a task for which the rewards are few, experienced "insufficient justification" will lead the individual to enhance the importance of the intrinsic rewards.

It is proposed here that the sufficiency of justification concept has substantial potential utility for understanding work attitudes and behavior once it is decoupled from the problematic intrinsic/extrinsic dichotomy.

The proposition that the greater the extrinsic

rewards the lesser the effects of intrinsic rewards has generated much research and controversy. The research developing from this proposition that has direct implications for work motivation has been reviewed by Notz [1975], Staw [1976], and Guzzo [1979]. In summary, there is mixed support for the proposition in work settings. Although a diminuation of intrinsic motivation has been produced in laboratories, none of the field studies reported this effect [Cascio, 1973; Dermer, 1975; Eden, 1975]. In his thorough review of this research, Guzzo [1979] calls the basic intrinsic/extrinsic dichotomy of organizational rewards, itself, into question. He presents convincing evidence that organizational rewards may vary simultaneously along several attributes.

The two field studies that demonstrated support for the operation of insufficient justification are not dependent on the intrinsic/extrinsic dichotomy of rewards. Staw [1974] examined cadets' attitudes toward ROTC before and after the draft lottery. Some cadets had committing contracts with ROTC, others did not. After the draft lottery those with high lottery numbers were assured they would not be drafted and now experienced insufficient justification for participation in ROTC. Those of this group without committing contracts dropped out, while committed cadets with high draft numbers developed more favorable attitudes toward ROTC. Note that we need not posit that they were more intrinsically motivated since participation was enforced by a contract, only that those cadets with less compelling justification for participation developed more positive attitudes toward the organization.

Pfeffer and Lawler [1980] demonstrated an insufficient justification effect on a national sample of college and university professors. Professors not committed (untenured, and less time in the organization) showed a positive relationship between salary and job satisfaction. Committed professors did not show this relationship, and these two effects were stronger for those who had job alternatives. Again, the effect of experienced insufficient justification appears in attitudes toward the task, not in any change in the motivation for engaging in the task.

In summary, there is evidence that insufficient justification does influence job attitudes such as job satisfaction and intent to leave. Heretofore, there have been no field studies of the effect of experienced insufficient justification on work motivation. The present study tests the effect of insufficient justification on both motivation and attitudes toward the job.

This test is conducted in a setting in which the sufficiency of justification hypothesis has direct meaning: voluntary organizations. Much

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work, especially in social and cultural services, is performed by those not paid for their labor. In clinics, libraries, orchestras, and museums the salaried and volunteers work side-by-side. There is much anecdotal evidence that volunteers often experience insufficient justification. For example:

"There seems to be a spirit there [among volunteers], that people have. It's probably not there if people are paid. It's hard to say exactly why. They [volunteers] probably decided they are doing it for a good reason so they assume a positive attitude about it. If you are paid, you probably don't question it, you assume you are doing it for a living. Volunteers don't know why they are working; they don't know the answer. I guess they assume they are doing it because they want to do good. These assumptions lead to different ways of going about things. Not that paid people aren't cheerful; it's just that it's not needed. [Pearce, 1978a, volunteer's interview response, p. 174]."

The practical problems of designing organizational reward systems for volunteers not based on monetary compensation, dominates their managerial literature [Naylor, 1967; Lippitt & Shindler-Rainman, 1971]. Therefore, the presence or absence of sufficiency of justification effects among these workers has immediate practical relevance.

Voluntary organizations also provide researchers with several unique characteristics:

--Volunteers do not experience the withdrawal of a salient reward; therefore, demonstrated insufficient justification cannot be explained away as "frustration," or "experienced inequity" as is possible for Staw's [1974] cadets.

--Volunteers can be selected that perform the same tasks as employees do, providing a sufficient justification control group which also controls for task (i.e., we do not have to compare Junior League members to steelworkers, but can match volunteer firefighters with salaried firefighters).

--Volunteers perform a variety of tasks, and by including a number of these we can increase the probability that the data will not be setting specific.

Therefore, the following hypothesis is made:

H: Volunteers will demonstrate greater experienced insufficient justification by reporting greater motivation, and more positive job attitudes than will employees performing the same tasks.

METHOD

Sample

Organizations staffed predominantly by volunteers and those staffed entirely by employees working on the same or similar tasks were paired. Four matched sets, or eight organizations, were sampled; these are two newspapers, two poverty relief agencies, two family planning clinics, two municipal fire departments.

1. The volunteer-staffed newspaper is the student newspaper for a medium sized private university located in a northeastern U.S. suburb. Each week 4,000 copies of the 10 to 12 page paper are distributed, free, on campus newsstands; it has been published (more or less) continuously for 30 years. The newspaper has a staff of approximately 30 volunteer male and female undergraduates.
2. The employing newspaper is distributed, free, once a week in apartment building lobbies and shops in an affluent residential neighborhood of a large metropolitan city. Each week 50,000 copies of this community-news 12 page paper are distributed. The paper is owned by the editor and publisher who hires the staff of 13 men and women; all employees are salaried, and the advertising salespeople receive additional commissions on sales.
3. The voluntary poverty relief agency is a non-denominational Christian relief organization in a medium-sized northeastern city. Its primary task is the distribution of food to those who request it (13,245 deliveries in the previous year), but it occasionally provides transportation to medical appointments as well. If clients want food they call a number monitored by an answering service; the answering service calls the telephone volunteer on duty (two shifts a day of about four hours each), and leaves the clients' names and phone numbers. The telephone volunteer calls the clients, collects information (address, number of people to be fed, whether or not they are on welfare, etc.) and tells the clients when to expect the deliveries. The telephone volunteer then calls the driving volunteer or leaves a message at the central office. The organization has about 180 men and women volunteers who work a one-half day shift each month. They elect the governing committee which hires the two part-time paid coordinators to staff the central office. The agency has been serving the community for over nine years.
4. The employing poverty relief agency is a municipal department of a medium-sized New England city that is statutorily required to provide emergency relief to those who do not qualify for any of the

state or federal relief programs. In practice, most of their clients are chronic, usually men with drug or alcohol-related problems. Clients must appear weekly to personally receive their checks from their social workers, and must usually attend a work or counseling program. Fifty-three men and women work a standard 35 hour week for this agency. This service has been provided by this city for over 300 years, but the present administrative structure was developed during the FDR Administration.

5. The voluntary family planning clinic provides gynecological, contraceptive, and related counseling services to women in a New England town. The current patient load is 200 women with pregnancy testing done once a week, and clinics held two evenings a month; the office is staffed during week days by the salaried secretary. The clinic is run by a core "group" of fourteen female volunteers who work anywhere from 4 hours a month to over 40 a week; they elect their own governing body. This group has been providing these services for over 50 years.
6. The employing family planning clinic provides sex education, gynecological, contraceptive, and related counseling services to women in a large northeastern city. Clinics are held four days and one evening a week, and the case load is 4,000 women. This clinic is a component of a municipal health department. Twenty women and one man are the full-time employees; physicians are hired on an hourly basis to conduct examinations. The clinic has been serving the community for seven years.
7. The volunteer fire department provides emergency medical technicians, fire prevention, and fighting services to a rural New England town of about 15,000. They responded to over 500 alarms in the previous year. In an emergency, the town dispatcher is called; she makes an announcement through the radio and blasts a horn so others will get to their radios. The closest fire fighter goes to the station to take the apparatus (engine, hook and ladder, or ambulance) to the destination, while other volunteers proceed there directly in their own cars. The department is composed of four companies--three pump, and one hook and ladder. Each company elects a house administrative group and its officers; the department as a whole elects the chief and two assistant chiefs. The state allows each company forty full members (all are men), and there is a waiting list for these positions.
8. The employing fire department provides fire prevention and fighting services to a north-eastern suburb of 26,000. The department answers an average of 200 calls a month. There is a central firehouse in which five firefighters and the battalion chief are stationed, and two outlying stations with two firefighters each. There are four

shifts working an average 42 hour week (two shifts a day, three days on, three days off). The department is composed of 46 men and one female secretary.

Procedures

The data collection procedure followed the same pattern in each organization. Entry began with a telephone call, followed by one or more site visits with one or more subgroups or individuals until a decision was reached to either forego participation, or to participate. Data collection began with interviews with a random sample (with oversampling of those in positions of leadership) of ten or fewer organizational members, followed by distribution and collection of questionnaires. Interviewees received a number on their questionnaires so the researcher could match instruments; non-interviewees were completely anonymous. Both pairs of the four matched task sets were studied simultaneously to insure that the passage of time would not confound comparisons between volunteers and employees, and to allow daily comparisons of their respective norms and practices. Since only one researcher collected data, the matched pairs were studied serially, in the order listed above.

Measures

All data for these analyses were taken from a single questionnaire; interview responses are used only to demonstrate scale convergent validity.

Motivation Scales. Based on Guzzo's [1980] critique of the intrinsic/extrinsic dichotomy of organizational rewards, it was decided to empirically determine the categories of rewards. Scale items were chosen based on the work of Pearce [1978b], Table 1 contains the interitem correlation matrix for these scale items; there are no corresponding interview questions.

TABLE 1

How Important Is This Reward To You?	1.	2.	3.	4.	5.	6.	7.	8.	9.
<u>INTRINSIC REWARDS</u>									
1. Doing Tasks That Hold My Interest									
2. An Interesting Job	.63								
3. Enjoyment of Just Doing Work	.35	.42							
<u>SOCIAL REWARDS</u>									
4. Enjoyment Of The Company of My Coworkers	.18	.15	.09						
5. Working With People I Like	.14	.16	.04	.67					
6. Associating With A Good Group Of People	.09	.07	.15	.39	.53				
<u>SERVICE REWARDS</u>									
7. The Chance To Further The Goals Of This Organization	.03	.11	.12	.17	.08	.10			
8. A Chance To Make A Real Contribution	.07	.15	.25	.24	.20	.21	.40		
9. Identification With The "Mission" of the Organization	.03	.13	.20	.22	.15	.34	.48	.40	

INTERIM CORRELATION MATRIX FOR REWARD SCALES

As can be seen, work rewards can be divided into intrinsic, social, and service reasons for working. Questions concerning pay, fringe benefits, and promotions are not included because they are, by definition, unavailable to the volunteers.

Job Attitude Scales. Three job attitudes are used in the present analyses. "Job satisfaction" and "intent to leave" were used by Pfeffer and Lawler [1980]. However, an additional variable has been added which is closer to representing the cognitions individuals might use to enhance sufficiency of justification; it is called "job praiseworthiness."

Job Satisfaction is composed of three semantic-differential bi-polar adjectives for "My Job": "unpleasant-pleasant," "boring-interesting," and "bad-good." It has an $\alpha = .73$, and a correlation of .61 with the interview question tapping job satisfaction: "All and all, as of today, how much would you say you liked your job?" [scored from 1 = very dissatisfied to 5 = very satisfied]. Intent to Leave is composed of four seven-point Likert Scale items; e.g., "I rarely think of quitting (negatively scored)," "Everynow and then I think about leaving." It has an $\alpha = .81$, and no corresponding interview question. Finally, Job Praiseworthiness is composed of three semantic-differential items: "praiseworthy-unpraiseworthy" (negatively scored), "useless-useful," "receiving-giving," with an $\alpha = .63$ and no corresponding interview question.

Means, standard deviations, and intercorrelations among these scales appear in Table 2. More detailed information about the sample, procedures, and measures used in this report are available in Pearce [1978a].

TABLE 2

VARIABLES	\bar{X}	S.D.	1	2	3	4	5	6	7
1. Volunteer/Employee ^a	—	—	(--)						
2. Intrinsic Motivation	5.54	1.02	.07 ^b	(.73)					
3. Social Motivation	5.45	1.07	-.31	.27	(.77)				
4. Service Motivation	5.69	.98	-.40	.27	.50	(.69)			
5. Job Satisfaction	5.79	1.12	-.40	.17	.30	.37	(.73)		
6. Intent To Leave	3.26	1.60	.52	-.22	-.33	-.44	-.50	(.81)	
7. Praiseworthiness	5.68	1.22	-.24	.11	.14	.21	.45	-.29	(.63)

^a Scored volunteer = 1, Employee = 2
^b $r = -.16$, $p = .05$
 $r = -.21$, $p = .01$
 $r = -.29$, $p = .001$
 $n = 106$

MEANS, STANDARD DEVIATIONS, RELIABILITY COEFFICIENTS, AND INTERCORRELATION MATRIX

RESULTS

Although the use of eight organizations matched on four task-types aids in generalizing these results to the larger population of voluntary organizations, it presents some unusual problems in data analysis. It would be desirable to obtain as much information as possible about the influence of these very different tasks, yet to treat this sample as a set of four paired comparisons reduces the statistical degrees of freedom to an unacceptably low level. Therefore, the best approach appears to be the use of volunteer/employing by

task-type (2x4) ANOVAs. If either the interaction term or the main effect for task-type is significant, the relationship between the volunteer/employing differences and the dependent variable will be more closely examined.

Motivation

The tests of the effects of the volunteer/employing difference on the work motivation appears in Table 3. The volunteer/employing difference has no statistically significant impact on intrinsic motivation. However, volunteers are more likely to report that they work for the rewards of social interaction than are employees ($\bar{X}_V = 5.56$ vs $\bar{X}_E = 5.05$) but share a modest 6% explained variance. Most interesting is the substantial difference between the service motivation reported by volunteers and employees ($\bar{X}_V = 6.08$ vs $\bar{X}_E = 5.19$). The significant interaction seems to reflect a relatively larger differences between newspaper volunteers and employees (6.17 vs 4.42) than the more purely "service" tasks of poverty relief (6.20 vs 5.12), family planning (5.90 vs 5.53), and firefighting (6.03 vs 5.64).

TABLE 3

SOURCE	Intrinsic Motivation				Social Motivation			
	MS	df	F	ω^2	MS	df	F	ω^2
Vol/Emp (A)	1.47	1	1.47	.01	7.30	1	7.11**	.06
Task (B)	1.51	3	1.51	.04	1.34	3	1.31	.03
AxB	2.06	3	2.06	.06	1.28	3	1.25	.03
Error	1.00	98			1.03	98		

SOURCE	Service Motivation				Job Satisfaction			
	MS	df	F	ω^2	MS	df	F	ω^2
Vol/Emp (A)	12.96	1	16.78**	.13	15.78	1	17.39***	.12
Task (B)	1.16	3	1.51	.03	6.22	3	6.86***	.14
AxB	2.09	3	2.70*	.06	1.16	3	1.28	.03
Error	.77	98			.91	98		

SOURCE	Intent to Leave				Praiseworthiness			
	MS	df	F	ω^2	MS	df	F	ω^2
Vol/Emp (A)	59.05	1	31.25***	.22	8.04	1	5.75**	.05
Task (B)	2.53	3	1.34	.03	.52	3	.37	.01
AxB	1.39	3	.74	.02	3.21	3	2.30	.06
Error	1.89	98			1.40	98		

ANALYSIS OF VARIANCE FOR WORK MOTIVATION AND JOB ATTITUDES

* $p = .05$
 ** $p < .01$
 *** $p < .001$

The fact that volunteers doing the same jobs as employees report greater social and service motivation seems likely to reflect a response to experienced sufficiency of justification. There are two plausible explanations: The volunteers may be experiencing insufficient justification and, therefore, enhancing these qualities of their work: or employees, because of the monetary

rewards they receive for the same work, may be responding to oversufficient justification and deemphasize these less tangible organizational rewards. That this effect was not reflected in reported intrinsic motivation, the initial basis for the sufficiency of justification hypothesis will be treated in the discussion.

Job Attitudes

Table 3 contains the Analysis of Variance tests for job attitudes. The results support the hypothesis for all three job attitudes. Volunteers report greater job satisfaction, less intent to leave, and greater reported praiseworthiness of their work than do comparable employees. The significant task effect for job satisfaction apparently reflects the lower overall job satisfaction of newspaper and poverty relief workers ($\bar{X}_N = 5.24$, $\bar{X}_{PR} = 5.24$) when compared to family planners ($\bar{X}_{FP} = 6.22$) and firefighters ($\bar{X}_F = 5.99$). These results are consistent with the findings of Staw [1974] and Pfeffer and Lawler [1980].

DISCUSSION

The hypothesis was supported for both work motivation and job attitudes, save intrinsic motivation. Volunteers, working on the same tasks as employees, are more likely to report that they work for the rewards of social interaction and service to others, report that their work is more praiseworthy, and that they are more satisfied and less likely to leave their jobs. That these effects were produced by experienced sufficiency of justification must be assumed, since it was not directly measured. Alternative hypotheses include differential selection into volunteer work and employment, or some effect of the very different nature of "spare time" volunteer work and holding a job. Regarding differential selection, for this sample there were no differences between these groups in age or gender, and virtually all of the volunteers were employed (and many of the employees had been, or currently were, volunteers elsewhere). However, that employment and volunteering produce different cognitive responses, only one of which may be experienced sufficiency of justification, is quite likely. However, the presence of this effect, as at least one response to these differing work conditions, is made more likely by the convergence of these results with those of other reports.

One of the more striking findings in this study is the insignificant effect of working for intrinsic rewards. This is particularly interesting since Staw [1976] proposed that it would be intrinsic motivation that would be affected by extrinsic rewards. Based on the results reported here I would like to suggest that Staw's [1976] proposition is overly narrow. Why should individuals experiencing insufficient justification necessarily emphasize the interestingness of their jobs? Why not attend to the way in which saving lives and property from fire is serving the community? In fact, Pallak [1966] and Ryterband and King [1967] found that their laboratory subjects

experiencing insufficient justification did not report that the tasks were more interesting than did control subjects.

I would argue that individuals can increase the sufficiency of the justification for their activities by enhancing the importance of any number of rewards--and that the targets of this enhancement will depend on the nature of the work. Producing newspapers, poverty relief, staffing clinics, and fighting fires are, after all, services to their respective communities. In addition, most of these volunteers have developed close friendships over the years. In contrast, most laboratory experiments provide few opportunities for meaningful social contact and such tasks as copying sheets of random numbers [Pallak, Sogin, Van Zante, 1974] or solving puzzles [Deci, 1972] cannot be reasonably regarded as services to others. In the typical laboratory study reporting an effect on intrinsic motivation there really is nothing else in the setting subjects can use to increase sufficiency of justification. These studies were useful for identifying a sufficiency of justification effect, but cannot be over-generalized to the work place.

In conclusion these results indicate support for, and suggest a broadened understanding of, the sufficiency of justification concept in work motivation. The results provide evidence that volunteers and employees in like services differ in job attitudes and place different relative importance on the work rewards that are available equally to both groups.

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The remaining references will be provided on request.