

Work Climate and Type A Status as Predictors of Job Satisfaction: A Test of the Interactional Perspective

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The present study investigated whether Type A status interacted with individual perceptions of work climate in predicting the job satisfaction of a national sample ($n = 1104$) of accountants. Results from hierarchical regression analyses indicated that Type A significantly interacted with the Litwin and Stringer (1968) organizational climate factors of Risk and Pressure-Standards in predicting intrinsic job satisfaction. However, the effect sizes for these interactions were less than one-half percent, thus demonstrating little practical significance. A main effect for Type A was also significant, with Type As reporting higher intrinsic satisfaction than Type Bs. No Type A effect was found for extrinsic satisfaction. Overall, the results failed to support an interactional perspective. On the other hand, these findings contribute to a growing awareness of the positive effects of Type A in work-related areas such as job satisfaction and performance. © 1991 Academic Press, Inc.

Much of the job satisfaction research has investigated the importance of situational characteristics such as autonomy and feedback, which have been shown to account for as much as 30% of the variance in job satisfaction (Colarelli, Dean, & Konstans, 1987). Recently, researchers have begun to recognize the impact of individual (i.e., personal or dispositional) factors on job satisfaction (Arvey, Bouchard, Segal, & Abraham, 1989; Staw, Bell, & Clausen, 1986; Staw & Ross, 1985). This latter stream of research argues that satisfaction itself may be considered a relatively stable dispositional factor (Arvey et al, 1989), or that there are personality traits (e.g., negative affectivity) related to job satisfaction (Levin & Stokes, 1989). Combining the two approaches discussed above, it appears that both situational characteristics and individual factors are associated with job satisfaction. A more fundamental question that needs to be addressed, however, concerns the form or nature of this relationship.

A small number of researchers have investigated the role of both

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situational and dispositional variables in predicting job satisfaction (Collarelli et al, 1987; Gerhart, 1987). Their approach, however, has generally been to compare the relative impact of the two classes of variables by assessing which accounts for the most variance. The goal of such research was therefore to determine whether situational or individual variables were the most important predictors of job satisfaction. We believe that this approach fails to address the more encompassing issue of which model is most appropriate for relating situational and individual variables to job satisfaction. Rather than assuming that either situational or individual variables influence job satisfaction in a direct manner, we posit that an interactional framework best explains their relationship.

INTERACTIONAL PERSPECTIVE ON JOB SATISFACTION

According to the interactional perspective, neither situational nor individual characteristics alone are adequate to fully explain attitudes or behavior. Instead, it is the interaction of persons with situations that shapes responses (Bowers, 1973; Schneider, 1983). As noted by Pervin (1989), interactionism is not a new framework as it can be found in the psychological literature of the 1930s and 1940s. Person \times environment fit was also discussed in conjunction with satisfaction more than 20 years ago (e.g., Pervin, 1968). Other applied areas that have adopted an interactional perspective include Super's theory of vocational choice (Super, Starishevsky, Matlin, & Jordaan, 1963) and Holland's (1985) "congruence theory" of personalities and work environments. Super's theory can be considered interactional because it proposes that the congruence between one's self-concept and chosen occupation is crucial in determining success and satisfaction. Likewise, Holland's theory is interactional because it proposes a congruence between personality type and environmental type as a predictor of satisfaction with one's occupational choice.

More recently, Schneider (1983, 1987) has adopted an interactional framework in explaining organizational behavior. He proposed an attraction-selection-attrition (ASA) cycle based on the proposition that people select themselves into and out of organizations based on their general fit with certain situations. Therefore, if it can be assumed that job satisfaction contributes to an individual's turnover intentions (Mobley, Horner, & Hollingsworth, 1978), then that person's fit with relevant organizational characteristics should be related to satisfaction.

Another relevant framework in terms of the present study is the growing theory of work adjustment (Dawis & Lofquist, 1984), which seeks to understand how individuals adapt or adjust to particular work environments. The central concept of work adjustment theory is the correspondence between individual and environment such that there is "an interaction between an individual and a work environment in which each

has requirements of the other'' (Dawis & Lofquist, p. 56). Based on the ASA and work adjustment frameworks, it is important to select relevant individual (i.e., dispositional) characteristics, which we will address in the next section.

TYPE A STATUS

One particular individual dispositional factor deserving of more organizational research is Type A. Originally linked to coronary heart disease (Friedman & Rosenman, 1974), a distinguished element of individuals classified as Type A is their excessive preoccupation with and over-involvement in work (Ivancevich & Matteson, 1988; Matteson, Ivancevich, & Smith, 1984). Type As are quite often workaholics who are obsessed with meeting higher standards of productivity and bettering previous performance. They constantly feel under time pressure and in competition with others. At the opposite end of the continuum are Type Bs who are characteristically more relaxed and easy-going. This dispositional pattern is relevant to the present study because of recent suggestions calling for research on Type A within an interactional framework (e.g., Kirmeyer & Biggers, 1988; Smith & Anderson, 1986; Smith & Rhodewalt, 1986), especially in regard to the hypothesized interaction between Type A and work environments (Ivancevich & Matteson, 1988). In addition, research has suggested that Type A may not always have a negative influence on health (Spence, Helmreich, & Pred, 1987). Indeed, Type A has been shown to relate positively to academic and vocational performance such as research productivity (Helmreich, Spence, Beane, Lucker, & Matthews, 1980; Taylor, Locke, Lee, & Gist, 1984), academic honors (Glass, 1977), and higher grades (Waldron, Hickey, McPherson, Butensky, Gruss, Overall, Schmader, & Wohlmuth, 1980). Further research on Type A in work environments would be particularly welcome given the limited findings and uncertain relationship with job satisfaction (Matteson et al., 1984).

Type A status fits especially well with the previously mentioned theory of work adjustment, which proposes that an individual's typical manner of interacting with an environment (i.e., personality style) can be described in terms such as celerity (pace), flexibility (tolerance), and activeness. These dimensions appear to relate to important aspects of the Type A/Type B distinction. Because Type As are characterized as impatient, hard-driving, and intolerant whereas Type Bs tend to be relatively relaxed, patient, easy-going, and amicable, Type As should report greater satisfaction with work environments that are challenging, fast-paced, performance oriented, and that provide latitude for individual control. On the other hand, Type Bs should be more satisfied in relatively slower-paced, supportive, and relationship oriented environments.

To summarize, the purpose of the present study was to advance our

understanding of the relationship between dispositional, situational, and job satisfaction variables. It was hypothesized that Type A status interacts with situational characteristics (i.e., work climate) in explaining incremental variance in job satisfaction. More specifically, it was hypothesized that climates perceived as more challenging, autonomous, and competitive would be associated with higher intrinsic job satisfaction for Type As. Previous research has demonstrated that Type As are more reactive to high challenge environments (Dembroski, MacDougall, Herd, & Shields, 1979; Houston, 1986) and manifest a greater need for control (Burger, 1985) than Type Bs. Previous research has also suggested that Type A may relate more to intrinsic than extrinsic job satisfaction (Bluen, Barling, & Burns, 1990; Howard, Cunningham, & Rechnitzer, 1986). Therefore, satisfaction with extrinsic aspects of the job was thought to be primarily related to situational variables with little or no dispositional influence. It was also hypothesized that climates perceived to be more supportive and nurturing would be associated with higher intrinsic job satisfaction for Type Bs, primarily because of their more relaxed, less ambitious demeanor (Spence et al., 1987).

METHOD

Sample

A systematic sample was drawn from the national membership lists of the American Society of Certified Accountants, National Association of Accountants, American Association of Women Accountants, and the Association of Government Accountants. An initial name on each list was selected at random and every k th name was thereafter selected. K was computed by dividing membership list length by the desired sample size and is defined as the sampling interval. A systematic sample of this nature is described as a type of probabilistic sample functionally equivalent to simple random sampling (Babbie, 1983). An advance letter was sent to a total of 11,777 accounting professionals requesting participation in a study to examine the background and personality characteristics of accountants, especially any differences between men and women. A total of 1821 public, industrial, and government accountants agreed to participate in the study, returned consent forms, and were sent research booklets. Of those sent, 1145 booklets were returned. All except 65 were complete and usable, representing a return rate of 63% of those initially agreeing to participate. Of the returned booklets, complete data on the present study's focal variables were available for 1104 respondents (61%). The data were collected in 1982. Of those responding, 48.5% were male and 51.4% were female. Approximately 24% were between the ages of 20 to 29; 40% were between 30 to 39; 20% between 40 to 49; approximately 12% between 50 to 59; and approximately 4% were age 60 or

older. The majority were born in the United States (98%) and identified themselves as white (96%). The average length of tenure in their present job was reported to be approximately 3.2 years ($SD = 3.9$).

Measures

Type A status. A special-purpose index of the California Psychological Inventory (CPI; Gough, 1957) was used to assess Type A status. Palladino and Motiff (1981) developed this index and reported that it successfully discriminated Type As from Type Bs as originally classified by the widely used Jenkins Activity Survey (Jenkins, Zyzanski, & Rosenman, 1979). The Type A index was comprised of a linear combination of six CPI scales, weighted as follows: .22 (Dominance) + .62 (Self-Acceptance) + .32 (Responsibility) - .35 (Socialization) - .39 (Achievement via Independence) - .26 (Flexibility). As such, this index is best described as a personality correlate measure of Type A. The index was coded so that higher scores were indicative of higher Type A status.

Work climate. Climate perceptions were measured using the Litwin and Stringer (1968) Organizational Climate Questionnaire (LSOCQ; Form B). The LSOCQ consists of 50 7-point scale items pertaining to how aspects of the work environment are perceived. Because previous research has questioned the appropriateness of using a priori LSOCQ scales across diverse settings (Rogers, Miles, & Biggs, 1980), a factor analysis with an oblique rotation was conducted to derive the climate factors used in the present study. The details of this procedure and the complete results are reported by Mossholder, Bedeian, Touliatos, and Barkman (1985). Six of the derived scales correspond to a priori LSOCQ scales. These scales, listed as follows, correspond to the traditional Litwin-Stringer (1968) interpretations (with the number of scale items in parentheses): (a) Structure (7); (b) Responsibility (4); (c) Warmth-Support (6); (d) Reward (6); (e) Pressure-Standards (3); and (f) Risk (5). A seventh factor was also identified. This factor, labeled Accommodation, does not match an a priori scale. It is comprised of three items from the LSOCQ Standards and Conflict scales, respectively. High scorers on the Accommodation scale perceive their organization as a place where getting along with management and avoiding conflict are important.

Matching these climate scales to our hypotheses, it was predicted that Type As would report greater intrinsic satisfaction in climates relatively high on Pressure-Standards (challenging, performance oriented) and Risk (willing to take chances). Type Bs should report greater satisfaction in Warm-Supportive environments (relationship oriented) that are low on Accommodation (emphasis on conflict avoidance). For the remaining climate scales, Reward was thought to be relevant primarily for extrinsic satisfaction, Structure was seen as necessary for efficient internal operations but not particularly relevant to intrinsic satisfaction, whereas

Responsibility could be considered important for either Type As or Type Bs.

Job satisfaction. The short form of the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967) was used to measure overall job satisfaction. The questionnaire asks subjects to respond using a 5-point scale anchored with (1) not satisfied, (2) only slightly satisfied, (3) satisfied, (4) very satisfied, and (5) extremely satisfied. The questionnaire can be divided into intrinsic and extrinsic satisfaction subscales, according to the recommendations of Weiss et al. (1967). The intrinsic subscale (12 items) includes factors such as "the chance to make use of my abilities" and "the feeling of accomplishment I get from the job." The extrinsic subscale (six items) addresses individual satisfaction with factors such as pay, company policies, chances for advancement, and supervision. The final subscale scores were computed by averaging across all items within each scale. The higher the subscale score, the greater the intrinsic or extrinsic job satisfaction.

Analyses

To test the interactional hypothesis, hierarchical regression analyses were conducted. Following recommended procedures, the regressions were conducted in a stepwise manner for each dependent variable (i.e., intrinsic and extrinsic satisfaction). Because Type A status has been found to be more prevalent in men than women (Chesney, Hecker, & Black, 1988), we first entered a dummy-coded gender variable (1 = male; 2 = female) into the regressions. Next, the specific climate factors were entered into the equations followed by the Type A score. Finally, the cross-product terms were entered. If the regression weight for the cross-product term was significant, it was taken as evidence of a significant interaction effect.

RESULTS

Table 1 presents the means, standard deviations, reliabilities, and intercorrelations for all study variables. The internal consistency (Cronbach's alpha) of the satisfaction scores was acceptable (.86 for intrinsic; .82 for extrinsic) and generally adequate for the individual climate factors (ranging from .68 for Responsibility to .89 for Reward; median = .75). Because the Type A variable was a specially-computed index based on a weighted linear equation using specific CPI scales (Palladino & Motiff, 1981), no internal consistency estimate was available.

Examining the correlation matrix presented in Table 1, gender was significantly related to Type A ($r = -.17$) and two of the climate factors, i.e., Warmth-Support and Accommodation. Type A status significantly correlated with both intrinsic and extrinsic job satisfaction (.19 and .08, respectively), however, the association was significantly higher for in-

TABLE I
Descriptive Statistics and Intercorrelations

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Intrinsic satisfaction	2.98	0.55	86										
2. Extrinsic satisfaction	2.89	0.83	61	82									
3. Type A	8.03	9.84	19	08	na								
4. Gender	1.52	0.50	01	-02	-17	na							
5. Structure	4.99	1.17	37	52	02	01	83						
6. Responsibility	3.43	1.23	25	24	06	01	10	68					
7. Warmth-support	5.17	1.20	41	49	07	07	51	19	86				
8. Reward	3.74	1.54	50	68	12	00	62	26	65	89			
9. Pressure-stds	4.39	1.43	23	23	10	-04	29	15	08	28	71		
10. Risk	3.92	1.24	31	35	09	04	31	34	34	47	22	75	
11. Accomodation	3.01	1.40	-36	-43	01	-07	-51	-17	-50	-56	-23	-42	75

Note. N = 1104. Coefficients are reported with decimal points omitted. Reliability estimates (Cronbach's alpha) are reported on the diagonal. Correlations with Gender are point-biserial, all others are Pearson r. Coefficients $\geq \pm .06$ are significant at the .05 level; those $\geq \pm .09$ are significant at the .01 level. All tests are two-tailed.

trinsic satisfaction ($z = 4.2, p < .001$, dependent samples). Type A status also correlated significantly with five of the seven climate factors (Responsibility, Warmth-Support, Reward, Pressure-Standards, and Risk). Both intrinsic and extrinsic job satisfaction were significantly related to all seven of the climate factors. In general, the climate factors were moderately intercorrelated, although the absolute magnitudes varied from .08 to .65 (median $r = .297$).

Before performing the regression analyses the climate and Type A scores were standardized. The results of the regressions on intrinsic satisfaction (see Table 2) indicated significant interaction effects for two terms: Pressure-Standards \times Type A, $F(10, 1093) = 3.98, p < .05$; and Risk \times Type A, $F(11, 1092) = 5.39, p < .05$. Although statistically significant, the effect sizes (R^2 change) associated with the interactions do not exceed one-third of a percent (.003). There was a significant main effect for Type A, $F(9, 1094) = 27.76, p < .001$, with those individuals scoring higher on Type A reporting greater intrinsic satisfaction. The size of this main effect was approximately 2%. No significant interactions were noted for Type A, nor was there a significant Type A main effect, $F < 1$, with extrinsic satisfaction as the dependent variable. For both dependent variables, significant main effects were noted for each of the separate climate factors. All significant effects were noted after controlling for the potentially biasing effect of gender, although neither its main effect or the Gender \times Type A interaction were significant.

DISCUSSION

Overall, these results fail to support the interactional proposition that job satisfaction is a function of situational (e.g., work climate) and individual (e.g., Type A status) characteristics. Whereas two of the hypothesized interactions were statistically significant, each explained only one-third of a percent (.003) of the variance in job satisfaction. Therefore, these interactions would not be considered to be significant from a practical standpoint. On the other hand, significant main effects in predicting intrinsic satisfaction were noted for both the situational and individual factors. Therefore, it can be concluded that situational and individual variables are significant predictors of job satisfaction, but their contribution is additive rather than multiplicative.

Our results are contrary to the findings of Matteson et al. (1984), in which no difference in job satisfaction was noted between Type As and Bs. We found that among accounting professionals, Type As tended to report higher job satisfaction than Type Bs. After controlling for situational (i.e., climate) factors, however, this finding held only for intrinsic satisfaction and may reflect Type As greater overall involvement in work. This is consistent with recent research suggesting that Type A is not a completely negative behavior pattern (e.g., Spence et al., 1987). Only



TABLE 2
Hierarchical Regression Results on Job Satisfaction

Variable	Intrinsic				Extrinsic			
	R ²	ΔR ²	B	p	R ²	ΔR ²	B	p
Gender	.000	.000	.02	.56	.000	.000	.02	.51
Situation								
Pressure-standards	.052	.052	.13	.00	.050	.050	.19	.00
Risk	.124	.072	.15	.00	.147	.097	.26	.00
Warmth-support	.226	.102	.19	.00	.307	.160	.35	.00
Reward	.283	.057	.19	.00	.472	.165	.49	.00
Responsibility	.292	.009	.05	.00	.475	.003	.05	.01
Accommodation	.295	.003	-.04	.04	.477	.002	-.05	.04
Structure	.298	.003	.04	.02	.487	.010	.12	.00
Person								
Type A (A)	.315	.017	.07	.00	.487	.000	.00	.96
Interactions with Type A								
Gender × A	.315	.000	.05	.56	.487	.000	.06	.42
Pressure × A	.318	.003	.03	.04	.488	.001	.03	.14
Risk × A	.321	.003	.03	.02	.489	.001	-.02	.28
Warmth-support × A	.322	.001	-.01	.55	.489	.000	.02	.41
Reward × A	.323	.001	-.02	.16	.490	.001	-.02	.43
Responsibility × A	.323	.000	.00	.84	.490	.000	.01	.53
Accommodation × A	.323	.000	.01	.51	.490	.000	.02	.50
Structure × A	.323	.000	-.01	.60	.491	.001	-.04	.10

Note. B is the unstandardized regression weight. The adjusted R² for each model is .314 and .483 (intrinsic and extrinsic, respectively).

those components relating to suppressed anger and hostility appear to be destructive from a medical perspective. As noted previously, the scale used in the present study was based on personality correlates of Type A that did not include anger or hostility components. Therefore, this Type A index can be considered a relatively positive, nonmedical measure which may be well-suited for future research in work settings. In addition, our finding is theoretically interesting in that it supports the contention of other researchers (e.g., Bluen et al., 1990; Howard et al., 1986) who have suggested that Type A status may relate primarily to intrinsic job satisfaction.

Questions might still be raised regarding which is more important in predicting job satisfaction: situational or dispositional factors? Although Type A explained only approximately 2% of the intrinsic job satisfaction variance in the present study, it was a more potent predictor than several of the individual climate factors (e.g., Responsibility, Accommodation, Structure). It should also be noted that whereas climate factors explained approximately 30% of the variance in intrinsic job satisfaction, it is not a completely fair comparison (Cooper & Richardson, 1986) nor is it a sound conclusion to state that the situation is more important than individual characteristics. Because we included seven climate factors that were always entered in the regressions prior to the single dispositional factor (i.e., Type A), the test of competing explanations lacks procedural equivalence. A fairer test would include the same number of situational and dispositional factors, comparing results with the order of entry varied. In particular, future research might increase the amount of variance explained by including other dispositional factors (e.g., negative affectivity) that have been shown to predict job satisfaction (Levin & Stokes, 1989). However, it appears that Type A status also appears promising for future research on the topic of job satisfaction, particularly intrinsic satisfaction.

A central question that may not be completely answered by the present data is why Type As report higher intrinsic satisfaction. It may be that Type As actually are more intrinsically satisfied than Type Bs or that the former structure their jobs to be more satisfying. Indeed, recent research has suggested that Type As engage in different job behaviors and construct more demanding work environments for themselves than Type Bs (Kirmeyer & Biggers, 1988). Additional research is needed to understand whether higher job satisfaction for Type As is based on true differences in the structure of their work or is the result of cognitive distortion.

A brief discussion of the lack of significant findings for the other hypothesized interactions (Accommodation, Warmth-Support) is warranted. Both of these interactions predicted that Type Bs would report greater intrinsic satisfaction in nurturing, relationship oriented environ-

ments. One plausible reason for the nonsignificant findings may be that the Type B pattern is not as strong as Type A. In other words, Type B individuals may not share as many common, distinctive features as their Type A counterparts. This point is reflected in the literature, which has been devoted almost exclusively to Type A. It is apparent that more research on the Type B personality is necessary.

Limitations

As with any study, there are certain limitations that must be addressed. First, the present study relied entirely on self-report measures, which may have biased the results. Although the problem of common method bias is well-known to most researchers and is commonly thought to account for considerable variance among self-report measures, Spector (1987) has investigated the issue in depth and found little evidence to support such concerns. Spector's conclusions are especially relevant to the present study because he focused on measures of job satisfaction and work environment perceptions. It should be noted, however, that some researchers do not agree with Spector's conclusions (Williams, Cote, & Buckley, 1989). Therefore, future research might improve on the present study by including diverse measures such as observation.

A second potential limitation of the present study is that the effect sizes associated with important study variables tended to be small and therefore appear to have limited practical value. We doubt that the effect sizes associated with the significant interactions—despite their statistical significance—are of much practical value, although others may disagree (e.g., Rosenthal, 1990). We believe, however, that the importance of the Type A main effect is theoretically justifiable and comparable to that reported in other studies investigating the relationship between personality and job satisfaction. For example, Levin and Stokes (1989) reported that in a sample of 315 professionals the trait of negative affectivity explained approximately 4% of the variance in job satisfaction after situational characteristics had been considered. It should be noted that our sample was drawn from many different organizations, as compared to one in the Levin and Stokes study, which increased our error variance. But we also believe that these results should not be over-interpreted. Clearly, Type A holds promise as an important dispositional variable in organizational research; however, its immediate practical value appears questionable.

In summary, the results of the present study failed to support an interactional perspective of job satisfaction. Although the sample size provided adequate power to detect even very small effects, there may be other relevant factors that were not fully considered. For example, it is possible that dispositional effects and their interactions may have a cumulative effect over time that was not captured by this cross-sectional

study (Abelson, 1985). Further, person-situation interactionism is a dynamic construct that refers to mutual, reciprocal effects of persons on situations and situations on persons. As such, this type of interaction may not be fully captured by a statistical interaction term. Future job satisfaction research may yield stronger effects for interactional hypotheses through the adoption of such considerations.

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Received February 20, 1990