

# Type A Status and Selected Work Experiences Among Male and Female Accountants

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*The relationships between Type A status and selected work experiences were investigated for separate samples of male and female accounting professionals. Using a special-purpose index from the California Psychological Inventory to assess Type A status, it was determined that relationships between Type A status and certain situationally-related work experiences were generally stronger for males than for females. The implications of this finding are discussed, emphasizing the need for further research on gender-based differences connected with Type A phenomena.*

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Characteristics associated with the *Type A*, or coronary-prone, behavior pattern are widely recognized by both the scientific and lay communities (Strube, 1987). Individuals exhibiting the *Type A* pattern are characterized as extremely hard driving and competitive, highly achievement-oriented and work-involved, and engrossed in an incessant struggle to accomplish more and more in less and less time, especially in

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relation to vocational deadlines (Friedman & Ulmer, 1984). Individuals who are relatively lacking in these characteristics are identified as *Type B*, representing a more relaxed, easygoing lifestyle. The overt manifestations of the Type A pattern include a heightened pace of living, an impatience with slowness, a tendency to challenge and compete with others even in noncompetitive situations, a free-floating hostility, and a sense of time urgency. Strictly defined, Type A is not construed as a trait, but rather as a set of behaviors elicited from "susceptible" individuals by situational factors (Matthews, 1982).

A central element of the Type A pattern is an excessive preoccupation and over-involvement in work. Type As are quite often workaholics with an exaggerated success ethic. Much of their time and effort is directed at vocational pursuits where, in addition to competing with others, they seem obsessed with meeting higher standards of productivity and bettering previous performance. They constantly feel under time pressure, hurry colleagues, and display overt irritability with the efforts of others (Burke & Weir, 1980a; Chesney & Rosenman, 1980; Davidson & Cooper, 1980; Howard, Cunningham, & Rechnitzer, 1977; Sorensen et al., 1987). Not surprisingly, Type A status has been positively related to having heavier work loads (Burke & Weir, 1980b), nonsupportive interactions with co-workers (Sorensen et al., 1987), enhanced feelings of time urgency (Davidson & Cooper, 1980), decreased levels of perceived environmental control (Chesney & Rosenman, 1980), competitiveness and aggression (Van Egeren, Sniderman, & Roggelin, 1982), and interpersonal dominance (Yarnold & Grimm, 1986).

Given the extensiveness of the above findings, it is equally surprising that they are primarily based on studies conducted with all male samples and that previous research, with few exceptions, has neglected to specify the situations that prompt Type A behavior (cf. Chesney et al., 1981). Indeed, the Type A factor has rarely been studied using women, especially those in professional occupations (Ivancevich, Matteson, & Preston, 1982), and only one study has examined the possibility that the sex distribution of Type A characteristics is related to differences in male and female exposure to situationally-related work experiences.

Using data drawn from the Minnesota Heart Survey for 2,512 employed men and women, Sorensen et al. (1987) found high Type A scores positively related in both sexes to long work hours, high occupational mobility, and nonsupportive job-related interactions with co-workers. While Sorensen et al. (1987) found no sex differences in the relationships between Type A status and these work experiences, research has shown that the Type A pattern is more prevalent in men than women (Chesney, Hecker, & Black, in press). This prevalence may well contribute to the

well-established gender difference in coronary heart disease (CHD; Waldron, 1976). At present, specific information about the relationship of work experiences to Type A status in men and women remains to be fully developed. Such information is sorely needed, given that CHD is the leading cause of death for both adult males and adult females (Chesney et al., in press).

The higher prevalence of the Type A pattern among men than women may reflect genetic sex differences in aggressiveness, but is more likely due to sex differences in socialization (Waldron, 1976). Such differences appear, according to Waldron (1978a), to be "fostered by parents and schools who have typically pushed boys to achieve in the occupational world and girls to seek success in the less competitive family sphere" (p. 202). Along this same line, both Matteson, Ivancevich, and Gamble (1987) and Sorensen et al. (1987) suggest that the relatively high prevalence of the Type A factor among men may reflect variations in men's and women's work experiences, some of which may serve to facilitate or strengthen Type A characteristics. Accordingly, the purpose of the present exploratory research was to determine if the relationships of work experiences with the Type A pattern are different for men and women. Understanding these relationships is important to stress research and, ultimately, to managers because they can influence the development and maintenance of supportive work experiences that minimize excessive stress.

The simple fact of membership in a work organization can present the occasion for displays of the Type A behavior pattern. This is so because, as previously noted, a central element in the behavior pattern is the excessive preoccupation Type As display with respect to their work (Ivancevich & Matteson, 1988; Matteson, Ivancevich, & Smith, 1984). Curiously though, little attention has been paid to the relationship between Type A characteristics and situationally-related work experiences, except for some research that supports the notion relative to Type Bs, Type As are more hyper-responsive (for a review, see Krantz & Durel, 1983).

In their original Type A research, Rosenman and Friedman (1959) stressed that the onset of the behavior pattern is facilitated by exposure to certain environmental stimuli. This notion has prompted speculation that Type As and Bs may actually thrive in contrasting work environments. In fact, taking an interactionist perspective, Ivancevich and Matteson (1984) have proposed a person-environment fit model of Type A in the workplace. More recently, Smith and colleagues (Smith & Anderson, 1986; Smith & Rhodewalt, 1986), have proposed a similar model. Their model, however, not only presents Type As as responding to stressful situations, but as actively seeking and creating additional challenge and

demand in their environment. Thus, while Type As placed in a rich environment would be expected to do several things simultaneously, this model suggests that, when placed in a simple environment, Type As, through their choices, cognitions, and behaviors, will create a more challenging and demanding environment. Empirical support for a dynamic interactional view of Type A that emphasizes person-environment processes is just beginning to appear (Kirmeyer & Biggers, in press).

A limited number of studies conducted in organizational settings provide relevant, but at times ambiguous, data concerning the relationship between work experiences and Type A status. Though some negative findings have been reported, Type A status has been, in general, related to long work hours (e.g., Burke & Weir, 1980b), role conflict (e.g., Howard et al., 1977), role ambiguity (e.g., Keenan & McBain, 1979), and job-related tension (Kelly & Houston, 1985). Given limited findings, the nature of the relationship between Type A status and job satisfaction, however, is yet unclear (Matteson et al., 1984).

Acknowledging conceptual and empirical uncertainties, it is too early to offer a precise theoretical statement that would relate work experiences to the Type A pattern, as well as indicate a rationale for specific predictions. Thus, in this study we suggested that five work experiences may be associated with an individual's Type A status: (a) extensive work hours, (b) role conflict, (c) role ambiguity, (d) job-related tension, and (e) job satisfaction. These work experiences were chosen for examination because of their early identification and apparent pervasiveness as job-related situational contingencies. Given the influence of past socialization practices and documented genetic differences in aggressiveness, it was anticipated that the relationship between the above work experiences and Type A status would not be as strong for females as males. Using measures gauging these work experiences, we asked whether any or all of them were Type A correlates. Accounting professionals were selected as a focal sample because they are employed in a field affording increasing access to both men and women. This access made it possible to study a large, but roughly equal number of male and female subjects, as well as also fill a knowledge gap pertaining to the Type A status of women in professional occupations.

## METHOD

### Sample

The data analyzed in this study were collected as part of a national survey of accounting professionals. The present sample consisted of 1,086 accountants randomly selected (with a participation rate of 63%)

from the membership lists of the American Society of Certified Public Accountants, National Association of Accountants, American Association of Women Accountants, and Association of Government Accountants (Bedeian, Mossholder, Touliatos, & Barkman, 1986). Inclusion in the present analyses was limited to those accountants who were employed full-time and had complete data on all variables relevant to the national survey. These restrictions reduced the focal sample to 505.

For the male sample ( $n = 256$ ), 97% were 20 to 59 years old, 62% in the 20-39 age range, and 21% in the 40-49 range. More than 94% were college graduates. Some 80% were married, with 8% divorced, separated, or widowed. Mean job tenure equalled 8.7 years ( $SD = 7.9$ ). For the female sample ( $n = 249$ ), 99% were 20 to 59 years old, 71% in the 20-39 age range and 16% in the 40-49 range. Approximately 85% held college degrees. Mean job tenure equalled 5.7 years ( $SD = 5.1$ ). More than 61% were married, with some 16% divorced, separated, or widowed.

Tests of significance were computed to determine whether men and women respondents differed with respect to age, education, and job tenure (measurement details are given below). Both age and education have been associated with the Type A pattern, in that Type A characteristics have been shown to vary by age group (Davidson & Cooper, 1980) and increase with educational level (Waldron et al., 1977). Job tenure was of interest given its potential impact on role behavior. While occupational status has also been positively related to the Type A pattern (Chesney & Rosenman, 1980), the focal sample's occupational homogeneity controls for this factor. The tests for age and education resulted in chi-squares of 90.88,  $df = 4$ , and 20.26,  $df = 4$ , respectively, which are both significant at the .001 level. The test for job tenure also resulted in a significant difference ( $t = 4.94$ ,  $df = 503$ ,  $p < .001$ ). These differences suggested the need to partial out the effects of all three variables.

## Measures

*Demographic variables.* The four demographic variables used in the analyses were *age* (coded on a 5-point scale from (1) 20-29 years to (5) above 59 years), *education* (coded on a 5-point scale from (1) less than junior college to (5) graduate degree), *job tenure* (years with present employer), and *sex* (male = 1, female = 2).

*Dependent variable.* A special-purpose index of the California Psychological Inventory (CPI; Gough, 1987) constituted the Type A measure. Developed by Palladino and Motiff (1981), the validity of this index is based on its ability to discriminate Type As and Type Bs as originally classified by the Jenkins Activity Survey (JAS-Form T; Jenkins, Zyzanski, & Rosenman, 1979). The JAS is perhaps the most widely used

questionnaire measure for classifying employed individuals as Type A or B (Matthews, 1982; Matteson et al., 1987).

In the present analysis, the Type A measure was scored by using a linear combination of six CPI scales (in parentheses) weighted as follows: .22 (Dominance) + .62 (Self-Acceptance) + .32 (Responsibility) - .35 (Socialization) - .39 (Achievement via Independence) - .26 (Flexibility). Higher scores were coded to indicate higher Type A status. Designed for use with nonclinical populations, the validity and reliability of the CPI are well established (Gynther & Gynther, 1983). Moreover, the CPI is generally unaffected by demographic variables like age or education (Dyer, Monson, & von Drimmelen, 1971).

*Independent variables.* Based on both prior research and theory, five work experiences were selected as independent variables. *Work hours* were examined by asking respondents, "On the average, how many hours a week do you work at your present job?" The response categories for this item ranged from (1) 1-39 hours to (5) 60 or more hours. The modal response category for both males ( $n = 120$ ) and females ( $n = 114$ ) was 41-48 hours per week.

*Role conflict* and *role ambiguity* as job stressors were measured using six and eight items, respectively, from the scales developed by Rizzo, House, and Lirtzman (1970). Each scale was scored using a 7-point response format ranging from (1) *very rarely* to (7) *continually*. Responses to both scales were averaged to yield a single score. These scales were chosen because of their established psychometric properties (House, Schuler, & Levanoni, 1983) and widespread use in role theory. Examples of role conflict items are: (a) "I work with two or more groups who operate quite differently," and (b) "I have to break a rule or policy in order to carry out an assignment." Exemplary role ambiguity items include: (a) "I feel certain about how much authority I have," and (b) "I know exactly what is expected of me."

*Job-related tension* was assessed by a 9-item instrument taken from Lyons (1971). Developed from a longer list used by Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964), the items gauge the frequency with which subjects report feeling bothered by work-related factors. Seven response categories (coded from 1 to 7) ranged from (1) *very rarely* to (7) *continually*. Items were averaged to yield a single tension score.

*Overall job satisfaction* was measured by the Minnesota Satisfaction Questionnaire, Short Form (Weiss, Dawis, England, & Lofquist, 1976). For purposes of the present study, only the 20 general satisfaction items were utilized. Response alternatives were scored using a 5-point response mode ranging from (1) *not satisfied* to (5) *extremely satisfied*, and by averaging across all items.

### Data Analyses

Hierarchical multiple regression was used to examine the main effects of work experiences on Type A status. Age, job tenure, and education were entered as a functional block and treated as covariates to statistically control for differences between the male and female samples. Respondent Type A scores were then regressed on the set of five independent variables (work hours, role conflict, role ambiguity, job-related tension, and job satisfaction) as a second functional block. Using functional blocks hierarchically controls for variance attributable to causally antecedent, but nonfocal variables. Here, this means controlling the influence of demographic variables before considering the impact of work experiences on Type A status. Regression analyses were conducted for males and females separately. Respective pairs of beta weights for males and females were examined for significant differences using a one-tailed *t*-test as recommended by Blalock (1967) and Duncan (1975). This procedure was preferable to testing for the overall difference between regression equations, as it provides specific information on the differences between single coefficients.

### RESULTS

Table 1 separately presents descriptive statistics for males and females. Coefficient alpha reliability estimates are also shown. Consistent with prior research, male Type A scores were significantly higher than females ( $t = 3.60$ ,  $df = 503$ ,  $p < .001$ ). No other gender differences are evident.

Zero-order correlations among the study variables are displayed in Table 2. Separate correlation matrices were computed for men and women. The overall pattern of relationships within each matrix was similar for the two groups. No significant or systematic differences between males and females were found. The strong positive relationship for both males and females between role conflict and role ambiguity, as well as between each variable individually and job-related tension is consistent with prior research (Bedeian & Armenakis, 1981). Similarly, the high negative relationships for both males and females between role conflict, role ambiguity and job-related tension with job satisfaction is in accord with previously published research and theory (Kemery, Bedeian, Mossholder, & Touliatos, 1985).

The main effects of work experiences on Type A status for males and females are shown in Table 3. Individual beta weights with their standard errors are reported. The beta weights provide a rough estimate of the relative contributions of the five independent variables in predicting the Type A pattern. The calculated *t* value for determining the presence or

TABLE 1 Descriptive Statistics for Males and Females

Variable	Reliability	Men			Women		
		n	M	SD	n	M	SD
Type A status	.a	256	9.72	10.04 <sup>b</sup>	249	6.51	9.97 <sup>b</sup>
Work hours	.a	256	3.00 <sup>c</sup>	.86	249	3.00 <sup>c</sup>	.85
Role conflict	.84	253	2.38	.94	248	2.28	1.02
Role ambiguity	.86	255	3.18	1.12	249	3.16	1.19
Job-related tension	.85	255	2.40	1.02	249	2.41	1.07
Job satisfaction	.91	256	3.33	.62	249	3.32	.64

<sup>a</sup>Not applicable.

<sup>b</sup>Means are significantly different,  $p < .001$ . <sup>c</sup>Median value.

TABLE 2 Zero-Order Correlations

Variable	<i>r</i>					
	1	2	3	4	5	6
1. Type A status		.02	-.04	-.07	-.04	.19
2. Work hours	.20		.10	-.08	.11	.21
3. Role conflict	.06	.03		.55	.79	-.39
4. Role ambiguity	-.12	-.04	.48		.61	-.53
5. Job-related tension	.01	.11	.78	.54		-.48
6. Job satisfaction	.11	.22	-.45	-.58	-.50	

Note. Decimal points omitted for correlations. Female sample ( $n = 249$ ) above diagonal; male sample ( $n = 256$ ) below diagonal,  $r \geq .12$ ,  $p \leq .05$ , two-tailed test.

absence of a statistically significant difference between respective coefficients in the male and female regressions is also shown.

Table 3 shows a positive and significant age covariate score for the female sample, thus confirming the need to control for this variable. Considering the significant relationships between work experiences and Type A status, all but one relationship was stronger for males than females. The relationship between extensive work hours and Type A status was significantly ( $t = 2.22$ ,  $p < .05$ ) stronger for males ( $\beta .19$ ,  $p < .05$ ) than females ( $\beta -.03$ , ns). A similar pattern existed for the relationship between role conflict and Type A status ( $\alpha$  for males = .20,  $p < .05$ ;  $\beta$  for females = -.05, ns;  $t = 1.76$ ,  $p < .05$ ). Role ambiguity had a significantly ( $t = -1.41$ ,  $p < .10$ ) stronger negative correlation with Type A status for males ( $\beta -.14$ ,  $p < .10$ ), than females ( $\beta .03$ , ns). By contrast, the association between job satisfaction to Type A status was significantly

TABLE 3 Hierarchical Regression Analysis for Type A Status

Variable	Male (n = 250)			Female (n = 247)			t
	Step 1 ( $\beta_1$ )	Step 2 ( $\beta_2$ )	SE $\beta_2$	Step 1 ( $\beta_1$ )	Step 2 ( $\beta_2$ )	SE $\beta_2$	
<b>Covariate</b>							
Age	.03	-.01		.15	.16**		
Education	.09	.06		.10	.10		
Tenure	-.01	-.01		-.02	-.03		
<b>Main Effect</b>							
Work hours		.19**	.07	-.03	.07		2.22a
Role conflict		.20**	.10	-.05	.10		1.76a
Role ambiguity		-.14*	.08	.03	.09		-1.41b
Job-related tension		-.08	.11	.11	.11		ns
Job satisfaction		.04	.08	.25**	.08		-1.86b
Total R		.28**		.26**			

Note. Entries are beta weights associated with each independent variable. The beta weight listed for each variable is that obtained after controlling for all other variables.

\*The difference in beta weights for males and females is significant at  $p \leq .05$ , one-tailed.

<sup>a</sup>The difference in beta weights for males and females is significant at  $p \leq .10$ , one-tailed.

\* $p < .10$ . \*\* $p < .05$ .

( $t = -1.86$ ,  $p < .10$ ) stronger for females ( $\beta .25$ ,  $p < .01$ ) than for males ( $\beta .04$ , ns). Finally, the relationship between job-related tension and Type A status was nonsignificant for both males ( $\beta .08$ , ns) and females ( $\beta .11$ , ns).

## DISCUSSION

This paper examined the relationship of various work experiences to Type A status. The contrast between male and female respondents on a majority of the variables indexing work experience was striking. On the whole, the pattern of results suggests that Type A status is correlated with work experiences of males, but not females.

The relationship of hours worked to Type A status has been examined by other investigators using either all male or female samples. For example, both Jenkins, Rosenman, and Friedman (1967) and Burke and Weir (1980b) reported that Type A male managers work longer hours than their Type B counterparts. Similarly, compared to Type B females, Type A females have been found to work more hours per week (Kelly & Houston, 1985; Waldron, 1978b). This study found, however, that the relationship between extensive work hours and Type A status was significant only for men. Interestingly, Waldron (1978b) reports finding that Type A women do not prefer more hours of employment, but rather work

longer hours than they prefer. This suggests the possibility that Type A subjects are less likely to leave a task once they have begun. In contrast, however, Kelly and Houston (1985) found that Type A women actually prefer to work more overtime. Further research is thus needed before any firm conclusions can be drawn in this regard.

The positive association between role conflict and Type A status among males supports the earlier work of Howard et al. (1977). These researchers found that, as compared to Type Bs, Type A male managers report a greater inability to satisfy conflicting work roles. Why, in contrast to previous research (i.e., Kelly & Houston, 1985), a similar pattern does not exist for females is uncertain. It is possible, however, that sex differences in social role expectations (both at and away from work) reinforce a greater effectiveness among females than males in managing stress that arises from conflicting job demands. In this connection, Howard, Rechnitzer, and Cunningham (1975) investigated the techniques used by male Type As to cope with pressures at work. Male Type As were found to rely on the least effective method studied—i.e., changing to a different work activity. Thus, rather than cope with work pressures by diversion or relaxation, Type As continued to work. A similar investigation involving female Type As has yet to be conducted. An examination of the dynamics behind possible gender differences in resolving work pressures that result from role conflict represents a significant area for additional Type A research.

The need for such research is reinforced by a reversal of the preceding gender difference with respect to role ambiguity (see Table 3). In contrast to the female sample which reported virtually no association between role ambiguity and Type A status, these variables were negatively related for males. This finding may be due to sex differences in achievement orientation. That is, in striving for competitive achievement, males may well experience role ambiguity as a greater obstacle to performance than females. Chesney (1983), for one, contends that achievement in terms of Type A characteristics is more consistent with the traditional masculine sex role. It is thus possible that this difference is an additional factor contributing to the higher prevalence of coronary heart disease among men than women. The exact nature of this differential male/female response and its full implications remain to be determined.

Though not on a consistent basis, job dissatisfaction has sometimes been found to be positively associated with coronary heart disease (e.g., House, 1974; Sales & House, 1971). Based on this finding, a negative association between the Type A pattern and job satisfaction would have been expected. Nevertheless, available research (e.g., Burke & Weir, 1980b, Caplan, Cobbs, French, Harrison, & Pinneau, 1975) shows no

such relationship, at least for employed males. For the current male sample, job satisfaction and Type A status were only weakly related. In contrast, a moderate, but significant positive relationship between job satisfaction and Type A status emerged for the current female sample. This finding suggests that, at least among females, job satisfaction may reinforce the high achievement orientation associated with the Type A pattern. This gender-based difference may be related to a relative ineffectiveness of males in managing such negative Type A characteristics as impatience, hostility, and aggressiveness.

As with any study, certain caveats need to be mentioned to place this study in proper perspective. The preceding conclusions rely on the use of a special-purpose index of the California Psychological Inventory. As a paper-and-pencil measure, it (like the widely used Jenkins Activity Survey) is susceptible to the biases of self-report and self-appraisal. Moreover, the CPI has been employed only rarely as an instrument to assess Type A status. Further research with this means of identifying Type A individuals will need to be done to insure that the current results are substantive and not method bound. While there are those who only advocate use of measures permitting direct observation of Type A behavior, this alternative is too costly for use in large population studies of the kind reported here (Sorensen et al., 1987). In any instance, no single test can be expected to be a pure exemplar of a construct in all studies that are intended to map the construct's nomological network (Matthews, 1982; Yarnold & Bryant, in press). Thus, the use of alternative measures of the Type A pattern could provide a greater understanding of its antecedents and consequences. Another caveat to note is that the generalizability of the present results is limited by the occupation (accounting profession) of the study's respondents. Though the national character of the sample increases the potential for geographical generalizability, additional research needs to be done with professionals and nonprofessionals alike.

Relatedly, an area for future research involves examining the relationship between Type A status and work experiences across a variety of occupational groups. Although portions of the present findings relating to males are consistent with those reported among other jobholders (Burke & Weir, 1980b; Caplan et al., 1985; Howard et al., 1977), the inclusion of men and women from a range of occupations is necessary to clarify the relationship between Type A status and work experiences in different contexts. This would seem particularly important since environments with excessive and sustained stress place Type As at special risk (Heilbrun & Friedberg, 1987). Furthermore, research by Mettlin (1976) suggests that the Type A pattern is particularly common in competitive occupations having high expectations for the quality and quantity of work

performed. In this respect, Mettlin (1976) notes that the Type A pattern is integral to the modern occupational career.

Finally, it is unclear whether Type As select more demanding jobs or merely perceive them as more demanding (Smith & Anderson, 1986; Waldron et al., 1980). To clarify this issue, a longitudinal study that assesses the Type A status of males and females some time before they begin job searches (or certainly before organizational entry) is necessary. Examining characteristics of jobs chosen by participants might reveal if job choice differences correspond with differences in Type A status. In such a study, the complexity/demand level of chosen jobs should be measured by both objective (e.g., Gerhart, 1987) and subjective (Zaccaro & Stone, 1988) means. Gathering both types of measures would permit one to determine whether any job choice differences that occurred were due only to the perceptual biases of Types As or to objective differences in the complexity/demand level of chosen jobs.

It is conceivable that the increased time pressures, competitiveness, and conscientiousness required by a job over time could convert a Type B person into a Type A (Davidson & Cooper, 1980; Dembroski, MacDougall, Herd, & Shields, 1979). Another kind of longitudinal study, sampling job incumbents across a range of jobs possessing different complexity/demand levels, could be performed to address this issue. Multiple measures of Type A status (e.g., JAS, CPI index, Structured Interview technique) would be collected at two or more points in time to track possible changes in Type A status among people holding jobs of the same complexity/demand level across time. Were upward or downward shifts in Type A status registered for jobs of a particular complexity/demand level, especially on more than one Type A measure, the notion that work experience may influence Type A status (or, perhaps more likely, that they exist in a reciprocal relationship) would become credible. Of course, the studies outlined above are but two of many that are possible. In any event, longitudinal studies could provide the next step in augmenting our understanding of interrelationships of Type A status and work experiences.

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