

## Cross-Cultural Notes

Under this heading are brief reports of studies that provide comparable data from two or more societies, using a standard measuring instrument. These notes consist of a summary of the study's procedure and as many details about the results as space allows. Additional details concerning the results can be obtained by communicating directly with the author.

# Chronic Procrastination Among Turkish Adults: Exploring Decisional, Avoidant, and Arousal Styles

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**ABSTRACT.** The authors examined the prevalence of chronic procrastination (decisional, avoidant, and arousal styles) as functions of demographic variables among 354 Turkish adults (148 men, 206 women;  $M$  age = 38.7 years,  $SD$  = 8.26 years). Prevalence analyses showed that among Turkish participants, 17.5% were indecisive procrastinators, 13.8% were avoidant procrastinators, and 14.7% were arousal procrastinators. Results did not yield significant differences for gender or age on any forms of procrastination, which is consistent with other international samples. However, significant differences emerged depending on the number of children such that Turkish adults who had more than 3 children claimed to be more indecisive than they claimed to be arousal or avoidant procrastinators. Respondents with less than a graduate degree reported higher rates of indecision than did respondents with at least a graduate degree.

**Keywords:** arousal procrastination, avoidant procrastination, decisional procrastination, demographic properties, Turkish adults

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PROCRASTINATION IS A TENDENCY TO DELAY an intended action or decision (Ferrari, Johnson, & McCown, 1995). Ferrari and colleagues (e.g., Ferrari, O'Callaghan, & Newbegin, 2005) identified three forms of chronic procrastination.

tionation: *decisional* (inability to make a decision within a specified time period); *arousal* (purposefully waiting until the last minute for a thrill-seeking sensation, yielding pleasure from “beating the clock”); and *avoidance* (delayed motivation by a desire to prevent performance evaluation and fears). In the present study, we examined all three procrastination types and defined them as *chronic* because individuals delay the initiation, performance, and completion of a task. Chronic procrastination is related to demographic characteristics with non-English-speaking adult samples (Diaz-Morales, Ferrari, Argumedo, & Diaz, 2006) and is prevalent in the United Kingdom, Australia, Spain, Peru, and Venezuela (Ferrari, Diaz-Morales, O’Callaghan, Diaz, & Argumedo, 2007); however, little is known about Turkish adults’ procrastination tendency.

Adult participants (206 women, 148 men;  $M$  age = 38.7 years,  $SD$  = 8.26 years) filled out demographic information including questions regarding their gender, age, marital status, number of children, occupation, and education level, and they completed psychometric instruments that were developed and used extensively with English-speaking adults (Ferrari et al., 1995). In the present study, these scales, translated and back-translated into Turkish, included Mann’s (1982) Decisional Procrastination (DP) scale (5 items, 5-point Likert-type scale), McCown & Johnson’s (1989) Adult Inventory of Procrastination (AIP; 15 items, 5-point Likert-type scale), and Lay’s (1986) General Procrastination (GP) scale (20 items, 5-point Likert-type scale). Field experts evaluated evidence of content-related validity for these Turkish scale versions, and we analyzed them for discriminant validity. Consistent with other studies (Ferrari et al., 1995), all three scale scores used among participants in the Turkish adult sample were significantly related to each other (see Table 1).

**TABLE 1. Descriptive Statistics and Interscale Correlates Among Procrastination Styles for Turkish Adults**

Procrastination type	$M$	$SD$	DP	ArP	AvP
Decisional procrastination (DP)	11.37	4.90	(.76)		
Arousal procrastination (ArP)	42.50	10.60	.42*	(.74)	
Avoidant procrastination (AvP)	29.82	8.45	.39*	.67*	(.69)

Note. Values in parentheses are Cronbach’s alphas.

\* $p < .01$ .

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We performed a principle component analysis to determine the factor structure of the scales for Turkish samples. Results yielded a two-factor solution for the AIP, explaining 35.1% of the total variance, with Factor 1 comprising seven items (19.4% variance) and focusing on positive aspects of avoidance, and Factor 2 comprising eight items (15.7% variance) and exploring negative aspects of avoidance. Scores on the GP scale also loaded on a two-factor solution, accounting for 32.6% of the total variance, with Factor 1 including 11 items (18.4% variance) for negative aspects of arousal delays, and Factor 2 including 9 items (14.2% variance) and examining positive aspects of arousal delays (for items, see Tables 2 and 3). However, because the focus of the present study with Turkish adults explored the prevalence of all three types of chronic procrastination instead of each individual procrastination type, we used a single-factor structure of AIP, GP, and DP scale scores when comparing prevalence rates with other nations.

We then examined the rates of procrastination on each scale, which we calculated by pursuing a process established in other prevalence cross-cultural studies on chronic procrastination (i.e., Diaz-Morales et al., 2006; Ferrari et al., 2007). To obtain “pure” procrastinators on each chronic form, we converted scores on each procrastination scale to standardized Z residual scores. In the present sample, 17.5% reported being indecisive, 13.8% claimed to be avoidant procrastinators, and 14.7% stated they were arousal procrastinators. These ratings on avoidant and arousal procrastination were similar in range to percentages of international

**TABLE 2. Factor Items of the Adult Inventory of Procrastination Scale (W. McCown & J. Johnson, 1986)**

Item	Factor 1	Factor 2
2	<b>.71</b>	.19
1	<b>.67</b>	-.04
8	<b>.65</b>	.07
13	<b>.62</b>	-.05
12	<b>.61</b>	.20
3	<b>.58</b>	.06
11	<b>.37</b>	-.05
7	-.09	<b>.60</b>
6	-.08	<b>.58</b>
15	.07	<b>.57</b>
9	.38	<b>.53</b>
5	-.28	<b>.52</b>
14	.24	<b>.51</b>
4	.01	<b>.50</b>
10	-.05	<b>.43</b>

*Note.* Values in boldface represent the factor loadings of the items on that factor.

**TABLE 3. Factor Items of the General Procrastination Scale (C. H. Lay, 1986)**

Item	Factor 1	Factor 2
12	<b>.67</b>	.15
17	<b>.66</b>	.12
19	<b>.60</b>	.20
16	<b>.59</b>	.09
9	<b>.59</b>	.13
5	<b>.58</b>	.18
10	<b>.57</b>	-.14
7	<b>.55</b>	.15
11	<b>.52</b>	-.04
2	<b>.48</b>	.19
1	<b>.34</b>	-.25
15	.07	<b>.68</b>
18	.05	<b>.59</b>
20	.11	<b>.57</b>
13	-.12	<b>.55</b>
14	.12	<b>.55</b>
6	.13	<b>.49</b>
8	.14	<b>.48</b>
3	.08	<b>.44</b>
4	.22	<b>.43</b>

*Note.* Values in boldface represent the factor loadings of the items on that factor.

cultures (Ferrari et al., 2007). Specifically, avoidant procrastination tendencies among Turkish adults were similar to ratings reported by adult men and women from Spain (14.6%), Peru (14.9%), Venezuela (15.2), Australia (15.3%), England (13.8%), and the United States (15.5%). Similarly, arousal procrastination tendencies in Turkish adults were consistent with the range among adults from Spain (13.1%), Peru (12.4%), Venezuela, (15.6%), Australia (14.4%), England (10.9%), and the United States (16.1%). These results suggest that the prevalence of chronic procrastination is common among men and women of Turkey, as well as those of North and South America, Europe, and Australia.

To determine the influence of demographic profiles, we performed several multivariate analyses of variance (MANOVAs). The first examined gender by age on procrastination scores, and four one-factor MANOVAs examined marital status, number of children, working status, and education level. Results did not yield significant effect of gender,  $F(3, 347) = 1.95, p = .12$ , partial  $\eta^2 = .017$ , or age (younger adult: 24–39 years; older adult: 40–70 years),  $F(3, 347) = 0.46, p = .71$ , partial  $\eta^2 = .004$ , on chronic procrastination. These results also replicated results of previous studies that cognitive and behavioral procrastination tendencies were

uninfluenced by adults' gender and age (see Ferrari et al., 1995). Similarly, results yielded no significant effect of marital status on any measures, although there was a significant multivariate effect of number of children,  $F(9, 842) = 2.23, p = .02$ , partial  $\eta^2 = .019$ , Wilks'  $\lambda = .94$ . A univariate analysis indicated differences on decisional procrastination,  $F(3, 348) = 4.06, p = .01$  partial  $\eta^2 = .034$ , and post hoc comparisons indicated that participants who had more than three children ( $M = 14.1, SD = 6.2$ ) reported higher decisional procrastination than did the other groups who had two children ( $M = 11.2, SD = 4.8; p = .014$ ), an only child ( $M = 10.8, SD = 4.4; p = .005$ ), and any child ( $M = 11.2, SD = 4.7; p = .014$ ). We categorized respondents into administrators or employees and participants with less than a graduate degree and those with at least a graduate degree. Results yielded a marginally significant effect of working position on any procrastination measures, and a significant multivariate effect of education level on chronic procrastination,  $F(3, 346) = 3.24, p = .02$ , partial  $\eta^2 = .027$ , Wilks'  $\lambda = .97$ . A univariate analysis indicated differences in decisional procrastination,  $F(1, 348) = 8.49, p = .01$ , partial  $\eta^2 = .024$ . Specifically, participants with less than a graduate degree ( $M = 12.4, SD = 5.1$ ) reported higher rates of decisional procrastination than did participants with at least a graduate degree ( $M = 10.8, SD = 4.7$ ). Contrary to Harriot and Ferrari's (1996) study, the present study revealed that respondents with a high school education or less reported higher rates of decisional procrastination than did the adults with a graduate or postgraduate education. Related to education, administrators reported less procrastination tendencies than did their staff. Perhaps higher levels of responsibility given to administrators may bring about less procrastination in their workplace. A significant difference was also found regarding marital status, such that participants who had three children claimed to be more indecisive than did the other groups. Results showed that marital status did not differentiate a person's tendencies to procrastinate on any areas of procrastination. However, an increased number of children may cause more stress on an individual and may load him or her with more responsibility, which may lead to more decisional procrastination (Harriott & Ferrari).

The present study was the first attempt to investigate the prevalence of chronic procrastination among nonstudent adults living in Turkey as a function of demographic variables. Results were based on a convenient sample of adults working in governmental institutions in the capital of Turkey. However, further research with larger and more demographically diverse populations would certainly strengthen our findings. We suggest that future studies be conducted with samples selected randomly from different regions of Turkey and different Middle Eastern cultures.

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*Received August 31, 2007*

*Accepted June 16, 2008*

***The Journal of Social Psychology***  
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