Curr Psychol (2018) 37:426–431
DOI 10.1007/s12144-017-9679-4

Delaying Disposing: Examining the Relationship between Procrastination and Clutter across Generations

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Published online: 18 September 2017

Abstract We explored how two types of procrastination (indecision and behavioral), contribute to problems with clutter across three adult U.S. samples differing as generational cohorts. An online survey was administered to college students (mean age = 21) and younger adults recruited using Amazon's Mechanical Turk (MTurk; mean age = 31), plus older adults recruited with help from the Institute for Challenging Disorganization (mean age = 54) (http://challengingdisorganization.org). Hierarchical linear regression revealed that behavioral procrastination contributed significantly to an increasingly larger percentage of explained variance in clutter problems across the generational cohorts in a series of separate analyses. The addition of indecision as a variable led to a significant incremental increase in explained variance for the younger and older adult samples, but not for the student sample. Clutter problems led to a significant decrease in satisfaction with life among older adults. Findings suggest that general procrastination tendencies may enable a lifelong pattern of responses to one's environment that become increasingly maladaptive throughout the life cycle - simultaneously delaying disposal decisions.

Keywords Procrastination · Clutter · Indecision · Disposition · Well-being

Procrastination, or the voluntary delay of an intended course of action despite negative consequences (Ferrari 1998, 2010; Ferrari and Tibbett 2017), is a problematic behavior that leads to dysfunctional ways of being, and consequently, reduced quality of life. A large body of research examined academic procrastination's detrimental effects using student populations. Studies with student populations have shown that academic procrastination (a situational tendency to delay academic-related behaviors) is related to poor academic performance (e.g., Ferrari et al. 1995), greater engagement in avoidance behaviors that undermine academic goals (e.g., Pychyl et al. 2000), higher stress and anxiety levels (e.g., Rothblum et al. 1986; Tice and Baumeister 1997), and lower self-efficacy (e.g., Ferrari 2010; Wolters 2003). Alternatively, a body of literature exists examining the causes and consequences of *chronic procrastination*, the negative lifestyle crossing life-domains outside of academia and among non-academic populations (i.e., older adults; see Ferrari and Tibbett 2017). Chronic procrastination affects between 20 and 25 percent of adults, from western and non-western cultures (Ferrari 2010). However, there are untapped opportunities to explore how chronic tendencies toward delaying and avoiding unpleasant tasks (such as de-cluttering one's possessions) might culminate over the life cycle, creating dysfunctional circumstances threatening one's well- being.

The present study examined how chronic procrastination may lead to *clutter*, which has been defined as "an overabundance of possessions that create chaotic and disorderly living spaces" (Roster et al. 2016). Procrastination and clutter are remarkably common problem for many people. Virtually all adults have spaces in their homes filled with unused, unwanted, or neglected possessions waiting for the possessor to find

Portions of this paper were presented at the *10th Biennial Meeting on the Study of Procrastination*, July 13 and 14, 2017, Chicago, IL.

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an opportune time to take action, whether that action is to keep, sell, donate, give-away or dispose of those objects (Belk et al. 2007; Hirschman et al. 2012; Jacoby et al. 1977). Disposition of possessions can be an unpleasant task, one that if left undone can create a distressing amount of clutter. Research has shown that people avoid disposal decisions for many reasons, including a desire to avoid wastefulness (Haws et al. 2012) and loss of self-identity associated with disposal of possessions harboring close personal meanings or attachments (Frost et al. 2007; Roster 2001; Young and Wallendorf 1989). Even disposal contemplations that involve seemingly ordinary, mundane possessions can induce feelings of uncertainty and ambivalence (Kleine et al. 1995). As adults age, they typically amass more possessions, making clutter more problematic for individuals who don't routinely take time to purge.

Some degree of procrastination and clutter is adults of all ages. It is only when these behaviors become chronic and extreme that they begin to suggest an underlying pathological disorder, such as compulsive indecisiveness (Frost and Shows 1993) or hoarding disorder (Frost and Hartl 1996; Frost et al. 2012). Both chronic procrastination and clutter by the individual or others their life sphere might seem just an innocuous "bad habit," until the consequences of inaction begin to disrupt a person's quality of life and well-being. Therefore, it appears useful to examine the nature and trajectory of the relationship between procrastination and clutter among adults at different stages of life.

The Present Study

A few studies linked *indecisiveness* (i.e., decisional procrastination) and *behavioral* (i.e., neglect in everyday routines and obligations; see Tibbett and Ferrari 2015) procrastination tendencies to OCD and hoarding behaviors (e.g., Ferrari and McCown 1994; Frost and Shows 1993). However, previous research has yet to explore how different forms of procrastinatory behavior may contribute to clutter problems across a lifetime. The present study explored how two everyday types of procrastination (indecisional and behavioral), contribute to problems with clutter using three adult U.S. samples representing different generational cohorts. *Decisional procrastination* is defined as a maladaptive tendency to postpone decisions when faced with conflicts or choices (Ferrari and Dovidio 2001; Tibbett and Ferrari 2015). Because disposal decisions can be stressful, especially for individuals who form close attachments to their possessions (Roster 2015), indecisives may avoid disposition tasks because they are afraid of making the wrong decision or regretting their actions later. On the other hand, individuals who chronically put off organizing and purging tasks may find that their failure to do has created a situation so out of control that they cannot bear the time and effort needed to start the process. We predicted that both forms of procrastination would account for some variance in the extent to which clutter posed negative consequences for a person's life, but not necessarily in equal degrees across the various age cohorts. Prior research has shown that both the quantity and nature of possession-self meanings can change over the life span (Csikszentmihalyi and Rochberg-Halton 1981; Kamptner 1991; Karanika and Hogg 2013), which may influence the need to engage in disposition practices on a routine basis as well as the emotional intensity and sources of conflict associated with disposal decisions.

Method

Procedure and Samples

The present study explored the relationship between types of procrastination and clutter using three different adult U.S. samples selected to represent different generational cohorts. Hereafter, we refer to these separate samples as "College Students," "Younger Adults," and "Older Adults." The data collection method for all three samples was a Qualtrics Internet survey that utilized common measures for the key study variables. Participants for all three samples were recruited using convenience sampling that employed different recruitment methods. IRB approval was obtained prior to conducting studies for each round of data collection.

Participants

College Student Sample A total of 60 students who completed all measures was drawn from a larger pool of 346 students responding to different online surveys that included procrastination, relationships with possessions, and clutter. All students were enrolled in psychology courses at a private mid-western university and received course credits for their participation. Seventy-five percent were female. The average age was 21 years (SD = 2.90). Most students were in their second or third year of schooling (54%). The majority were Caucasian (57%), 15% were Hispanic/Latino, 12% were Black, 8% were Asian/Pacific Islander, and 8% reported "mixed/other."

Younger Adults Sample We also recruited from Amazon Mechanical Turk (n = 197) and compensated monetarily for their participation. Eligibility was based on age (between ages 18 and 44) and resident of the U.S., with the average reported age being 31 years (SD = 6.28). Gender was 46% female and 54% male. Most were Caucasian (79%), 8% were Black, 6% were Asian/Pacific Islander, and the remaining 7% reported "other." Forty-eight percent were single, 34% were married, 15% were partnered/cohabitating, and 3% reported "divorced/separated." The median income was $35,000 to $49,999.

Older Adults Sample Participants in this group (n = 1393) were recruited with help from the Institution for Challenging Disorganization (ICD) as part of a larger study on home environments and clutter. ICD is a non-profit organization whose mission is to benefit people challenged by chronic disorganization by offering education, research, and strategies for overcoming disorganization challenges (see http://challengingdisorganization.org). ICD posted an invitation with a link to our survey on their home webpage. Eligibility included adults age 18 or over who lived in the United States. The mean age was 54 years old (SD = 11.28), with a range of 21 to 84 years. Most were female (94%). As for ethnicity, the majority (88%) were Caucasian, 6% were Black, Asian, or Hispanic, and the remaining 6% reported "other." Fifty-eight percent were married, 16% were single, and 15% were divorced/separated. The median income was $50,000 to $74,999.

Procedure

After viewing the consent form, consenting respondents answered the eligibility questions (i.e., age and country of residency, for Younger and Older adult samples). Each of the substantive study measures were presented in separate blocks. Blocks were randomized in appearance to avoid order effects. The survey concluded with the demographic questions.

Psychometric Measures

Two scales were used to measure different forms of everyday procrastination (see Ferrari et al. 1995 for the actual items). *Decisional Procrastination* (*DP*) was measured using the 5-item scale developed by Mann (1982). Each of the five items in the scale was measured on a 5-point scale ranging from 1 = "not true for me" to 5 = "true for me." The 15-item *Adult Inventory of Procrastination* (*AIP*) scale (by McCown and Johnson 1989; found in Ferrari et al. 1995) measured everyday procrastination related to routine tasks and obligations. Items in this scale were measured on a Likert scale where 1 = "strongly disagree" and 5 = "strongly agree."

The negative impact on clutter on an individual's life was measured using the *Clutter Quality of Life Scale* (*CQLS*) developed by ICD, which was designed to measure the degree to which clutter creates negative consequences for a person's life and well-being (found in Roster et al. 2016). The unidimensional scale contains 11 items that assess clutter's impact on various aspects of well-being, including emotional, social, and livability of home spaces. Items were measured on a Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree." To measure overall life satisfaction, we used Diener et al. (1985) *Satisfaction with Life Scale* (*SWLS*), which contains five items. Items were measured on a 7-pt. Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree."

Results

Preliminary Analyses

Descriptive statistics for all four study variables of interest across the three samples are provided in Table 1. Table 2 provides Pearson's r correlations for all study variables across the three samples. Some observations can be drawn from these preliminary analyses: First, the descriptive means illustrated in Table 1 show that, relatively across the three samples, self-reported problems with clutter (*CQLS*) tend to increase with age. The mean increase is most dramatic for the older adult sample, which we attribute at least partially to our recruitment methods, as this sample was recruited on a webpage for adults seeking help with clutter problems. Nevertheless, means for our measure of problems with clutter (i.e., *CQLS*) trend upward across the generational cohorts. Table 2, the correlation analysis of variables across samples, reveals that the strength of the relationship between *DP* and *AIP* increases with age, as do their significant association with clutter problems. However, the relationship between clutter issues and overall satisfaction with life (i.e., *SWLS*) was not significant except for our older adult sample.

Impact of Procrastination on Clutter Problems

The purpose of this study was to assess the impact of two everyday forms of procrastination on negative life

Table 1 Descriptive statistics for scaled variables, all samples

Scaled Variables	*M*	*SD*	Range (possible)	
			Min.	Max.
College Students (n = 60)				
AIP	36.93	10.32	15(15)	60(75)
DIP	14.02	4.72	5(5)	25(25)
CQLS	25.74	14.37	11(11)	62(77)
SWLS	23.69	5.16	7(7)	35(35)
Younger Adults (n = 197)				
AIP	37.87	16.53	15(15)	64(75)
DP	12.61	4.98	5(5)	25(25)
CQLS	37.87	16.53	11(11)	77(77)
SWLS	22.12	7.98	7(7)	35(35)
Older Adults (n = 1393)				
AIP	41.02	12.22	15(15)	75(75)
DIP	13.74	4.75	5(5)	25(25)
CQLS	50.28	20.19	11(11)	77(77)
SWLS	20.74	7.80	7(7)	35(35)

AIP Adult Inventory Procrastination scale, *DIP* Decisional Procrastination scale, *CQLS* Clutter Quality of Life scale, *SWLS* Satisfaction with Life scale

Table 2 Correlation matrix for study variables, all samples

Variables	1	2	3	4
College Students (n = 60)				
1. AIP	–			
2. DP	.27*	–		
3. CQLS	.32*	.16	–	
4. SWLS	−.09	−.13	−.01	–
Younger Adults (n = 197)				
1. AIP	–			
2. DP	.61**	–		
3. CQLS	.45**	.45**	–	
4. SWLS	−.24**	−.25**	−.07	–
Older Adults (n = 1393)				
1. AIP	–			
2. DP	.61**	–		
3. CQLS	.54**	.54**	–	
4. SWLS	−.35**	−.38**	−.50**	–

AIP Adult Inventory Procrastination scale, *DIP* Decisional Procrastination scale, *CQLS* Clutter Quality of Life scale, *SWLS* Satisfaction with Life scale

* $p < .05$ ** $p < .01$

consequences arising from clutter. Hierarchical linear regression (see Table 3) was used to determine the strength of the procrastination variables in predicting clutter problems for each generational cohort, in separate analyses.

Table 3 Hierarchical multiple linear regression models for predicting clutter with procrastination variables, all samples

Predictor variable	R^2	Δ R^2 (p)	β	t	p
College Students (n = 60)					
Step 1	10.5%				
AIP			.32	2.63	.01
Step 2	11.1%	.53			
AIP			.31	2.36	.02
DP			.08	.63	.53
Younger Adults (n = 197)					
Step 1	19.8%				
AIP			.45	6.95	<.001
Step 2	22.4%	.01			
AIP			.32	4.03	<.001
DP			.21	2.58	.01
Older Adults (n = 1393)					
Step 1	29.1%				
AIP			.54	23.89	<.001
Step 2	36.0%	<.001			
AIP			.34	12.49	<.001
DP			.33	12.29	<.001

AIP Adult Inventory Procrastination scale, *DIP* Decisional Procrastination scale, *CQLS* Clutter Quality of Life scale, *SWLS* Satisfaction with Life scale

In step one, we entered the scores for *AIP*, everyday routine procrastination for routines and life tasks. In step two, we added *DP*, decisional procrastination, to the model. For each model within the samples, we examined the increase in R^2 (amount of additional variance accounted for) and its associated F test to test for significant improvement in the model. Results appear in Table 3.

At the first step, the overall model indicated that *AIP* explained a significant percentage of variance in clutter problems across all three samples; College Students (R^2 = .11), F (1,59) = 6.92, $p \leq .01$), Younger Adults (R^2 = .20), F (1196) = 48.34, $p < .001$), and Older Adults (R^2 = .54), F (1,1392) = 570.88, $p < .001$). The percentage of variance in clutter problems accounted for by *AIP* also increased across the age cohorts. At the second step, the incremental increase in explained variance from adding *DP* to the model was significant for both Younger and Older Adults; Younger Adults (incremental R^2 = .03), F change (1195) = 6.67, $p \leq .01$) and Older Adults (incremental R^2 = .07), F change (1,1391) = 150.99, $p < .001$). The step two overall model was not, however, significant for the College Sample (incremental R^2 = .006), F change (1,58) = 0.40, p = .53). An examination of standardized betas for step 2 shows that the separate influence of *DP* on clutter increased across the age cohorts, significantly so for younger and older adults, and became nearly equal with the influence of *AIP* on clutter problems in the Older Adult sample.

Discussion

We regard these results as "exploratory" and acknowledge limitations that may have impacted the findings we obtained from the data. Foremost among these is that our data was not longitudinal, and instead represented a cross-sectional examination of procrastination and clutter across age cohorts obtained using different sampling methods. Our convenience-based sampling methods rendered samples that were not necessary comparable, nor representative of their respective generational cohorts. Two of our samples, the College Sample and the Older Adults Sample were primarily female, therefore, the influence of gender or other cohort-related personal factors on procrastination and clutter issues remains a topic for future research. We utilized a sample purchased from Amazon Mechanical Turk (i.e., MTurk) to collect data from Younger Adults. This sample was more equally balanced in terms of gender. While MTurk samples cannot be regarded as representative of adults within the general U.S. population, consumer research has recently witnessed a shift to the use of MTurk samples as opposed to college student samples for studies involving adult decision behaviors, citing support that

they are less idiosyncratic than student populations and can, provided the researcher exercises appropriate targeting criteria, validly represent their target populations and produce generalizable findings (e.g., Goodman and Paolacci 2017). Last, we acknowledge that recruiting participants for our Older Adults Sample from ICD's webpage likely garnered a sample that overrepresented those in this age cohort with clutter problems. However, this sampling procedure allowed us to expose more fully the effect of different types of procrastination on clutter problems among this hard to reach population.

Despite these limitations, this study offers important contributions to the procrastination literature and methodology and presents clear avenues for future research in this area. Theoretically, this study contributes to Klingsieck's (2013) call for more research to differentiate procrastination's characteristics in various life-domains other than academia. While both types of procrastination examined here fall within the life domain of "everyday adult tasks and routines," our findings suggest that these forms of procrastination may exert differential influences across the life span, at least in terms of the particular negative life consequence we investigated, that being the negative impact of clutter on a person's well-being. Thus, this study contributes to a growing body of literature that examines how particular types of procrastination can differentially impact negative consequences under different contexts and circumstances. Overall, our findings suggest that a general propensity to procrastinate when it comes to attending to routine, everyday tasks, such as sorting and disposing of personal inventory items, can lead to problems with clutter. Clutter, while often regarded as a seemingly innocuous and common problem among adults, can escalate as people accumulate more possessions, and fail to routinely review their burgeoning inventories. At the extreme, clutter can reduce a person's general satisfaction with life, as evidenced among our Older Adult sample with clutter problems.

From a methodological perspective, our study demonstrated the usefulness and validity of measuring decisional procrastination (*DP*) in varied non-college adult samples (Ferrari et al. 1995). There are a number of contexts in which procrastination involving decisions as a special form of procrastination revealing insights not captured by typical general procrastination measures. Our results suggest that *DP* might exert unique influence on negative consequences of procrastination, especially in contexts wherein choices becomes more emotionally challenging and complex. The *AIP* scale measured procrastination in non-college samples (Ferrari 2010). Our results demonstrate that everyday procrastination as measured by the *AIP* scale produced insightful and differential results from other measures of procrastination in both college and non-college samples. Findings from this study suggest that general procrastination tendencies may enable a lifelong pattern of responses to one's environment that become increasingly maladaptive as circumstances change and pressures to act mount.

Last, our results are consistent with the few extant studies that have examined the relationship between indecision, procrastination, and hoarding tendencies (e.g., Ferrari and McCown 1994; Frost and Shows 1993). However, our study suggests that there is a relationship between everyday forms of procrastination and everyday clutter among non-clinical populations that might escalate as one ages, resulting in not-so-everyday forms of distress and consequences for a person's well-being. Future research should explore how other distinct forms of procrastination may contribute to clutter problems in conjunction with everyday forms of task delays, and how these different types of procrastination manifest themselves, and under what circumstances, throughout the life span. Future research also is needed to examine how socio-economic factors, gender, ethnicity, and personal values such as materialism impact the relationship between clutter and procrastination tendencies.

Conclusion

Procrastination is more than a bad habit or being lazy. Chronic, pervasive procrastination is a maladaptive behavior that if perpetuated across the life span, may lead to serious negative consequences, depending on the behaviors or actions the person chooses to continually relegate to the future. For researchers to fully appreciate the maladaptive nature of procrastination and its cumulative impact on an individual's life, it is necessary to clearly delineate the nature of both what and why an individual chooses to delay.

Acknowledgements The authors thank the *Institute for Challenging Disorganization* (ICD) for their assistance with data collection for the older adult population in this study.

Funding This study was NOT funded by any grant.

Compliance with Ethical Standards

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest JR Ferrari declares that he has no conflict of interest. C Roster declares that she has no conflict of interest.

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