



# An ego identity perspective on volitional action: Identity status, agency, and procrastination

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## Abstract

Identity has been positively related to agency. Agency theoretically confers the capacity for action required for timely task completion. Given this theoretical link between identity and procrastination, we hypothesized that level of ego identity development would be negatively related to procrastination. Participants (101 female, 38 male) completed the Extended Objective Measure of Ego Identity Status-revised, the Procrastination Assessment Scale – Students, and the General Procrastination Scale. Diffusion ( $r = .22$ ) and Moratorium ( $r = .30$ ) status scores showed significant positive correlations with an aggregate measure of procrastination, Achievement status scores ( $r = -.34$ ) yielded a negative correlation, and Foreclosure status scores showed no significant correlation. A regression of the four identity status scores on procrastination while controlling for gender was significant ( $R^2 = .19$ ,  $F(5, 133) = 6.09$ ,  $p < .001$ ) with Moratorium and Achievement scores accounting for the variance in the aggregate procrastination measure. These findings support both our hypothesis of a negative relation of identity status to procrastination and the theoretical link between agency and procrastination. The opposite relation of Moratorium and Achievement to procrastination is explained in terms of Erikson's ego synthetic and executive functions and their link to the identity dimensions of exploration and commitment.

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## 1. Introduction

Procrastination has long been examined through the lens of constructs related to the notion of self. A recent volume, *Counseling the Procrastinator in Academic Settings*, lists 27 separate entries in the index with the “self-” prefix (Schouwenburg, Lay, Pychyl, & Ferrari, 2004). For example, procrastination has been linked to problems in self-regulation (e.g. Van Eerde, 2000), self-handicapping (Ferrari & Tice, 2000), self-esteem (Pychyl, Coplan, & Reid, 2002) and many other aspects of self. Notably, as summarized by Lay (2004), self-identity has a limited but distinct place in the procrastination literature.

In linking the constructs of identity and procrastination, we draw conceptually on the role of identity in determining an individual’s capacity for deliberate action or *agency*. Erikson (1956, 1963) theorized that ego development was an essential component of forming an identity. Given the importance of the ego’s functioning in determining human action (or inaction) (Erikson, 1963), particularly its role in determining an individual’s capacity for agency (Côté & Levine, 2002), we believe further refinement of the understanding of ego identity’s role in procrastination is warranted.

### 1.1. Procrastination and ego identity: research and theory

The relation of ego identity to procrastination has been studied directly by Ferrari, Wolfe, Wesley, Schoff, and Beck (1995), who examined the relation of ego identity style (Berzonsky, 1989) to academic procrastination. Participants were classified into two ego identity styles: (1) an *information-oriented* ego identity style, which described a pattern of actively seeking out, evaluating, and using relevant information, and (2) a *diffuse/avoidant* ego identity style, associated with reactive and spontaneous behaviour, and a reluctance to engage in problem-solving and decision-making.

Ferrari, Wolfe, et al. (1995) predicted that an information-oriented identity style would be negatively correlated to academic procrastination and a diffuse/avoidant identity style would be associated with higher levels of academic procrastination. Across three levels of college selectivity, they found a positive correlation between a diffuse/avoidant identity style and academic procrastination ( $r$ s from .24 to .36,  $p < .01$ , two-tailed). They also found smaller but significant negative correlations between an information-oriented identity style and academic procrastination ( $r$ s from  $-.13$  to  $-.23$ ,  $p < .05$  for nonselective college,  $p < .01$  for moderately and highly selective colleges, two-tailed).

In our research, we extended the work of Ferrari, Wolfe, et al. (1995) by examining ego identity statuses (Marcia, 1966; Marcia, 1980) and their relation to procrastination. The four statuses are composed of an evaluation along two dimensions, exploration and commitment. Exploration (Matteson, 1977), originally termed “crisis” by Marcia (1966), refers to a deep self-scrutiny on the part of individuals in examining who they are and alternatives available to them as possible identities. Commitment refers to a significant personal investment in a particular identity, where one’s sense of self-draws importantly on a specific identity choice. In Marcia’s paradigm (1966,

1980), individuals are classified dichotomously along these two dimensions of identity development resulting in four possible identity statuses. The Achievement status, for which exploration and commitment have occurred, is considered the most developmentally mature and adaptive (Marcia, 1966; Marcia, 1980; Schwartz, 2001). Moratorium involves a continuing stage of exploration, without a commitment to an identity. Foreclosure is characterized by the introjection of parental values and schemas, resulting in commitment without exploration. Diffusion refers to a status of no tangible exploration or commitment, and is considered the least developmentally mature and adaptive. Diffusion and Achievement serve as low and high endpoints, respectively, in Marcia's ego identity development paradigm, with Foreclosure following Diffusion, and Moratorium just before Achievement.

Marcia's use of the underlying identity dimensions of exploration and commitment is based on Erikson's identity theory (1956, 1963). Erikson's construct of ego identity incorporates the faculties of meaning-processing, or ego synthetic function, and of action-directing, or ego executive function (Côté & Levine, 2002). Ego identity allows individuals to interpret the information they receive, and guides them in executing an appropriate response. These functions are considered essential by Côté and Levine (2002) for the capacity for *agency*, the ability to act and affect one's surroundings.

### 1.2. *Identity, agency and volition, and procrastination*

Ego identity has been clearly linked to agency across three ethnic groups in an American sample (Schwartz, Côté, & Arnett, 2005). Schwartz and colleagues found agency to be positively related to exploration, flexible commitment, and to deliberate choice making, which are the hallmarks of the Achievement status. Agency was found to be unrelated to closure and conformity, concomitants of the Foreclosure status. Finally, agency was negatively related to avoidance and aimlessness, the defining characteristics of the Diffusion status. If agency is indeed a link between ego identity status and procrastination, with greater agency corresponding to less procrastination, specific predictions arise: the Achievement status will be negatively correlated with procrastination, the Diffusion status will be positively correlated, and the Foreclosure status will show no relation. In addition, Moratorium might be expected to be negatively correlated to procrastination due to this status' association with exploration, however, Moratorium has also been amalgamated with Diffusion characteristics in several factor analyses (Adams, 1998), leading to the possibility of a positive correlation with procrastination.

We propose that a link between identity and procrastination could be explained through agency by its necessary constituent, volition. Agency can be defined as referring to "the belief that one is in control of one's decisions and is responsible for their outcomes" (Schwartz et al., 2005, p. 207). The traditional conception of volition has been that it is an act of the will, or conation (Zhu, 2004). From the Western perspective, control, responsibility and deliberate use of the will exist in necessary conjunction with each other. The link between volition and procrastination is made in the literature especially with reference to action control. Specifically, research (e.g. Beswick & Mann, 1994) suggests that with regard to procrastination "the inability to bridge the gap between intention and performance embodies the volitional impairments addressed in Kuhl's (e.g. 1994) theory of action control" (Blunt & Pychyl, 2005, p. 1772).

We propose these conceptual links between identity, agency and volition, and volition and procrastination through a theory of action. On this basis, we hypothesized that a less developed ego

identity, especially as operationalized as the Diffusion status, would be associated with higher levels of procrastination, whereas a more developed ego identity status, particularly the Achievement status, would be associated with lower levels of procrastination.

## 2. Method

### 2.1. Participants

Following ethics approval, participants were recruited with a posting addressed to an introductory psychology participant pool. In total, 139 volunteers were recruited, 101 females (mean age = 19.85, SD = 2.15) and 38 males (mean age = 21.05, SD = 4.05). Given the over-representation of females in social-science participant pools as well as data collection time constraints, we could not recruit more males, though this would have been preferable. The age group represented corresponds to the Erikson (1963) theoretical description of the psychosocial stage of identity resolution during late adolescence and young adulthood. This age range also corresponds to that of the samples used by Adams and colleagues (Adams, 1998) in the development and validation of the identity status questionnaire used in our study.

### 2.2. Materials

#### 2.2.1. Extended version of the Objective Measure of Ego Identity Status (EOMEIS-2; Bennion & Adams, 1986)

Bennion and Adams (1986) developed the Extended version of the Objective Measure of Ego Identity Status (EOMEIS-2) from earlier efforts begun by Adams, Shea, and Fitch (1979). The aim was to provide a self-report alternative to the semi-structured interview as a means of determining identity status. The scale consists of 64 items to which participants respond on a 6-point alphabetical Likert scale (A-Strongly agree to F-Strongly disagree). These items represent the two principal domains in identity formation: ideological and interpersonal. Sample items include: (1) (ideological Achievement) “I’ve thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe” and (2) (interpersonal Diffusion) “I haven’t really thought about a ‘dating style’. I’m not too concerned whether I date or not.”

Of the 64 items on the EOMEIS-2, there are eight for each of the identity status-by-domain level (e.g. ideological Achievement, interpersonal Moratorium, etc.) The scores on the statuses can be collapsed across the ideological and interpersonal domains to yield a score for each participant on each of the four statuses, measuring their degree of endorsement of statements relating to each status. Adams (1998) reports correlations of .38–.92 for the two domains. In our sample, correlations had a median value of .45 (Diffusion, .27, Foreclosure, .60, Moratorium, .52, Achievement, .39). After finding very similar results with respect to procrastination for both ideological and interpersonal status scores, and in consultation with the EOMEIS-2 scale developer (G.R. Adams, personal communication, January 24, 2007), we collapsed the ideological and interpersonal domains for the purposes of this study.

Adams (1998) reports reliability estimates for the EOMEIS-2 from two large samples ( $n = 317$ ,  $n = 274$ ) Internal consistency of the subscales ranged between .67 and .77. Split-half reliabilities

ranged from .37 to .64. Test–retest reliabilities ranged over a four week period from .63 to .83. Adams (1998) reports Cronbach’s alphas for the eight different status-by-domain subscales range from .58 to .80, with a median of .63. In the current study, Cronbach’s alpha for the four status scores ranged from .67 to .87, with a median value of .74.

Adams (1998) reports that a team of 10 graduate students established face validity for the EO-MEIS-1 by mapping the identity status items into the appropriate status categories with 96.5% agreement. In a review of numerous studies, Adams (1998) provides good evidence of predictive, concurrent, discriminant, and construct validity. For example, predictive and concurrent validity was confirmed by the correspondence to theoretical prediction of the correlation of identity subscales with measures of self-acceptance, intimacy, and authoritarianism. Discriminant validity was indicated by negative or non-significant correlations between identity scores and other scores that are not predicted to correlate (nine indices of academic achievement, vocabulary and social desirability) which ranged from  $-.25$  to  $.22$  and accounted for 6.25% of the variance. Construct validity evidence was drawn, among other sources, from six factor analysis studies which demonstrated theoretically consistent results. However, in five of these studies, Moratorium and Diffusion were shown to share common variance and could be judged to load on a common factor. Finally, the EOMEIS-2 was found to have convergent validity with the interview methods of assessing identity status (Adams, 1998; Schwartz, 2001).

#### 2.2.2. *Procrastination Assessment Scale – Students (PASS; Solomon & Rothblum, 1984)*

Solomon and Rothblum (1984) developed the Procrastination Assessment Scale – Students (PASS) to measure academic procrastination. This 44-item scale is the most widely used scale that measures academic procrastination specifically (e.g. Ferrari, Johnson, & McCown, 1995; Harrington, 2005). It is divided into two parts. The first part lists six academic tasks (e.g. writing a term paper, studying for exams) with three 5-point Likert scales that ask the participant to report (1) frequency of procrastination (PASS-Frequency), (2) the degree to which the behaviour is seen by the participant as a problem (PASS-Problem) and (3) desire to decrease procrastination (PASS-Decrease). The PASS-Decrease and the second part of the PASS (assessing reasons for procrastination) were not used for this paper.

Researchers have demonstrated concurrent validity for the PASS as it correlates with other measures that are related to procrastination; for example, depression and low self-esteem (Ferrari, Johnson, et al., 1995). The internal consistency for the present sample was good for PASS-Frequency and PASS-Problem. PASS-Frequency (6 items) had a Cronbach’s alpha of .79. PASS-Problem (6 items) had a Cronbach’s alpha of .72.

#### 2.2.3. *General Procrastination scale (GP; Lay, 1986)*

The General Procrastination scale (GP; Lay, 1986) measures trait procrastination, the inclination to procrastinate in everyday life. This unidimensional scale contains 20-items, for example, “A letter may sit for days after I write it before I mail it” and “I often find myself performing tasks that I had intended to do days before.” Each item is scored on a 5-point Likert scale (1 = *very untrue*; 5 = *very true*). All items are summed for a single-scale score. Higher scores reflect a higher degree of self-reported procrastination.

Previous research has demonstrated the GP scale to be reliable with a Cronbach’s alpha of .78 (Ferrari, 1991) and test–retest reliability of .80 (Ferrari, 1989). Lay (1986) also found a

Cronbach's alpha of .82, as well as predictive validity with students and a sample from the general population. The internal consistency of the current sample was comparable to previous research, with a Cronbach's alpha of .84. In the current sample, the GP was moderately correlated ( $r = .57$ ) to PASS-Frequency and somewhat correlated ( $r = .32$ ) to PASS-Problem.

### 2.3. Procedure

Participants completed three brief self-report measures in groups of approximately 20–30 participants, taking between 20 and 40 min. The three measures they completed were the Extended version of the Objective Measure of Ego Identity Status (EOMEIS-2; Bennion & Adams, 1986), the Procrastination Assessment Scale – Students (PASS; Solomon and Rothblum, 1984; Ferrari, Johnson, et al., 1995), and the General Procrastination scale (GP; Lay, 1986). Participants' age and gender were recorded, and a debriefing sheet was distributed after participation.

## 3. Results

### 3.1. Examination of the data for parametric assumptions

There were only 6 missing data points out of approximately 18,000 collected (0.03%). In these instances a question had gone unanswered or was not understood. In each instance, the variable mean value was substituted for the missing values (Tabachnick & Fidell, 2001). After compiling the relevant totals, the scores on the EOMEIS-2, GP, PASS-Frequency and PASS-Problem were examined for normality of distribution, kurtosis and skew. After eliminating three individual scores as outliers, the rest of the data were acceptable as normal and not kurtotic or skewed (Tabachnick & Fidell, 2001).

### 3.2. Aggregation of procrastination measures

To improve signal-to-noise ratio, the three measures of procrastination remaining were aggregated by summing their totals (Neufeld & Gardner, 1990). Their correlations were moderate (GP to PASS-Frequency,  $r = .57$ ,  $p < .001$ ; GP to PASS-Problem,  $r = .32$ ,  $p < .001$ ; PASS-Problem to PASS-Frequency,  $r = .43$ ,  $p < .001$ ; all  $p$  values two-tailed), the magnitudes of the three measures were comparable (GP,  $M = 59.2$ ,  $SD = 11.4$ ; PASS-Frequency,  $M = 54.3$ ,  $SD = 12.1$ ; PASS-Problem,  $M = 62.2$ ,  $SD = 14.3$ ) and the variances for the three measures did not differ significantly. As well, each individual measure correlated highly with the procrastination aggregate (PROC-total; GP,  $r = .77$ ,  $p < .001$ ; PASS-Frequency,  $r = .83$ ,  $p < .001$ ; PASS-Problem,  $r = .78$ ,  $p < .001$ ; all  $p$  values two-tailed), indicating good internal consistency.

### 3.3. Gender effects

Gender (males coded zero, females coded one) was significantly correlated only with the Moratorium status ( $r = .22$ ,  $p = .005$ ; see Table 1). A  $t$  test with equal variances not assumed revealed a significant difference between genders for the Moratorium status only ( $t(50.4) = -2.23$ ,  $p = .03$ ).

Table 1  
Matrix of correlations between procrastination, gender, and identity status measures

	Gender	Diffusion	Foreclosure	Moratorium	Achievement
Procrastination (PROC-total)	-.038	.224**	.091	.296***	-.344***
Gender (male = 0, female = 1)		-.096	.005	.221**	-.031
Diffusion			.066	.328***	-.465***
Foreclosure				.089	.032
Moratorium					-.216*

\*  $p < .05$ , two-tailed.

\*\*  $p < .01$ , two-tailed.

\*\*\*  $p < .001$ , two-tailed.

Females ( $M = 55.3$ ,  $SD = 8.9$ ) scored higher on average on the Moratorium subscale than males ( $M = 50.2$ ,  $SD = 13.2$ ). A comparison of the correlations between the male and female samples showed no significant differences, however, and a regression analysis found no significant gender by identity status interactions. In terms of main effect, partialing out gender first in the regression analysis showed no significant effects with respect to aggregate procrastination.

### 3.4. Regression analysis

Diffusion and Moratorium scores showed positive correlations with the aggregate measure of procrastination, Achievement scores yielded a negative correlation, and Foreclosure scores showed no significant correlation. A regression of the four identity status scores and gender (included because of the Moratorium difference) on the aggregate measure of procrastination was significant ( $R^2 = .19$ ,  $F(5, 133) = 6.09$ ,  $p < .001$ ). Moratorium ( $\beta = .25$ , partial correlation,  $pr = .24$ ,  $p = .004$ ) and Achievement ( $\beta = -.30$ ,  $pr = -.28$ ,  $p = .001$ ) contributed significant incremental prediction to the regression.

## 4. Discussion

The overall hypothesis that level of ego identity development would be negatively correlated with procrastination was supported. If we liken the Achievement identity *status* to an information-processing identity *style*, and the Diffusion identity status to a diffuse/avoidant identity style, this finding is broadly parallel to earlier research (Ferrari, Wolfe, et al., 1995). Interestingly, the profile of correlations between the identity statuses and procrastination mirrors the opposite pattern of relationships between the identity statuses' component measures and agency found by Schwartz and colleagues (2005), supporting a negative link between agency and procrastination. Finally, we found opposite correlations of the Achievement and Moratorium statuses to procrastination. This suggests a synergy in the Achievement status between the dimensions of exploration and commitment and associated ego functions in terms of reducing procrastination, as each dimension individually does not correspond to more timely task completion.

The finding that Achievement and Moratorium scores were oppositely related to procrastination was of particular interest. Moratorium is considered only second to Achievement in level of

ego identity development (Marcia, 1966; Marcia, 1980). Given Marcia's theoretically and empirically supported developmental sequence, we suggest there is a qualitative change from Moratorium to Achievement in terms of how these statuses correspond to procrastination. Those who endorse Moratorium status statements more strongly are at a stage where although they are still exploring an identity, they lack commitment to one. This lack of commitment may hamper their ability to translate the improved base of knowledge and understanding that exploration has conferred into practical, purposeful pursuit of their goals in a timely fashion. For those who endorse Achievement status statements more strongly, the commitment they make may be analogous to a kind of pruning of their energies away from exploration towards only the most productive avenues of thinking and being that they have discovered. Our results may be explained on the theoretical basis that exploration and commitment therefore work synergistically in contributing to a lower procrastination score. Viewed from the perspective of ego synthetic and executive functioning, it appears that both these components of agency working together are required to predict more timely task completion.

It is strongly suggested by our results that agency is negatively linked to procrastination. We found that Achievement is negatively correlated with procrastination, Diffusion positively correlated, and Foreclosure unrelated. Schwartz and colleagues (2005) found the components of Achievement to be positively correlated with agency, the components of Diffusion negatively correlated, and Foreclosure unrelated. This mirror opposite match between the relation of agency and of procrastination to identity confirms our predictions based on the assumption of a negative link between agency and procrastination. Unfortunately, as the first exploratory study of the link between identity status and procrastination, our study did not include explicit measures of agency. Nevertheless, the concept of agency and the ego synthetic and executive functions it requires play a key role in the theoretical basis of our hypothesis. We propose that the development of these ego functions through exploration and commitment, Erikson's key identity development dimensions, allows for the combined requirements of evaluation of information and setting of goals required for timely task completion.

For individuals who have explored possible identity choices, seeking out new information or ways of understanding has been essential. Such individuals have challenged and strengthened their ego synthetic function (Côté & Levine, 2002; Erikson, 1963). We contend that the exploration completed by those endorsing the Achievement status has led to a better developed ego synthetic function because exploration of one's identity within the context of career, politics, worldview, or social relationships demands that an individual incorporate a broad range of information and perspectives into the eventual choice of an identity. This broader perspective enhances the ego synthetic function's ability to set a value and meaning on things. A better developed ego synthetic function allows for more agency in that a person can better make sense of the wider world in which they are to act. In terms of procrastination, making better sense of what is important to study or what life goals to prioritize are essential to completing work in a timely fashion. However, the ability to prioritize may be insufficient to goal accomplishment without the ability to plan in order to meet these goals.

The other requirement for completing work in a timely fashion, we argue, is the ability to plan and execute actions. This is the purview of the ego executive function. We argue that the ability to make a commitment to an identity allows for the consistency and self-knowledge required for successful use and development of the ego executive function.

Individuals who have made a commitment to an identity conceive of themselves in a way that is reliable and consistent (Adams, 1998). This inner order conferred by an identity commitment as an individual may contribute to the ability to self-regulate and direct oneself (e.g. Berzonsky, 1997). The efficient individual and social manner of someone with commitment to an identity can be contrasted to the personally or socially unpredictable behaviour of those individuals without a commitment to an identity, as with those endorsing Moratorium or Diffusion statements. These individuals are likely to spend a great deal of time and energy searching for a sense of self and presenting themselves in different ways socially (Adams, 1998; Schwartz, 2001). Thus, it is conceivable that those with a commitment to a consistent identity would have more mental resources available to devote to their ego executive functioning in ways that would lead to less procrastination. However, an individual who has only committed without exploring may not have the ability to make as well-informed, intelligent decisions as a person with well-developed ego synthetic functioning. One possible outcome of this poor ego synthetic function for some individuals could be a false internalization (Kuhl, 1994) of a goal as being self-relevant or self-directed when it is not. When a person does not identify personally with their goals and intentions, procrastination is more prevalent (e.g. Blunt & Pychyl, 2005). This may explain the finding of no relation between Foreclosure and procrastination.

#### 4.1. *Future research*

Further investigation may seek to use direct measures of agency (e.g. Multi-Measure Agentic Personality Scale, Côté, 1997) to empirically test the theoretical link with procrastination we have proposed between identity, agency and procrastination. Based on our findings and the theory reviewed, we would predict that agency would be the more proximal, causal factor relating identity to procrastination and that agency may mediate the relation the identity-procrastination relation. Future research using a mediational model (e.g. Baron & Kenny, 1986) could be adopted to quantify the relation between identity, agency and procrastination.

#### 4.2. *Limitations*

A limitation of this study is the imbalance of male to female participants. However, this sampling bias reflects, at least to some degree, the gender ratio common in the social sciences (e.g. 2:3, males to females at our central Canadian university). This sampling limitation was addressed somewhat by testing for gender effects with respect to procrastination and to identity, and ruling out gender-by-identity status interactions. The Moratorium status is related to gender but the correlations between Moratorium and procrastination did not differ significantly between males and females. This may be due to a small male sample, however. It is important to note that due to the over-representation of females in our sample, our findings are likely to be more generalizable to a female population.

Another challenge to our study is more theoretical in nature. Schwartz and colleagues (2005) have argued and have provided empirical support to explain the relation of identity and agency to proceed from agency *to* identity, contradicting the propaedeutic role of identity we have proposed. However, we believe there is support in the Eriksonian framework for identity development facilitating greater agency through the development of the ego synthetic and executive functions.

## 5. Conclusion

The relation we hypothesized between identity status and procrastination was supported by our findings. We argue that to understand this relation within a developmental framework, it is necessary to explore the components of identity status, particularly exploration and commitment. We contend that a greater level of exploration allows a person to develop his or her ego synthetic function while commitment to a stable identity frees mental resources for the exercise of the ego executive function. These ego functions work together to foster agency, conferring the capacity to act knowledgeably and within a plan. Overall, this suggests that a developmental maturity is important in terms of ego functioning which may serve as an important resource for effective volitional action and reduced procrastination.

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