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## **Contingent Self-Worth as a Predictor of Motivational Change over the First Semester of College**

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### **Abstract**

The first semester of college is a period of motivational instability but the sources of motivational change are not fully understood. Using Self-Determination Theory, we assessed six types of motivation among 505 students at the beginning and end of the first semester of college. We then tested the extent to which contingent self-worth (CSW) at college entry predicted motivational change. Regression analyses revealed that CSW predicted growth in negative introjection (motivation to avoid guilt/shame), positive introjection (motivation to seek validation), and identified regulation (motivation for personal meaning). CSW also predicted higher GPA. These findings support the perspective of CSW as “motivationally ambiguous,” predicting both adaptive and maladaptive patterns of motivation and achievement.

**Word Count: 112**

## Objectives and Theoretical Framework

The first semester of college is a time of change. Students must navigate a developmental transition to emerging adulthood at the same time as an ecological transition to a new environment with different academic demands and opportunities for social support (Arnett & Tanner, 2006; Conley et al., 2014; Seidman & French, 2004). Indeed, the transition to college is associated with changes in self-related beliefs, psychological distress, cognitive-affective skills, and academic motivation (e.g., Conley et al., 2014; Corpus et al., 2020; Musu-Gillette et al., 2015).

These shifts in academic motivation require understanding because of their impact on college students' learning, achievement, and well-being (e.g., Guiffrida et al., 2013; Taylor et al., 2014, Wu, 2019). Academic motivation in the present study was conceptualized using Self-Determination Theory (SDT), which posits that motivation falls along a continuum from fully autonomous intrinsic motivation to externally controlled regulation to the absence of motivation altogether (Ryan & Deci, 2000). More adaptive outcomes are associated with the more autonomously regulated types of motivation compared to those that are more controlled (e.g., Brunet et al., 2015; Meens et al., 2018; Ryan & Deci, 2017).

Unfortunately, however, autonomous motivation appears to decline over the first year of college (Brahm et al., 2017; Corpus et al., 2020; Pan & Gauvain, 2012). At the same time, there is recent evidence of a substantial increase in the less adaptive forms of motivation (i.e., introjected and external types of motivation as well as amotivation) over this same period of time (Corpus et al., 2020). What might account for these troubling motivational shifts? While recognizing the substantial role of the learning environment (see Kaplan & Patrick, 2016; Ryan & Deci, 2000), individual characteristics also play a role (e.g., Haimovitz et al., 2011; Robinson et al., 2018). In the present study, we focused on **contingent self-worth** as one such predictor.

Students have a sense of contingent self-worth (CSW) in the achievement domain when their self-esteem is threatened by setbacks and failure in school (Crocker et al., 2003; Crocker & Wolfe, 2001). Such contingencies of worth can spur students toward achievement-related behaviors, such as studying for exams and completing coursework assiduously (Crocker & Luthanen, 2003). CSW can, however, also incur significant costs, such as depressive symptoms (Sargent et al., 2006) and academic problems (Crocker & Luthanen, 2003). For example, high levels of CSW at college entry predict dislike of studies, conflicts with professors, struggle to meet academic standards, and insufficient sleep during the second semester of college (Crocker & Luthanen, 2003).

These negative effects may occur, in part, because CSW involves a feeling of being externally controlled and effectively makes one's well-being conditional on approval and validation from others (Crocker & Luthanen, 2003) – a description that is resonant with the SDT construct of introjected regulation. Negative effects, moreover, may be exacerbated during the transition to college as students are seeking to understand themselves in a new environment. Although there is a theoretical link between CSW and feelings of external versus internal causality, no work to date has established such a connection empirically.

The goal of the present study was to examine contingent self-worth (CSW) as a predictor of motivational change during the first semester of college. Our fundamental hypothesis was that high levels of CSW at college entry would predict a loss to intrinsic motivation (i.e., enjoyment- and curiosity-based engagement), and growth in introjected regulation (i.e., engagement driven by guilt and shame) over time. We also conducted exploratory analyses to examine the extent to

which CSW might predict the other types of motivation in the SDT continuum (i.e., identified, external, amotivation).

**CSW and Intrinsic Motivation.** Our hypothesis that CSW would predict a loss of intrinsic motivation (IM) was grounded in previous research showing that high CSW at college entry predicted students to dislike their courses and find them uninteresting (Crocker & Luthanen, 2003). This may be due, in part, to the behavioral avoidance and self-handicapping strategies adopted by students with high CSW in situations of challenge – patterns of behavior that allow them to deflect any perceived threat to their self-esteem (Niiya et al., 2010). “Learning for its own sake, or learning for the benefit of the self, may quickly lose its appeal” given such repeated threats to ability (Crocker et al., 2006, p. 1766).

**CSW and Introjected Regulation.** We hypothesized that CSW would predict the growth of introjected regulation and especially negative introjection, which is characterized by feelings of shame and guilt. CSW effectively makes one’s well-being conditional on approval and validation from others, typically resulting in shame and humiliation upon the disclosure of incompetence (Covington, 1984; Crocker & Luthanen, 2003). Indeed, higher levels of CSW predict a more negative impact of bad grades on daily self-esteem (Crocker et al., 2003).

**CSW and Academic Achievement.** Finally, we explored competing hypotheses regarding the relationship between CSW and academic achievement. CSW could predict lower achievement given its relationship with academic problems (Crocker & Luthanen, 2003) and worse performance in laboratory settings (Lawrence & Crocker, 2009). On the other hand, those with high CSW might be particularly motivated to work hard in order to protect their self-esteem, thus predicting higher achievement (Crocker & Wolfe, 2001).

## Methods and Data Sources

### Participants and Procedure

Longitudinal survey data were collected from three consecutive cohorts of first-year students at a selective liberal arts college entering in the Fall of 2015-2017. The present study included the subset of students who responded to survey measures both upon college entry and again at the end of the first semester ( $n = 505$ ). CSW and academic motivation were assessed upon college entry (T1); academic motivation was again assessed at the end of the first semester (T2). Academic achievement data were collected from institutional records for the majority of the sample ( $n = 469$ ).

### Measure

**Contingent Self-Worth (CSW).** Students reported their CSW using a five-item scale validated for use with college students (Crocker et al., 2003). Students indicated agreement to items (e.g., “*Doing well in school gives me a sense of self-respect*”) using a 7-point response scale. Responses were internally consistent in the present sample ( $\alpha = .83$ ).

**Academic Motivation.** Using the Academic Self-Regulation Scale (Vansteenskiste et al., 2009), students rated the importance of a variety of motives for their academic work on a 5-point scale. Subscales reflected intrinsic motivation (e.g., “*because I enjoy doing it*”; 4 items), identified regulation (e.g., “*because it is personally important to me*”; 3 items), positive introjected regulation (e.g., “*because I want others to think I’m smart*”; 2 items), negative introjected regulation (e.g., “*because I would feel ashamed if I didn’t study*”; 2 items), and external regulation (e.g., “*because others oblige me to do so*”; 3 items). In addition, the Academic Motivation Scale (Vallerand et al., 1992) was used to assess amotivation (e.g.,

“*Honestly, I don’t know; I really feel that I am wasting my time in school*”; 4 items). Subscales were all internally consistent in the present sample (all  $\alpha$ s > .70).

**Academic Achievement.** Academic achievement was indexed by students’ fall semester GPA, collected from the college registrar.

## Results

Descriptive statistics and bivariate correlations between CSW and each type of academic motivation are presented in Table 1. Correlations indicated that CSW was unrelated to either intrinsic motivation or amotivation but was positively correlated with all other types of motivation (identified, positive and negative introjection, external regulation). CSW was positively correlated with GPA.

In order to examine CSW as a predictor of motivational change, we conducted a series of regressions in which T2 levels of each type of motivation were regressed on CSW and T1 levels of that same type of motivation. Contrary to predictions, CSW did not predict a change in intrinsic motivation ( $\beta = .01, p = .80$ ). Consistent with hypotheses, CSW predicted an increase in both negative introjection ( $\beta = .22, p < .001$ ) and positive introjection ( $\beta = .12, p < .01$ ). We also explored whether CSW predicted changes in other types of motivation. There was no relationship between CSW and shifts in either external regulation ( $\beta = .05, p = .16$ ) or amotivation ( $\beta = -.02, p = .58$ ). CSW did, however, predict growth in identified regulation ( $\beta = .10, p < .01$ ). All relationships held when controlling for participants’ gender identity and racial identity.

Finally, we considered whether CSW would predict academic achievement by regressing fall GPA on CSW, controlling for gender identity, racial identity, and prior achievement (via SAT scores). CSW predicted higher achievement, both with ( $\beta = .13, p = .007$ ) and without ( $\beta = .08, p = .04$ ) the demographic control variables included.

## Scholarly Significance

Given the maladaptive shifts observed in students’ academic motivation over the first semester of college (Corpus et al., 2020), it is crucial to investigate the sources of such change. The present study considered whether CSW might be part of such an explanatory framework.

The strongest support for this hypothesis comes from the analyses of introjected regulation, in that CSW predicted a rise in both the guilt- and shame-based motivation of negative introjection and, to a lesser degree, the ability-validating motivation of positive introjection. CSW involves a feeling of being externally controlled such that one’s well-being is conditional on the approval and validation from others (Crocker & Luthanen, 2003). Over time, then, this appears to predict a rise in academic motivation grounded in these same validation pursuits – a relationship predicted by theory and now verified empirically. Such a pattern of motivation may ultimately lead to behavioral avoidance on challenging tasks and depressive symptoms (Sargent et al., 2006; van der Kapp-Deeder et al., 2016). Targeting students with high levels of CSW at the point of college entry may be an important intervention strategy to avoid these negative outcomes.

Contrary to hypotheses, however, CSW did not predict changes in intrinsic motivation. It may be that the impact of CSW is felt more in the growth of controlled motives than the loss of more autonomous ones. If there are effects on intrinsic motivation, it is possible that they would be seen further downstream. It is also important to consider characteristics of the present sample. Initial levels of intrinsic motivation were quite high with a relatively restricted range, and the

sample was drawn from a selective institution known for its challenging but growth-oriented academic environment. If students felt successful and supported in this environment, high levels of CSW may have been relatively invisible (see Vonk et al., 2017). It will be important for future research to probe for a potential buffering effect of the environment on students' expression of CSW and its impacts.

Interestingly, CSW predicted *growth* in identified regulation, which is a relatively autonomous type of motivation and is adjacent to intrinsic motivation on the SDT continuum. Identified regulation includes motives around personally meaningful tasks and important life goals. Perhaps those students high in CSW see achievement as one of their *most defining* goals in that it is necessary for validating personal worth. This would lead them to endorse items assessing identified regulation, even if the more introjected types of motivation were stronger drivers of their behavior. It will be important for future research to consider how CSW impacts the interplay between introjected and identified types of motivation.

Taken together, these findings support the perspective of CSW as “motivationally ambiguous,” predicting both adaptive and maladaptive patterns of motivation and achievement (Van der Kapp-Deeder et al., 2016). Although a single college semester may represent a timeframe too small to fully capture the effects of CSW, the present study documented a substantive predictive effect on motivational shifts in introjection. Future research might adopt longer time frames and consider potential moderating variables, such as task difficulty and goal endorsements (van der Kapp-Deeder et al., 2016; Wang et al., 2012), in order to more fully assess the role of CSW in explaining motivational change. This could allow for the development of intervention efforts to set students on more positive trajectories of motivation through their first semester of college.

**Word Count: 1984**

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Table 1

*Descriptive Statistics and Correlations with CSW*

Variables	<i>M</i>	<i>SD</i>	<i>n</i>	<i>r</i> <sub>CSW</sub>
Intrinsic T1	4.01	.76	505	-.00
Intrinsic T2	3.55	.90	505	.01
Identified T1	4.23	.73	504	.26**
Identified T2	4.09	.85	505	.24**
Positive Introjection T1	2.54	1.01	504	.44**
Positive Introjection T2	2.74	1.13	505	.35**
Negative Introjection T1	2.82	1.12	504	.38**
Negative Introjection T2	3.28	1.12	505	.37**
External T1	2.16	.94	504	.11*
External T2	2.28	1.01	505	.12**
Amotivation T1	1.35	.54	504	-.08
Amotivation T2	1.69	.88	505	-.06
GPA	3.11	.63	469	.10*

*Note.* T1 = college entry; T2 = end of the first semester; \*  $p < .05$ ; \*\*  $p < .01$