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Working Through School And Living With Conflict: The Role Of Selective Optimization With Compensation

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WORKING THROUGH SCHOOL AND LIVING WITH CONFLICT: THE ROLE OF SELECTIVE OPTIMIZATION WITH COMPENSATION

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CHAPTER 1

Introduction

College education is on the rise, and more individuals are devoted to earning a degree while holding a job than ever before. According to the U.S. Department of Education, enrollment in universities across the country is increasing every year; in 2009, university enrollment was over 19 million (Snyder & Dillow, 2011). And in 2010, close to 40 percent of fulltime undergraduate students (ages 16 to 24) were employed while attending their classes (Aud et al., 2012). This number is moderate compared to estimates including part-time students, however: as high as 78 percent of all undergraduates were working while enrolled in college in 2003-04 (King, 2006). This is due in part to the increase in college tuition and number of student loans (Aud et al., 2012). There has also been an increase in *non-traditional* students (Berker & Horn, 2003; Giancola et al., 2009), including older students (over 22 years old), students with full-time jobs, and students with dependents, among others.

Undergraduate college students who are employed while they attend school may experience conflict between their roles as students and workers. This conflict is due to demands from one role interfering with the demands of the other role in the presence of limited resources (e.g., time and energy). Research conducted by Public Agenda, a non-profit organization which in part studies diverse issues related to improving education in the United States, found that this conflict between work and school can lead to negative outcomes such as college attrition (Public Agenda, 2009). According to the National Center for Education Statistics, for all students who began college in fall 2004, only 56 percent of males and 61 percent of females graduated with their bachelor's degree within 6 years (Aud et al., 2012). These numbers denote high turnover rates; around 40 percent of undergraduate students will not graduate with their intended degree in

a 6 year period (Aud et al., 2012). Working students represent a group at high risk for dropping out before earning their degree. In fact, conflict between work and school is reported as the number one factor for why college students decide to drop out. The same study conducted by Public Agenda (2009) found that 71 percent of survey respondents (college drop-outs) indicated that conflict between work and school was a factor in their decision to leave college early.

Work-School Conflict (WSC) is defined as the extent to which work interferes with a student's ability to meet school responsibilities and demands (Markel & Frone, 1998). For example, a student who needs time to complete a difficult homework assignment may experience Work-School Conflict when their supervisor calls them in to work, interfering with their school demands. According to the U.S. Department of Education (Wirt et al., 2002), the majority of employed students considered themselves "students who work" rather than "employees who take classes." By this definition, student workers tend to prioritize school over work. While it is important for student workers to maintain their job performance, it is also essential that they successfully complete their degrees. This research should be of interest to industrial-organizational psychologists as these working students not only represent an under-studied group, but will one day enter the professional workforce. Also, student workers who experience this conflict as hindrance-related stress (Cavanaugh, Boswell, Roehling, & Boudreau, 2000) may experience not only school interference and reduced school satisfaction, but negative work outcomes such as voluntary turnover and reduced job satisfaction (e.g., Cavanaugh et al., 2000; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Therefore, employers should also be aware of their student workers' perceptions of this conflict and potential ways to reduce it.

The current study examines whether a specific set of coping strategies effectively works to alleviate WSC. The coping mechanism of interest is Selective Optimization with

Compensation (SOC; Baltes & Baltes, 1990; Baltes & Dickson, 2001), a behavior-based group of strategies in which individuals actively allocate resources toward selected goals and compensate for resource loss. Outcomes of interest are Grade Point Average (GPA), Intent to Persist with college, and two facets of burnout, Disengagement and Exhaustion. The extent to which students engage in SOC strategies is expected to be related to their levels of WSC and their school-related (GPA, Intent to Persist) and strain-related (Exhaustion and Disengagement Burnout) outcomes. Further, WSC is proposed to partially mediate the effects of SOC on all four outcomes. This study contributes to the WSC research literature by examining a previously unexplored outcome of WSC: burnout. Also, while SOC has been examined in relation to Work-Family Conflict (WFC; e.g., Baltes & Heydens-Gahir, 2003; Baltes, Zhdanova, & Clark, 2011), it has yet to be tested in relation to Work-School Conflict.

The introduction is organized as follows. First, Work-School Conflict is further elaborated upon, as it is the focal issue of the present study. Next, SOC is discussed as an effective coping strategy that leads to reduction of inter-role conflict, such as WSC. Following, the hypothesized relationships of the variables will be outlined, in order of the specified model: SOC coping strategies influencing WSC and outcomes, Work-School Conflict influencing outcomes, and finally the partial mediation of WSC on the relationships between SOC and the school and strain-related outcomes.

Work-School Conflict

Work-School Conflict was introduced in the psychological literature as an extension of WFC (Greenhaus & Beutell, 1985; Greenhaus & Parasuraman, 1986). WFC is defined as "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). In order to further

define and understand the construct of Work-School Conflict, role theory, role conflict, and inter-role conflict (Kahn et al., 1964) are briefly reviewed. *Role theory* posits that individuals accumulate multiple roles in various domains throughout the lifespan. This includes school roles (i.e. student), family roles (i.e. parent), work roles (i.e. supervisor), and so on. Each role has its own set of demands; for example, work may require overtime hours while school may require hours of studying. When simultaneous demands make it difficult to meet the requirements of either role, *role conflict* results. *Inter-role conflict* is a form of role conflict in which demands from one role interfere with meeting demands of another role (Kahn et al., 1964). Work-School Conflict is therefore a type of role conflict, specifically inter-role conflict. Tension and stress develop when managing multiple roles exhausts resources, resulting in perceptions of inter-role conflict (Kahn et al., 1964). WSC may be defined in a similar manner. For example, a student who has an important exam to study for may experience WSC if their work schedule interferes with study time.

An early conceptual model of Work-School Conflict in psychological research was proposed by Markel and Frone (1998). Before their study introduced the concept of WSC as a specific form of inter-role conflict, researchers (primarily in Education) studied the direct relationship of the number of work hours related to specific school outcomes (e.g., Steinberg & Cauffman, 1995; Wirtz, Rohrbeck, Charner, & Fraser, 1988). Outcomes included decreases in study skills (Lammers, Onweugbuzie, & Slate, 2001) and decreases in overall academic performance for college students (e.g. Trockel, Barnes, & Egget, 2000) as work hours increased. Markel and Frone (1998) introduced WSC as a potential mediator between work characteristics and school outcomes.

Since the study by Markel and Frone (1998), this area of research has expanded to include antecedents of WSC, such as work characteristics like job control and workload (e.g., Butler, 2007; Frone, Yardley, & Markel, 1997; Markel & Frone, 1998). Other researchers have also examined dispositional traits (Hecht & McCarthy, 2010; McNall & Michel, 2011) and coping styles (i.e. problem-focused coping; Hecht & McCarthy, 2010) in relation to WSC. SOC has not yet been measured in relation to WSC, and represents a main contribution of the current study.

Expansion of Previous Research. In addition to measuring SOC as an antecedent, this study aimed to examine the two other gaps in the research literature on Work-School Conflict. First, most studies on WSC are cross-sectional in nature, and, according to McNall and Michel (2011), more studies on WSC need to include longitudinal data in order to establish a more causal model structure. The current study adds to the literature through the use of data from multiple time points. Second, this study makes an additional contribution to the WSC literature, by examining Disengagement and Exhaustion, the two components of Burnout (Demerouti, Bakker, Vardakou, & Kantas, 2003; Demerouti, Mostert, & Bakker, 2010) as they relate to the school domain. Disengagement and Exhaustion Burnout are two potentially important psychological strain-based outcomes of WSC, yet to date have not been examined.

Selective Optimization with Compensation

The SOC coping model (Baltes & Baltes, 1990; Baltes & Dickson, 2001) is a behavior-based group of strategies for allocating and distributing resources toward specific goals and maximizing resource gains while minimizing losses. Originally proposed by developmental psychologists as a life-management strategy for successfully aging adults, (e.g., Baltes, 1997; Baltes & Baltes, 1990), SOC has since been adapted to specific contexts as well, including the

workplace (Baltes & Dickson, 2001). One study of WFC found that usage of work-specific and family-specific SOC strategies related to lower perceptions of stressors in both the work and family domains, which, in turn, related to lower perceptions of WFC bi-directionally, measured as work interfering with family (WIF) and family interfering with work (FIW; Baltes & Heydens-Gahir, 2003).

According to SOC theory (Baltes & Baltes, 1990), Selection includes Elective Selection (ES) and Loss-Based Selection (LBS). ES is a choice made by an individual to start working toward a particular goal, and reflects a prioritization of that goal. An example is a student deciding to work toward earning an A in a class. LBS occurs when goals must be modified because of some factor, including lost resources or something unexpected. For example, a student may decide that working toward a B in the class would be just as beneficial, if the higher grade is no longer achievable.

Optimization refers to managing resources to achieve a selected goal. When optimizing, an individual employs "goal-relevant means," which are strategies used to strive toward the chosen goal. Individuals strive to meet goals by focusing energy on specific tasks and reducing outside distraction. An example is deciding to study instead of going out with friends the night before an exam. Optimization also includes developing new skills that allow for increased quality of goal achievement. For example, a student may practice playing a musical instrument to optimize their chance of success in a music course.

Compensation occurs when the individual recognizes any setbacks or losses to the original plan for goal achievement, and must make up for them. Compensation also employs "goal-relevant means." Sometimes the goal is not achieved on the first try and if the individual

still plans to achieve that goal, they must compensate for the failure of their original strategy. An example is a student taking summer classes to make up for failed grades.

Considering these three component processes (selection, optimization, and compensation) as one orchestration, SOC is a problem-focused coping strategy used to maximize the use of limited resources. Engaging in SOC-congruent behaviors (i.e. proactively studying for an exam) leads to positive outcomes for individuals balancing multiple roles (e.g., Baltes & Heydens-Gahir, 2003; Baltes, Zhdanova, & Clark, 2011; Weise, Freund, & Baltes, 2000). To achieve this balance, SOC strategies must be context-specific (Baltes & Heydens-Gahir, 2003; Weise, Freund, & Baltes, 2002). Context is an important consideration when examining SOC usage, as different contexts provide various resources, constraints, and goals (e.g., Baltes & Dickson, 2001). Individuals may display more SOC-congruent behaviors in certain domains. Therefore, SOC was examined as school-specific and work-specific in order to capture these contextual differences in SOC strategies. For example, a student worker may employ more SOC strategies at school (School-SOC) in order to organize and complete important assignments, than at work (Work-SOC), where they may be more interested in maintaining minimal performance, or may have fewer resources available for improving their job performance.

Problem-focused coping strategies (Lazarus & Folkman, 1980, 1985) have been found to reduce stressors from conflicting domains, such as work, school, and family (e.g., Baltes, Zhdanova, & Clark, 2011; Hecht & McCarthy, 2010). Considered a behavior-based process of coping, SOC is intended to reduce stress by taking action (Baltes & Baltes, 1990; Freund & Baltes, 2002; Weise, Freund, & Baltes, 2002), functioning as a problem-focused coping strategy. For example, an individual who needs to pass an exam would actively manage their resources to focus on studying. In a study of dual-earner couples, *scaling back* on work responsibilities over

the lifetime was found to buffer interference from work life on family life (Becker & Moen, 1999). These scaling back strategies, such as placing limits on work, coincide with SOC strategies and also represent functional problem-focused coping strategies to reduce inter-role conflict.

The Present Study and Hypotheses

The sections that follow include a brief description of each variable, in order of the specified model (see Figure 1). Each section outlines the expected relationships between the constructs and outcomes, followed by hypotheses. Finally, the partial mediation of WSC on SOC is hypothesized.

Relationships of Selective Optimization with Compensation with Mediator and Outcome Variables. In the current study, SOC usage in each domain (work and school) was expected to relate to WSC (negatively), along with four outcomes – GPA (positively), Intent to Persist (positively), Disengagement Burnout (negatively), and Exhaustion Burnout (negatively). Given that each outcome is oriented toward the school domain specifically, only School-specific SOC strategies were expected to have direct relationships with each outcome, while Work-specific SOC strategies were expected to be fully mediated by WSC.

Grade Point Average. GPA was used as a proxy for school performance. The extent to which student workers actively employ SOC strategies should relate to their school performance. Those using SOC strategies should focus their resources on activities that promote the goals they have selected as important, such as grades. In this way, they maximize resource gain as they are more likely to successfully achieve a higher grade, or pass a class. They also minimize resource loss by cutting down distractions, such as reducing their overtime at work. School-SOC was expected to relate positively to GPA by focusing resources on grade-related goals (selection),

optimizing performance in the school domain, and compensating for resource loss or failures to reach goals.

Hypothesis 1a: School-specific Selective Optimization with Compensation coping strategies will positively relate to lagged GPA.

Intent to Persist Intent to Persist refers to a student's goal to continue college education. Intent to Persist includes the student's plan to register for the following semester and continue their degree program until graduation (e.g. Sandler, 2002). College student Intent to Persist was developed out of research by Tinto (1975, 1993) on college student attrition. Many studies have focused on factors that play into eventual attrition or persistence (for an early review see Tinto, 1975), including motivational orientation (Stage, 1989), validation of the student's worth in college (Barnett, 2011; Réndon, 1994, 2002), instructor characteristics (Sandler, 2002) and academic or social integration (Cabrera, Nora, & Castañeda, 1993; Tinto, 1975). The theory of planned behavior (Ajzen, 1985, 1991, 2001; Ajzen & Albarracín, 2007) posits that behavioral intention is the most proximal predictor for actual behavior (e.g. dropping out). For example, studies examining voluntary turnover found that intention to quit emerged as the single strongest predictor for actual turnover (e.g., Alexander et al. 1998; Hendrix et al. 1999). Therefore, Intent to Persist is important to study as it is expected to be the most proximal predictor of college dropout. School-SOC strategies are predicted to lead to better management of school resources, in turn potentially reducing perceptions of conflict and making school and work more manageable. It was expected that effectively utilizing SOC strategies should positively relate to the student's intent to persist with college because of this reduction in conflict and increase in available resources.

Hypothesis 1b: School-specific Selective Optimization with Compensation coping strategies will positively relate to lagged Intent to Persist in school.

Burnout: Disengagement and Exhaustion. Burnout is considered a psychological strain, experienced when individuals are faced with high demands paired with low resources (Demerouti & Bakker, 2007; Demerouti, Mostert, & Bakker, 2010) over a period of time. Burnout results from perpetual stress and manifests as a form of strain, congruent with the stressor-strain model (Hart & Cooper, 2002). More specifically, burnout has been conceptualized as a context-specific psychological state (Hultell & Gustavsson, 2011) having two components, Disengagement and Exhaustion (Demerouti et al., 2003; Demerouti et al., 2010). In this study, school is the focal context. Disengagement occurs when a student is withdrawing from the school domain, questioning whether to continue to identify with their student role or to strive for school-relevant goals (Demerouti & Bakker, 2008). Exhaustion emerges when there is long-term exposure to school demands which effect physical, cognitive, or affective strain over time. For example, a student who struggles in their studies may experience cognitive strain over time as they must allocate more resources for comprehending course material. Disengagement and Exhaustion interplay as well, with correlations between $r = 0.55$ and 0.57 (Demerouti & Bakker, 2008). A student who becomes cognitively exhausted from their schoolwork may also detach from the school domain.

Using SOC strategies as a tool for life management has been found to relate negatively to stressors in multiple contexts (Baltes & Heydens-Gahir, 2003; Wiese et al., 2002) and positively to feelings of well-being (Freund & Baltes, 2002; Weise, Freund, & Baltes, 2002). It was therefore expected that usage of Work-SOC and School-SOC coping strategies should also relate

negatively to the experience of Disengagement and Exhaustion Burnout in school among student workers.

Hypothesis 1c: School-specific Selective Optimization with Compensation coping strategies will negatively relate to lagged Disengagement Burnout in school.

Hypothesis 1d: School-specific Selective Optimization with Compensation coping strategies will negatively relate to lagged Exhaustion Burnout in school.

Work-School Conflict. Both work and school present their own demands on resources. Employing SOC strategies in each domain would encourage organization and maintenance of a student worker's multiple roles. Use of this problem-focused method of resource allocation and distribution was expected to negatively relate to perceptions of WSC, by meeting demands of work and school more efficiently.

School-SOC focuses on management of resources in the school domain, toward school-related goals. Therefore, in the presence of limited resources, or work stressors interfering with the school domain, SOC-congruent behaviors should still lead to more effective allocation and distribution of resources. It was expected that School-SOC would relate negatively to perceptions of WSC by effectively managing school-related resources and goals.

Hypothesis 2a: School-specific Selective Optimization with Compensation coping strategies will negatively relate to lagged Work-School Conflict.

Work-SOC was expected to relate negatively to WSC as well, through a different mechanism. In the WFC research literature, different processes of interaction between the work and family roles are proposed (spillover, compensation, and segmentation; Kossek & Ozeki, 1998; Lambert, 1990), the most popular of which is spillover (Lambert, 1990). Spillover between work and school occurs when components of an individual's work (i.e. behaviors, stressors,

skills, or emotions) cross over into the school domain (Crouter, 1984; Lambert, 1990). Spillover can be negative or positive; however in the current study negative spillover was conceptualized as work stressors spilling over into the school domain, relating positively to perceptions of WSC. For example, a student worker may have difficult deadlines to meet at work, leading to experience of stress which is then carried into the school domain when they attend class. Work-SOC behaviors were expected to relate negatively to this spillover, by more effectively managing work resources and work-related goals, negatively relating to perceptions of WSC.

Hypothesis 2b: Work-specific Selective Optimization with Compensation coping strategies will negatively relate to lagged Work-School Conflict.

Relationships of Work-School Conflict with Outcome Variables. In addition to proposing the relationships of WSC with Work-SOC and School-SOC, WSC was also expected to directly relate to all three outcomes. Experiencing conflict was predicted to relate negatively to school outcomes and positively to strain outcomes. This includes low GPA, low Intent to Persist, and high Disengagement and Exhaustion.

Grade Point Average. As previous research points out, student workers tend to experience poorer academic performance (Trockel, Barnes, & Egget, 2000) than their unemployed counterparts. Employed students must manage the same amount of resources (i.e. time) as unemployed students, but across two domains. Therefore, it was expected that WSC would relate negatively to GPA; school performance should decrease while perceptions of conflict increase.

Hypothesis 3a: Work-School Conflict will negatively relate to GPA.

Intent to Persist. Previous research has found that employee perceptions of WFC related positively to intentions to leave the organization (e.g., Kelloway, Gottlieb, & Barham, 1999; Rau

& Hyland, 2002). It was therefore expected that WSC would relate negatively to Intent to Persist, such that higher reports of WSC should relate to lower reported levels of Intent to Persist in school.

Hypothesis 3b: Work-School Conflict will negatively relate to Intent to Persist in school.

Burnout. In WFC research, van Steenbergen and Ellemers (2009) found that experience of work-to-family conflict led to higher rates of poor physical health over time, a form of strain. Similarly, Park and Sprung (2013) found that perceptions of WSC related negatively to student worker psychological health, such as feelings of happiness and loss of sleep. Strain can manifest in many ways, but given the intensive mental workload of working college students, burnout measured as exhaustion and disengagement (Demerouti & Bakker, 2007; Demerouti et al., 2010) was selected as an appropriate construct definition. It was expected that WSC would relate positively to both Disengagement and Exhaustion in school by means of increased stress, over time, producing strain (Hart & Cooper, 2002).

Hypothesis 3c: Work-School Conflict will positively relate to Disengagement Burnout in school.

Hypothesis 3d: Work-School Conflict will positively relate to Exhaustion Burnout in school.

Mediation of Selective Optimization with Compensation by Work-School Conflict. As mentioned previously, this was the first study to test the relationship between Work-School Conflict and Selective Optimization with Compensation. The present study used data from multiple time points to examine whether usage of SOC strategies in the work and school domains negatively related to WSC later in the semester. Problem-focused coping (Lazarus & Folkman, 1980, 1985) targets the actual stressor (e.g., Baltes, Zhdanova, & Clark, 2011; Hecht &

McCarthy, 2010), such as managing resources in order to alleviate conflict and allow for more demands to be fulfilled. If usage of SOC negatively relates to the perception of WSC, this coping strategy should relate positively to school outcomes and negatively to strain outcomes. School-SOC was expected to relate directly to each of the four outcomes, and was therefore expected to be partially mediated by perceptions of WSC.

Hypothesis 4a: Lagged Work-School Conflict will partially mediate the relationship between School-specific Selective Optimization with Compensation coping strategies and lagged GPA.

Hypothesis 4b: Lagged Work-School Conflict will partially mediate the relationship between School-specific Selective Optimization with Compensation coping strategies and lagged Intent to Persist at school

Hypothesis 4c: Lagged Work-School Conflict will partially mediate the relationship between School-specific Selective Optimization with Compensation coping strategies and lagged Disengagement Burnout in school.

Hypothesis 4d: Lagged Work-School Conflict will partially mediate the relationship between School-specific Selective Optimization with Compensation coping strategies and lagged Exhaustion Burnout in school.

Work-SOC, however, was not expected to relate directly to school- and strain-related outcomes. Instead, use of SOC coping strategies at work was only expected to relate to WSC through spillover of stress from the work domain. Experience of work-related stress within the school domain may lead to perceptions of WSC, but not necessarily. If a student worker is stressed from long hours at work, this stress may lead to problems focusing in class or less effort on homework assignments. This scenario would constitute WSC in the form of spillover of

stressors from work to school. Due to the problem-focused, behavior-based nature of SOC strategies, these work stressors are expected to be reduced or eliminated by actively managing them proactively through SOC, relating negatively to perceptions of WSC. However, use of work-related SOC-congruent behaviors would not be expected to directly alter any school-related activities and constructs, such as intent to persist with school, and should only indirectly affect school-related outcomes through the relationship between work-specific SOC and WSC. Therefore, I proposed that any influence of Work-SOC on school- and strain-related outcomes would be fully mediated by WSC.

Hypothesis 5a: Lagged Work-School Conflict will fully mediate the relationship between Work-specific Selective Optimization with Compensation coping strategies and lagged GPA.

Hypothesis 5b: Lagged Work-School Conflict will fully mediate the relationship between Work-specific Selective Optimization with Compensation coping strategies and lagged Intent to Persist at school

Hypothesis 5c: Lagged Work-School Conflict will fully mediate the relationship between Work-specific Selective Optimization with Compensation coping strategies and lagged Disengagement Burnout in school.

Hypothesis 5d: Lagged Work-School Conflict will fully mediate the relationship between Work-specific Selective Optimization with Compensation coping strategies and lagged Exhaustion Burnout in school.

Control Variables

Several control variables were included in the analysis based on their potential to influence the relationships between the focal variables of the study. School factors that may

influence the study variables include number of credit hours, time spent in class, time spent on homework, and ACT/SAT scores. These could influence SOC usage, perception of conflict, and all school and strain outcomes because of increased course work. ACT/SAT scores were also predicted to be highly correlated with GPA.

Work factors included in the study were job-school congruence and work flexibility. Job-school congruence is the extent to which the job facilitates the school role, by contributing to knowledge or skills used by the student (Butler, 2007). Therefore, having a job congruent with school would be expected to lower perception of conflict. Hours at work was also measured, as it could influence the relationships between variables, particularly SOC and WSC, because of an increase in time commitment taken away from school. Work flexibility, specifically the ability to have a flexible schedule (Matthews & Barnes-Farrell, 2010) is also a potential influence on the study variables; if a job offers schedule flexibility such that the student is able to rearrange hours based on school, then perception of conflict may decrease.

Negative Affect was also measured as a covariate, based on previous research on Work-Family Conflict. Stoeva, Chiu, and Greenhaus (2002) found that Negative Affect indirectly influenced perceptions of work-to-family conflict through its effects on work stress. Individuals higher on Negative Affectivity higher work stress than individuals lower on Negative Affectivity, and therefore had more perceptions of work-to-family conflict. The same relationship would be expected for Work-School Conflict.

CHAPTER 2

Method

Participants

Participants were undergraduate students recruited using an online psychological research system at Wayne State, a large urban university in the Midwestern United States. Four surveys were administered to students in the winter and fall semesters of 2013, and winter semester of 2014. Student participants were granted research credits for their psychology courses for the completion of each survey, and were given a five-dollar gift card if they responded to surveys at all four time points. A minimum sample size of 200 participants is given by Kline (2005) as a "rule of thumb" for achieving an acceptable level of power in structural equation modeling, the method used in this study. Therefore, a goal of recruiting at least 350 participants was set, anticipating some attrition over the time points.

Prior to data screening, the Time 1 sample included 328 participants, the Time 2 survey included 199 participants, the Time 3 survey included 104 participants and the Time 4 survey included 39 participants. Given the high attrition rates between the second and third time points (47.74%) and the third and fourth time points (62.50%), it was determined that only time points one and two would be used in the study analysis. Based only on completion of the first two surveys, 199 participants remained in the sample prior to data screening.

Missing data were analyzed for each participant at each time point, using a complete case approach (Tabachnick & Fidell, 2007). Participants missing more than 20% of data from either survey were removed from the sample (n = 5), following the methods of previous researchers (e.g., McGonagle & Hamblin, 2013). No patterns of missing data were observed across study variables. Duration of time to complete each survey was also examined to determine whether

participants were spending sufficient time to read each item and respond appropriately. A lower cut-off for each survey's duration was set by asking an independent researcher to fill out each survey accurately while taking care to use as little time as they could to do so. The cut-off for the first survey was 8 minutes, and the second survey was 5 minutes. All respondents met this minimum standard. Finally, the number of endorsed Insufficient Effort Responding (Huang et al., 2012) items was examined (see scale description below). Participants endorsing more than two IER items were removed from the sample (n = 11). The final sample consisted of two time points and 183 participants.

Of those participants included in the sample (n = 183), 79.8% were female, and the mean age was 22.4 years old with a range of 18 to 50 years old. The sample was racially diverse: 54.4% White/European American, 16.7% Black/African American, 12.8% Arab/Middle Eastern, 9.4% Asian/Pacific Islander, and 6.7% Hispanic/Latino(a). School classification was self-reported by participants: 20.7% of participants were Freshmen, 20.1% were Sophomores, 24.6% were Juniors, and 34.6% were Seniors. Table 1 provides a summary of participant demographics.

Design and Procedure

Data were collected through online surveys at two time points during the semester. The university psychological research system was used to recruit participants and administer surveys. In the first survey, participants were asked to provide an email address they check frequently so that the researcher could remind them of the follow-up survey.

When participants sign up for the university psychological research system, they answer a pre-screen questionnaire to determine which studies they are eligible for. One pre-screen question asked about their employment status, and only respondents who indicated that they currently worked at least part-time were able to access the study surveys. A second pre-screen

question limited eligible respondents to 18 years or older. Following completion of each survey, participants were thanked and given research credit through the system. Both surveys assessed Work-SOC, School-SOC, WSC, Intent to Persist, Disengagement, and Exhaustion at Time 1 and Time 2. GPA was assessed only at Time 2, and control variables and demographics were assessed at Time 1. Yet, in the current study, Work-SOC, School-SOC and control variables were used from Time 1 only, and WSC, Intent to Persist, Disengagement, and Exhaustion were used from Time 2 only.

Measures

Selective Optimization with Compensation. Context-specific SOC strategies were measured using the 12-item short version of the questionnaire developed by P. B. Baltes, Baltes, Freund, and Lang (1999). Participants were given two sets of instructions, the first directing them to think about their role as a student and the school domain, and the second directing them to think of their role as a worker and the work domain. Participants used these instructions to fill out the same set of twelve questions for either domain. Reliabilities of the School-SOC and Work-SOC scales at Time 1 were 0.77 and 0.82, respectively. Scale items are presented in Appendix A.

Work-School Conflict. Work-School Conflict was evaluated using the original five-item scale developed by Markel and Frone (1998), which is specific to the work-school context. Responses for this measure are on a five-point Likert-type scale with response options ranging from 1 (*never*) to 5 (*very often*). A sample item is, "Because of my job, I go to school tired." The reliability of this scale was 0.83. Scale items are presented in Appendix B.

GPA. Participants were asked at the second time point to report their expected GPA for the current semester.

Intent to Persist. A five-item scale was developed for this study to measure Intent to Persist with college education. Previous studies have used a single item to assess this construct (Barnett, 2011; Cabrera et al., 1993). While a multiple item scale is preferable, since it would be expected to be more reliable, no such scale exists in the literature. Therefore, 5 items were created to measure intent to persist in school based on the definition of the construct as described in the Introduction. Responses were on a five point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is, "How likely are you to drop out of school during/after this semester?" (reverse-coded).

The scale items were adjusted after preliminary data analysis due to a few psychometric issues. First, in the CFA it was noted that one item did not have a significant factor loading, and was removed. Next, the first two items of the original scale were highly, negatively correlated. The first item asked whether the respondent planned to register for courses at their current university, and the second asked if they planned to register at another university. These two items were combined by adopting the highest rating among them as the new score. This method was chosen because the purpose of both items was to gauge the likelihood that the participant would persist with school next semester. Finally, after examining the descriptive statistics of the changed scale, it was noted that the coefficient alpha could be increased by .13 with its removal. Therefore, it was decided that this item should be removed, and the final two items were retained. The reliability of this 2-item scale was 0.59 and the correlation between the two items was $.r = .42$, $p < .01$. Scale items are presented in Appendix C.

Exhaustion and Disengagement Burnout. Burnout was measured using a modification of the English version of the Oldenburg Burnout Inventory (OLBI; Demerouti et al., 2003; Demerouti et al., 2010). This 16-item scale has two subscales: Disengagement and Exhaustion.

This scale was adapted for the current study, using "school" or "schoolwork" instead of "work" or "job" in most items. In this way, the scale was intended to capture school-related burnout of the student workers. The Disengagement subscale had eight items, with sample item, "It happens more and more often that I talk about school in a negative way." Following examination of the factor loadings from the CFA, one Disengagement item was removed from further analyses due to its non-significant factor loading. The item was, "This is the only major I can imagine myself doing." There were eight items in the Exhaustion subscale, with sample item, "During school, I often feel emotionally drained." Response options for both Exhaustion and Disengagement items were on a Likert-type scale and ranged from 1 (*strongly agree*) to 4 (*strongly disagree*), without a neutral option. The correlation between the sub-scales was $r = 0.53$ ($p < .001$), which replicates previous findings (Demerouti & Bakker, 2008). The reliabilities of Disengagement and Exhaustion were each 0.79. Scale items are presented in Appendices D and E, respectively.

Demographics. Participants reported their age, gender, race/ethnicity, classification in school (i.e. freshman), a job description, and major area of study.

Control variables. *Number of credit hours* was self-reported to control for time spent at the institution. Also, *time spent in class*, *time spent on homework*, and *hours at work* were reported. *ACT or SAT scores* were also collected for each student via self-report.

Job-school congruence was assessed using a scale developed by Butler (2007) which includes three items (e.g., 'I use knowledge that I gained in college on my job'). Responses are on a five-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The reliability of this scale was 0.80, and scale items are presented in Appendix F.

Work flexibility was measured using the four-item "ability" subscale adapted from Matthews and Barnes-Farrell (2010). The items were adapted to specifically target work

flexibility surrounding school. A sample item is, "I am able to arrive and depart from work when I want in order to meet my school responsibilities." Response options were on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*). The reliability of this scale was 0.86, and scale items are presented in Appendix G.

Negative Affect was measured using the ten-item sub-scale of the PANAS scale (Watson, Lee, & Auke, 1988). This scale instructs respondents to rate how often, in general, they feel certain negative emotions, such as "irritable." Response options were on a 5-point Likert-type scale ranging from 1 (*never*) to 5 (*almost always*). The reliability of this scale was .82, and scale items are presented in Appendix H.

Finally, at the second time point, students were asked to indicate *whether they switched jobs* (*yes/no*), quit their job (*yes/no*), *were fired from their job* (*yes/no*) *switched majors* (*yes/no*) or *dropped any classes* (*yes/no*).

Insufficient effort responding. In order to screen for participants who may be "clicking through" and not paying sufficient attention to each item, the Insufficient Effort Responding (IER) scale was used (Liu & Huang, 2012). This scale is made of eight items developed to be unreasonable to endorse. A sample item is, "I can teleport across time and space." Items were embedded within other study scales in order to make them less ostensible to participants, and to screen for individuals not paying attention to the content of scale items. Response options for each item were matched with the scale each was embedded with, and agreement with any IER item was counted as endorsement, considered to be insufficient effort responding. Scale items are presented in Appendix I.

CHAPTER 3

Results

Analyses

In order to test the hypotheses, structural equation modeling was used. First, a confirmatory factor analysis was conducted to determine whether the study variables were supported as factors in the model, and to examine factor loadings of scale items. Following, parcels were developed for some of the factors with a larger number of indicators due to the restrictive sample size. Parceling was achieved using the item-to-construct balance method. Finally, the structural model was tested against a baseline, fully saturated model using structural equation modeling and a Chi-Square difference test was used to determine significant changes in model fit. Global fit and path fit were evaluated for model support; significance of path coefficients and statistical difference in nested models were used to test the study hypotheses.

The fit of the measurement and structural models was evaluated using several global fit indices with cut-off scores for acceptable fit. The Comparative Fit Index (CFI; Bentler, 1990; Bentler & Bonnet, 1980) indicates "good" fit at 0.95 (Hooper, Coughlan, & Mullen, 2008); the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990) indicates "good" fit at values less than 0.07; and the Standardized Root Mean Square Residual (SRMR; Hu & Bentler, 1999) indicates "good" global model fit at values less than 0.08. To evaluate path fit within the model, RMSEA-P (O'Boyle & Williams, 2011) was calculated for the path component of the model. This fit index separates the measurement component of the structural model and examines the overall fit of the model's paths, with a maximal cut-off of 0.08 for acceptable fit.

Descriptive Statistics. The overall means for School-SOC and Work-SOC fell near the midpoint of each scale at Time 1. Work-SOC was significantly negatively skewed at alpha level

.01 (-3.44). WSC at Time 2 had a mean that fell just above the scale midpoint, and was significantly platykurtic at alpha level .05 (-1.96). Mean GPA at Time 2 was at the higher end of the scale; however it represents an average "B" student. The mean for Intent to Persist at Time 2 was at the high end of the scale, and was significantly negatively skewed and leptokurtic, both at alpha level .001 (-12.26 and 12.47, respectively). Disengagement Burnout at Time 2 had a mean just below the scale midpoint, while Exhaustion Burnout's mean at Time 2 was just above the scale midpoint. The mean of Negative Affect fell near the midpoint of the scale and was significantly leptokurtic at alpha level .01 (2.95). Schedule Flexibility's mean fell above the midpoint of the scale, and was significantly leptokurtic at alpha level .05 (-2.26). ACT scores had a mean at the higher end of the scale, as would be expected for accepted undergraduates, and was positively skewed at alpha level .05 (2.02)[1]. Finally, Job-School Congruence had a mean just above the scale midpoint and was normally distributed. Scale means, standard deviations, and ranges of possible item responses for all measured variables are presented in Table 2.

Inter-Variable Correlations. Correlations were for the most part in the expected directions, although there were some unexpected non-significant relationships. Work-SOC and School-SOC at Time 1 were positively correlated at .78, replicating findings of previous research (Baltes & Heydens-Gahir, 2003). However, neither SOC variable at Time 1 was significantly correlated with WSC at Time 2. Similarly, School-SOC at Time 1 was not significantly correlated with GPA or Intent to Persist at Time 2. However, School-SOC at Time 1 was negatively correlated with both Disengagement and Exhaustion Burnout at Time 2. WSC at Time 2 was not correlated with GPA or Intent to Persist at Time 2, but was positively correlated with both Disengagement and Exhaustion Burnout at Time 2. Control variables were only included in study analyses if they correlated with any of the study variables. Negative Affect was negatively

correlated with School-SOC at Time 1 and Intent to Persist at Time 2, and positively correlated with WSC, Disengagement and Exhaustion Burnout at Time 2. Schedule Flexibility was negatively correlated with WSC at Time 2. Job-School Congruence was negatively correlated with Work-SOC. Finally, SAT score was positively correlated with GPA and Intent to Persist at Time 2. The other potential control variables (Number of credit hours, time spent in class, time spent on homework, and hours at work) were not correlated with any study variables, and were therefore omitted from analysis. Zero-order bivariate correlations of all included study variables and control variables are presented in Table 3.

Confirmatory Factor Analysis. A Confirmatory Factor Analysis (CFA) was conducted prior to testing a structural model (Anderson & Gerbing, 1988) in order to determine whether the study variables were supported as factors in the model, and to examine factor loadings of scale items. In the CFA, the scale items were used as indicators for each of the respective latent variables of Work-SOC, School-SOC, WSC, Disengagement Burnout, and Exhaustion Burnout. A single composite indicator for the Intent to Persist latent variable was created to achieve identification in the CFA and structural models (since there were only two items for this variable). The method used to create the composite indicator was total aggregation with a reliability correction (Williams & O'Boyle, 2008), setting the indicator's variance to one and the error to (1-reliability) multiplied by the scale variance. GPA was measured using a single item, and in order to achieve identification its variance was fixed at one and its error at zero. All standardized factor loadings were statistically significant using a *p*-value of .05 (see Table 4). The global fit of the model was: $\chi^2(970) = 1794.89$, $p < .001$; RMSEA = 0.07; CFI = 0.69; SRMR = 0.08. While the RMSEA and SRMR indices met the cut-off scores for acceptable global fit, the CFI result was less than acceptable (minimal cut-off standard 0.95; Hu and

[1]Variables with non-normal distributions were transformed and additional analyses were conducted. No significant changes were found for model global fit or path coefficient results.

Bentler, 1999). Composite reliabilities of the latent variables with multiple indicators were good: at Time 1, Work-SOC was .77 and School-SOC was .81; at Time 2, Work-School Conflict was .84, Disengagement was .88, and Exhaustion was .79.

It was observed in the CFA results that bivariate correlations between indicators of the Work-SOC and School-SOC scales tended to be moderate to strong (mean $r = .40$). Therefore, a second CFA was conducted, allowing Work-SOC and School-SOC items to correlate with their corresponding item across the latent variables (i.e. Work-SOC item 1 with School-SOC item 1). The global fit of this model was significantly improved: $\chi^2(958) = 1545.55$, $p < .001$; RMSEA = 0.06; CFI = 0.78; SRMR = 0.08. The critical Chi-Square for twelve degrees of freedom is $\chi^2 = 21.03$, and the difference between the Chi-Square values exceeded this critical value, with a difference of 249.34.

It was also observed in the CFA results that the Work-SOC and School-SOC latent variables were highly correlated ($r = 0.78$, $p < .001$), replicating previous research on Work-SOC and Family-SOC (e.g., Baltes & Heydens-Gahir, 2003). It was determined that a test of discriminant validity for the Work-SOC and School-SOC latent variables was appropriate due to this strong correlation and the significant improvement in global fit when indicators were allowed to correlate.

In order to test whether a single factor for SOC would be a better fit for the data, a third CFA was conducted, allowing all Work-SOC and School-SOC items to load on a single latent combined SOC variable. The global fit of this third CFA was close to the first: $\chi^2(976) = 1848.10$, $p < .001$; RMSEA = 0.07; CFI = 0.67; SRMR = 0.08. Using a Chi-Square difference test, it was determined that the CFA with a single factor, SOC, had significantly worse fit than the original CFA with Work-SOC and School-SOC as separate factors. The critical Chi-Square

for six degrees of freedom is $\chi^2 = 12.59$, and the difference between the CFA Chi-Square values exceeded this value, with a difference of 53.20. The CFA with distinct SOC factors was therefore retained, based on the theorized context-specific nature of SOC and the global fit indices.

Parceling. Partial disaggregation of factors, or parceling, was deemed appropriate for the Work-SOC, School-SOC, OLBI-Disengagement, and OLBI-Exhaustion scales. This was due in part to the large number of items within each scale, paired with the moderate sample size. Reducing the number of indicators from scale items to parcels results in a more parsimonious model with a reduction in specific psychometric issues, such as low reliability and low communality of items (Little, Cunningham, Shahar, & Widaman, 2002; MacCallum, Widaman, Zhang, & Hong, 1999; Williams & O'Boyle, 2008). A sample size of less than 200 results in less power as the number of model parameters increases. By reducing the number of parameters by forming parcels, a more stable and parsimonious model may be achieved.

Standardized factor loadings were used to populate parcels for School-SOC, Work-SOC, OLBI-Disengagement, and OLBI-Exhaustion, using the item-to-construct balance method (Little et al., 2002; see Table 5). When assigning scale items to the Work-SOC and School-SOC parcels, the four dimensions (Elective Selection, Loss-Based Selection, Optimization, and Compensation) needed to be considered as well as the factor loadings of each item. The domain representativeness approach was used (Williams & O'Boyle, 2008), including items from each dimension within every parcel. This was deemed appropriate for the SOC scales due to the high inter-correlations between the four components (Freund & Baltes, 2002; Baltes & Heydens-Gahir, 2003). In this way, each parcel represents all facets of its latent variable. This was achieved by assigning scale items to each parcel with items from one dimension based on highest to lowest factor loading, then assigning items from the next dimension in the reverse parcel order

based on factor loadings. For example, Elective Selection items were assigned according to highest factor loadings beginning with the first parcel. Next, Loss-Based Selection items were assigned according to their highest factor loadings starting with the last parcel and ending in the first parcel. The parcels were then used as indicators for their latent variables when testing the structural model.

Structural Model and Hypothesis Testing. In order to test the study hypotheses, structural equation modeling was conducted, using maximum likelihood estimation in M*Plus* version 6.11. First, a baseline structural model was created, using the parcels from School-SOC, Work-SOC, OLBI-Disengagement, and OLBI-Exhaustion as their indicators, scale items as indicators for WSC and Disengagement and Exhaustion Burnout, the single item fixed to one for GPA, and the composite item with reliability correction for Intent to Persist. The preliminary baseline model was a fully-saturated structural model, replacing CFA factor correlations with structural paths. Work-SOC and School-SOC had direct paths to WSC and all four outcomes, and WSC had direct paths to all four outcomes. The global fit of this model was acceptable: $\chi^2(133) = 238.873$, $p < .001$; RMSEA = 0.07; CFI = 0.92; SRMR = 0.06.

Next, control variables were added to the model. Only control variables with significant correlations with study variables were considered for inclusion (Carlson & Wu, 2012), and others were omitted from analyses and the results tables. Negative Affect, Job-School Congruence, Work Flexibility, and ACT scores were added, allowing them to co-vary only with the latent variables to which they were significantly correlated. Negative Affect was entered as a covariate with Work-SOC, School-SOC, WSC, Disengagement, and Exhaustion; ACT score was entered as a covariate with GPA and Intent to Persist; Flexibility was entered as a covariate with

WSC; and Job-School Congruence was entered as a covariate with Work-SOC. The global fit of this model was: $\chi^2(194) = 346.389$, $p < .001$; RMSEA = 0.07; CFI = 0.90; SRMR = 0.06.

Structural path significance was examined in the fully saturated, baseline model including the control variables. There were no significant direct paths from School-SOC to any of the four outcomes; therefore hypotheses 1a through 1d were not supported. This also indicated a lack of support for the partial mediation of WSC on School-SOC to the four outcomes, hypotheses 4a through 4d. Direct paths from School-SOC to each of the outcome variables were removed individually until all direct paths were tested for change in global model fit. Each of these nested models was statistically equivalent to the baseline model with a chi square difference test with one degree of freedom difference. The global fit of the hypothesized model (Figure 1) was: $\chi^2(198) = 348.\ 54$, $p < .001$; RMSEA = .06; CFI = .90; SRMR = .06.

Finally, based on the statistically equivalent results of the individually omitted direct paths from School SOC to the school and strain outcomes, a final model was tested in which Work-SOC and School-SOC had direct paths to WSC, and WSC had direct paths to all four outcomes. All direct paths from School-SOC to the four outcomes were omitted. This final model was also found to be statistically equivalent to the baseline model, and was therefore retained based on the principle of parsimony (Kline, 2005). The global fit of this model was acceptable: $\chi^2(202) = 355.95$, $p < .001$; RMSEA = 0.07; CFI = 0.90; SRMR = 0.07. The calculated RMSEA-P of this model was .07 (O'Boyle & Williams, 2010). Bootstrapping (5,000 draws) was used was test for indirect effects of the Work-SOC and School-SOC variables of this model on each of the outcomes. See Table 6 for final path coefficients, indirect effect estimates, and the statistical significance of each. The R-Square values for each outcome variable were as

follows: Intent to Persist, $R^2 = .01$, $p = .69$; Disengagement, $R^2 = .10$, $p = .05$; Exhaustion, $R^2 = .25$, $p < .001$; GPA, $R^2 = .002$, $p = .74$.

While the global fit and overall path fit of the model were acceptable, the hypothesized structural paths were widely unsupported. Only two structural paths were significant in the final model: Work-School Conflict to Disengagement Burnout ($\beta = .32$, $p < .001$) and Work-School Conflict to Exhaustion Burnout ($\beta = .50$, $p < .001$), supporting hypotheses 3c and 3d. The paths from Work-SOC and School-SOC to Work-School Conflict were non-significant, indicating no support for hypotheses 2a and 2b. The paths from Work-School Conflict to GPA and Intent to Persist were also non-significant, indicating no support for hypotheses 3a and 3b. Finally, indirect paths from Work-SOC and School-SOC onto the four outcome variables were tested using Bootstrapping. No significant indirect effects were found. Therefore, the full mediation hypotheses of WSC on Work-SOC to the four outcomes, hypotheses 5a through 5d, were not supported.

CHAPTER 4

Discussion

The aim of the present study was to examine perceptions and implications of WSC in an employed undergraduate sample, including a context-specific host of coping strategies, Work-SOC and School-SOC, as antecedents. WSC was also expected to act as a partial mediator between School-SOC on four outcomes: Intent to Persist, GPA, Disengagement, and Exhaustion, and as a full mediator between Work-SOC and the outcomes. Results of the final structural model indicated support for only significant paths between WSC and the two components of burnout, Disengagement and Exhaustion.

This study contributes to the literature in three ways. First, SOC strategies have not been examined as they relate to WSC. Typically, WSC is studied as a mediator between work characteristics, such as job control and workload (e.g., Butler, 2007; Frone, Yardley, & Markel, 1997; Markel & Frone, 1998), and school outcomes, such as performance (e.g., Markel & Frone, 1998). Other studies have expanded to look at coping mechanisms as well, specifically problem-focused coping in general (Hecht & McCarthy, 2010) or individual dispositional traits (Hecht & McCarthy, 2010; McNall & Michel, 2011) as they predict WSC. Although the relationships between both forms of SOC (Work-SOC and School-SOC) and WSC were non-significant in this study, this contributes to the research literature of both SOC and WSC by identifying these potentially null relationships.

Second, the current study examined WSC as it relates to experiences of burnout in the school domain. Burnout was measured as its two components, Disengagement and Exhaustion (Demerouti, Bakker, Vardakou, & Kantas, 2003; Demerouti, Mostert, & Bakker, 2010),

specifically as experienced in the student role. Below is a discussion of the significant findings between WSC and both components.

The significant, positive relationships between WSC and dimensions of burnout are of importance, as this is the first study to test these relationships. It was expected that perceptions of conflict from the work domain to the school domain would lead to perceptions of strain in the student role. The Disengagement and Exhaustion scales in the current study were adapted to be school-specific, as the perpetuated stress in the school domain due to work demands would lead to eventual strain within the same role (student). The findings are in alignment with previous research on Work-Home Conflict (e.g., Bacharach, Bamberger, & Conley, 1991; Langballe, Innstrand, Aasland, & Falkum, 2010) and Work-Family Conflict (e.g., Innstrand, Langballe, Espnes, Falkum, & Aasland, 2008) leading to burnout. Results were as expected, and this study represents a first examination of school-specific burnout as a strain-based outcome of WSC.

School-SOC did not have significant paths to any of the four outcomes or WSC within this sample, and also had no significant indirect paths through WSC. Similarly, Work-SOC had no significant direct path to WSC, nor any significant, indirect paths through WSC to any of the four outcomes. Finally, WSC had no significant paths to Intent to Persist or GPA. Potential reasons for these non-significant results are discussed below.

School-SOC

First, School-SOC had no direct or indirect relationships to any other variable within the retained model. However, School-SOC at Time 1 had significant, negative bivariate correlational relationships with both Disengagement and Exhaustion at Time 2. Perhaps this relationship is not captured accurately in the current model. For example, perhaps the directionality of this relationship was not as proposed in the current study. There were also significant, negative

bivariate correlations between School-SOC and the two components of burnout at Time 1. The directionality may be reversed, such that Disengagement and Exhaustion at school may precede usage of School-SOC strategies, making salient the need to proactively manage resources. Or, they could be related through another mechanism other than WSC.

Of greater interest was the lack of a correlational relationship between School-SOC at Time 1 and WSC at Time 2, but the significant, negative correlational relationship between School-SOC and WSC both measured at Time 1. Perhaps this is due in part to Common Method Variance (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), since both variables were sampled in the same survey at the same time point. This may also indicate that SOC strategies in the school domain are utilized more locally when the student perceives greater WSC. For example, in the midst of midterm exams, a student worker may perceive greater WSC and decide to begin utilizing School-SOC strategies in order to study more effectively for that short time period. These School-SOC strategies would not be expected to influence future perceptions of WSC, but rather serve to reduce current conflict experiences. This potential cross-sectional relationship should be further tested.

Another point to consider overall, for both School-SOC and Work-SOC, is the controllability of stressors. Usage of SOC strategies in order to reduce stressors hinges on the assumption that the stressors are in some way able to be manipulated. For example, an upcoming exam may represent a stressor which can be reduced by adequate studying. However, having a low grade in a course that cannot be raised by upcoming assignments may present a stressor that even SOC-congruent strategies will not be able to alter. In this scenario, emotion-focused coping strategies may be more effective and appropriate.

GPA and Intent to Persist were not significantly correlated with School-SOC, and had no significant paths between them in the model. Regarding GPA, School-SOC may just count for too little explained variance in how well a student performs in each class. There are several factors that lead to performance in different classes, and perhaps usage of School-SOC strategies does not account for much of that variance. GPA in this study may have some measurement issues as well. This variable was collected by asking students half-way through the semester to estimate what their overall semester GPA would be. This may be a potentially unreliable source – students may not be using the same method to determine their grades, or may not understand how to calculate GPA.

Intent to Persist, as described in the Method section, had several issues as a scale which may have led to its non-significant relationships with all variables. The final items retained had to do with the student's intention to stay in college long-term, and their more proximal intention to drop out (this semester). Again, since this variable was measured half-way through the semester, the student may not have a good idea about their intentions for school. Most of them were extremely optimistic (mean = 4.82 on a 5-point scale) and sure they would stay in school. However, once their course grades became more salient later in the semester, they may have had different intentions for persisting with school. Unfortunately, in this sample, data from the later time points (further into the semester) needed to be removed due to the small sample size.

Work-SOC

Work-SOC also had no significant direct or indirect paths in the model. The only significant correlational relationship this variable had was negatively to Disengagement at Time 1. However, it may be reasonable that Work-SOC did not have significant relationships with the study outcomes, as they were each school-related. Behavior at work, such as effective

management of work resources, may not lead to any differences in the school domain. However, Work-SOC was expected to have significant indirect paths to each, through the mediator WSC. The lack of a significant relationship between Work-SOC and WSC contributed to the non-significant indirect results between Work-SOC and the school-related outcomes. Controllability of stressors is also of consequence here, as discussed above, under School-SOC.

The non-significant findings for Work-SOC and WSC may be explained by the types of jobs these students hold. The majority of student workers sampled were in part-time, entry-level positions that may not require much usage of SOC strategies to effectively manage their performance. While time spent at work may still interfere with their school assignments, the mechanism proposed between Work-SOC and WSC may not be realistic in this sample. It was expected that Work-SOC would be negatively related to WSC through spillover stress and strain from the work domain to school. If students do not experience much stress on their job, they are unlikely to experience this spillover and instead may perceive WSC mostly due to time conflicts.

WSC

The non-significant results from WSC to Intent to Persist and GPA may be at least in part explained by the measurement issues described previously. Beyond the measurement issues, Intent to Persist with college may involve many more factors outside of WSC for student workers. There may be certain motivational factors that actually moderate this relationship, such as financial need to earn a degree, a family that depends on their success, and so on. Also, student workers may already have an expectation that they will experience some conflict between their job and school, which could allow them to cope more effectively with WSC and rationalize their decision to stay in school despite this conflict. GPA may be influenced similarly, such that student workers understand that they will have some conflict between work and school

roles, enabling them to cope more effectively, or they may have certain more powerful motivators such as family dependence on their degree.

Limitations

There were a few limitations to the study design. The moderate sample size was due in part to the high attrition rates over the four time points. After screening for missing data and insufficient effort responding, only the first two time points were able to be used in the analysis, with 183 total participants. This number does not quite meet the "rule of thumb" for a minimum of 200 participants in structural equation modeling, set forth by Kline (2005).

Restricting the analyses to only two time points led to the use of WSC measured at Time 2 along with its outcomes, also measured at Time 2. This decision was made based on the study's stronger focus on SOC strategies leading to perceptions of WSC, more so than the effects of WSC on outcomes. Using a true longitudinal design may lead to different outcomes, by using a cross-lagged analysis and measuring changes in relationships over time.

Another consideration for design was the use of multiple online surveys to measure all study variables at each time point. By measuring all study variables at each time point, common method variance could have been an issue, particularly for the relationships of WSC on outcomes. However, the relationships of WSC on Disengagement and Exhaustion were consistent across time points, including WSC at Time 1 on Disengagement and Exhaustion at Time 2. GPA and Intent to Persist were not significantly correlated with perceptions of WSC at Time 1 or Time 2. Use of an online survey format may sometimes lead to less reliable results due to insufficient effort responding, however inserting IER items (Liu & Huang, 2012) allowed for the identification and removal of participants who were paying little attention to their item ratings.

Future Directions

Future studies examining Work-School Conflict as it relates to Selective Optimization with Compensation should consider a few design alternatives. Again, true longitudinal designs would allow researcher to examine the change in the variables over time, providing more information regarding directionality. Comparison of School-SOC usage at the time conflict occurs versus following experience of conflict may also provide more information regarding directionality or strategy for SOC usage. The current study used the 12-item short version of the full SOC measure, adapted for the school domain. Future studies may adopt the full scale version in order to capture more variance that may have been lost using the short version.

Finally, there is a need for follow-up studies expanding the relationship found between Work-School Conflict and school-related Disengagement and Exhaustion. Burnout in a specific context can lead to further negative outcomes within that domain, such as turnover. More longitudinal studies should be conducted in order to test the lagged relationship between Work-School Conflict and dimensions of school-specific burnout. Examining the change in relationships over time may reveal the process through which the conflict leads to changes in burnout, and whether burnout has some influence on perceptions of conflict.

Conclusion

In conclusion, while the present study represents a first attempt to examine the effects of Selective Optimization with Compensation on perceptions of Work-School Conflict and school-related outcomes, further research is needed. The null results of the SOC to WSC relationship should be followed up with larger sample sizes, more time points, and clearer contextual directions for the SOC scales. The significant results between Work-School Conflict and the components of burnout, Disengagement and Exhaustion, reveal a negative consequence of

perceptions of WSC. Disengaging from school and feeling exhausted within the student role may lead to other negative outcomes for employed undergraduates.

Table 1

Participant Demographics

		Frequency (*n*)	Percentage (%)
Gender			
	Male	37	20.2
	Female	146	79.8
Race			
	White/European American	98	54.4
	Black/African American	30	16.7
	Arab/Middle Eastern	23	12.8
	Asian/Pacific Islander	17	9.4
	Hispanic/Latino(a)	12	6.7
Classification			
	Freshman (0 to 28.99 credits)	37	20.7
	Sophomore (29 to 55.99 credits)	36	20.1
	Junior (56 to 87.99 credits)	44	24.6
	Senior (88 credits and above)	62	34.6
		Mean	Standard Deviation
Age		22.40	5.22
Weekly Work Hours		22.55	9.92
Number Classes this Semester		3.91	1.16

Note. Sample N = 183.

Table 2

Study Scale Descriptives

	Mean	SD	Scale
School-SOC Time 1	1.95	0.76	0 – 4
Work-SOC Time 1	2.15	0.78	0 – 4
Work-School Conflict Time 1	2.58	0.97	1 – 5
Intent to Persist Time 1	4.89	0.43	1 – 5
OLBI-Disengagement Time 1	2.79	0.53	1 – 4
OLBI-Exhaustion Time 1	3.20	0.52	1 – 4
Negative Affect Time 1	2.47	0.52	1 – 5
Schedule Flexibility	4.48	1.64	1 – 7
ACT Score	22.97	4.14	1 – 36
Job-School Congruence	3.11	1.01	1 – 5
School-SOC Time 2	2.84	0.49	0 – 4
Work-SOC Time 2	2.84	0.58	0 – 4
Work-School Conflict Time 2	2.71	0.92	1 – 5
Expected GPA Time 2	3.25	0.47	0 – 4
Intent to Persist Time 2	4.82	0.51	1 – 5
OLBI-Disengagement Time 2	2.32	0.50	1 – 4
OLBI-Exhaustion Time 2	2.65	0.46	1 – 4

Note. Study variables from Time 1 and Time 2 presented here. In study analyses, Work-SOC, School-SOC, and control variables were analyzed at Time 1 only; WSC, GPA, Intent to Persist, Disengagement and Exhaustion Burnout were analyzed at Time 2 only.

Table 3

Variable Zero-Order Correlations

	Scale Name	1	2	3	4	5	6	7	8	9	10
1	School-SOC Time 1†	(.77)									
2	Work-SOC Time 1†	.59***	(.82)								
3	WSC Time 1	-.15*	-.10	(.85)							
4	Expected GPA†	.12	.06	.04	(--)						
5	Intent to Persist Time 1	.10	-.06	-.09	-.04	(.54)					
6	Disengagement Time 1	-.18*	-.22**	.22*	-.13	.07	(.60)				
7	Exhaustion Time 1	-.20*	-.09	.37***	-.13	.02	.53***	(.69)			
8	Burnout-overall Time 1	-.22*	-.17*	.34***	-.15*	.05	.86***	.89***	(.75)		
9	Negative Affect‡	-.19**	-.14	.17*	-.09	-.19*	.26***	.36***	.36***	(.82)	
10	Flexibility‡	.02	.04	-.42***	.02	.04	-.03	-.12	-.09	.01	(.86)
11	Job-School Congruence‡	.14	.15*	-.16*	-.09	-.04	-.12	-.12	-.14	-.05	.17*
12	ACT Score‡	.001	-.04	-.01	.46***	-.06	.01	-.14	-.08	.03	.01
13	School-SOC Time 2	.42***	.37***	-.13	.05	.07	-.05	-.06	-.07	-.04	.05
14	Work-SOC Time 2	.41***	.30***	-.09	.11	.11	-.02	-.03	-.03	-.08	-.01
15	WSC Time 2†	-.13	-.09	.67***	.002	-.12	.22**	.27***	.28***	.23**	-.25**
16	Intent to Persist Time 2†	.14	.07	-.11	.25*	.27*	-.004	-.05	-.04	-.22**	.13
17	Disengagement Time 2†	-.16*	-.09	.21**	-.19*	-.09	.57***	.47***	.59***	.19**	.05
18	Exhaustion Time 2†	-.17*	-.04	.40***	-.18**	-.09	.41***	.61***	.59***	.40***	-.05
19	Burnout-overall Time 2	-.18*	-.07	.35***	-.21**	-.10	.55***	.61***	.66***	.34***	-.01

Note: Scale reliabilities are shown in parentheses on the diagonal.

*** $p < .001$, ** $p < .01$, * $p < .05$

†Study Variable ‡Control Variable

Note. Study variables from Time 1 and Time 2 presented here. In study analyses, Work-SOC, School-SOC, and control variables were analyzed at Time 1 only; WSC, GPA, Intent to Persist, Disengagement and Exhaustion Burnout were analyzed at Time 2 only.

Table 3, continued

Variable Zero-Order Correlations

	Scale Name	11	12	13	14	15	16	17	18	19
1	School-SOC Time 1†									
2	Work-SOC Time 1†									
3	WSC Time 1									
4	Expected GPA†									
5	Intent to Persist Time 1									
6	Disengagement Time 1									
7	Exhaustion Time 1									
8	Burnout-overall Time 1									
9	Negative Affect‡									
10	Flexibility‡									
11	Job-School Congruence‡	(.80)								
12	ACT Score‡	-.06	(--)							
13	School-SOC Time 2	.02	-.03	(.82)						
14	Work-SOC Time 2	.01	.03	.78***	(.88)					
15	WSC Time 2†	-.14	-.01	-.07	-.06	(.83)				
16	Intent to Persist Time 2†	-.02	.18*	.16*	.13	-.13	(.59)			
17	Disengagement Time 2†	-.11	-.06	-.14	-.12	.25**	-.08	(.79)		
18	Exhaustion Time 2†	-.03	-.12	-.13	-.10	.47***	-.07	.58***	(.79)	
19	Burnout-overall Time 2	-.08	-.10	-.15*	-.12	.41***	-.09	.88***	.90***	(.86)

Note: Scale reliabilities are shown in parentheses on the diagonal.

*** $p < .001$, ** $p < .01$, * $p < .05$

†Study Variable ‡Control Variable

Note. Study variables from Time 1 and Time 2 presented here. In study analyses, Work-SOC, School-SOC, and control variables were analyzed at Time 1 only; WSC, GPA, Intent to Persist, Disengagement and Exhaustion Burnout were analyzed at Time 2 only.

Table 4

Confirmatory Factor Analysis

Item	Standardized Factor Loading
Work-SOC 1	0.30
Work-SOC 2	0.43
Work-SOC 3	0.45
Work-SOC 4	0.28
Work-SOC 5	0.45
Work-SOC 6	0.60
Work-SOC 7	0.72
Work-SOC 8	0.32
Work-SOC 9	0.62
Work-SOC 10	0.56
Work-SOC 11	0.52
Work-SOC 12	0.33
School-SOC 1	0.37
School-SOC 2	0.49
School-SOC 3	0.48
School-SOC 4	0.47
School-SOC 5	0.63
School-SOC 6	0.61
School-SOC 7	0.73
School-SOC 8	0.45
School-SOC 9	0.57
School-SOC 10	0.42
School-SOC 11	0.43
School-SOC 12	0.50
Work-School Conflict 1	0.60
Work-School Conflict 2	0.80
Work-School Conflict 3	0.89
Work-School Conflict 4	0.75
Work-School Conflict 5	0.47
Disengagement 1	0.56
Disengagement 2	0.72
Disengagement 3	0.62
Disengagement 4	0.61
Disengagement 5	0.44
Disengagement 6	0.57
Disengagement 8	0.64
Exhaustion 1	0.60
Exhaustion 2	0.43
Exhaustion 3	0.70
Exhaustion 4	0.63

Exhaustion 5	0.76
Exhaustion 6	0.52
Exhaustion 7	0.47
Exhaustion 8	0.37

Note: All standardized factor loadings were significant at alpha level $p < .001$.
Global Fit of Model: $\chi^2(1060) = 1897.12$, $p < .001$; RMSEA = 0.66; CFI = 0.69; SRMR = 0.81

Table 5

Parcel Descriptions

Scale Name	Parcel Name	Parcel Items	Factor Loading
School-SOC	School-SOC 1	School-SOC 3	0.48
		School-SOC 4	0.47
		School-SOC 9	0.57
		School-SOC 11	0.43
	School-SOC 2	School-SOC 2	0.49
		School-SOC 5	0.63
		School-SOC 7	0.73
		School-SOC 12	0.50
	School-SOC 3	School-SOC 1	0.37
		School-SOC 6	0.61
		School-SOC 8	0.45
		School-SOC 10	0.42
Work-SOC	Work-SOC 1	Work-SOC 3	0.45
		Work-SOC 4	0.28
		Work-SOC 7	0.72
		Work-SOC 10	0.56
	Work-SOC 2	Work-SOC 2	0.43
		Work-SOC 6	0.60
		Work-SOC 9	0.62
		Work-SOC 12	0.33
	Work-SOC 3	Work-SOC 1	0.30
		Work-SOC 5	0.45
		Work-SOC 8	0.32
		Work-SOC 11	0.52
Disengagement	Disengagement 1	Disengagement 2	0.72
		Disengagement 1	0.56
		Disengagement 5	0.44
	Disengagement 2	Disengagement 8	0.64
		Disengagement 4	0.61
	Disengagement 3	Disengagement 3	0.62
		Disengagement 6	0.57
Exhaustion	Exhaustion 1	Exhaustion 5	0.76
		Exhaustion 7	0.47
		Exhaustion 2	0.43
	Exhaustion 2	Exhaustion 3	0.70
		Exhaustion 6	0.52
		Exhaustion 8	0.37
	Exhaustion 3	Exhaustion 4	0.63
		Exhaustion 1	0.60

Table 6

Standardized Direct and Indirect Path Estimates

Direct Paths

Path	Standardized Estimate	Standard Error	p-value
Work-SOC → WSC	.09	.15	.57
School-SOC → WSC	-.23	.16	.15
WSC → GPA	.04	.07	.58
WSC → Intent to Persist	-.16	.10	.11
WSC → Disengagement	.32	.08	< .001
WSC → Exhaustion	.50	.07	< .001

Indirect Paths

Path	Standardized Estimate	Standard Error	p-value
WSOC → GPA	.002	.01	.69
WSOC → Intent to Persist	-.01	.02	.59
WSOC → Disengagement	.02	.03	.57
WSOC → Exhaustion	.03	.04	.57
SSOC → GPA	-.01	.01	.61
SSOC → Intent to Persist	.02	.02	.29
SSOC → Disengagement	-.04	.03	.18
SSOC → Exhaustion	-.06	.05	.17

Note: All indirect paths are through WSC
"WSOC" stands for Work-SOC
"SSOC" stands for School-SOC

Figure 1. Hypothesized Structural Model

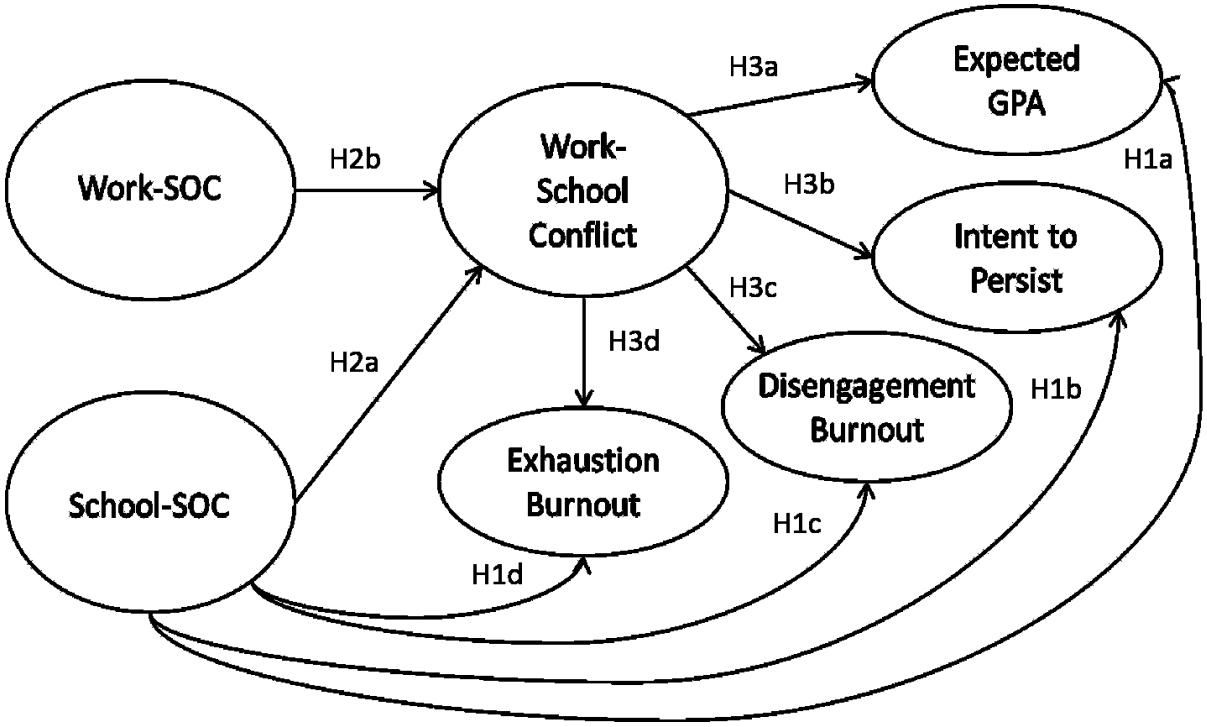
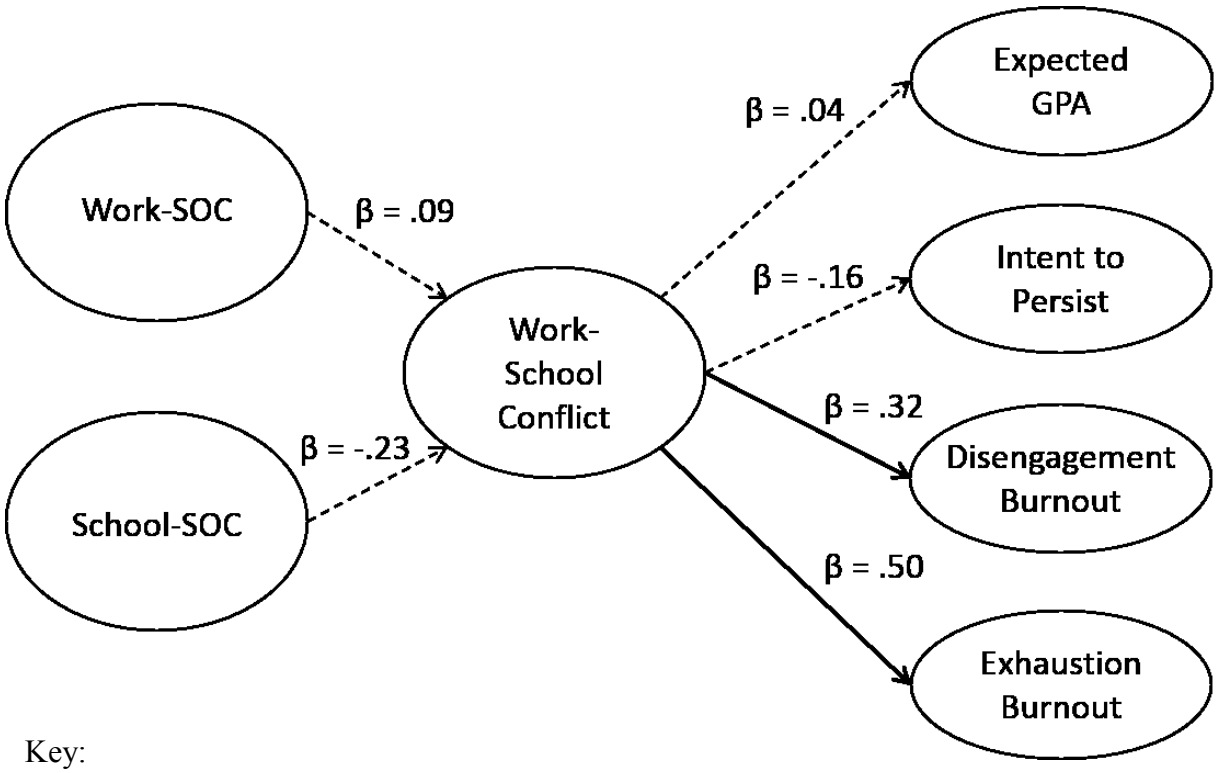


Figure 2. Retained Structural Model



APPENDIX A

Selective Optimization with Compensation

General Instructions: We are very interested in learning about how you decide which things in life are important for you and how you go about accomplishing what you want in life. In the following, we present examples of two different ways people might behave. Imagine there are two people talking about what they would do in a particular situation. We would like you to decide which person is most similar to you – in other words, which one behaves the way you probably would. Please pay attention to each set of instructions as we will be asking you to answer in reference to (1) school and then (2) work, separately.

School-SOC Instructions: Now, think about your role as a STUDENT, including how things are going, think about your goals – that is, both things that you want to improve and things you are satisfied with and want to maintain at SCHOOL. Rate how similar your behavior is to the person you most identify with.

Work-SOC Instruction: Now, think about your role as a WORKER, including how things are going, think about your goals – that is, both things that you want to improve and things you are satisfied with and want to maintain at WORK. Rate how similar your behavior is to the person you most identify with.

Items:

Item Instructions: Which statement best describes your own behavior?

1A. I always focus on the one most important goal at a given time.

1B. I am always working on several goals at once.

2A. When I think about what I want in life, I commit myself to one or two important goals.

2B. Even when I really consider what I want in life, I wait and see what happens instead of committing myself to just one or two particular goals.

3A. I consider exactly what is important for me.

3B. I take things as they come and carry on from there.

4A. When I can't carry on as I used to, I direct my attention to my most important goal.

4B. When I can't carry on as I used to, I direct my attention, as usual, to all my goals.

5A. When things don't go so well, I pursue my most important goal first.

5B. When things don't go so well, I leave it at that.

6A. When something becomes increasingly difficult for me, I define my goals more exactly.

6B. When something becomes increasingly difficult for me, I try to distract myself.

7A. I make every effort to achieve a given goal.

7B. I prefer to wait for a while and see if things will work out by themselves.

8A. When I want to get ahead, I take a successful person as a model.

8B. When I want to get ahead, only I myself know the best way to do it

9A. I think about exactly how I can best realize my plans.

9B. I don't think long about how to realize my plans, I just try it.

10A. When things don't work the way they used to, I look for other ways to achieve them.

10B. When things don't work the way they used to, then I accept it.

11A. When I can't do something as well as I used to, then I ask someone else to do it for me.

11B. When I can't do something as well as I used to, I accept the change

12A. When something doesn't work as well as usual, I look at how others do it.

12B. When something doesn't work as well as usual, I don't spend much time thinking about it.

Response Instructions: To what extent does this statement describe your own behavior?

1	2	3	4
A Little			Exactly

APPENDIX B

Work-School Conflict

Instructions: Because you indicated that you have a job while attending school, we are interested to know how your job might influence your role as a student. Please read each statement below and select the response that best describes your experience.

Response Options:

1	2	3	4	5
Never				Very Often

Items:

1. Because of my job, I go to school tired.
2. My job demands and responsibilities interfere with my school work.
3. I spend less time studying and doing homework because of my job.
4. My job takes up time that I'd rather spend at school or on school work.
5. When I'm at school, I spend a lot of time thinking about my job.

APPENDIX C

Intent to Persist

Instructions: Please respond to the following questions about your intentions for school.

Response Options:

1	2	3	4	5
Very Unlikely	Somewhat Unlikely	Not Sure	Somewhat Likely	Very Likely

Items:

1. How likely are you to drop out of school during/after this semester?
2. How likely are you to stay in college until you earn your degree?

APPENDIX D

Disengagement

Instructions: Please read each statement below and select the response that best describes you. Note: "Schoolwork" can refer to assignments, project groups, classes, or any other type of work that must be completed for school.

Response Options:

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Disagree

Items:

1. I always find new and interesting aspects in my schoolwork.
2. It happens more and more often that I talk about school in a negative way.
3. Lately, I tend to think less at school and do my schoolwork almost mechanically.
4. I find school to be a positive challenge.
5. Over time, one can become disconnected from school.
6. Sometimes I feel sickened by my schoolwork.
7. I feel more and more engaged in school.

APPENDIX E

Exhaustion

Instructions: Please read each statement below and select the response that best describes you. Note: "Schoolwork" can refer to assignments, project groups, classes, or any other type of work that must be completed for school.

Response Options:

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Disagree

Items:

1. After school, I tend to need more time than in the past in order to relax and feel better.
2. I can tolerate the pressure of school very well.
3. During school, I often feel emotionally drained.
4. After school, I have enough energy for my leisure activities.
5. After school, I usually feel worn out and weary.
6. Usually, I can manage the amount of schoolwork well.
7. When I do schoolwork, I usually feel energized.
8. There are days when I feel tired before I arrive at school.

APPENDIX F

Job-School Congruence

Instructions: Please read each statement below and select the response that best describes you.

Response Options:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Items:

1. I use knowledge that I gained in college on my job.
2. I use skills that I gained in college on my job.
3. My college studies are not really relevant to what I do at work.

APPENDIX G

Work Flexibility

Instructions: Please respond to the following questions while thinking about your current job.

Response Options:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

Items:

1. I am able to arrive to and depart from my job when I want in order to meet school responsibilities.
2. If the need arose, I could leave my job early to attend to school issues.
3. If something came up at school, it would be alright if I arrived to my job late.
4. While at my job, I can stop what I am doing to meet responsibilities related to school.

APPENDIX H

Negative Affect

Instructions: Please read the following list of thoughts and emotions and indicate how often you GENERALLY FEEL THIS WAY; that is, HOW YOU FEEL ON AVERAGE.

Response Options:

1	2	3	4	5
Never	Rarely	Sometimes	Often	Almost Always

Items:

1. Distressed
2. Upset
3. Guilty
4. Scared
5. Hostile
6. Irritable
7. Ashamed
8. Nervous
9. Jittery
10. Afraid

APPENDIX I

Insufficient Effort Responding

Each item was embedded within various study scales, therefore the instructions for each item may vary.

Response options are also varied based on the study scale that each item was embedded within.

Items:

1. I work fourteen months in a year.
2. I have never used a computer.
3. I can run two miles in two minutes
4. I will be punished for meeting the requirements of my job.
5. I work twenty-eight hours in a typical work day.
6. I am interested in pursuing a degree in parabanjology.
7. I eat cement occasionally.
8. I can teleport across time and space.

REFERENCES

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action-control: From cognition to behavior (pp. 1 l-39). Heidelberg: Springer.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50,*179–211.

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, *52*, 27–58.

Ajzen, I., & Albarracín, D. (2007). Predicting and changing behavior: A reasoned action aproach. In I. Ajzen, D. Albarracín, & R. Hornik (Eds.), Prediction and change of health behavior: Applying the reasoned action approach (pp. 1–21). Mahwah, NJ: Lawrence Erlbaum Associates.

Alexander J. A., Lichtenstein R., Oh H. J., & Ullman E. (1998). A causal model of voluntary turnover among nursing personnel in long-term psychiatric settings. Research in Nursing and Health, 21, 415-427.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103, 411–423.

Aud, S., Hussar, W., Johnson, F., Kena, G., Roth, E., Manning, E., et al. (2012). *The condition of education 2012* (NCES 2012-045). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Bacharach, S. B., Bamberger, P., & Conley, S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*, *12*(1), 39-53.

Baltes, P. B. (1997). On the incomplete architecture of human ontogeny: Selection, optimization, and compensation as foundation of developmental theory. *American Psychologist, 52,* 366–380.

Baltes, P. B., & Baltes, M. M. (Eds.). (1990). Successful aging: Perspectives from the behavioral sciences. Cambridge, MA: Cambridge University Press.

Baltes, P. B., Baltes, M. M., Freund, A. M., & Lang, F. (1999). *The measurement of selection, optimization,and compensation (SOC) by self-report: Technical report 1999.* Berlin, Germany: Max Planck Institute for Human Development.

Baltes, B. B., & Dickson, M. W. (2001). Using life-span models in industrial-organizational psychology: The theory of selective optimization with compensation. Applied Developmental Science, 5, 51–63. doi:10.1207/S1532480XADS0501_5.

Baltes, B. B., & Heydens-Gahir, H. A. (2003). Reduction of work-family conflict through the use of selection, optimization, and compensation behaviors. *J Appl Psychol, 88*(6), 1005-1018. doi: 10.1037/0021-9010.88.6.1005

Baltes, B. B., Zhdanova, L. S., & Clark, M. A. (2011). Examining the relationships between personality, coping strategies, and Work-Family Conflict. *J Bus Psychol*, *26*, 517-530. doi: 10.1007/s10869-010-9207-0

Barnett, E. A. (2011). Validation experiences and persistence among community college students. *The Review of Higher Education*, *34*(2), 193-230.

Bartolome, F., & Evans, P. A. L. (1979). Professional lives versus private lives—Shifting patterns of managerial commitment. *Organizational Dynamics*, *7*(4), 3-29.

Becker, P. E., & Moen, P. (1999). Scaling back: Dual-earner couples' work-family strategies. *Journal of Marriage and Family, 61*(4), 995-1007.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107* (2), 238-46

Bentler, P. M. & Bonnet, D. C. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88* (3), 588-606.

Berker, A., & Horn, L. (2003). *Work first, study second: Adult undergraduates who combine employment and postsecondary enrollment* (NCES No. 2003-167). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Butler, A. B. (2007). Job characteristics and college performance and attitudes: a model of work-school conflict and facilitation. *Journal of Applied Psychology, 92*(2), 500-510. doi: 10.1037/0021-9010.92.2.500

Cabrera, A. F., Nora, A., & Castañeda, M. B. (1993). College persistence: Structural equation modeling test of an integrated model of student retention. *The Journal of Higher Education, 64*(2), 123-139.

Carlson, K.D., & Wu, J. (2012). The illusion of statistical control: Control variable practice in management research. *Organizational Research Methods, 15*, 413–435.

Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J.W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology*, 85, 65–74.

Crouter, A. C. (1984). Participative work as an influence on human development. *Journal of Applied Developmental Psychology*, *5*(1), 71-90.

Demerouti, E., Bakker, A.B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment, 18,* 296-307.

Demerouti, E., & Bakker, A.B. (2008). The Oldenburg Burnout Inventory: A good alternative to measure burnout and engagement. In J. Halbesleben (Ed.), Stress and burnout in health care. Nova Sciences.

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *JOHP, 15*(3), 209-222. doi: 10.1037/a0019408

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*, 219–239.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: A study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48,* 150–170.

Freund, A. M., & Baltes, P. B. (2002). Life-management strategies of selection, optimization, and compensation: Measurement by seld-report and construct validity. *JPSP, 82*(4), 642-662. doi: 10.1037//0022-3514.82.4.642

Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Beahviors, 50*, 145-167.

Giancola, J. K., Grawitch, M. J., & Borchert, D. (2009). Dealing with the stress of college: A model for adult students. *Adult Education Quarterly, 59*(3), 246-263.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, *10*, 76-88. Doi: 10.2307/258214

Greenhaus, J. H., & Parasuraman, S. (1986). A work-nonwork interactive perspective of stress and its consequences. *Journal of Organizational Behavior Management*, *8*, 37-60.

Hart, P. M., & Cooper, C. L. (2002). Occupational stress: Toward a more integrated framework. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (Vol. 2, pp. 93–114). Thousand Oaks, CA: Sage.

Hecht, T. D., & McCarthy, J. M. (2010). Coping with employee, family, and student roles: evidence of dispositional conflict and facilitation tendencies. *Journal of Applied Psychology, 95*(4), 631-647. doi: 10.1037/a0019065

Hendrix W. H., Robins T., Miller J., & Summers T. P. (1999). Effects of procedural justice and distributive justice on factors predictive of turnover. Journal of Social Behavior and Personality, 13, 611-632.

Hu, L. T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1-55.

Hultell, D., & Gustavsson, J. P. (2011). Factors affecting burnout and work engagement in teachers when entering employment. *Work: A Journal of Prevention, Assessment and Rehabilitation*, *40*(1), 85-98.

Igbaria M, Greenhaus JH. (1992). Determinants of MIS employees' turnover intentions: A structural equation model. *Communications of the ACM, 35,*34-47.

Innstrand, S. T., Langballe, E. M., Espnes, G. A., Falkum, E., & Aasland, O. G. (2008). Positive and negative work–family interaction and burnout: A longitudinal study of reciprocal relations. *Work & Stress*, *22*(1), 1-15.

Kahn, R. L., Wolfe, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational Stress.* New York: Wiley.

Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *JOHP, 4*(4), 337-346. doi: 1076-8998/99/S3.00

King, J. E. (2006). Working their way through college: Student employment and its impact on the college experience. Retrieved on August 20, 2012, from http://www.acenet.edu/AM/Template.cfm?template=/CM/ContentDisplay.cfm&ContentFileID=1618.

Kline, R.B. (2005), *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: The Guilford Press.

Kossek, E., & Ozeki, C. (1998). Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior–human resources research. *Journal of applied psychology*, *83*(2), 139-149.

Lambert, S. J. (1990). Processes linking work and family: A critical review and research agenda. *Human relations*, *43*(3), 239-257.

Lammers, W., Onwuegbuzie, A. J., & Slate, J. R. (2001). Academic success as a function of the sex, class, age, study habits, and employment of college students. *Research in the Schools, 8*(2), 71-81.

Langballe, E. M., Innstrand, S. T., Aasland, O. G., & Falkum, E. (2011). The predictive value of individual factors, work-related factors, and work–home interaction on burnout in female and male physicians: a longitudinal study. *Stress and Health*, *27*(1), 73-87.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, NY: Springer.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal, 9*, 151-173.

Liu, M, & Huang, J. L. (2012, April). Insufficient effort responding to surveys: Validation of a detection scale. In P. Curran & N. T. Carter (Co-chairs), *Invalid data in surveys: Antecedents, detection, and consequences*. Symposium presented at the annual conference of Society for Industrial and Organizational Psychology, San Diego, CA.

MacCallum, R., Browne, M., & Sugawara, H. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*(2), 130-149.

Markel, K. S., & Frone, M. R. (1998). Job characteristics, work-school conflict, and school outcomes among adolescents: Testing a structural model. *Journal of Applied Psychology, 83*(2), 277-287.

Matthews, R. A., & Barnes-Farrell, J. L. (2010). Development and initial evaluation of an enhanced measure of domain flexibility for the work and family domains. *Journal of Occupational Health Psychology, 15*, 330–346.

Matthews, R., Barnes-Farrell, J., & Bulger, C. (2010). Advancing measurement of work and family domain boundary characteristics. *Journal of Vocational Behavior, 77,* 447-460.

McNall, L. A., & Michel, J. S. (2010). A Dispositional Approach to Work–School Conflict and Enrichment. *Journal of Business and Psychology, 26*(3), 397-411. doi: 10.1007/s10869-010-9187-0

O'Boyle Jr, E. H., & Williams, L. J. (2011). Decomposing model fit: Measurement vs. theory in organizational research using latent variables. *Journal of Applied Psychology*, *96*(1), 1-12.

Park, Y., & Sprung, J. M. (2013). Work–school conflict and health outcomes: Beneficial resources for working college students. *Journal of occupational health psychology*, *18*(4), 384-394.

Penley, J. A., Tomaka, J., & Wiebe, J. S. (2002). The association of coping to physical and psychological health outcomes: A meta-analytic review. *Journal of Behavioral Medicine, 25*(6), 551-603.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879-903.

Public Agenda. (2009). *With their whole lives ahead of them.* Retrieved from http://www.publicagenda.org/theirwholelivesaheadofthem/

Rau, B. L., & Hyland, M. M. (2002). Role conflict and flexible work arrangements: The effects on applicant attraction. *Personnel Psychology, 55*, 111-136.

Rendón, L. I. (1994). Validating culturally diverse students: Toward a model of learning and student development. *Innovative Higher Education, 19*(1), 33–51.

Rendón, L. I. (2002). Community college Puente: A validating model of education. *Educational Policy, 16*(4), 642–667.

Steiger, J. H. (1990). Structural model evaluation and modification. *Multivariate Behavioral Research, 25*, 214-12.

Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences, 42*(5), 893-98.

Steinberg, L., & Cauffman, E. (1995). The impact of employment on adolescent development. *Annals of Child Development, II,* 131-166.

Sandler, M. E. (2002). Career decision-making self-efficacy, perceived stress, and an integrated model of student persistence: A structural model of finances, attitudes, behavior, and career development. *Research in Higher Education, 41*(5), 537-580. doi: 0361-0365/00/1000-0537$18.00/0

Snyder, T.D., & Dillow, S.A. (2011). Digest of education statistics 2010 (NCES 2011-015). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

Stage, F. K. (1989). Motivation, academic and social integration, and the early dropout. *American Educational Research Journal, 26*(3), 385-402.

Tabachnick, B. G. & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). New York: Allyn and Bacon.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, *45*, 89-125.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago: University of Chicago Press.

Trockel, M. T., Barnes, M. D., & Egget, D. L. (2000). Health-related variables and academic performance among first-year college students: Implications for sleep and other behaviors. *Journal of American College Health, 49*(3), 125-131.

van Steenbergen, E. F., & Ellemers, N. (2009). Is managing the work-family interface worthwhile? Benefits for employee health and performance. *Journal of Organizational Behavior, 30*, 617-642. doi: 10.1002/job.569

Weise, B. S., Freund, A. M., & Baltes, P. B. (2002). Subjective career success and emotional well-being: Longitudinal predictive power of selection, optimization, and compensation. *Journal of Vocational Behavior, 60*, 321-335. doi: 10.1006/jvbe.2001.1835

Williams, L. J. O'Boyle Jr., E. H. (2008). Measurement models for linking latent variables and indicators: A review of human resource management research using parcels. *Human Resource Management Review*, *18*(4), 233-242.

Wirt, J., Choy, S., Gerald, D., Provasnik, S., Rooney, P., Watanabe, S., & Tobin, R. (2002). *The Condition of Education 2002* (NCES No. 2002-025). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Wirtz, P. W., Rohrbeck, C. A., Charner, I., & Fraser, B. S. (1988). Employment of adolescents while in high school: Employment intensity, interference with schoolwork, and normative approval. *Journal of Adolescent Research, 3,* 97-105.

ABSTRACT

WORKING THROUGH SCHOOL AND LIVING WITH CONFLICT: THE ROLE OF SELECTIVE OPTIMIZATION WITH COMPENSATION

by

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Work-School Conflict (WSC) is defined as the extent to which work interferes with the ability to meet school demands (Markel & Frone, 1998). The aim of the present study was to examine perceptions of WSC among employed college students, as well as a positive antecedent, Selective Optimization with Compensation (SOC; Baltes & Baltes, 1990), a group of behavior-based coping strategies. WSC was predicted to be a partial mediator between context-specific SOC strategies and the four outcomes: intent to persist with college, GPA, as well as two components of burnout, disengagement and exhaustion (Demerouti & Bakker, 2008). Structural equation modeling was used, and significant paths were found between WSC and the two components of burnout, disengagement and exhaustion. Implications of these novel findings and discussion of non-significant paths are presented.

AUTOBIOGRAPHICAL STATEMENT

Lydia E. Hamblin received her Bachelor of Arts in Psychology from Purdue University in 2011. She is a doctoral student in Industrial/Organizational Psychology, working under Dr. Alyssa McGonagle. Her major area of interest is Occupational Health Psychology, and her research focuses primarily on workplace violence, Work-School Conflict, and healthcare workers. Since her first year in the PhD program, she has been employed as a Graduate Research Assistant under Dr. Judy Arnetz at the Wayne State University School of Medicine, working on a four-year, NIOSH-funded grant that aims to implement and evaluate an intervention on workplace violence in hospital units.