



**University  
of Victoria**

Graduate Studies

Notice of the Final Oral Examination  
for the Degree of Doctor of Philosophy

of

**TYLER CAREY**

MSc (University of Victoria, 2013)

BA (University of Windsor, 2011)

**“Using the Strength-Energy Model and Self-Determination Theory to Examine  
Drinking-Related Self-Control Failure among University Students”**

Department of Psychology

Wednesday, December 14, 2016

9:00AM

David Turpin Building

Room A144

Supervisory Committee:

Dr. Frederick Grouzet, Department of Psychology, University of Victoria (Supervisor)

Dr. Erica Woodin, Department of Psychology, UVic (Member)

Dr. Ryan Rhodes, Department of Exercise Science, Physical and Health Education, UVic (Outside  
Member)

External Examiner:

Dr. Arlen Moller, Lewis College of Human Sciences, Illinois Institute of Technology

Chair of Oral Examination:

Dr. Anne Marshall, Department of Educational Psychology & Leadership Studies, UVic

## **Abstract**

Researchers adopting the strength-energy model of self-control (Baumeister et al., 1998) have suggested that taxing situations (i.e., self-control demands) exhaust a limited self-control resource and leave individuals in a state of self-regulatory fatigue known as “ego-depletion.”

Following the onset of ego-depletion, numerous studies have shown that individuals are more susceptible to lapses in self-control, including failure to resist alcohol consumption. Self-determination theory (SDT; Ryan & Deci, 2000) researchers have contributed to this body of research in at least two major ways. First, they have suggested that psychological need satisfaction may hold a restorative function and buffer against the ego-depleting effects of self-control demands during the day (Ryan & Deci, 2008). Second, they have empirically demonstrated that self-control resources may only be needed to execute responses involving greater controlled (CR) than autonomous (AR) regulation (Moller et al., 2006). Drawing upon each of these perspectives, the current study investigated: a) whether students reporting greater self-control demands during the day would be protected from higher levels of ego-depletion during the evening if they perceived greater psychological need satisfaction during the day, and b) whether students reporting higher levels of ego-depletion during the evening would be at greater risk of alcohol-related self-control failure at night if they reported relatively greater controlled than autonomous regulation for limiting their nighttime drinking. Two independent samples of university students were recruited during the Fall 2015 (Sample 1;  $n = 175$ ) and Spring 2016 (Sample 2;  $n = 204$ ) semesters. Across three (Sample 1) and four (Sample 2) week periods, students were prompted to complete measures of self-control demands and psychological need satisfaction during the day, and ego-depletion, alcohol-related self-control failure, and self-regulation for limiting alcohol consumption during the night. Using multilevel analysis, findings revealed a positive association between self-control demands and ego-depletion. This association was moderated by psychological need satisfaction during some temporal periods more than others. Findings also revealed a positive association between ego-depletion and alcohol-related self-control failure, but only among Sample 1 participants. Findings did not implicate self-regulation as a moderator of this relationship. The applicability of the strength-energy model is discussed in relation to student drinking behaviour.