

Presentations booklet

# Tenth SELF Conference

June 2022

---

## Table des matières

<b>KEYNOTES SPEAKERS .....</b>	<b>2</b>
<b>SHAVELSON AWARD CEREMONY .....</b>	<b>3</b>
<b>SYMPOSIUMS .....</b>	<b>4</b>
Symposium #1 .....	4
Symposium #2 .....	8
Symposium #3 .....	13
Symposium #4 .....	17
Symposium #5 .....	19
Symposium #6 .....	22
<b>POSTERS AND PAPERS .....</b>	<b>27</b>

## KEYNOTES SPEAKERS

To view the keynotes speakers' presentations, please click on this link :

<https://event.fourwaves.com/self-2022/pages/cfa0d05c-ec23-4a2b-bc1d-5cbc8945b83c>

## SHAVELSON AWARD CEREMONY

<https://event.fourwaves.com/self-2022/pages/cfa0d05c-ec23-4a2b-bc1d-5cbc8945b83c>

## SYMPOSIUMS

---

### *Symposium #1*

---

## **163 - Australian Indigenous and non-Indigenous Students: Reciprocal effects Between Self-concept and Achievement**

Alexander Yeung<sup>1</sup>, Herb Marsh<sup>1</sup>, Rhonda Craven<sup>1</sup>, Janet Mooney<sup>1</sup>, Anthony Dillon<sup>1</sup>, Alicia Franklin<sup>1</sup>

<sup>1</sup>Australian Catholic University

SYMPOSIUM TITLE:

Indigenous Thriving: Driving Indigenous Success from School to University and Employment

Paper 1 Abstract:

“For Australian schooling to promote equity and excellence, governments and all school sectors must improve educational outcomes for Indigenous youth” (Melbourne Declaration on Educational Goals for Young Australians, 2009, p. 16). Australian Indigenous students are highly disadvantaged, and high-ability Indigenous students are not adequately recognised and supported. This study focused on identifying the drivers of Indigenous academic success, utilising the reciprocal effects model (REM) of Math and English self-concept and achievement for large samples of high-ability Indigenous students and matched non-Indigenous students in Australian primary and secondary schools. Results of the study provide support for the REM for Indigenous and non-Indigenous students, indicating that academic achievement and self-concept were reciprocally related over three annual time waves, suggesting that improving both achievement and self-concept may serve to create a positive-spiral multiplier effect. The results have important policy/practice implications for Indigenous and high-ability education and self-concept theory and research.

<https://event.fourwaves.com/self-2022/abstracts/3136fa3b-b2c8-4dcb-ba7d-e74bd3b8e355>

## **164 - What Makes a Boarding School Work for Indigenous Australian Boys**

Anthony Dillon<sup>1</sup>, Rhonda Craven<sup>1</sup>, Janet Mooney<sup>1</sup>, Alexander Yeung<sup>1</sup>, Kurt Marder<sup>1</sup>

<sup>1</sup>Australia Catholic University

SYMPOSIUM

Indigenous Thriving: Driving Indigenous Success from School to University and Employment

Paper 2: Abstract

Improving educational outcomes for Indigenous Australian students is widely recognized as a key strategy to break cycles of generational disadvantage. Despite this, Indigenous students still lag behind their non-Indigenous counterparts in terms of enrolment, attendance, academic achievement, and school completion. This is particularly so for Indigenous students who live in remote parts of Australia where educational opportunities are limited, especially for high school. An intuitive solution to this problem is for these students to enrol in boarding schools and urban and metropolitan centres. Fortunately, there is much goodwill from government and the public to sponsor Indigenous students to attend high schools where they can have opportunities that would be almost impossible to achieve if they remained in their home communities. While research on the success of boarding schools for Indigenous students is scarce, what little that does exist, does not paint an encouraging picture. The focus of this research is an Indigenous boarding program in a large private boys' school that has demonstrated success in recruiting and graduating Indigenous boys from disadvantaged backgrounds. Through interviews and focus groups with Indigenous and non-Indigenous boys, parents, school staff, and key members of the program, a list of success factors were identified, centring on: careful recruitment of boys, a full integration of the program within the school, high expectations of the boy, comprehensive academic and non-academic support, and striving for continual improvement of the program.

<https://event.fourwaves.com/self-2022/abstracts/1ac4a11a-a42a-48d8-a85d-2329a281d34c>

## **183 - The Drivers and Barriers to Indigenous University Students' Successful Transition, Retention and Completion**

Georgia Durmush<sup>1</sup>, Emily Fawns<sup>1</sup>, Lachlan Sibir<sup>1</sup>, Hayley Creed<sup>1</sup>, Amy Miller-Porter<sup>1</sup>, Violet Craven-Miller<sup>1</sup>, Alicia Franklin<sup>1</sup>, Rhonda Craven<sup>1</sup>

<sup>1</sup>australian catholic university

SYMPOSIUM TITLE:

Indigenous Thriving: Driving Indigenous Success from School to University and Employment

PAPER 3 ABSTRACT:

The United Nations (UN) has set as a primary goal by 2030 to ensure quality education for all including tertiary education for Indigenous peoples. Considerable inequalities in participation and International Educational Attainment exist, internationally, for Indigenous peoples in higher education (e.g., Australia, Canada, USA, and New Zealand). Thus, exploring factors associated with higher education transition, retention, and completion among Indigenous people internationally is of critical significance. Our team conducted a systematic review of international research to synthesise extant research and identify research-derived drivers and barriers to Indigenous students' successful university transition, retention and completion. Key drivers and barriers to Indigenous universities students' success were based on cultural, social, academic, psychological, and environmental factors. The overall findings of the synthesis highlight the importance of Indigenous students receiving academic, financial, psychological, and social support from higher education staff, peers, family, and community. On a whole creating a sense of cultural belonging and cultural safety for Indigenous students was central to their university success.

<https://event.fourwaves.com/self-2022/abstracts/8b45fe85-634f-4109-bf4e-d6e5284b205b>

## 188 - Drivers of Indigenous Professionals' Socio-Economic Wellbeing

[Natasha Magson<sup>1</sup>](#), [Richard Ryan<sup>2</sup>](#), [Janet Mooney<sup>2</sup>](#), [Rhonda Craven<sup>2</sup>](#), [Anthony Dillon<sup>2</sup>](#), [Fabri Blacklock<sup>3</sup>](#), [Alicia Franklin<sup>2</sup>](#), [Alexander Yeung<sup>2</sup>](#), [Munirah Kadir<sup>2</sup>](#)

A new generation of Indigenous people are turning dreams into reality: education; economic participation; self-esteem and success are part of this new Indigenous world, and there is no going back (Langton, 2013, p. 149). There are growing numbers of Indigenous Australians triumphing in their work, however little is understood about what has driven their success. Self-determination theory (SDT) highlights three basic psychological needs (autonomy, competence, and relatedness) associated with positive work outcomes. Despite the ongoing disparity of employment outcomes between Indigenous and non-Indigenous people globally, the tenets of SDT have not yet been extended to Indigenous samples. Guided by self-determination theory, this study investigated how satisfaction of the basic psychological needs at work was associated with job outcomes in a sample of Indigenous and non-Indigenous employees. Structural equation modelling (SEM) results revealed that autonomy and competence need satisfaction were associated with positive work outcomes, and satisfaction of the need for relatedness was uniquely associated with higher workplace resilience and job satisfaction. Need satisfaction was shown to be equally beneficial for all workers regardless of culture or occupation type. Results provide valuable insight into factors that drive the enhancement of engagement, commitment, and work-related resilience of Indigenous and non-Indigenous employees.

<https://event.fourwaves.com/self-2022/abstracts/df8b3ff5-d5a8-4efa-bbbe-a6346e4a0b7e>



## **74 - Overcoming obstacles in personal goal pursuit: Making sense of the diverging influences of personality and motivation on goal progress**

André St-Jacques<sup>1</sup>, Ariane Sophie Marion-Jetten<sup>1</sup>, Shelby Levine<sup>2</sup>, Amanda Moore<sup>2</sup>,  
Richard Koestner<sup>2</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>McGill University

Goal pursuit is an important aspect of development (Heckhausen et al., 2010). Nevertheless, setbacks frequently interfere with it (Holding et al., 2017). How people overcome these roadblocks impacts their success and well-being. This symposium regroups talks on the influence of personality and motivation on obstacles in goal pursuit:

First, André St-Jacques will present research on psychological need sacrificing, the self-imposed abandonment of need satisfying activities. He will explore how personality (e.g., dispositional mindfulness) and motivational factors can protect against need sacrificing and burnout.

Second, Ariane Marion-Jetten will discuss the role of perfectionism in predicting action crises. Action crises occur when people hesitate between continued goal pursuit and disengagement. She will present longitudinal and experimental results linking perfectionism and action crises and consider how future studies can improve our knowledge of this relation.

Third, Shelby Levine will discuss collaborative autonomy in goal pursuit as a means of overcoming challenges. She provides evidence that individuals often develop autonomous personal goals collaboratively. Longitudinal results demonstrated a dynamic reciprocal relation between autonomous motivation and autonomy support over time.

Fourth, Amanda Moore will address the consequences of goals ill-suited to one's personality. She proposes that autonomous motivation facilitates intentional changes in personalities to pursue personal goals. Two longitudinal studies provide evidence that personality change goals can increase success and well-being over time.

Professor Richard Koestner, a leading scholar in human motivation, will provide insights on key findings, discuss how these findings contribute to goal pursuit literature as well as avenues for future research.

<https://event.fourwaves.com/self-2022/abstracts/2cff5672-ec88-4414-9b8e-5d7a0345baa4>

## **155 - Sacrifices for success: Personal and motivational factors related to psychological need sacrifices and burnout in the pursuit of career goals**

André St-Jacques<sup>1</sup>, Viviane Poirier<sup>1</sup>, Geneviève Taylor<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

University can be a challenging period for Canadian students, many of whom report high levels of depression, anxiety, and burnout (Fives et al., 2007; ACHA, 2016). Whereas some students thrive in challenging programs, others may adopt maladaptive ways of coping with stressors. In an attempt to focus on their career goals, students may sacrifice activities that satisfy their psychological needs, thus hindering their self-growth and well-being. This type of self-imposed obstacle in goal pursuit is termed *psychological need sacrificing* and is associated with distress and goal failure (Holding et al., 2020). One factor that could protect against need sacrifices and burnout is mindfulness, a state of conscious awareness in which a person turns their attention towards their experience (Kabat-Zinn, 2003). Conversely, self-criticism and controlled motivation for one's career goal may predict need sacrifices and burnout. The aims of the present study were threefold: identify antecedents of need sacrifices and burnout, elucidate the mediating role of need sacrifices in explaining burnout, and test psychometric properties of a novel 12-item need sacrifice scale. The results of a cross-sectional study of (N=202) university students actively pursuing a career goal showed that need sacrifices mediated the relationships between antecedent variables and burnout. Principal component analyses revealed: 1. Three factors emerged from the novel need sacrifice scale—autonomy sacrifice, relatedness sacrifice, and competence sacrifice; 2. Need sacrificing was empirically distinguishable from need frustration. However, further research is needed to understand antecedents, mechanisms, and consequences of need sacrifices in relation to student burnout.

<https://event.fourwaves.com/self-2022/abstracts/cc2eee4c-c9e0-4ee8-806e-e6c6c4d8fca2>

## **179 - Perfection vs. Progression: The influence of perfectionism on action crisis for personal goals**

Ariane Sophie Marion-Jetten<sup>1</sup>, Veronika Brandstätter<sup>2</sup>, Geneviève Taylor<sup>1</sup>, Kaspar Schattke<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Universität Zürich

Achieving goals has long been associated with positive psychological health outcomes (e.g., Koestner et al., 2002). But what happens when obstacles accumulate to such an extent that one starts to doubt whether one will achieve one's important, identity-defining, goals? Such hesitations between further pursuing and disengaging from important personal goals are known as action crises (Brandstätter & Schuler, 2013). Action crises have been associated with increased depression, anxiety, and goal disengagement (Brandstätter & Herrmann, 2016; Holding et al., 2017). Perfectionism might precipitate action crises because perfectionists might be more sensitive to a lack of goal progress (e.g., Blatt, 1995; Young et al., 2003). As such, the results of a prospective study (N=73 students) will shed light on the positive associations between perfectionism, emotion regulation difficulties and action crises. The results of a second study (N=127 workers) will then be presented with a focus on perfectionism. This study randomly assigned participants to identify one or three ways to achieve a self-identified important personal goal before having them read an obstacles (vs. no obstacles) scenario for their first or only way to achieve their goal. Action crisis for their goal was then measured. Results showed a main positive effect for perfectionism and for the number of ways (1 vs. 3) participants identified to achieve their personal goal on action crisis levels. These preliminary findings will be discussed as a basis to elaborate on the nature of the relation between goals, perfectionism, and action crises and plan future research on the topic.

<https://event.fourwaves.com/self-2022/abstracts/51030d4e-5561-4e5f-898d-84af5d3b0691>

## **146 - The development of autonomous personal goals: Evidence for a collaborative process built on autonomy support and personality factors that favor cooperation**

Shelby Levine<sup>1</sup>, Marina Milyavskaya<sup>2</sup>, Richard Koestner<sup>1</sup>

<sup>1</sup>McGill University, <sup>2</sup>Carleton University

Individuals are more successful when they pursue autonomous goals, but how do such goals develop in young adults? The current investigation provides evidence that the development of autonomous personal goals is a collaborative process. To test this, we examined whether autonomous motivation and autonomy support would interact in a dynamic reciprocal manner over the school year, and if personality factors that favoured collaboration would contribute to growth in autonomous motivation over the year. A 5-wave longitudinal study was conducted, and university students (N =1544) completed surveys on motivation, support, personality measures, and well-being. Cross-lagged structural equation models were created using MPlus software. A dynamic reciprocal relation emerged between autonomous motivation and autonomy support. At each subsequent time-point, autonomy support led to increased autonomous motivation, and autonomous motivation led to increased autonomy support. This upward spiral of autonomous motivation and support resulted in increased positive affect and goal progress over the academic year. Additionally, three distinct cooperative personality factors, agreeableness, assisted autonomy striving, and secure attachment were related to increases in autonomous motivation, perceived autonomy support and goal progress over the year. Suggesting students who openly share their goals, search for others to work with, or trust that others might have the best intentions to help them during goal pursuit are more likely to create a more enriching goal environment that is openly supportive and fuels the individual's volition. Future research is needed to determine how to promote collaboration in goal pursuit to further help individuals successfully strive for their goals.

<https://event.fourwaves.com/self-2022/abstracts/db5100e8-b5a0-4547-9366-f36c664a7571>

## **152 - Personality and personal goal pursuit: Can we intentionally change our personalities to facilitate personal goal progress?**

Amanda Moore<sup>1</sup>, Anne Holding<sup>2</sup>, Lauren Buchardt<sup>1</sup>, Richard Koester<sup>1</sup>

<sup>1</sup>McGill University, <sup>2</sup>New York University

Emerging evidence suggests that one's standing on certain Big 5 traits is predictive of their motivation for and subsequent progress made on certain types of important personal goals. If one's personality impacts their goal pursuit, this raises the question: Are we capable of intentionally changing our personalities when pursuing important and meaningful personal goals for which our personalities are not optimally suited, or are we

stuck the way we are? We explored the effectiveness and impact of personality change goal (PCG) pursuit using a longitudinal goal-setting paradigm within two multi-wave prospective longitudinal studies employing both a university student (n=1468) and community adult (n=248) sample. Self-determination theory (SDT) was incorporated to explore the extent to which PCGs reflect autonomous processes. Four major findings were revealed: 1) Participants effectively made progress on their PCGs, even more so than other types of goals; 2) PCGs were more autonomous relative to other personal goals; 3) Autonomous motivation for goal pursuit was more strongly associated with PCG progress, relative to other goals; and 4) PCG progress resulted in improved psychological well-being over time. These findings were replicated within both our university student and community adult samples. The present studies contribute to current PCG literature by using an alternate goal-assessment method and integrating SDT to enhance our understanding of volitional personality change. Moreover, this work provides encouraging implications for individuals pursuing important personal goals for which their personality is not optimally suited.

<https://event.fourwaves.com/self-2022/abstracts/c355b5d8-6aab-4362-9457-67ee59653dab>

## 42 - Benefits of non-judgmental cognitions

Genevieve Mageau<sup>1</sup>, Catherine Malboeuf-Hurtubise<sup>2</sup>, Mireille Joussemet<sup>1</sup>, Joëlle Carpentier<sup>3</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Bishop's University, <sup>3</sup>ESG UQAM

The way people appraise their environment and how they reflect upon their experiences influence their functioning (Pessoa, 2008). While some of these cognitive processes are automatic and reactive, others, such as non-judgmental cognitions, are conscious and can be regulated to foster optimal functioning. A better understanding of these types of cognitions could thus contribute in promoting psychological health. Yet, what actually constitute non-judgmental cognitions remains unclear. This symposium explores non-judgmental attentional processes that show promise in fostering optimal functioning. Results from three randomized controlled trials and one diary study will be presented.

The first paper, focusing on self-compassion and its relation with parents' psychopathology, shows that (1) self-compassion and anxiety symptoms can be improved by a parenting workshop and that (2) initial self-compassion also predicts decreases in parents' anxiety. The second paper focuses on philosophy and children's self-determination and shows how participating in philosophy exercises aimed at increasing children's awareness of their values led to greater self-determination. The third paper focuses on intrinsic and extrinsic values and shows (1) how they relate to adolescents' well-being, and (2) how non-judgmental reflection about one's values lowered the importance of extrinsic values of university students. The final paper focuses on athletes' self-provision of autonomy support through an autonomy-supportive self-talk and shows how more autonomy-supportive self-talk during specific training sessions was positively related to positive outcomes during these trainings.

Overall, this symposium suggests that non-judgemental cognitions such as self-compassion, value identification, and autonomy-supportive self-talk could foster optimal functioning in both children and adults.

**\*\*In order to fully appreciate this symposium, we suggest that you watch presentation #166, *The impact of the How-to Parenting Program on parental self-compassion and psychopathology: Results from a randomized controlled trial*, first.\*\***

<https://event.fourwaves.com/self-2022/abstracts/07cb2fce-c2dc-452a-b81d-d0268a8deb5f>

## **166 - The impact of the How-to Parenting Program on parental self-compassion and psychopathology: Results from a randomized controlled trial**

Geneviève A. Mageau<sup>1</sup>, Mireille Joussemet<sup>1</sup>, Jean-Michel Robichaud<sup>1</sup>, Rose Varin<sup>1</sup>, Juliette Laurendeau<sup>1</sup>

<sup>1</sup>Université de Montréal

The How-to Parenting Program (Faber & Mazlish, 1980) adopts a participative and compassionate approach to teach parents how to implement an authoritative parenting style. This program also aims at fostering parents' self-compassion as this mindful and non-judgmental attitude toward the self (Neff, 2003) should facilitate skill learning (Gouviea et al., 2016) and reduce parental psychopathology (MacBeth & Gumley, 2012). While past findings have shown that the How-to Parenting Program is successful in increasing key components of the authoritative parenting style (Joussemet et al., 2019), its impact on parents' self-compassion and psychopathology has never been investigated. Objectives. Using Joussemet et al. (2019)'s sample and design, the present study assessed the efficacy of the How-to Parenting Program in fostering parents' self-compassion and reducing their anxiety and depression symptoms. Design. Parents of school-aged children (N = 285) were randomly assigned to an experimental group where they participated in this 7-week Program or to a waitlist (WL) control group. Assessments took place prior to randomization (T1) and one week post-intervention (T2). Results. Multivariate multilevel analyses revealed that compared to participants in the WL, parents who took part in the How-to Parenting Program showed improvements in their self-reported self-compassion and anxiety symptoms, but not in depressive symptoms. Initial self-compassion also predicted decreases in anxiety from T1 to T2. Conclusion. Overall, these results suggest that the How-to Parenting Program is successful in improving parental self-compassion, while reducing anxiety, and that self-compassion could play a role in the onset and maintenance of anxiety symptoms.

<https://event.fourwaves.com/self-2022/abstracts/488ffb4f-f00d-402b-b1ff-c2a7ff8a19fe>

## **151 - Existential therapy for children: impact of a philosophy for children intervention on self-determination in elementary school children**

Catherine Malboeuf-Hurtubise<sup>1,2</sup>, David Lefrançois<sup>3</sup>, Geneviève Mageau<sup>4</sup>, Geneviève Taylor<sup>5</sup>, Marc-André Éthier<sup>4</sup>, Mathieu Gagnon<sup>6</sup>, Carina DiTomaso<sup>1</sup>

<sup>1</sup>Bishop's University, <sup>2</sup>Research Center of the CHU Sherbrooke, <sup>3</sup>Université du Québec en Outaouais, <sup>4</sup>Université de Montréal, <sup>5</sup>Université du Québec à Montréal, <sup>6</sup>Université de Sherbrooke

Background: Fostering greater resiliency to stress, optimal psychosocial development and promoting better mental health and wellbeing in youth is an important goal of the Canadian and American elementary school systems (Gouvernement du Québec, 2007; United States Department of Education, 2011). Quasi-experimental research on philosophy for children (P4C) has suggested it could be an interesting intervention to foster greater self-determination in children in school settings (Malboeuf-Hurtubise et al., 2018). Goal: The goal of the present study was to evaluate the impact of philosophy for children on self-determination and mental health in elementary school students. Method: Students from grades one to three (N= 57) took part in this study and were randomly attributed to either an experimental or a wait-list control group. Results: ANCOVAs revealed a significant effect of group condition on levels of autonomy ( $F(1, 50) = 5.47, p = .02$ , partial  $\eta^2 = .10$ ) and anxiety ( $F(1, 39) = 7.35, p = .01$ , partial  $\eta^2 = .16$ ), after controlling for baseline levels. Participants in the experimental group showed significant increases in autonomy, when compared to participants in the control group, whereas for anxiety, participants in the experimental group showed significant decreases in anxiety, when compared to participants in the control group. Conclusion: Overall, results from this study show that P4C may be a promising intervention to foster greater self-determination in elementary school children, while also improving mental health. Further research is warranted to document the benefits of P4C with larger sample sizes and an active control condition.

<https://event.fourwaves.com/self-2022/abstracts/4142fe3b-8400-4c61-849f-6cc3d6d14f0a>



## **160 - Intrinsic and Extrinsic Values: How their importance relates to youngsters' well-being and how it can be modified by an intervention**

Mireille Joussemet<sup>1</sup>, Jeanne Tessier<sup>1</sup>, Lysa-Marie Hontoy<sup>1</sup>, Simon Grégoire<sup>2</sup>, Vanessa Kurdi<sup>3</sup>, Jean-Michel Robichaud<sup>1</sup>, Geneviève A. Mageau<sup>1</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Université du Québec à Montréal, <sup>3</sup>Reading University

The extent to which intrinsic values (IV; affiliation, self-acceptance, community) and extrinsic values (EV; wealth, beauty, fame) are seen as important has been related to well-being. To further examine this relation, we conducted a cross-sectional study in which 647 adolescents ( $M_{age} = 15.5$ ) filled-out a questionnaire about IV and EV (Kasser & Ryan, 1996) and their well-being, derived from positive affect (Watson et al., 1988), life satisfaction (Diener et al., 1985), presence of meaning (Steger et al., 2006) and vitality (Ryan & Frederick, 1997). Results showed that IV were significantly associated with adolescents' well-being ( $\beta = .25$ ; [.12; .38]), whereas EV were not. To examine the extent to which importance given to IV and EV could be modified, we conducted a RCT study in which 137 university students ( $M_{age} = 30.4$ ) interested in taking part in the 5-week KORSA program based on Acceptance/Commitment Therapy (Grégoire et al., 2016), were randomly assigned to the program or a wait-list. KORSA emphasizes clarifying one's values and behaving accordingly but doesn't provide information about IV, EV and their distinction. SEM results showed that participating in this program (vs. not) induced a significant decrease in EV's importance ( $\beta = -.11$ ; [-.20; -.03]), whereas IV remained stable, likely due to a ceiling effect. In addition, some participants ( $N = 20$ ) reported which valued behavior they aimed to implement. Qualitative analyses revealed they were all IV-related. These results suggest that the importance and implementation of IV and EV are powerful and malleable processes worth of further scientific attention.

<https://event.fourwaves.com/self-2022/abstracts/635f3e82-cc08-444c-bee7-7203c6dd7eba>

## **184 - When athletes choose to be autonomy-supportive towards themselves: Study of the determinants and consequences of the adoption of an autonomy-supportive self-talk in a sporting context**

Joelle Carpentier<sup>1</sup>, Genevieve A. Mageau<sup>2</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Université de Montréal

Symposium title: Benefits of non-judgmental cognitions

<https://event.fourwaves.com/self-2022/abstracts/68865e30-4b5e-4017-8a0a-d79a9d83a16f>

## **154 - Which student and instructional variables are most strongly related to academic motivation in K-12 education? A systematic review of meta-analyses.**

Thorben Jansen<sup>1,2</sup>, Jennifer Meyer<sup>1</sup>, Allan Wigfield<sup>3</sup>, Jens Möller<sup>2</sup>

<sup>1</sup>Leibniz Institute for Science and Mathematics Education, <sup>2</sup>IPL - Institute for Psychology of Learning and Instruction at Kiel University, <sup>3</sup>College of Education, University of Maryland, USA

Academic motivation is an essential predictor of school success in K-12 education. Accordingly, many meta-analyses have examined variables associated with academic motivation. However, a central question remains unanswered: What is the relative strength of the relations of both student variables (achievement, socioemotional variables, and background variables) and instructional variables (teacher variables, interventions, and technology) to academic motivation? To address this question, we conducted a systematic review of meta-analyses of constructs that focus on the question “Do I want to do this activity and why?” We included 125 first-order meta-analyses published before January 2021, with 487 first-order effect sizes, that investigated variables associated with academic motivation in K-12 education and were based on more than 8,839 primary studies and comprised almost 25 million students. We computed second-order standardized mean differences (SMD) using a two-level meta-analysis with robust variance estimation, considering moderators and including the methodological qualities and publication status of the meta-analyses. Our results showed that student variables (SMD = 0.39) and instructional variables (SMD = 0.43) had medium and similar second-order effect sizes. Of the student variables, socioemotional variables (SMD = 0.52) and achievement (SMD = 0.46) were more important than background variables (SMD = 0.19). Of the instructional variables, teacher variables (SMD = 0.61) were more important than interventions (SMD = 0.36) and technology (SMD = 0.35). Overall, the results provide the field with a clearer depiction of which student and instructional variables relate most closely to students’ academic motivation and thus have implications for the design of future interventions to foster students’ academic motivation in school.

<https://event.fourwaves.com/self-2022/abstracts/633ef9bb-399a-4789-8a30-f0a6b653a1d3>

## **156 - How Does Students' Academic Self-Concept Formation Depend on Social, Dimensional, and Temporal Comparisons? An IPD Meta-Analysis of the 2I/E Model**

Fabian Wolff<sup>1</sup>, Jens Möller<sup>2</sup>

<sup>1</sup>University of Koblenz-Landau, Koblenz Campus, <sup>2</sup>Kiel University

Self-Beliefs and Their Relations: Current Findings From Studies Taking a Meta-Perspective

<https://event.fourwaves.com/self-2022/abstracts/d8a96f6a-1249-4ed1-b611-56783ec1581f>

## **159 - How Variables Relate to Self-Beliefs in K12 Education: A Systematic Review of Meta-Analyses**

Thorben Jansen<sup>1</sup>, Jennifer Meyer<sup>1</sup>, Jens Möller<sup>2</sup>

<sup>1</sup>leibniz institute for science and mathematics education, <sup>2</sup>University of Kiel Institute for Psychology of Learning and Instruction

Self-beliefs are defined as subjective evaluations about a persons' strengths and weaknesses. They are an important aspect of students' motivation and central predictors of health, well-being, and academic success. Many empirical studies and meta-analyses have examined how specific variables relate to self-beliefs in K-12 education. However, as of yet we do not have an answer to the question on the comparative strength of different variables relating to self-beliefs. The current study addresses this research gap by summarizing the meta-analytic body of research on self-beliefs and variables that relate to them. The current second-order meta-analysis includes 96 first-order meta-analyses published before March 2022 with 427 first-order effect sizes investigating variables associated with self-beliefs in K-12 education, based on more than 7667 primary studies and almost 23 million students. We computed second-order standardized mean effect sizes (SMD) using two-level meta-analysis with robust variance estimation. Results showed large association of self-beliefs with emotional variables, medium associations with physical activity interventions. Our findings highlight the importance of self-beliefs for students' well-being, and in turn indicate that to foster well-being, we need to enhance positive self-beliefs for students. Findings on interventions in general indicate that it is possible to foster or inhibit the formation of students' positive self-beliefs across the K-12 school years. Our findings emphasize the benefits of physical activity interventions for fostering positive self-beliefs, even though a fairly general intervention.

<https://event.fourwaves.com/self-2022/abstracts/4c951a46-742d-4fa1-bcbe-df6f6ec0ec5d>

## **145 - A Growth Mixture Analysis of Secondary School Students Self-Determined Motivation Trajectories**

Frédéric Guay<sup>1</sup>, Alexandre Morin<sup>2</sup>, David Litalien<sup>1</sup>, Joshua Howard<sup>3</sup>, William Gilbert<sup>1</sup>

<sup>1</sup>Université Laval, <sup>2</sup>Université Concordia, <sup>3</sup>Monash University

Substantive Methodological Synergies in Research on Student Motivation and Engagement.

<https://event.fourwaves.com/self-2022/abstracts/1917019d-9b9c-49fd-8337-3a43e9624574>

## **178 - Need-supportive teaching and student engagement: Comparing the additive, synergistic, and balanced contributions**

Elizabeth Olivier<sup>1</sup>, Benoît Galand<sup>2</sup>, Alexandre J.S. Morin<sup>3</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Université catholique de Louvain, <sup>3</sup>Concordia University

Grounded in Self-Determination Theory (SDT). (Deci & Ryan, 2000), this study contrasts three hypotheses to determine the best configuration of the teacher need-supporting practices of autonomy support, structure, and involvement in terms of student behavioral, emotional, and cognitive engagement. The additive hypothesis (H1; e.g., Skinner & Belmont, 1993) anticipates that all three practices are significantly associated with student engagement when jointly considered. The synergistic hypothesis (H2; e.g., Vansteenkiste et al., 2012) predicts that the greatest benefits emerge in classrooms characterized by a high level of two or three of these practices. The balanced hypothesis (H3; e.g., Zimmer-Gembeck et al., 2006) anticipates that the equilibrium between the three practices composing need-supportive teaching—captured by a global factor—provides optimal support to student engagement. Multilevel analyses were conducted among a sample of 1,193 8<sup>th</sup> grade Belgian students nested in 57 math classrooms and accounted for prior engagement and confounders in 7<sup>th</sup> grade. Results failed to support H1 by showing that not all three practices had an additive contribution to the three dimensions of engagement. Results also failed to support the synergistic hypothesis (H2) by demonstrating that interactions among the practices did not further explain student engagement. Finally, our results support H3 in showing that a global factor representing balanced need-supportive teaching had a contribution to the three dimensions of student engagement while specific factors representing the imbalance in autonomy support, structure, and involvement did not further contribute to this prediction.

<https://event.fourwaves.com/self-2022/abstracts/37b1a845-6bb8-4993-b072-76173259ba6e>

# 181 - A Multi-Sample Study of High School Students' Academic Self-Determination Profiles

Istvan Toth-Kiraly<sup>1</sup>, Alexandre J.S. Morin<sup>1</sup>, David Litalien<sup>2</sup>, Mariann Valuch<sup>3</sup>, Beata Bothe<sup>4</sup>, Gabor Orosz<sup>5</sup>, Adrien Rigo<sup>6</sup>

<sup>1</sup>Substantive-Methodological Synergy Research Laboratory, Department of Psychology, Concordia University, Canada, <sup>2</sup>Département des fondements et pratiques en éducation Faculté des sciences de l'éducation, Université Laval, Canada, <sup>3</sup>School of Social Sciences, University of Dundee, UK, <sup>4</sup>Département de Psychologie, Université de Montréal, Montréal, Canada & Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary, <sup>5</sup>ULR 7369 - URePSSS - Unité de Recherche Pluridisciplinaire Sport Santé Société, Atelier Sherpas, Université d'Artois, Université de Lille, Université Littoral Côte d'Opale, Liévin, France, <sup>6</sup>Institute of Psychology, ELTE Eötvös Loránd University, Hungary

Using the full range of motivation regulations (intrinsic, identified, introjected, external, and amotivation) proposed by Self-Determination Theory (SDT), this study sought to investigate the nature of academic motivation profiles among two samples of high school students ( $N_1 = 409$ ,  $N_2 = 525$ ). These profiles were identified while taking into account students' global levels of self-determined motivation together with non-redundant estimates of the specific quality associated with each motivation type left unexplained by these global levels (i.e., bifactor factor scores). To document the construct validity of these profiles, this study also assessed their association with students' academic performance, as well as a number of predictors (fixed mindset, parental care, autonomy-support, overprotection) and outcomes (i.e., dropout intentions, math self-efficacy, school engagement, grit, life satisfaction). Five quantitatively and qualitatively distinct profiles were identified across samples: Weakly Motivated, Moderately Motivated, Self-Determined, Amotivated, and Strongly Motivated. These profiles differed on most (but not all) outcomes, with the most desirable outcome levels associated with the Self-Determined and Strongly Motivated profiles, while the least desirable outcome levels were associated with the Amotivated profile. Fixed mindset only predicted membership into the Amotivated profile, while parental practices showed a more diversified pattern of associations with profile membership. These results suggest that (1) being amotivated might be even more problematic than being guided by controlled types of motivation, (2) autonomous types of motivation could buffer the negative effect of controlled types of motivations, and (3) perceived parental practices appear to be important predictors of students' motivational profiles in high school.

<https://event.fourwaves.com/self-2022/abstracts/1631b751-5e19-4666-8eba-0573da88b334>

## **185 - A Multi-Disciplinary Comparison of PhD Students Academic Motivation Profiles**

David Litalien<sup>1</sup>, István Tóth-Király<sup>2</sup>, Frédéric Guay<sup>1</sup>, Alexandre Morin<sup>2</sup>

<sup>1</sup>Université Laval, <sup>2</sup>Concordia University

Substantive Methodological Synergies in Research on Student Motivation and Engagement.

<https://event.fourwaves.com/self-2022/abstracts/7ab56ab7-ccc0-4f0f-9895-5207c5e87a60>

## **147 - Multilevel Latent Profile Analyses: Profiling Employees' Burnout and Engagement in the Canadian Military**

Alexandre J.S. Morin<sup>1</sup>, Ann-Renée Blais<sup>2</sup>, Nicolas Gillet<sup>3</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Statistics Canada, <sup>3</sup>Université de Tours

SYMPOSIUM: Substantive Methodological Synergies in Person-Centered Organizational Research (introduction to the symposium and the first presentation).

Burnout and job engagement are often seen as distinct, and yet opposite and complementary, psychological states (Byrne et al., 2016; Demerouti et al., 2010). Although variable-centered research on the interrelations between these two phenomena, as well as their associations with a variety of work-related predictors and outcomes, is abundant, far less is known about the specific configurations of burnout and engagement that characterize distinct employee profiles. Scarcer still is person-centered research focusing on the antecedents and outcomes of these profiles that correctly disaggregate the levels (work unit versus individual worker) at which these associations occur. In the present study, we address this question by applying multilevel latent profile analyses to a stratified and representative sample of 13,088 employees from the Canadian Armed Forces and Department of National Defense nested within 65 work units each including 56 to 576 employees. Our results revealed five distinct profiles of employees that each present distinct levels of turnover intentions: 1- Burned-Out/Disengaged (7.13%); 2- Burned-Out/Involved (12.13%); 3- Engaged (18.14%); 4- Engaged/Exhausted (15.50%); and 5- Normative (47.10%). Membership into these profiles shared well-differentiated associations with one individual resource (psychological empowerment) as well as measures of job demands (work overload and role ambiguity) and resources related to their leader (transformational leadership), workgroup (interpersonal justice), and organization (organizational support) considered both at the work unit level and as inter-individual deviations in perceptions of the work unit.

<https://event.fourwaves.com/self-2022/abstracts/7f414e04-61b2-428d-ab29-b1fae8414c76>

# 150 - Affective Occupational Commitment Trajectories among School Principals

Simon Houle<sup>1</sup>, Alexandre Morin<sup>1</sup>, Claude Fernet<sup>2</sup>

<sup>1</sup>Concordia, <sup>2</sup>Université du Québec à Trois-Rivières

Symposium Title

Substantive Methodological Synergies in Person-Centered Organizational Research.

## Abstract

Affective occupational commitment (AOC) can be conceptualized as an indicator that ones' occupation has been adequately internalized within one's professional identity. From this perspective, the present study relies on the organismic integration component of Self-Determination Theory to: (1) investigate the distinctive shapes (or profiles) taken by school principals AOC trajectories; (2) test the role of work characteristics related to the satisfaction of principals' basic needs for relatedness, competence and autonomy as core drivers of their AOC trajectories; (3) document the outcome implications of these trajectories in relation to principals' job satisfaction, turnover intentions, and burnout. Using a sample of 661 established (tenure= 6 months to 38 years) school principals (Mage = 44.94; 58% females) measured four times over a two-year period, growth mixture analyses revealed five profiles characterized by distinct AOC trajectories. Three profiles displayed High, Moderately High, or Very Low stable levels of AOC. The other profiles displayed Slowly Increasing or Slowly Decreasing levels of AOC. Higher AOC levels were also anchored in more stable trajectories, and were accompanied by higher job satisfaction and lower burnout and turnover intentions. Satisfaction of the need for autonomy, competence, and relatedness had differential short-term and long-term effects on AOC trajectories. The current study provides evidence for the malleability of AOC from a longitudinal perspective and highlights the necessary conditions to foster ideal AOC trajectories for high-level managers.

<https://event.fourwaves.com/self-2022/abstracts/37d6a88e-72a8-41de-a002-c5cc8754cef5>



## **158 - Hybrid Mixture Regression Analyses: Examination of the Leadership Within-Domain Exacerbation Phenomenon**

Léandre Alexis Chénard-Poirier<sup>1,2</sup>, Alexandre J. S. Morin<sup>1</sup>, Jean-Sébastien Boudrias<sup>3</sup>, Nicolas Gillet<sup>4</sup>

<sup>1</sup>Substantive Methodological Synergy Research Laboratory, Department of Psychology, Concordia University, <sup>2</sup>Département de management, HEC Montréal, <sup>3</sup>Département de psychologie, Université de Montréal, <sup>4</sup>QualiPsy, Département de Psychologie, Université de Tours

Substantive Methodological Synergies in Person-Centered Organizational Research

<https://event.fourwaves.com/self-2022/abstracts/425def66-729b-42e2-a989-48c988b0c5e1>

## **161 - Cross-Construct Latent Transition Analyses: From Work Engagement to Burnout among School Teachers**

Sophie Drouin Rousseau<sup>1</sup>, Alexandre Morin<sup>2</sup>, Claude Fernet<sup>3</sup>, Stéphanie Austin<sup>3</sup>

<sup>1</sup>Psychology Department, Université du Québec à Trois-Rivières, <sup>2</sup>Psychology Department, Concordia University, <sup>3</sup>Human Resource Management Department, Université du Québec à Trois-Rivières

Substantive Methodological Synergies in Person-Centered Organizational Research.

<https://event.fourwaves.com/self-2022/abstracts/830c7869-e157-4f11-9273-87d87ab0c3fc>

## **186 - 'The real me' is different when I'm alone: Implications of solitude or company for understanding authenticity.**

Netta Weinstein<sup>1</sup>, Thuy-vy Nguyen<sup>2</sup>

<sup>1</sup>University of Reading, <sup>2</sup>Durham University

Authenticity, feeling that I am 'the real me', is often thought to be pronounced in, or even specific to, social interactions, since within social interactions individuals can exhibit to others authentic or inauthentic aspects of their selves. In this talk, I explore a more nuanced approach to understanding the immediate consequences of authenticity, recognizing a rich variety of ways that authentic experiences can shape subjective experience. I argue that the emotional experience of authenticity and its immediate consequences for self- and other-relevant psychological processes can change as a function of the social context. I present findings of experimental studies that ask participants to recall times when they were authentic or inauthentic, alone or with others. Building on those findings, I explore the nature of authenticity in solitude based on findings of qualitative interviews. To summarize findings, authentic solitude can be understood as a low-arousal positive affective state conducive to the pursuit of efficacy and self-reflection; it is need conducive. This state is experienced more by individuals with autonomous dispositions and a natural curiosity, but it can be promoted through supportive interventions. I explore these processes and their implications for relating to the self and for well-being.

<https://event.fourwaves.com/self-2022/abstracts/9d1bcf1d-33b6-4caf-ad6a-398b62065277>

## **189 – Linguistic Authenticity in Coming Out Narratives & its Relation to Well-Being**

William Ryan<sup>1</sup>, Netta Weinstein<sup>2</sup>, Nicole Legage<sup>3</sup>

<sup>1</sup>University of Toronto, <sup>2</sup>University of Reading, <sup>3</sup>Illinois Institute of Technology

This symposium will present four talks exploring the antecedents of authenticity and its implications for well-being. A first talk will explore the ways in which solitude, the state of being alone and not interacting with others, changes the way that authenticity is experienced and its benefits. In a second talk, we will explore how authenticity can be facilitated through supporting lesbian, gay, bisexual, and transgender (LGBT) self-disclosure in healthcare contexts. A third talk will examine how qualities of supervisor listening at work facilitate workplace authenticity, and implications for workplace well-being. Finally, we explore how linguistic markers of authenticity in LGBTQ coming out narratives relate to ownership and well-being. These studies utilize correlational, experimental, and multi-wave data and build a richer picture of how authenticity can be supported and its implications for well-being in a number of categorically different relationships and in LGBTQ samples who may not always feel supported in being authentic.

<https://event.fourwaves.com/self-2022/abstracts/6a263785-e142-41d8-a49d-7c63c784c663>

## **83 - Facilitating Authenticity: ‘Being Myself’ in Different and Challenging Contexts**

Nicole Legate<sup>1</sup>, Netta Weinstein<sup>2</sup>, William Ryan<sup>3</sup>

<sup>1</sup>Illinois Institute of Technology, <sup>2</sup>University of Reading, <sup>3</sup>University of Toronto

This symposium will present three talks exploring the antecedents of authenticity and its implications for well-being. A first talk will explore the ways in which solitude, the state of being alone and not interacting with others, changes the way that authenticity is experienced and its benefits. In a second talk, we will explore how authenticity can be facilitated through supporting lesbian, gay, bisexual, and transgender (LGBT) self-disclosure in healthcare contexts. Finally, we explore how linguistic markers of authenticity in LGBTQ coming out narratives relate to ownership and well-being. These studies utilize correlational, experimental, and multi-wave data and build a richer picture of how authenticity can be supported and its implications for well-being in a number of categorically different relationships and in LGBTQ samples who may not always feel supported in being authentic.

<https://event.fourwaves.com/self-2022/abstracts/55464e75-1143-4ce4-8a4d-8ce0f01c488c>

## **182 - Multi-trait Multimethod Measurement Models of Teacher-Student and Parent-Student Relationships in Youth with Intellectual Disabilities**

Celeste Dube<sup>1</sup>, Alexandre Morin<sup>1</sup>, Christophe Maïano<sup>2</sup>, Elizabeth Olivier<sup>3</sup>, Danielle Tracey<sup>4</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Université du Québec en Outaouais, <sup>3</sup>Université de Montréal, <sup>4</sup>Western Sydney University

Due to their more limited cognitive skills, reports from youth with intellectual disabilities (ID) are often ignored (Turk et al., 2012), or collected using scales that have never been validated for this population (Stringer & Heath, 2008). In this study, a short version of Pianta and Steinberg (1992) measures of teacher-student relationships (TSR), focusing on warmth and conflict) were adapted for youth with ID, and expanded to also cover their perceptions of relationships with their parents (parent-student relationships: PSR). The psychometric properties of these adapted measures were verified using sample of Australian (n = 253) and French Canadians (n = 142) adolescents with intellectual disabilities. In addition, their teachers and parents were asked to complete the same measures (TSR or PSR) focusing on their perceptions of their relationships with the target student, once while referring to their own feelings directed at the target student, and once while referring to their perceptions of the student's feeling toward them. Multi-trait multimethod analyses revealed that: a) youth, parents, and teachers were able to reliably assess the warmth and conflict dimensions of both TSR and PSR; b) that parents and teachers reports of their own perspective could not be differentiated from their perception of the student perspective; c) that each type of informant ratings were distinct from one another (with  $r < .500$ ), and provided complementary sources of information. The results further supported the measurement invariance of these measures across Canadian and Australian respondents, and longitudinally over a one year period.

<https://event.fourwaves.com/self-2022/abstracts/9cee15f3-4bc4-469c-9a36-3f41fc24db2f>

## **180 - A Longitudinal Person-Centered Representation of Elementary Students' Motivation: Do Perceptions of Parent and Teacher Achievement Goals Matter?**

Lindsey Nadon<sup>1</sup>, Alexandre J.S. Morin<sup>1</sup>, Elizabeth Olivier<sup>2</sup>, Isabelle Archambault<sup>2</sup>, Victoria Smodis McCune<sup>1</sup>, Istvan Tóth-Király<sup>1</sup>

<sup>1</sup>concordia university, <sup>2</sup>Universite de Montreal

This study adopts a longitudinal person-centered approach to investigate how children's achievement goals combine with the goals held for them by their parents and teachers to form unique achievement goal profiles among a sample of 619 elementary school students ( $M_{age} = 9.782$ , 52.5% female, 79.2% first- and second-generation immigrants) from low SES ethnically diverse neighbourhoods. Our results revealed four distinct profiles, which proved to be identical from one school year to the next: Low on all Goals, High on all Goals, Mastery-Oriented, and Low Mastery Goals. Students' membership into these profiles was moderate to highly stable over time. Moreover, all profiles were marked by a correspondence between student, parent, and teacher goals, suggesting that elementary students may come to develop a global understanding of the various goal-related messages present in their environment. Higher perceived competence in core academic subjects was associated with membership into profiles characterized by high levels of mastery goals. The Mastery-Oriented profile fared best in terms of academic achievement and anxiety, while the Low Mastery Goals profile fared the worst. This Low Mastery Goals profile was unique to our study and represented the largest profile, which could be related to the socioeconomic status of our sample. Our findings shed light on the nature and stability of achievement goal profiles amongst elementary school students and offer new insight into how children interpret goal-related messages in their environment.

<https://event.fourwaves.com/self-2022/abstracts/7aad981d-3bd9-4b5d-b8fa-dacc13a79a20>

## 177 - Exploring Differences in Self-Compassion and Positive Affect between First-Generation and Non-First-Generation University Students

Joshua Remedios<sup>1</sup>, Katie. E Gunnell<sup>2</sup>

<sup>1</sup>PhD Student, <sup>2</sup>Supervisor/Co-author

Self-compassion and positive affect are positive mental health factors that are related to improved university student outcomes (e.g., academic goal pursuit). Researchers have suggested that there are differences in mental health between students who had parents that attended university (i.e., non-first-generation students) and those that did not (i.e., first-generation students). The purpose of this project was to examine differences in self-compassion and positive affect between first-generation and non-first-generation students. Based on the cultural mismatch theory, we hypothesized that first-generation students would report lower scores in positive affect, self-kindness and mindfulness and higher scores in common humanity. Participants ( $N = 533$ ,  $M_{age} = 20.09$  years,  $SD = 4.3$  years; 81% female) completed measures of self-compassion and positive affect. Based on independent sample t-tests, we found no statistically significant differences between first-generation and non-first-generation students for self-kindness,  $t(525) = -.67$ ,  $p = .51$ ,  $d = .05$ , mindfulness,  $t(525) = -.99$ ,  $p = .32$ ,  $d = .08$ , common humanity,  $t(525) = .38$ ,  $p = .21$ ,  $d = .04$ , or positive affect,  $t(525) = .97$ ,  $p = .33$ ,  $d = .08$ . These findings suggest that generational status may not be the most fundamental aspect contributing to disparities in positive mental health in university students. Researchers should examine if other factors such as social class or minority status are related to differences in positive mental health in these two groups of university students.

<https://event.fourwaves.com/self-2022/abstracts/9b195b75-7d46-481c-9dce-7ffc9e3dc6cf>

## **176 - Mindset, well-being and academic success: articulation of growth mindset, proactive coping and motivation in an achievement context**

Sacha Parada<sup>1</sup>, Jean-François Verlhac<sup>1</sup>

<sup>1</sup>Université Paris Nanterre

This work aims to demonstrate the beneficial effects of growth mindset interventions on French university students, and develop a comprehensive model linking both achievement and well-being factors to explain the successful – or not – adjustment of new incoming students. Specifically, we hypothesize that individuals endorsing a growth mindset (malleable view of internal traits such as intelligence – opposed to a fixed mindset, Dweck & Legget, 1988) will foster autonomous regulation (being motivated to act by the potential gain or personal meaning of the action, or its intrinsic enjoyment – opposed to controlled regulation, Deci & Ryan, 2002). Doing so, students will endorse mastery-approach goals (approaching studying with learning and personal gain objectives – opposed to performance-avoidance goals, Bargh et al., 2010) and proactive coping strategies (positive reinterpretation of stressful events as challenges to overcome and continuous efforts to accomplish set objectives, Greenglass, 2002). We were able to statistically model the proposed theoretical articulation of variables, and find some effects of the growth mindset intervention in 2 experimental studies. A confirmatory factor analysis was performed to validate the proactive coping scale developed and used in this work. Results obtain for the intervention as well as the relevance of the established theoretical model are discussed in view of the current literature on the phenomenon of growth mindset (see meta-analysis by Sisk, 2018).

<https://event.fourwaves.com/self-2022/abstracts/a3032963-0869-43d9-95ba-913e89f5fd58>

## **175 - To Thyself be Worthy: A Self-Determination Theory Perspective on the Impostor Phenomenon in Medical Students**

Adam Neufeld MSc MD<sup>1</sup>, Greg Malin MD PhD<sup>2</sup>, Oksana Babenko PhD<sup>3</sup>, Hollis Lai PhD<sup>3</sup>, Clark Svrcek PEng MEng MD CCFP<sup>1</sup>

<sup>1</sup>University of Calgary, <sup>2</sup>University of Saskatchewan, <sup>3</sup>University of Alberta

**Background/Purpose:** Impostor phenomenon (IP) has consistently been associated with distress in medicine. Although various explanations for IP have been proposed in the literature, the concurrent roles of self-determination (i.e., self) and learning environment (i.e., system) remain unknown.

**Methods:** We invited 1,450 students from three Canadian medical schools to complete a survey, containing the Clance Impostor Phenomenon Scale and scales developed from Self-Determination Theory (SDT). Grounded in SDT, we used regression to investigate how different general causality orientations (impersonal, autonomy, control), types of motivation towards going to medical school (autonomous vs. controlled), and satisfaction of basic psychological needs (autonomy, competence, relatedness) in the medical program, predicted IP frequency/severity. Analysis included the prevalence of IP and effects of gender, ethnicity, and year of study.

**Results:** Data from 277 (19%) medical students were assessed, with 73% meeting the established criteria for IP. Having an impersonal orientation, controlled motivation towards medical training, and lower perceptions of psychological needs being met in the medical program, were associated with more frequent/severe IP. Females reported more severe IP than their male peers, while ethnicity and year had no effect on IP. Together, these factors accounted for 37.6% of the variance in students' IP experiences.

**Conclusion:** Both individual (i.e., self) and environmental (i.e., system) factors appear to be potent determinants of IP among medical students. Practical implications of these findings are discussed within the medical education context.

<https://event.fourwaves.com/self-2022/abstracts/af186f25-4418-4f95-9fb4-6985e25a4d43>



## 174 - Physical fitness and physical self-concept development and interaction effects across middle childhood before vs. during COVID-19

Dennis Dreiskämper<sup>1</sup>, Lena Henning<sup>1</sup>, Maike Tietjens<sup>1</sup>

<sup>1</sup>University of Muenster

Physical fitness (PF) and the physical self-concept (PSC) are both predictors and outcomes of physical activity across childhood. During COVID-19 pandemic, governments closed schools and sports clubs, limiting children to be physically active. How the pandemic effects the development of PF and PSC and their interactions is still unclear. The aim of this study was to investigate how PF and PSC developed and how both interacted before vs. during COVID-19. The data was extracted from a larger longitudinal study including grade 1-4 students ( $N=384$ ,  $M_{age1}=7.78$  years, 57 % female). Measurement time points were in March 2019 (t1), March 2020 (t2, both before pandemic), and July 2021 (t3; after school reopening; only PF). The PF (FitnessGram; 4 items; Morrow et al., 2010; KTK; Kiphard & Schilling, 2000) and the PSC (Dreiskämper et al. 2015) were assessed. PF and PSC scores were z-transformed. A structural equation model was conducted using the ML estimator. SEM showed a sufficient model fit ( $\chi^2=264.089$ ,  $df=10$ ,  $p<.01$ ,  $CFI=1.00$ ,  $RMSEA=.12$ ). PSC and PF significantly correlated at t1 and t2 ( $r_{t1}=.34$ ,  $p<.01$ ;  $r_{t2}=.17$ ,  $p<.05$ ). Significant regression weights are revealed between PF t1–t2 ( $b=.51$ ,  $p<.01$ ), t2–t3 ( $b=.62$ ,  $p<.01$ ), and PSC t1–t2 ( $b=.50$ ,  $p<.01$ ). The PSC before COVID-19 effects the PF during the pandemic ( $b=.20$ ,  $p>.01$ ). However, effects between PSC and PF before COVID-19 remained non-significant. Results indicate that during COVID-19 pandemic the stability of PF increased and that the PSC gained importance as a positive predictor for PF.

<https://event.fourwaves.com/self-2022/abstracts/c5298db0-2723-4f33-8289-93597c53732f>

## **173 - A unified model of autonomy: Integrating self-determination, self-control, and well-being**

Tessa van der Willigen<sup>1</sup>, Kostadin Kushlev<sup>1</sup>

<sup>1</sup>Georgetown University

Psychology's approach to autonomy, grounded in Self-Determination Theory (SDT), is phenomenological, in that a person is autonomous if they feel autonomous. This approach is important but incomplete, especially as non-transparent influences multiply in the digital era. This paper uses concepts from philosophy and economics to develop an ontological approach to autonomy, providing a bridge between the literatures on self-determination, self-control, and authenticity. It suggests that ontological autonomy matters because it is closely related to well-being, and that failures of autonomy fall into five categories (so-called inauthentic, incompetent, coerced, misinformed, and unforced). The paper proposes a model, involving new constructs that would need to be explored, that could be used to analyze how external circumstances and individual traits affect autonomy and thereby well-being.

<https://event.fourwaves.com/self-2022/abstracts/4c0950ac-02cd-4a6f-90ed-deaf5ce8df37>

## **172 - Stability and consequences of students' adjustment profiles during college**

Noelly Lemardelet<sup>1</sup>, David Litalien<sup>1</sup>, Stéphane Duchesne<sup>1</sup>, Simon Larose<sup>1</sup>

<sup>1</sup>University of Laval

The purpose of this longitudinal study is to examine the stability of students' adjustment profiles during the first two years of college and to explore how these profiles relate to educational outcomes. Adjustment profiles were estimated based on Baker and Siryk's (1984) multidimensional conceptualization of adaptation, suggesting that college students who adapt socially (quality of relationships), emotionally (physical and emotional state), academically (meeting teachers' demands), and institutionally (program involvement) are more likely to persevere and succeed academically. Since each student might experience college differently, it is likely that subgroups with distinct configurations (or profiles) on these dimensions would be identified and would predict distinct outcomes, leading to targeted intervention. Additionally, it remains an open question to which extent these profiles would be stable during the first two years. Our sample gathered 1,798 students ( $M_{\text{age}} = 17$ ; 63% of females) assessed at the beginning of the first semester and at the end of the fourth semester (18 months later), with official record information taken at the end of the second year of college. Results of the latent profile and latent transition analysis suggested four distinct profiles at each time measurement. These profile solutions were similar and relatively stable over time. These profiles were labelled Adjusted (29%); Slightly maladjusted (53%); Socially adjusted (11%); Socially maladjusted (7%). Students who reported higher levels on global or academic adjustment were more likely to experience positive outcomes after two years (e.g., higher persistence rates, graduation rates, and academic aspirations).

<https://event.fourwaves.com/self-2022/abstracts/e6b95384-ca6b-44a9-aed6-7b874538679e>

# **171 - Does Dyad Personality Configuration in Mentoring Affect Learning Outcomes? A Fuzzy-Set Qualitative Comparative Analysis in Entrepreneurship**

Soumaya Meddeb<sup>1</sup>, Étienne St-Jean<sup>1</sup>

<sup>1</sup>UQTR

Does Dyad Personality Configuration in Mentoring Affect Learning Outcomes? A Fuzzy-Set Qualitative Comparative Analysis in Entrepreneurship

While theory suggests that personality represents “the foundational bedrock of effective mentoring relationships”(Ragins & Kram, 2007), the great majority of entrepreneurial mentoring theory has focused on mostly mentoring characteristics relationship and outcomes, paying less attention to the role of personality. The empirical literature suggests that being high on openness to experience is related to entrepreneurship, as well as being low on agreeableness (Zhao & Seibert, 2006). If the former can attract successful entrepreneurs to become mentors and making them nurturing in providing a wide scope and depth of mentoring functions (Bozionelos, 2004), being low on agreeableness or emotional stability (high score on neuroticism) can hinder the quality of the relationship and thus, reducing the potential outcomes from mentoring. As these personality traits are likely to damage mentoring relationships as well as the potential outcomes, we are interested in how mentor emotional intelligence could moderate this potential damaging effect. In order to investigate our hypotheses, we collected data of 188 dyads of mentors paired with novice entrepreneurs. This paper employs fuzzy set Qualitative Comparative Analysis (fsQCA) to identify the best personality configurations which predict effective entrepreneurial mentoring.

<https://event.fourwaves.com/self-2022/abstracts/1815f43c-fad3-4d9d-8fcf-64a07430ceb1>

## 170 - Self-determination as a Mediator Between Autism Traits and Quality of Life

Helen Andrews<sup>1</sup>, Simon Bury<sup>1</sup>, Darren Hedley<sup>1</sup>

<sup>1</sup>Olga Tennison Autism Research Centre

Autistic people report lower quality of life (QoL) than non-autistic people, with a similar association between autistic traits and QoL in the general population. One factor that may partly explain this disparity in QoL is self-determination, broadly defined as experiencing causal agency and suggested to develop from satisfaction of psychological needs for autonomy (freedom of choice), competence (achieving valued outcomes) and relatedness (feeling socially connected). Self-determination is positively associated with Quality of Life and autistic people tend to report lower self-determination than non-autistic people.

This study tested a parallel mediation model where satisfaction of psychological needs was theorised to mediate between autism traits and QoL. General population participants ( $n = 262$ , 167 females,  $M_{AGE} = 37.6$ ,  $SD = 11.92$  years) completed online questionnaires. Autistic traits significantly correlated with all psychological needs,  $r_s = -.37$  to  $-.49$ ,  $p_s < .001$ , and all psychological needs significantly correlated with all QoL domains,  $r_s = .38$  to  $.70$ ,  $p_s < .001$ . The direct relationship between autism traits and QoL was only significant for Social QoL. However, the total indirect effects were significant for all QoL domains. All psychological needs mediated the relationship between autism traits and Environmental QoL, competence and relatedness mediated Psychological and Social QoL domains, and autonomy and competence mediated the Physical QoL domain.

Supporting the psychological needs associated with self-determination may represent an important mechanism underlying QoL across the broader autism phenotype.

<https://event.fourwaves.com/self-2022/abstracts/0142ac1d-9654-493e-8e83-228ba66594c9>

## **169 - Effects of Perceived Organizational Support on Trait Anxiety, Job Anxiety and Burnout: The Mediating Role of Autonomous Motivation**

Rahma Chouchane<sup>1</sup>

<sup>1</sup>HEC Montreal

Productive behaviors such as innovative behavior, organizational citizenship behavior, and job performance are positively associated with organizational support to which the organization values its employees' contributions and cares about their well-being. Given the organizational importance of this support, some research has focused on individual determinants of perceived organizational support (POS) but their outcomes particularly its effects on both psychological state at workplace and psychological traits and the mechanisms that may be involved in this relationship remain unclear. Based on organizational support theory and self-determination theory, we propose a model in which POS is related to general anxiety (trait anxiety), job anxiety (state anxiety), and burnout through autonomous motivation (acting with volition). The data were collected from 179 employees of a Canadian small and medium enterprise specializing in damage insurance. Findings suggest that POS has a favorable impact on employee autonomous motivation ( $\beta = 0.31^{***}$ ,  $t = 4.302$  and  $p = 0.0000$ ), thereby reducing their general anxiety ( $\beta = -0.25^{***}$ ,  $t = -3,521$  and  $p = 0.0005$ ), job anxiety ( $\beta = -0.24^{***}$ ,  $t = -3,416$  and  $p = 0.0008$ ) and burnout ( $\beta = -0.39^{***}$ ,  $t = -5,756$  and  $p = 0.0000$ ). These results reveal that autonomous motivation plays a key role as the mechanism that underlies the relation between organizational factors and employees' ill being and in broadening the repertoire of positive experiences at work. We encourage managers to implement measures to motivate employees to do their work by choice and interest (e.g., giving them autonomy in the way they do their tasks).

<https://event.fourwaves.com/self-2022/abstracts/42b660ae-d9fa-4bf3-997b-dbd92c0bad1b>

## **168 - Impact of intrapreneurial behavior on the autonomous motivation of employees: on the role of intrapreneurial self-efficacy and intrapreneurial intention**

Rahma Chouchane<sup>1</sup>, Claude Fernet<sup>2</sup>, Stéphanie Austin<sup>2</sup>

<sup>1</sup>HEC Montreal, <sup>2</sup>Université du Québec à Trois-Rivières

Creating work environments, which favor innovation and the development of new business activities, are positively associated with intrapreneurial behaviors of employees who help their employer to compete and create new markets. Because of the high strategic value of these behaviors, some research has focused on their determinants and outcomes at the organizational level, but these remain unclear at the psychosocial level. Based on self-determination theory, this study aims to explore whether intrapreneurial self-efficacy moderates the indirect relation between intrapreneurial intention and autonomous motivation (acting with volition) through intrapreneurial behavior. The study includes 199 employees from four service SMEs in Québec, Canada. Data were analyzed using SPSS (Macro Process v 3.1). Findings suggest that the interaction between intrapreneurial intention and intrapreneurial self-efficacy is significant indicating that the indirect effect of intention on autonomous motivation through intrapreneurial behavior is moderated by intrapreneurial self-efficacy. These results encourage managers to implement learning activities that support employees to acquire skills in taking initiatives and creating new projects to enhance employee self-efficacy. This study reveals that in the context of SMEs, self-efficacy is likely to facilitate the intrapreneurial process (from intention to action), which would result in greater autonomous motivation at work.

<https://event.fourwaves.com/self-2022/abstracts/c0ff6cc0-deeb-4f20-a57b-6d9ce0ea0790>

## **167 - Different Ways to Support and Thwart Autonomy: Parenting Profiles and Adolescents' Career Decision Making**

Jiseul Sophia Ahn<sup>1</sup>, André Plamondon<sup>1</sup>, Catherine Ratelle<sup>1</sup>

<sup>1</sup>Université Laval

Parents play a key role in supporting youths in their career decision making. One form of support is by fostering youth's autonomy. Grounded in self-determination theory, this study aimed to (1) identify meaningful profiles of parental autonomy support and control and (2) examine how these profiles predicted adolescents' career development indicators (i.e., autonomy and competence in career exploration, and indecision). To this end, we used three annual waves of data covering the postsecondary transition: the last two years of secondary school (T1 and T2) and one year after graduation (T3). The sample included 637 Quebec adolescents (54% girls;  $M_{age}$  at T1 = 14.24). Latent profile analyses were conducted to identify parenting profiles at T1 and T2, which were then associated with the indicators of career development at T2 and T3, respectively. Four comparable profiles were identified at T1 and T2 (i.e., Autonomy Supported, Generally Controlled, Mixed, and Guilt Induced), with a fifth profile (i.e., High Expectations) emerging only at T2. As expected, Autonomy Supported adolescents reported the highest levels of autonomy and competence, and the lowest levels of indecision, while Generally Controlled adolescents reported the lowest levels of autonomy and competence, and the highest levels of indecision one year later, with differences becoming more apparent at T3. Regardless of the saliency of one specific controlling strategy, parental control hampered adolescents' career development, undermining autonomy and competence in career search and decision making. These findings emphasize the benefits of autonomy support and the costs of control in adolescent career development.

<https://event.fourwaves.com/self-2022/abstracts/cca004b0-6c52-4739-84e8-85d3d7920e35>



# 165 - Cultivating a Science Identity in Underrepresented Students Through Near Peer Mentoring

Ed Madison<sup>1</sup>, Jenefer Husman<sup>1</sup>, Ross Anderson<sup>2</sup>, Matthew Kim<sup>3</sup>

<sup>1</sup>University of Oregon, <sup>2</sup>Inflexion, <sup>3</sup>University of Kentucky

Why students of color are disproportionately underrepresented in science, technology, engineering, and math (STEM-related) career pathways remains a persistent problem. Certain forms of mentoring have demonstrated efficacy in supporting underrepresented students in cultivating a science identity (Pluth, Boettcher, et al., 2015; Tenenbaum, Anderson, Jett, & Yourick, 2014). In particular, near peer mentoring has emerged as a promising alternative to traditional forms of mentoring. In contrast to traditional mentors, near peers are just a few years older than mentees and thereby enjoy a shared language and greater degree of closeness (Zaniewski & Reinholz, 2016).

Identity-based motivation theory (IBM) (Oyserman, 2015) provides a theoretical framework for this study. IBM theory posits that individuals interpret situations in ways that are congruent with their currently active identities. Thereby, a mentee who connects with a near peer mentor may experience a high degree of cognitive congruence, that in turn will positively influence identity development and motivation.

This research reports on interim findings from a National Science Foundation-funded study on the efficacy of near-peer mentoring to promote motivation and identity development among students from groups underrepresented in STEM fields. The researchers facilitated a weeklong summer science mentoring program that paired career-curious high school mentees with undergraduate near peer mentors. Designed to capture unscripted authenticity (Robin, 2008), digital storytelling (DST) was used to document unscripted, authentic interactions between mentor and mentee as they worked together in laboratories, participated in conducting experiments, and shared meals together. The presentation features video highlights and themes that emerged from the study.

<https://event.fourwaves.com/self-2022/abstracts/77291f5d-0e57-4b50-81b2-c5b40a4c37ce>

## 157 - Assessing autonomy in kindergarten children

Noga Shanan<sup>1</sup>, Idit Katz<sup>1</sup>

<sup>1</sup>Ben-Gurion University of the Negev

**Background:** Assessing how autonomous young children are is complex because the existing instruments do not necessarily reflect autonomy in young children. In this study, we developed and validated tools to assess autonomy in kindergarten children (ages 4-6). We developed new and adapted age-appropriate instruments to assess motivation, self-knowledge, creativity, and agentic engagement as they are all considered proxies of autonomy.

**Method:** Participants were 207 kindergarten students, their mothers, and teachers.

**Instruments:** Self-knowledge: Children were presented with pictures describing activities usually available in kindergarten, which they were asked to sort twice in terms of interest in the activity. Higher self-knowledge refers to the level of congruency between the two reports by the child and between the child's report and their mother and teachers' report regarding preferred/not preferred activities.

**Agentic-engagement:** Participants were presented with three Dilemmas from kindergarten life and four possible responses behaviors for each dilemma that fall on a continuum from the most agentic to the least agentic one. They were asked to rate their tendency to use each of the four possible responses.

A projective instrument assessed students' autonomous motivation (Katz & Cohen, 2014).

Students' creativity was measured using the "Test for Creative Thinking-Drawing Production" (TCT-DP: Jellen & Urban, 1987).

**Results:** Children who reported high self-knowledge also reported high autonomous motivation, agentic engagement, and creativity. Results of SEM analysis suggested a high positive association between these measures and the kindergarten teachers' support of the students' psychological needs and students' emotional and behavioral adjustment to the kindergarten.

<https://event.fourwaves.com/self-2022/abstracts/23ad4b0e-c0cf-4df4-99cd-cd50d990a5eb>

## **149 - The meaning of physical self-concept for general self-esteem in adolescents - A comparison with the verbal domain using the internal/external frame of reference model**

Lena Henning<sup>1</sup>, Maike Tietjens<sup>1</sup>, Dennis Dreiskaemper<sup>1</sup>

<sup>1</sup>University of Muenster

Based on 825 students from fifth- to ninth grade, this study aimed to investigate how self-concept subdomains (physical and verbal) are associated with general self-esteem. Extending the Internal/External Frame of Reference Model school grades in P.E. and German (as a subject) were considered as correlates of the two self-concept domains. In addition, considering the well-established empirical evidence on gender differences in the different subdomains, measurement invariance, and structural invariance were tested across female and male students. Grades, self-concept, and self-esteem were assessed via questionnaires. Structural equation modeling revealed positive relations between grades and the associated self-concept subdomains. The physical fitness self-concept was stronger associated with the general self-esteem than the verbal self-concept. Gender-stereotypical differences were found only in the mean values of the self-concept subdomains and general self-esteem. The results indicate that grades and the associated self-concepts are strongly associated and that dimensional comparison might occur across the physical and verbal domains. Furthermore, physical fitness self-concept might be a salient and meaningful source for general self-esteem in adolescents.

<https://event.fourwaves.com/self-2022/abstracts/cfc595a7-2c53-41b6-a84b-571fe0cfe53f>

## 148 - THE PASSION TRANSMISSION MODEL: EXAMINING THE MEDIATING ROLE OF EMOTIONS

Tanya Chichekian<sup>1</sup>, Sonia Rahimi<sup>2</sup>, Robert Vallerand<sup>2</sup>

<sup>1</sup>Université de Sherbrooke, <sup>2</sup>Université du Québec À Montréal

The present research investigated a passion transmission model (PTM) from the perspectives of both students (N = 200) and teachers (N = 208). In accordance with the Dualistic Model of Passion (DMP), we examined the PTM in which teachers' passion and autonomy support were hypothesized to influence students' passion via positive and negative emotions. In Study 1 the model was tested from the students' perspective. Results from a path analysis showed that perceiving teachers as supporting their autonomy predicted students' positive emotions. In addition, perceiving their teachers as passionate about the subject area they were teaching in, led students to experience more positive emotions and fewer negative emotions in their classes. Finally, positive emotions in class promoted students' HP, while both positive and negative emotions promoted their OP. Study 2 replicated these findings from the teachers' perspective (examining teachers' perceptions of their autonomy support and passion, as well as teachers' emotions while teaching, and their perceptions of students' passion). Overall, these findings are the first to validate the PTM in education. Implications for the PTM and the mediating role of emotions in such a model are also discussed.

<https://event.fourwaves.com/self-2022/abstracts/8b986659-947c-458f-bd41-1e2bbfc2400a>

## **144 - Parents Attitude and Responses Toward Online-Learning During the Pandemic of the COVID-19 for Their Children on The Autism Spectrum**

Arwa Alrawkan<sup>1</sup>, Tara Flanagan<sup>1</sup>

<sup>1</sup>McGill University

The rapid changes that happen due to the COVID-19, such as physical distancing, curfew and school closures influences the social activities and interactions and affect the systems of support students to learn and progress. These changes impact students' academic outcomes. Students on the autism spectrum are also in the movement to be educated online. Due to some difficulties, students on the autism spectrum may experience differently compared to others. Parents are the second important core in their children's education after teachers. Many studies have reported that parents can reflect their children's academic progress. This paper aimed to explore parents' attitude and responses toward online-learning during the COVID-19 for their children on the autism spectrum. A qualitative study was conducted using a virtual interview of 14 open-ended questions. Parents in Saudi Arabia participated in this study (n = 8) of children aged 7 to 17 years old on the autism spectrum. Despite the minor advantages that parents discussed about online learning during the COVID-19, the preliminary analyses highlight that parents have a negative attitude toward on-line learning. The transition to online learning affected students' educational and social development, classrooms' activities and had negatively influenced the learning process. Also, it influenced the level of engagement and created social barriers in front of their children. These influences in turn went against the important need for children on the autism spectrum to learn with inclusive community and to interact with others. Therefore, parents are looking for more development in online learning for effective learning.

<https://event.fourwaves.com/self-2022/abstracts/fcc4f8c1-173c-4ab2-a487-cfd9fd4dd2e6>

## **143 - Indigenous Thriving: Driving Indigenous Success from School to University and Employment**

Alexander Yeung<sup>1</sup>, Anthony Dillon<sup>1</sup>, Georgia Durmush<sup>1</sup>, Natasha Magson<sup>2</sup>

<sup>1</sup>Australian Catholic University, <sup>2</sup>Macquarie University

This symposium synthesises recent research coming out of the Indigenous Thriving Program in the Institute for Positive Psychology and Education at the Australian Catholic University. Our focus is on solutions, not problems; on Indigenous strengths, not deficit approaches; and on success, not failure. Our mission is to transform and enrich Indigenous lives and communities and enable Indigenous children and youth to not just succeed but thrive from school to university, building the foundation for securing employment and leading productive and fulfilling lives. Alex Yeung presents the findings from our research on the reciprocal effects of self-concept and academic achievement for Indigenous school students. Anthony Dillon then imparts insights from our research on an Indigenous boarding program in a large private boys' school that has demonstrated success in recruiting and graduating Indigenous boys from disadvantaged backgrounds. Georgia Durmush and our team of Indigenous Research Interns will then present key insights from the successful implementation of a university-based Indigenous research internship program. Finally, Natasha Magson will present results from a paper investigating the role of Self-Determination Theory's motivational drivers (autonomy, competence and relatedness) on the job outcomes of Indigenous professionals.

<https://event.fourwaves.com/self-2022/abstracts/3fd1529e-c4f1-4258-9cca-f2443e4f48a9>

# 141 - Making Sense of Career Uncertainty – From the Perspective of Experienced Female Entrepreneurs

Lauren Deckelbaum<sup>1,2</sup>

<sup>1</sup>LSE, <sup>2</sup>The London School of Economics and Political Science

Though career uncertainty has become a new normal, comfort with it has not. Uncertainty is often experienced as more stressful than knowing that something negative is definitely going to happen (Berker et al., 2016). Common discourse and empirical evidence, however, suggests that entrepreneurs demonstrate high tolerance for career uncertainty. Whereas the literature on mainstream entrepreneurship traditionally focuses on male entrepreneurs (Jennings & Brush, 2013), taking the male perspective as the predominant default, this paper contributes to women's entrepreneurship studies through exploring the nuanced perspectives that female entrepreneurs adopt when sensemaking career uncertainty. The question: "how do female entrepreneurs with over a decade of entrepreneurial experience make sense of career uncertainty?" guided the investigation. To answer it, a qualitative research design was chosen, an international group of women were interviewed, and a thematic analysis method (Attride-Stirling, 2001) was employed. Five global themes, the acronym G.I.E.F.S, emerged:

**Growth mindset:** The entrepreneurs in this sample adopted a growth mindset when faced with career uncertainty, perceiving it as a learning opportunity.

**Identity:** In moments when what was happening around them was ambiguous, women turned inward to explore who they were. They searched for clarity of self as opposed to clarity of circumstance.

**Enactment:** The entrepreneurs adopted a "just do it" mentality, acting first and sensemaking second.

**Framing:** Women in this sample positively framed career uncertainty, viewing it as an exciting invitation.

**Spirituality:** Finally, especially in highly uncertain moments, they turned to something greater than themselves.

<https://event.fourwaves.com/self-2022/abstracts/58800dfe-693e-4110-80a5-b0873c3bbf5b>

# **140 - Does “becoming one” with another make us more helpful? A Study of Self-other Merging, Pro-social Behavior, and the Moderating Role of Self-concept Clarity**

Lauren Deckelbaum<sup>1</sup>

<sup>1</sup>McGill University

There has been a longstanding debate about the role of self-other merging on empathic helping behavior. Self-other merging (Aron, Aron, & Smollan, 1992), is the extent to which an individual conceptualizes another as part of his or her own self-concept (Cialdini et al., 1997). While some researchers find that increased psychological merging with an in-need other increases pro-social action (e.g., Cialdini et al., 1997), others show just the opposite (e.g., Batson et al., 1997). Using Batson's (1997) Katie Banks paradigm, the present investigation examined whether self-concept clarity (SCC) plays a role in explaining these discrepant findings. SCC, a measure of self-certainty, is a structural element within the self-concept. It is the extent to which self-beliefs (e.g. perceived personal attributes) are clearly and confidently defined, internally consistent, and stable (Campbell, 1990; Campbell & Lavalley, 1993). The present investigation explored whether SCC moderates the relationship between self-other merging (SoM) and prosocial behavior. Results indicate that SCC does in fact moderate the relationship between SoM and empathic helping. Specifically, SoM engendered less pro-social behavior amongst individuals with low self-concept clarity, whereas individuals with high self-concept clarity acted pro-socially regardless of merging. The present investigation demonstrates that, in the presence of an in-need other, a lack of clarity in one's self-concept is detrimental to empathic pro-social behavior. Consistent with Decety and Lamm (2006), Carl Rogers (1992), and Batson et al. (1997), the current results suggest that empathic behavior stems from having a clear self concept, from understanding another's distress without merging it with our own.

<https://event.fourwaves.com/self-2022/abstracts/56c80e15-ad61-4d12-9b90-072ae3db4d02>



## **138 - Do children think it is important to predict learning and behaviour problems and do they think genetic screening has a role to play in this?**

Diana Fields<sup>1</sup>, Professor Kathryn Asbury<sup>1</sup>

<sup>1</sup>University of York

This study represents an attempt to understand how capable young children are of thinking about a potential future that uses DNA screening to assess risk of learning and behaviour differences, and what their perceptions of that possibility are. Using puppets and a scenario-based approach to ask children aged 4-10 (n=165) for their views on whether DNA screening for learning and behaviour differences might be helpful or harmful. A content analysis of their qualitative responses derived six categories: 1. 'Worried about being – and being seen as – different'; 2. 'Beliefs about the origins of learning and behaviour' - some believed genes are destiny, while others adopted a more blank slatist position; 3. 'Testing is harmful' - children expressed a desire for babies not to be hurt, either physically or emotionally; 4. 'Testing could help' - testing would allow for the identification of strengths and weaknesses and for implementation of support; 5. 'How soon is too soon for testing?' - a minority felt children should wait until reaching school age to test for learning or behaviour differences; and 6. 'What's the point?' - some children were sceptical of the likely value of screening for differences. The Children's responses offer a unique insight into how young children think they would feel about themselves if they were identified as being at risk of a neurodevelopmental disorder from birth, as well as how they perceive the lives of others with special educational needs and disabilities. Findings suggest even very young children can make useful contributions, as key stakeholders.

<https://event.fourwaves.com/self-2022/abstracts/f47d6215-a9d7-4fb0-b3c7-e7902d908998>

## **137 - Language Learner Autonomy in the Digital Age: Insights from Japan**

Louise Ohashi<sup>1</sup>

<sup>1</sup>Gakushuin University

This presentation approaches language learner motivation from a multi-faceted perspective, drawing on a 16-month study conducted with English language learners (ELLs) at a Japanese university. The main objective of the study was to understand how formal education can foster learner autonomy, particularly in relation to autonomous use of online tools for English study. As part of this investigation, factors within and beyond formal education that motivated and discouraged ELLs to use digital technologies to learn English were explored. The study had three main phases, with 128 participants in the initial phase and subsets in the remaining two. In the first phase, new university entrants completed a questionnaire about their prior English learning experiences and use of digital technologies. In the second phase, which spanned a ten-month period, one class was taught by the researcher. During this intervention phase, the teacher-research implemented support structures designed to foster learner autonomy and increase the use of digital technologies. At the end of this phase, students completed a questionnaire and a subset were interviewed. The third phase was a 6-month period of non-intervention, after which students were contacted to complete a follow-up questionnaire and interviews. This presentation focuses on aspects of the study that pertain to learner motivation, analysing it through the lens of Activity Theory (Engeström 1987, 1999) and drawing on questionnaire data and thematic analysis of interviews to provide insights into the complexities of learner motivation and highlight key implications of the study for language educators and institutions.

<https://event.fourwaves.com/self-2022/abstracts/53a0c3cf-684d-4608-b0dc-604e9aafaa05>

## **136 - A self-determination theory perspective of emotion regulation: Integrative and amotivated regulations as key styles of emotion regulation when facing stressful events**

Sook Ning Chua<sup>1</sup>, Nathalie Houliort<sup>2</sup>, Richard Koestner<sup>3</sup>, Frederick Philippe<sup>2</sup>

<sup>1</sup>Harvard T.H. Chan School of Public Health, <sup>2</sup>University of Quebec at Montreal, <sup>3</sup>McGill University

Self-determination theory (SDT) has recently developed a model of emotion regulation. Contrary to most emotion regulation models, which identify how emotion is suppressed (controlled regulation), dysregulated (amotivated regulation), or transformed through reappraisal, SDT proposes a form of emotion regulation where emotion is attended to with curiosity and full awareness and reflected on to derive meaning and guidance (integrative regulation). In this symposium, we will show how integrative regulation is adaptive when facing stressful events, such as a pandemic or a life transition, whereas amotivated regulation is particularly harmful. Sook Ning Chua will present a study showing how each emotion regulation style represents core self-processes of experiences mapping onto motivation and goals (regulations, approach and avoidance goals, need satisfaction). Nathalie Houliort will present data on how integrative regulation, but not amotivated regulation, facilitates goal disengagement and reengagement in different goals in athletes transitioning out of their sport. Richard Koestner will present two studies conducted in the US and Canada showing that integrative regulation is associated with higher rates of vaccination during the most threatening waves of the COVID-19 pandemic. Using a longitudinal study conducted during the pandemic and a memory perspective of emotion regulation, Frederick Philippe will show that poorly regulated memories of past events that occurred prior to the pandemic but that were reactivated by the pandemic predict increases in psychological symptoms over time, including posttraumatic symptoms. Emotion regulation will be discussed as a key variable to understand both emotional and motivational experiences and the construction of a stable self.

<https://event.fourwaves.com/self-2022/abstracts/5ece060a-029e-490d-9c3e-c152b1451a4d>

## 135 - Association between characteristics of memories of major life events and mental health indicators

Ariane Paquin<sup>1</sup>, Sophie Lelièvre-Blais<sup>1</sup>, Sarah Marceau<sup>1</sup>, Frédérick Philippe<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

**Introduction:** Everyone faces multiple significant events in their life. Major life events encoded as memories can have an important impact on mental health. However, not everyone is affected the same way. The characteristics of memories of life events might explain these differences in the impact that life events have on people. The purpose of this study was to examine the association between characteristics of memories of major life events and mental health indicators (depression, anxiety, eudaimonic well-being).

**Method:** A total of 300 participants recruited through social media took part in this study online. They completed measures of depression, anxiety, and eudaimonic well-being. Afterwards, they described two memories of a distinct major life event and completed items measuring several characteristics of each of their reported memories, that is, emotion regulation (suppressive, dysregulation, integrative, acceptance), need satisfaction, valence, impact, predictability, challenge, emotional significance, change in worldviews, social status changes, external control, and extraordinariness.

**Results:** Multiple linear regression analyses showed that among all characteristics, only dysregulation was positively associated with depression ( $\beta = .29$   $p < .001$ ) and anxiety ( $\beta = .32$ ,  $p = < .001$ ), and negatively associated with eudaimonic well-being ( $\beta = -.16$   $p = .034$ ). Acceptance was positively associated with eudaimonic well-being ( $\beta = .19$ ,  $p = .034$ ).

**Discussion:** These results suggest that key characteristics of memories of life events are the way they have been emotionally regulated in the past and still need to be regulated when recalled.

<https://event.fourwaves.com/self-2022/abstracts/fdb5cc7b-3f6f-48ca-95dd-42d6242719c5>

## **134 - Table Tennis Participation is Primarily Driven by Competence Needs and Intrinsic Motivation**

Tsz Lun (Alan) Chu<sup>1</sup>

<sup>1</sup>University of Wisconsin – Green Bay

Research has indicated the importance of psychological needs (i.e., autonomy, competence, and relatedness) and motivation in sport participation (Ryan & Deci, 2017). However, few studies investigated the primary psychological needs and motivational regulations that explain involvement in different sports, especially for “nontraditional sports” such as table tennis. This study sought to examine table tennis athletes’ reasons for participation.

Participants were 66 table tennis athletes (M = 25.69 years; 74.3% male) across the U.S. They completed an online survey on their table tennis background and the most important reason for participation. Guided by self-determination theory (Deci & Ryan, 1985) and the 3 × 2 achievement goal model (Elliot et al., 2011), deductive thematic analysis and frequency analysis were conducted.

Results revealed five themes concerning the reasons, and three motivational regulations regarding the process, for table tennis participation. The reasons consisted of competence needs (n = 9), relatedness needs (n = 5), self-approach goals (n = 5), task-approach goals (n = 2), and other-approach goals (n = 2). The process included intrinsic motivation (n = 37), identified regulation (n = 19), and external regulation (n = 1). The frequency of these themes did not differ by skill level.

Findings suggest that table tennis athletes in the U.S. are primarily driven by competence needs (e.g., “competitiveness”) and intrinsic motivation (e.g., “having fun”). Future research may examine reasons for withdrawing from table tennis, which could help understand the relative importance of different psychological needs and motivational regulations for table tennis participation.

<https://event.fourwaves.com/self-2022/abstracts/e82ca29b-dd06-4c29-aedc-ee0e3e83f9f3>

## **133 - A preliminary study of a French-Canadian validation of the single-item self-esteem scale (FR-SISE)**

Guy Leboeuf<sup>1</sup>, Fanny-Alexandra Guimond<sup>2</sup>

<sup>1</sup>Université du Québec en Abitibi-Témiscamingue, <sup>2</sup>Université d'Ottawa

The aim of the present study is to present the results of the first step toward a French-Canadian validation of the single-item self-esteem scale (FC-SISE; Robins, Hendin & Trzesniewski, 2001). The FR-SISE consists of the French translation of the item “I have high self-esteem” rated on a 5-point scale ranging from 1 (not very true of me) to 5 (very true of me). This scale was administered to francophones students from 3 Canadian universities (N= 1279) in the context of a broader survey of students' physical and mental health (de Moissac et al., 2019). Zero-order bivariate correlations between the FC-SISE, the French-Canadian version of the Rosenberg Self-Esteem Scale (RSES; Vallières & Vallerand, 1990) and various measures of anxiety and depression was used to ensure the construct validity of the instrument. FC-SISE and RSES correlated significantly ( $r = .62$ ,  $p < .001$ ), which is smaller than the correlations obtained between the English and German versions of those same two instruments (Brailovskaia & Margraf, 2018; Robins, Hendin & Trzesniewski, 2001). However, the correlations between the FC-SISE, the RSES and measures of anxiety and depression were similar. Those results are promising but other studies will be needed to make sure that the FC-SISE has the psychometric qualities required to be used with a Francophone population.

<https://event.fourwaves.com/self-2022/abstracts/6148dd49-8574-427c-b9d1-8d012ba4a04e>

## 132 - When passion rimes with concussion in sport: A look at the incidence and recovery progress in college athletes

Anne-Catherine Gauthier-Lamer<sup>1</sup>, H  l  ne Brisebois<sup>2</sup>, Nathalie Houlfort<sup>1</sup>, Mariane Doucet<sup>3</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Collège Montmorency, <sup>3</sup>Université de Montréal

Concussions are a scourge in the world of sport and can have serious consequences (McCrory & al., 2017). Prompt and adequate care is therefore essential. Nevertheless, some athletes still minimize their symptoms or completely fail to report their concussion (Kerr & al., 2014). A motivational approach for looking at this problem could help understanding the reasons evoked by the athlete for making that choice. Indeed, according to the dualistic model of passion (Vallerand et al., 2003), harmonious passion (HP) and obsessive passion (OP) are generally associated with adaptive and less adaptive behaviors respectively.

The purpose of these studies are to examine the influence of passion on concussion occurrence (study 1) and to describe how it takes place (study 2).

Study 1: College athletes (n=136) completed the passion scale and indicated the number of concussions suffered in the past, distinguishing between those diagnosed and those suffered in total (self-reported). The results of a series of regressions show no significant association between the type of passion and the number of concussion. On the other hand, another series of regression carried out only with subjects having had at least one concussion, showed that passion was significantly linked to self-reported concussions, with a positive link for OP and negative for HP.

Study 2: College athletes (n=10) were interviewed. Verbatims were analyzed using thematic analysis (Braun & Clarke, 2012). The analysis brought out different themes about the process that led to the diagnosis of the concussion, the experience of recovery and the reflections drawn from this experience.

<https://event.fourwaves.com/self-2022/abstracts/89a875aa-ae14-4549-9144-e3d23b3268e5>

## **131 - Focus on the Past First and then the Future Will Come: Contribution of Goal-Related Memories and Future Projections to Goal Progress:**

Nabil Bouizegarene<sup>1</sup>, Frederick L. Philippe<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

We are often advised not to think about the past too much and instead focus on the future. Interestingly, recent research suggests that memory could actually improve future thinking (Schachter and Addis, 2020), which may in turn promote goal progress. We tested the possibility that memory could improve the integration of future projections into the self, and whether this would lead to better goal progress over time. In Study 1 (n = 128) and Study 2 (n = 148), participants described an important goal that they intended to attain in the next four months. Then, they described goal-related memories and future projections and reported the degree of need satisfaction associated with remembered and imagined events, as a proxy for integration (Ryan, 1995). In both studies, participants were randomly assigned to describe goal-related memories and then goal-related future projections (memory-future condition) or to describe goal-related future projections first and goal-related memories second (future-memory condition). In Study 2, participants described their level of goal progress four months later. We expected that participants in the memory-future condition would elicit more integrated future projections and report more goal progress. Results provided support for our hypotheses. In Study 1 and Study 2, we found that participants in the memory-future condition had more need satisfying future projections. Most importantly, in Study 2, we found that participants in the memory-future condition reported more goal progress. Results are discussed within the context of theories of the integrative process (Weinstein et al., 2013) and active inference (Friston, 2010).

<https://event.fourwaves.com/self-2022/abstracts/8d032aab-eba7-4f3a-b9e3-a52b8ab074f4>



## **130 - Passion at work and resilience during a pandemic: a look at the mediating role of emotional regulation strategies**

Charles-Étienne Lavoie<sup>1</sup>, Romane Masson<sup>1</sup>, Katherine Malchelosse<sup>1</sup>, Nathalie Houlfort<sup>1</sup>

<sup>1</sup>UQAM (LRCO)

Literature based on the dualistic model of passion (Vallerand, 2015; Vallerand & Houlfort, 2019) has shown that harmonious passion (HP) is positively associated with resilience (Vankakova et al., 2021), but not obsessive passion (OP). HP (but not OP) has also been associated with well-being via adaptive emotional regulation strategies (ERS), such as cognitive reappraisal (St. Louis et al., 2021). Building on the taxonomy of ERSs from self-determination theory (Roth et al., 2019), the current study sought to expand on previous research by examining the mediating effect of integrative, suppressive, and dysregulated ERSs on the relationship between passion types and resilience. Specifically, the present research was a cross-sectional study (n = 162) conducted with representatives of a company involved in the sale of financial products and services. We tested a mediation model in which the relationship between HP and PO for work and resilience is mediated by integrative, suppressive, and dysregulated ERS. Results of path analyses suggest that only HP for work leads to resilience via the mediating effect of integrative ERS, as well as through a direct relationship. OP was positively associated with suppressive ERS, but the latter was not associated with resilience. Finally, dysregulated ERS was negatively related to resilience, but was not predicted by any type of passion. These findings highlight the benefits associated with PH at work.

<https://event.fourwaves.com/self-2022/abstracts/49712719-4559-45f3-b7bc-7e16027014bd>

## **129 - Extracurricular activities and adjustment of students in disadvantaged high schools: The mediating role of the need for peer relatedness and school belonging**

Maxim Bouchard<sup>1, 2</sup>, Anne-Sophie Denault<sup>1, 2</sup>, Frédéric Guay<sup>1, 2</sup>

<sup>1</sup>Université Laval, <sup>2</sup>Groupe de recherche sur l'inadaptation psychosociale chez l'enfant

Participation in extracurricular activities (ECAs) has beneficial effects on adolescents' academic and psychosocial adjustment, and particularly for high school students from disadvantaged neighborhoods. Given that other contexts of their lives may not be developmentally optimum, these students may benefit more from their participation in ECAs (Blomfield & Barber, 2001). However, the processes underlying this beneficial effect are misunderstood. Guided by SDT, we examined whether the satisfaction of the need for peer relatedness (quality of interpersonal relationships) and school belonging could act as a mediator of the association between participation in ECAs and students' school intrinsic motivation, risky behaviors, and depressive symptoms. The proposed mediation model was conducted using data from a larger longitudinal project on ECAs and school dropout among students from disadvantaged neighborhoods. A total of 638 adolescents (59 % girls; mean age = 15,22; SD = 1,42) were surveyed over two waves of data collection. After controlling for sociodemographic variables (gender, age, family structure) and prior adjustment, the results revealed that the need for peer relatedness can explain both the predictive association between participation in ECAs and school intrinsic motivation (( $b = 0,01$ ,  $SE = 0,01$ ,  $CI = 0,001; 0,020$ ) and depressive symptoms ( $b = - 0,03$ ,  $SE = 0,01$ ,  $CI = - 0,046; - 0,016$ ); the quality of these relationships would therefore explain why students who participate in ECAs are more likely to report an increase in school intrinsic motivation and a decrease in depressive symptoms over a one-year interval.

<https://event.fourwaves.com/self-2022/abstracts/4f26f8dd-e4b2-4dbe-9ef2-52b5db652a46>

## 128 - 'From the top': the acquisition of self-regulation skills among musicians

Mathieu Boucher<sup>1</sup>, Francis Dubé<sup>1</sup>, Andrea Creech<sup>2</sup>

<sup>1</sup>Université Laval, <sup>2</sup>McGill University

In the context of learning western classical music, developing musicians typically receive one hour of instrumental lesson per week with an experienced musician while undertaking a vast amount of practice that they must self-regulate efficiently to attain excellence on a musical instrument. A key aspect of self-regulated music practice is the musicians' ability to monitor their performance attentively, identify their mistakes, and choose their strategies accordingly to correct them.

Most studies on self-regulation of music practice focused on the observation and identification of self-regulation processes in the practice behaviour of musicians of different levels of advancement. These studies produced mixed results regarding the capacity of musicians of all levels to monitor their practice efficiently, including elite musicians. It appears that musicians can acquire self-regulation skills, but that these skills may not emerge naturally from years of experience in instrumental instruction.

In a 2016 meta-analysis on musical self-regulation, the authors found that a direct pedagogical intervention specifically aimed at developing self-regulation skills was more strongly related to the presence of efficient self-regulation in musicians' practice than typical instrumental teaching. In the recent years, a growing body of literature focused on the effect of various pedagogical interventions to foster self-regulation skills among musicians, including practice checklists, video feedback and courses on self-regulation designed for musicians.

This presentation will provide an overview of the research on the self-regulation skills in music learning before presenting the results of studies that verified the efficiency of pedagogical interventions to support their development.

<https://event.fourwaves.com/self-2022/abstracts/ffcee5f0-3dfd-4c2b-8e09-7a47b309c928>

## **126 - Emotion regulation of memories of major life events is associated with mental health indicators beyond emotion regulation styles used in general.**

Sophie Lelièvre-Blais<sup>1</sup>, Ariane Paquin<sup>1</sup>, Sarah Marceau<sup>1</sup>, Frédérick L. Philippe<sup>1</sup>

<sup>1</sup>UQAM

The style of emotion regulation used to face a particular life event will often be determinant for the encoding of that event in the memory system and the mental consequences that this event will have in a person's life afterwards. The purpose of this study was to examine whether the emotional regulation style used to regulate specific and distinct memories of major life events could be independently associated with mental health indicators (depression, anxiety, eudaimonic well-being) and whether these associations would hold after controlling for general emotional regulation styles.

300 adults (M=47 years old; 83.7 % women) recruited through social media completed online measures of depression, anxiety, and eudaimonic well-being, and emotion regulation styles in general (integrative regulation, controlled regulation, and amotivated regulation). They also described two memories of significant life events and were assessed on the styles of emotion regulation they still used when thinking back to these events.

Amotivated regulation in the first and second memories were both positively and independently associated with depression,  $b=.25$  and  $b=.24$ ,  $p<.001$ , and anxiety  $b=.28$  and  $b=.23$ ,  $p<.001$ . Integrative regulation in the first memory only was positively associated with  $b=.34$ ,  $p<.001$ . Controlling for emotion regulation in general did not change these results.

These results suggest that each memory may independently affect mental health as a function of the way it has been emotionally regulated— with amotivated regulation being the strongest predictor. This process also seems to occur beyond individual differences in general emotion regulation.

<https://event.fourwaves.com/self-2022/abstracts/600b0b8a-924f-44b3-9226-bfc2764b6312>

## 125 - Application of self-determination theory on a school team relay run and its effects on personal development

Roger G. Leblanc<sup>1</sup>, Horia-Daniel Iancu<sup>1</sup>, Kathleen Rice<sup>1</sup>, Vicky Bouffard-Levasseur<sup>1</sup>

<sup>1</sup>Université de Moncton

**Objectives:** Self-determination theory (SDT) focuses on creating environment that supports autonomy, competence and belonging that can directly affect intrinsic motivation and could promote physical activity's practice among children. This article aims to 1) to describe an application of SDT, on a team relay run, at school and 2) to assess the impact of a relay run on children and youth's personal development.

**Methods:** Team leaders were invited (willingly) to be interviewed on their preparation/participation in the relay run. Thematic analysis was used to analyze and identify themes (personal development) and four sub-themes (feelings, motivation, belonging and exceeding self).

**Results:** From thematic analyzes of collected verbatim, sub-themes were omnipresent in speeches. Feelings: « The children felt lucky to be there. A first banner for our school and for many students.» Motivation: « I want to promote wellness, healthy lifestyles and extracurricular activities with students. » Belonging: «It's a sense of belonging, we belong to one school and we are proud, we are all here for our health! » Exceeding self: « If you can surpass yourself in a race, you are able to surpass yourself in any sphere of your life. »

**Conclusion:** We must turn to teaching practices that encourage children and youth participation in their learning process and engage them i.e. intrinsic motivation. SDT can be applied to physical activity's practice in schools and it this has been shown that a team relay run could have a positive influence on children and youth's personal development.

<https://event.fourwaves.com/self-2022/abstracts/bd906f86-d004-4e9c-b431-11a7b554753e>

## **124 - Psychological Needs Satisfaction As a Mediator in the Relationship Between Passion for Work and Work-life Enrichment**

Katherine Malchelosse<sup>1</sup>, Charles-Étienne Lavoie<sup>1</sup>, Romane Masson<sup>1</sup>, Nathalie Houlfort<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

Work-life enrichment occurs when one role enhances the quality of experience in a second role (i.e., work to life enrichment and life to work enrichment). Previous research based on the Dualistic Model of Passion (Vallerand et al., 2003) suggest that harmonious passion (HP) would be positively associated with work-life enrichment, which would not be the case with obsessive passion (OP). However, the few studies on the subject indicate contradictory results (Bourdeau & Houlfort, 2015; Malchelosse & Houlfort, 2021, Wan et al., 2021). As passion is proving to be an important resource for workers, we believe that harmonious passion as well as obsessive passion has the potential to generate work-life enrichment. Moreover, we suggest that psychological need satisfaction can explain how passion for work positively contributes to work-life enrichment, since both harmonious and obsessive passion are associated with the satisfaction of psychological needs within the activity (Lalande et al., 2017).

Hence, the present study investigated the role of psychological needs satisfaction as a mediator in the relationship between passion for work and both directions of enrichment.

Workers (n = 172) completed an online questionnaire. Mediation analysis supported our hypotheses, such that psychological needs satisfaction at work mediated the relationship between both types of passion and both directions of enrichment. The results indicate that passion for work, regardless of the type, is positively associated with enrichment, as passion for work allow individuals to satisfy their psychological needs. Theoretical implications are discussed.

<https://event.fourwaves.com/self-2022/abstracts/3bf4ddca-2722-4f91-b4a2-cdba95dbcccb>

## **123 - Supportive-need context, Basic Need Satisfaction and Adjustment from Recreational Resistance Training Practitioners in a Social and Sport Club Inside Brazil**

Marcelo Callegari Zanetti<sup>1</sup>, Gabriel Vieira Gonçalves<sup>2</sup>, Luís Antônio Souza Jr.<sup>1</sup>, Helton Magalhães Dias<sup>3</sup>, Angela Nogueira Neves<sup>4</sup>, Marcos Alencar Abaide Balbinotti<sup>5</sup>

<sup>1</sup>Laboratório de Pesquisa da Motivação e Desenvolvimento Humano – Universidade São Judas, São Paulo, Brazil; <sup>2</sup>Universidade Paulista, São José do Rio Pardo, São Paulo, Brazil., <sup>3</sup>Universidade Paulista, São José do Rio Pardo, São Paulo, Brazil., <sup>3</sup>Laboratório de Pesquisa da Motivação e Desenvolvimento Humano – Universidade São Judas, São Paulo, Brazil., <sup>4</sup>Escola de Educação Física do Exército, Rio de Janeiro, Brazil. , <sup>5</sup>Université du Québec à Trois-Rivières, Trois-Rivières, Québec, Canada.

(Introduction) According to the Self-determination Theory, a good support context can contribute to the satisfaction of the Basic Psychological Needs for autonomy, competence, and relatedness, leading to better biopsychosocial adjustments, such as the adoption and maintenance of physical exercises. (Purpose) Verifying the supportive-need context, basic need satisfaction and adjustment from recreational resistance training practitioners in a social and sport club in Brazil was the objective of this research. (Methods) Data was collected in a non-probabilistic sample from 40 individuals (25 males and 15 females, aged between 22 and 63 years,  $\bar{x}$  = 39.5 years old), for two weeks, in May 2021, at a social sport club in São José do Rio Pardo, São Paulo, Brazil. As an instrument, it was used a depth semi-structured interview, built on through the Self-determination Theory perspective. To analyze the data, NVivo Release 1.0 software was used, athwart the assumptions of content analysis. (Results) It was possible to identify that the context created by the club, gym and mainly by the resistance training instructors contributes to the satisfaction of autonomy, competence, relatedness, and consequently to higher levels of self-determined motivation, well-being, pleasure, intention to continue the practice, body weight control, daily energy, physical and psychological health, and other positive adjustments. (Conclusion) The results point to the importance of creating a supportive-need context in clubs, gyms and training centers that involve structural aspects, instructional and pedagogical practices by instructors related to the promotion of the basic psychological needs of their practitioners.

<https://event.fourwaves.com/self-2022/abstracts/a28f4341-acca-4b0b-a7c7-93a8d4949b52>

## **122 - Dynamics of Parent-Adolescent Interactions During a Discussion on Career Choice: The Role of Parental Behaviors and Emotions**

Mélanie Bourret<sup>1</sup>, Catherine Ratelle<sup>1</sup>, André Plamondon<sup>1</sup>, Geneviève Boisclair-Châteauvert<sup>1</sup>

<sup>1</sup>Université Laval

This study examined parental behaviors (autonomy support, control) toward their adolescent child as well as parents' and adolescents' positive and negative emotions experienced during parent-adolescent discussions on vocational decision-making. Research showed that repeated daily interactions provide the seeds to stable interactional patterns. Exploring short-term interactions allows to understand the process of behavioral and emotional change that takes place during discussions. Thus, a first goal was to identify and describe parental behaviors and emotions manifested by parents and adolescents during this discussion. Second, using a multilevel modeling approach, dynamic structural equation modeling (DSEM), simultaneous associations between parental behaviors and emotions were examined. The third goal was to examine the extent to which parental behaviors and parents' and adolescents' emotions predicted each other during this discussion. Parent-adolescent dyads (N = 42) participated in a discussion task on the adolescent's career choice, where parental behaviors were rated by observers, and emotions were detected with a facial expression recognition software. Results showed that parental autonomy is beneficial for adolescents in the short term (reduction of negative emotions). Also, the results showed that adolescents' emotions influence parental behaviors, suggesting that adolescents play an active role in the co-construction of their vocational project by leading the parent to adopt specific behaviors during the discussion. Finally, the emotions of parents and adolescents were dynamically interrelated, which indicates emotional contagion. These findings highlight the necessity to consider momentary parental behaviors and emotions to better understand parental contributions in vocational development.

<https://event.fourwaves.com/self-2022/abstracts/348afc02-d035-417a-8f01-473e0aac636f>



## **121 - Is Our Society a Fair Place? The Influence of Parents on Their Adolescent's World Perceptions and Civic Actions**

Marie-Jeanne Léonard<sup>1</sup>, Frédérick Philippe<sup>1</sup>, Marie-Pier Gingras<sup>1</sup>, François Poulin<sup>1</sup>, Jean Robitaille<sup>2</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Fondation Monique Fitzback

How can parents influence their adolescent child to question the status quo or to presume that the world is fair? Is it the ideology that parents communicate or their behavior? In this study, we investigated adolescents' (1) belief in a just world, (2) system justification, (3) present pro-social civic actions (e.g., signing a petition, participate in a demonstration), (4) planned future pro-social civic actions, and (5) intention to engage in a long-term organized civic activity via the assessment of 125 dyads of adolescents and parents. Hierarchical linear regression and logistic regression models were used. We found that parents' frequency levels of pro-social civic actions, but not illegal civic actions (e.g., vandalism or sabotage for a cause), negatively impacted their adolescent's ideologies that the world is a fair place for all or that the status quo is legitimate and justifiable, independently of the parent's ideological perceptions of belief in a just world and system justification. Moreover, adolescents' probability of present and planned future pro-social civic actions, as well as, engagement in a long-term organized civic activity increased based on their parent's frequency levels of pro-social civic actions, but not illegal civic actions. These results suggest that parents' actions speak louder than their words. Adolescents' exposure to the behaviors of their parents seems critical in the development of their perceptions of society and how they intend to act and engage in their community.

<https://event.fourwaves.com/self-2022/abstracts/7d0877b6-a3b2-4289-ae6e-4d5c8586fba3>

## **118 - The effects of hands-on science activities in the classroom at posttest and follow-up on pupils' science self-competence beliefs, value of science, and science grades**

Viviane Desbiens<sup>1</sup>, Simon Larose<sup>1</sup>, Alexandre Gareau<sup>1</sup>, Julien S. Bureau<sup>1</sup>

<sup>1</sup>Université Laval

Scientific literacy is important to prepare young pupils to understand the world they are living in and become well-informed citizens. Positive attitudes towards science is considered primary to achieve that. One of the ways to do so is to invite informal science education organizations in class to lead hands-on activities with the pupils. But very few research has been done yet with a control group to understand the effects of those activities.

In this experimental study, 256 5<sup>th</sup> and 6<sup>th</sup> graders ( $M_{age}=10.92$ ; 50.6% boys) participated in three one-hour hands-on science activity in class or a control group. The design was pre-post (2 weeks after) and follow-up (3 months after). We measured the pupils' science self-competence (self-efficacy and self-concept) beliefs, science value, science grades and some moderators (science capital, gender, familial adversity). Analyses were done in a piecewise growth model.

A main effect was found only on science grades. After considering the moderators, science capital appeared the most determining one. Pupils with low science capital who participated in the activities had a positive effect on self-efficacy, self-concept, and science value, which maintained at follow-up. Boys had a positive effect on their science value and self-concept, but not on their self-efficacy and this maintained at follow-up, while girls had no such positive effect. This type of workshops therefore seems to be beneficial, especially for pupils with low science capital and for boys. And even if the intervention was of small duration, the effects could still be seen three months after.

<https://event.fourwaves.com/self-2022/abstracts/043f4358-ca24-4149-ab43-bc67e5479fff>

# 117 - Trajectories of Middle School Students' Academic and Self-Regulatory Self-Efficacy in Mathematics

Jaeyun Han<sup>1</sup>, Ellen Usher<sup>1</sup>

<sup>1</sup>University of Kentucky

Students' beliefs about their capabilities to do well and to regulate their learning in mathematics are important for their motivation and performance (Bandura, 1997). However, less is known about how students' mathematics self-efficacy and self-efficacy for self-regulated learning change over time, particularly during middle school when students experience increased academic challenges (Pajares, 2012). Longitudinal studies of self-efficacy have been rare and have typically focused on overall patterns of change. In this study, we tested the possibility that self-efficacy changes over time differently among students. Specifically, we used multidimensional growth mixture modeling to examine different self-efficacy trajectories among students in Grade 6 and 7 (N =1,749; 49% Grade 6) attending four public middle schools in the southeastern United States. Self-efficacy for self-regulated learning and mathematics self-efficacy were measured at three time points across two academic years (T1: Fall Year 1, T2: Spring Year 1, T3: Spring Year 2). Among students who were in Grade 6 at T1, two main groups emerged: a group with high self-efficacy for self-regulated learning and mathematics self-efficacy that decreased over time (72%) and a group with moderate levels in both self-efficacy constructs that remained stable (28%). For those in Grade 7, three main groups emerged: a group with high levels of self-efficacy constructs that decreased (51%), a group with moderate levels of self-efficacy constructs that remained stable (38%), and a group with stable self-efficacy for self-regulated learning but marginally increasing mathematics self-efficacy (11%). These results suggest that self-efficacy interventions should take students' distinct trajectories into account.

<https://event.fourwaves.com/self-2022/abstracts/a2856202-feac-4e2d-a1df-6a92e51fbfbc>

## 116 - Autonomy support and leadership development

Sabrina Guertin<sup>1, 2</sup>, Amy-Lee Normandin<sup>1, 3</sup>, Emilie Lemelin<sup>1</sup>, Sébastien Hétu<sup>1, 4</sup>, Simon Grenier<sup>1, 2</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Laboratoire des études, applications et développement du leadership (LEAD), <sup>3</sup>Laboratoire de recherche sur le soutien à l'autonomie, <sup>4</sup>Laboratoire de neurosciences en contextes sociaux (NeCS)

According to the Self-determination theory, parenting style (PS; controlling or autonomy-supportive) has different consequences on children's motivation and development (Mageau et al., 2015; Ryan & Deci, 2000). Regarding youth leadership development, PS would also influence their motivation to be a leader (MTL; Liu et al., 2021). Therefore, we hypothesize that perceived autonomy-supportive PS (PAS-PS) will be positively correlated with autonomous MTL (identified, integrated, and intrinsic regulation) in young adults. In contrast, a perceived controlling PS (PC-PS) will be positively correlated with controlled MTL (external and introjected regulation). Also, leader identity (LI) refers to individuals who consider leadership an integral part of their individual and tend to assert this identity. Therefore, they should be autonomously motivated to do behaviours consistent with this vision of themselves (DeRue et al., 2009). Thus, we hypothesize that autonomous MTL will be positively associated with LI whereas controlled MTL will be negatively associated.

A total of 59 Officer-cadets ( $M_{age}=17.69$ ,  $SD=1.51$ ) responded to a self-report questionnaire assessing PS (Mageau et al., 2015), MTL (Gilbert et al., 2016), and LI (Hiller, 2005). As expected, structural equation modelling analysis indicated that PC-PS was positively related to controlled MTL ( $\beta=.29$ ,  $p<.05$ ) and controlled MTL was negatively associated with LI ( $\beta=-.19$ ,  $p<.05$ ). Also, autonomous MTL was positively associated with LI ( $\beta=.70$ ,  $p<.01$ ). However, the relation between PAS-PS and autonomous MTL was marginal ( $\beta=.21$ ,  $p=.1$ ). The effect size is large ( $R^2=0.586$ ).

This study informs us about leadership development variables in young adults, particularly military youth.

<https://event.fourwaves.com/self-2022/abstracts/bad0744d-543c-4a2c-9e4f-34e097d8dd43>

## 115 - Relationship of goal orientations and academic resilience of undergraduate students

Marie-Ève Deschênes<sup>1</sup>, Claude Joly<sup>2</sup>, Gabriella Decoste<sup>2</sup>, Simon Grenier<sup>2</sup>

<sup>1</sup>author, <sup>2</sup>co-author

Academic resilience is defined as the likelihood of a student's educational success in the face of adversity encountered in educational experiences (Wang & al., 1997). Like resilience, goal orientation, namely how individuals approach learning situations, has been widely studied in the academic context (Lauzier & Haccoun, 2010; McMillan, 2016). A mastery goal orientation could be positively related to academic resilience, as students tend to focus on learning to achieve mastery (Button & al., 1996). Nevertheless, performance and avoidance goal orientations could be negatively related to academic resilience: performance oriented students could experience negative affects when confronted with obstacles, while avoidance oriented students could tend to focus solely on avoiding failure (Lauzier & Haccoun, 2010). However, to date, there is no consensus about the relationships between goal approaches and academic resilience (McMillan, 2016).

Using a sample of 258 French-speaking undergraduate students, we explored how goal orientation can predict academic resilience. Therefore, we translated the English academic resilience scale (Martin & Marsh, 2006) and used the French validated Goal orientation scale (GOS; Lauzier & Haccoun, 2010).

A simple linear regression showed that a mastery orientation accounts for 11% ( $B = .38$ ,  $p < .01$ ), performance orientation for 0% ( $B = -.06$ ,  $p = .29$ ) and avoidance orientation for 17% ( $B = -.42$ ,  $p < .01$ ) of the variance for academic resilience.

These findings corroborate with our hypothesis about the predictive value of mastery and avoidance orientations. Conversely, performance orientation does not appear to predict academic resilience, perhaps since some students can put the necessary efforts to perform well, hence show resilience (Lauzier & Haccoun, 2010).

<https://event.fourwaves.com/self-2022/abstracts/70a81844-6efa-43f0-90c6-8262964da3bb>

## 114 - The Mediating Role of Academic Resilience between Problem Solving Skills and Well-Being

Gabriella Decoste<sup>1,2</sup>, Marie-Ève Deschênes<sup>1</sup>, Simon Grenier<sup>1</sup>

<sup>1</sup>Co-author, <sup>2</sup>Co-presentator

Resilience has been widely studied in scientific literature and can be defined as the process of adapting positively in the face of adversity (Jntema & al., 2019; Newman, 2005). When studied in an academic context, resilience (i.e., academic resilience) is the key to student's success as it increases participation and enjoyment at school as well as self-esteem (Martin & Marsh, 2006). Moreover, resilience is strongly correlated with well-being (Haddadi & Basharat, 2010). Yet, other factors such as problem-solving are associated with well-being (Poinsot & Antoine, 2007). Indeed, problem-solving strategies lead to direct action on stressful or threatening situations (D'Zurilla & Chang, 1995), thus increasing an individual's adaptability (Chinaveh, 2013; Helmreich & al., 2017). Hence, elements of self-control in one's problem-solving skills (i.e., personal control) promotes the regulation of emotions and actions when faced with a problem (Heppner & Petersen, 1982).

Using a sample of 258 undergraduate students, we sought to validate whether academic resilience could mediate between personal control in problem-solving skills and students' well-being.

We found that problem-solving skills significantly affect well-being ( $b = 0.46$ ,  $p < .01$ ). Moreover, when controlling for the effect of academic resilience, problem-solving skills have a weaker but still significant effect on well-being ( $b = 0.29$ ,  $p < .01$ ). Therefore, we can conclude that academic resilience is a partial mediator between personal control in problem-solving and a student's well-being.

These results are of interest as they demonstrate that problem solving can partially explain resilience, highlighting the importance of considering multiple variables to understand the concept of resilience.

<https://event.fourwaves.com/self-2022/abstracts/acc60527-d7d3-4812-a5da-b8555e5ac9c0>

## **113 - Gender differences in the correlational pattern between perceived parental behavior and students' well-being and academic outcomes**

Barbara Otto<sup>1</sup>

<sup>1</sup>Hochschule Fresenius Wiesbaden

Students' well-being has been found to be a crucial determinant of a favorable academic development. However, the specific individual and contextual determinants of students' well-being need to be further investigated. Basing on the well-established Self-Determination Theory (SDT, Ryan & Deci, 2017) it can be assumed that students' well-being is associated with their basic psychological need satisfaction provided by their social interaction partners. For middle school students, parents can be assumed to be the most relevant interaction partners. Thus, the way how students perceive their parenting behavior should be associated with students' well-being and associated academic variables. However, research also showed gender differences in the way how students perceive their basic psychological needs to be satisfied by teachers in the classroom (Katz, 2017). Therefore, this study addressed the research question whether or not there are also gender differences in the correlational patterns between perceived parenting and students' well-being and associated academic variables.

201 German students (46.3% boys) of grade five to eight voluntarily participated in the cross-sectional study. Maternal parenting behavior (autonomy support, competence support, relatedness, involvement) was assessed with a student questionnaire. Additionally, students reported about their well-being, academic motivation, and emotion. In order to answer the research question, correlational analyses were conducted separately for both genders. Comparing the correlations revealed significant gender differences in the associations between perceived parenting and students' well-being, academic motivation, and affect. The findings will be discussed with regard to their theoretical, methodological, and practical implications.

<https://event.fourwaves.com/self-2022/abstracts/ceb8360c-4150-4c36-8716-e20c0e742deb>

# **112 - Family-school values gaps' contribution to students' behavioural engagement and relatedness with teachers**

Corinne Hébert<sup>1</sup>, Isabelle Archambault<sup>1</sup>, Kristel Tardif-Grenier<sup>2</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Université du Québec en Outaouais

**Context:** According to the Self-System Model of Motivational Development (Connell & Wellborn, 1991), school practices fulfill students' sense of relatedness and classroom engagement. Qualitative research suggests that perception of value gaps between family and school is likely to undermine relatedness with teachers and behavioural investment in class (Archambault et al., 2020). However, these links have yet to be established by quantitative research. Moreover, we do not know whether these associations are the same for students with and without an immigrant background.

**Objectives:** The present study tested if students' perception of family-school gaps in values contributes to their relatedness with teachers and their behavioural engagement, as well as whether these associations vary as a function of immigration status.

**Method:** The sample was composed of 1,551 students from grades 10 to 11 attending eight different secondary schools in Quebec (Canada). The sample contains a similar amount of first, second and third (nonimmigrant) generation students. Hierarchical linear regressions were conducted to test direct and indirect associations.

**Results:** Results suggest that family-school value gaps are associated with less warmth in teacher-student relationships for immigrant and non-immigrant students, and with conflict with teachers and less behavioural engagement for non-immigrant students only.

**Conclusion:** Our findings highlight the importance of congruence between family and school values for students. A lack of congruence seems to undermine relationships with teachers and classroom engagement, even more so for students from non-immigrant backgrounds. Implications of these findings will be discussed.

**Key words:** adolescence, value conflicts, school behavioral engagement, immigration

<https://event.fourwaves.com/self-2022/abstracts/200a458b-72ad-4206-ab60-6a0b7bb00872>



## **111 - Instructor support during COVID-19: Investigating the relationship with undergraduate students' motivation and achievement in STEM**

Utku Caybas<sup>1</sup>, Jaeyun Han<sup>1</sup>, Ellen L. Usher<sup>1</sup>, Jennifer Osterhage<sup>1</sup>

<sup>1</sup>University of Kentucky

Of students who enter college as STEM majors, only 40% graduate with a STEM degree (National Science Board, 2016). Many decide to leave STEM after taking introductory courses that serve as “gatekeepers” to degree progression (Gasiewski et al., 2012). Student-instructor interactions play a critical role in student learning in introductory STEM courses (Christe, 2013). According to situated expectancy-value theory, students' perceptions of socializers' behaviors, such as instructors, can influence motivation and performance (Wigfield et al., 2015). This study aimed to examine the effect of instructional support on student motivation and achievement in two introductory STEM courses. Undergraduate students enrolled in introductory biology (n = 297) and general chemistry (n = 305) courses responded to open- and closed-ended survey items in the third and fifteenth weeks of the Fall 2020 semester. Structural equation modeling (SEM) revealed that students' perceptions of their instructors' support early in the semester predicted their self-efficacy and subjective task values later in the semester. Student self-efficacy, but not task values, predicted final student course grades. Multigroup SEM revealed that the effects of instructional support varied across contexts. Perceived instructor support predicted both self-efficacy and subjective task values in biology but only self-efficacy in chemistry. Moreover, instructor support was a significantly stronger predictor of self-efficacy in the biology context. Students' responses to open-ended items about their learning context will be used to contextualize these quantitative findings. Results from the study can be used to inform instructional approaches that support student motivation and performance in introductory STEM contexts.

<https://event.fourwaves.com/self-2022/abstracts/34bebfec-64af-4abf-9608-2d4445398973>

## **110 - A multi-informant study on parental structure: Perceptions of adolescent-mother and adolescent-father dyads**

Cléo Thibert-Dagenais<sup>1</sup>, Catherine Ratelle<sup>1</sup>

<sup>1</sup>Université Laval

Self-determination theory suggests that adolescent development depends on the satisfaction of three psychological needs: autonomy, relatedness, and competence (Ryan & Deci, 2017). One need, competence, has the strongest relation with academic motivation (Hui et al., 2011), making it a potent factor to promote for student success. Parents are important in supporting adolescents' psychological need satisfaction (Soenens et al., 2019), and one category of need supporting parental behavior vital for adolescents' competence satisfaction is structure. Structure pertains to parents' organization of the adolescent's environment to make it predictable (Farkas & Grolnick, 2010). However, structure received much less attention than other need supporting parental behaviors, and those that did typically considered only some of its dimensions, although it encompasses six dimensions (Farkas & Grolnick, 2010). Another less studied aspect is the differences in perspectives of adolescents and their parents (Janssens et al. 2015), although multi-informant designs provide important psychometric benefits (De Los Reyes et al., 2016). The purpose of this multi-informant study was to compare parents' and adolescents' perspectives on parental structure. The sample included adolescents, their mothers and fathers (N = 248 families) who answered a web questionnaire. Latent difference score analyses were performed to assess convergence and divergence of informants' perspective on maternal and paternal structure. Results indicated that adolescents rated maternal and paternal structure as lower than parents' self-reported levels, and that the difference was greater between adolescents and their mother. Results are discussed according to convergences and divergences in reports from adolescents, and their mother and father.

<https://event.fourwaves.com/self-2022/abstracts/6d99dcc2-7bc7-47fe-b04c-86aeded4de2d>

## 109 - Looking for BFLPE and BIRGE in Finnish lower secondary education

Sirkku Kupiainen<sup>1</sup>, Ninja Hienonen<sup>1</sup>, Satu Koivuhovi<sup>1</sup>

<sup>1</sup>University of Helsinki

The Big-Fish-in-Little Pond (BFLPE) and its counterpart the Basking-in-Reflected-Glory (BIRGE) effects are widely used to investigate the impact of a student's reference group on the relationship between his/her achievement and academic self-concept, even if the 'sameness' of the reference group for students in different academic settings can be questioned (Wolff et al., 2021). Furthermore, the role of general cognitive competence as a basis for school achievement and of feedback for the formation of academic self-concept have been well documented. Yet, academic self-concept is also understood to have an independent impact on achievement, even if the process has seldom been studied following the role of daily achievement-induced feedback.

With data following 6,800 Finnish students from grade 7 to grade 9, we set to explore the impact of the considerable in-between-class differences ( $\eta^2 = .248$   $p < .001$ ) on students' academic self-concept in terms of BFLPE and BIRGE through students of lowest and highest quintiles of cognitive competence in classes with low to high performance. On average, all students profited from a class with better achieving students but the impact of the class was bigger for students from the best versus the weakest quintile. Yet, for students of the best quintile, the impact of class mean achievement on the change in their academic self-concept was close to negligent ( $\eta^2 = .010$   $p < .05$ ) despite its clear impact on cognitive performance ( $\eta^2 = .124$   $p < .001$ ) while class allocation caused no statistically significant change for the self-concept of the students of the weakest quintile.

<https://event.fourwaves.com/self-2022/abstracts/330e2e54-a400-4fbc-965b-3d0742556f04>

## 108 - Impacts of instructor ability mindset on undergraduate academic performance

Jaeyun Han<sup>1</sup>, Kristen Buford<sup>1</sup>, Ellen L. Usher<sup>1</sup>, Jennifer Osterhage<sup>1</sup>

<sup>1</sup>University of Kentucky

Implicit theories are beliefs about the malleability of human attributes, such as intelligence or academic ability (Dweck, 2011). Some people believe that ability is a trait that cannot be meaningfully changed—a fixed mindset; others believe that ability can grow as a result of effort and hard work—a growth mindset. Mindset researchers are increasingly adopting a broader ecological perspective to elucidate how context shapes students' ability mindsets and academic performance (Muenks et al., 2021). In undergraduate learning settings, contextual factors such as classroom and instructor-level characteristics shape student motivation, beliefs about learning, and achievement (Canning et al., 2019).

In this study, we examined whether undergraduate instructors' (N = 134) mindset beliefs about student ability, as well as students' (N = 6,864) perceptions of their instructors' ability mindset beliefs, were associated with student course performance. To replicate and extend previous research, we were also interested in whether this link depended on modality of instruction (fully online, hybrid, in-person) and academic area (STEM vs. non-STEM). Preliminary results revealed no significant association between instructor mindset beliefs about student ability and student end-of-term course grades ( $r = -.004$ ,  $p = .96$ ), but there was a negative association between student-perceived instructor fixed ability mindset and course grades ( $r = -.09$ ,  $p < .001$ ). Prior to the conference, we will update our analyses to account for the multi-level, nested nature of our data and to test our moderation hypotheses. Findings suggest that student perceptions of their instructors' ability mindset play an important role in their academic performance.

<https://event.fourwaves.com/self-2022/abstracts/d466fafa-fff6-4255-b8f4-93372c42fe6c>

## **107 - It's Not about Quantity, But Quality: The Effects of Extracurricular Activities Motivation on High-School Students Across Cultures**

Jérémie Verner-Filion<sup>1</sup>, Anne C. Holding<sup>2</sup>, Isabelle Gingras<sup>3</sup>, Richard Koestner<sup>3</sup>

<sup>1</sup>Université du Québec en Outaouais, <sup>2</sup>New York University, <sup>3</sup>McGill University

There is growing interest in the developmental consequences of extracurricular activities and the effects they might have on school achievement and adaptation. Using a Self-Determination Theory (SDT) framework, this study investigated the effects of motivation for extracurricular activities on indicators of students' functioning including academic motivation, need satisfaction in school, subjective overscheduling, mood in school, perceived stress in school and dropout intentions in a sample of 886 high-school students ( $M_{\text{age}} = 14.95$ ,  $SD_{\text{age}} = 1.77$ ) in four countries, namely China ( $n = 267$ ), the USA ( $n = 281$ ), Canada ( $n = 195$ ), and France ( $n = 143$ ). Furthermore, teacher-reports of students' motivation, self-efficacy, optimism, and schooldays missed were collected for a sub-sample of the Canadian, American and French samples ( $N = 219$ ). Findings revealed that across cultures, autonomous motivation for extracurricular activities was positively associated with indicators of academic engagement and adaptation for student and teacher-rated outcomes. Additional analyses revealed that these effects were mediated by autonomous academic motivation and need satisfaction in school while being invariant across cultures. Together, these findings underscore the benefits of extracurricular activities across cultures for pertinent outcomes related to academic engagement and adaptation.

<https://event.fourwaves.com/self-2022/abstracts/c7221245-6f03-418d-8d3c-b8c8655d618b>

## **106 - Lesson to lesson fluctuation in children's peer relations and motivational beliefs as predictors of motivation and BFLPE**

Satu Koivuhovi<sup>1</sup>, Sirkku Kupiainen<sup>1</sup>, Mari-Pauliina Vainikainen<sup>2</sup>

<sup>1</sup>University of Helsinki, <sup>2</sup>Tampere University

The influence of peers or classmates on individual students' learning has been studied extensively in educational sciences. For long, it was unclear whether observed peer influences were caused by similar learners seeking each other's company or peers becoming more alike over time. Recent research supports the latter and shows that peers do matter. Also peer influence on academic self-concept has been studied extensively. Strong evidence supports the big-fish-little-pond effect (BFLPE), which states that the average achievement level of peers predicts negatively individual student's academic self-concept.

Children's peer relations and motivational beliefs are context-dependent and dynamic, but relatively few studies have investigated them at the situational level. Therefore, we examine how children's peer networks and motivational beliefs fluctuate during the school day and whether children's lesson-related motivational beliefs are similar with their peers' beliefs. In addition, we examine how children's situational lesson-related motivational beliefs predict their later motivational beliefs and investigate whether the average achievement of children's fluctuating peer groups predict their later competence beliefs (BLFPE).

The data collection is scheduled for February–May 2022 in one lower secondary school in Southern Finland as a part of a nationwide study. All 13 to 16-year-old students (n=247) will participate. Students take pre- and post-tests including cognitive tasks and self-evaluative motivational scales. During the four-day intensive data collection, the students receive mobile questionnaires after each lesson assessing motivational beliefs and peer relations. Stochastic actor-based modelling will be applied for detecting peer groups, and dynamic structural equation modelling (DSEM) for answering the research questions.

<https://event.fourwaves.com/self-2022/abstracts/37cc5323-8827-4992-90e8-d0432859ef2a>

## 105 - Understanding the resilience process from teachers' perspectives

Tina Hascher<sup>1</sup>, Julia Morinaj<sup>1</sup>, Isa Krummenacher<sup>2</sup>, Irene Guidon<sup>2</sup>, Susan Beltman<sup>3</sup>, Caroline Mansfield<sup>4</sup>

<sup>1</sup>University of Bern, <sup>2</sup>University of Bern and University of Teacher Education Bern,

<sup>3</sup>Curtin University, <sup>4</sup>The University of Notre Dame, Fremantle

Around the globe, teachers face a variety of challenges (Day & Gu, 2014). Thus, it is important to understand how teachers navigate challenges and problems and how they stay vital, healthy, and motivated in their profession. Among other factors, teacher resilience seems to be key in maintaining teacher professional wellbeing (Beltman et al., 2011; Mansfield et al., 2016). Recently, Hascher, Beltman and Mansfield (2021) have introduced the Aligning Wellbeing and Resilience in Education (AWaRE) Modell that aims to explain the interplay of wellbeing and resilience in education. The basic idea of this model is to describe a resilience process prompted through appraisals and emotions with following coping loops that are activated when wellbeing is under threat.

This qualitative study aims at investigating the resilience process as proposed in the AWaRE model. Semi-structured interviews (conducted in spring/summer 2021) with N=29 teachers from different school forms in (country) were analyzed to identify the coping strategies that teachers apply to challenging situations and the outcome of this use to the change in their wellbeing. Using qualitative content analysis, first results showed that school principals, parents, and student heterogeneity are major contextual challenges whereas collegial support, team teaching, and school governance are important contextual resources. Problem-solving that capitalizes on social support was used as a frequent coping strategy. As regards individual factors, openness, and flexibility as well as self-efficacy were found to be helpful in maintaining or restoring wellbeing. Results are discussed regarding opportunities to support a successful resilience process.

<https://event.fourwaves.com/self-2022/abstracts/e573cfb0-42ac-4438-b851-1c45e420e834>

## **104 - FOSTERING NEED CRAFTING AMONG STUDENTS: TESTING THE EFFECTIVENESS OF LIFECRAFT, AN ONLINE PREVENTION PROGRAM.**

Daphne van den Bogaard<sup>1</sup>, Nele Laporte<sup>1</sup>, Katrijn Brenning<sup>1</sup>, Bart Soenens<sup>1</sup>, Maarten Vansteenkiste<sup>1</sup>

<sup>1</sup>Ghent

When transitioning to higher education, students face several developmental challenges related to their basic psychological needs (i.e., autonomy, relatedness and competence) including increased independency, building up a new social network and exploring new skills. While this period can sometimes be frustrating and stressful, it also creates unique opportunities to grow towards more wellbeing, more life satisfaction and more resilience. Therefore this period seems interesting to train the skill of need crafting (i.e. proactively seek need satisfying experiences). In this study we test the online prevention program LifeCraft. LifeCraft aims to train the skill of need crafting by increasing awareness about the psychological needs and by stimulating proactive behavior to act upon this awareness. The 2 week program consist of 6 modules in which psychoeducation, tips, witnesses and reflection exercises are offered together with 6 action challenges.

Method. The study will be launched in February 2022 and analyzed before the conference. This study is an 2x2 experimental design to test the hypotheses that 1. LifeCraft contributes to students' wellbeing, life satisfaction and resilience by increasing the skill of need crafting. 2. Students receiving the added consolidation module will benefit longer from the effects of LifeCraft. 3. Students receiving Whatsapp support will be higher involved and therefore benefit more from the program. Latent Change modelling is used to analyze the data. Conclusion. Confirmation of our hypotheses would imply training need crafting contributes to students' resilience, life satisfaction and wellbeing. It would also point out improvements for LifeCraft.

<https://event.fourwaves.com/self-2022/abstracts/0ba6e14d-0895-430f-8545-1b5742f2e38e>



## 103 - Self-concept formation in agency and communion

Alexandra Petrak<sup>1</sup>, Friederike Helm<sup>1</sup>, Fabian Wolff<sup>2</sup>, Jens Möller<sup>1</sup>

<sup>1</sup>Kiel University, <sup>2</sup>University of Koblenz-Landau

Dimensional Comparison Theory (DCT) assumes that dimensional comparisons (comparing one's abilities in two domains) not only take place in the academic domain but, more generally, when an individual forms domain-specific self-concepts in different areas of life. Helm, Abele, Müller-Kalthoff, and Möller (2017) found indications for dimensional comparison effects in the formation of self-concepts in the area of personality. These authors path-analytically regressed students' self-concepts of their characteristics in the personality areas "agency" (competitiveness, assertiveness) and "communion" (empathy, agreeableness) on teacher-ratings in these traits, understood as indicators of the feedback students get about their characteristics. The present study is a conceptual replication of the study by Helm et al. and aims to test whether the authors' findings replicate longitudinally. We used data of N = 507 high-school students from 8th to 10th grade, and their 30 corresponding teachers. We regressed present agentic and communal self-ratings (end of school year) on prior teacher-ratings (mid-term) while controlling for prior self-ratings. The results showed no significant associations between prior teacher-ratings and non-corresponding present student self-concepts, indicating no dimensional comparisons between teacher-ratings. Yet, negative associations were shown between prior student self-concepts and present self-concepts in the non-corresponding domain, indicating dimensional comparisons between former self-concepts, taking effect on present self-concepts. Our results thus support the assumptions of DCT in a different manner than assumed – former self-concepts seem to play a more important role for dimensional comparisons in the formation of agentic and communal self-concepts than feedback by others.

<https://event.fourwaves.com/self-2022/abstracts/297a8b29-21e1-4563-9bef-1d38a2a1bebb>

## **102 - Parents' perception of their adolescent's psychological need satisfaction predicts their adolescent's self-reported need satisfaction**

Vanessa Kurdi<sup>1</sup>, Noriaki Fukuzumi<sup>2</sup>, Ryo Ishii<sup>3</sup>, Ayame Tamura<sup>4</sup>, Naoki Nakazato<sup>5</sup>, Kazuhiro Ohtani<sup>6</sup>, Shin-ichi Ishikawa<sup>4</sup>, Takashi Suzuki<sup>7</sup>, Michiko Sakaki<sup>1, 7, 8</sup>, Kou Murayama<sup>1, 7, 8</sup>, Ayumi Tanaka<sup>4</sup>

<sup>1</sup>University of Reading, <sup>2</sup>Kochi University, <sup>3</sup>Nara University of Education, <sup>4</sup>Doshisha University, <sup>5</sup>Oita University, <sup>6</sup>Hokkaido University, <sup>7</sup>Kochi University of Technology, <sup>8</sup>University of Tübingen

The self-determination theory posits that all humans have three basic psychological needs of autonomy, competence, and relatedness that are satisfied through social contexts (Ryan & Deci, 2000). While studies have documented the importance of basic psychological need satisfaction in parent-child relationships (e.g., Joussemet et al., 2014; Ratelle et al., 2021), a gap remains in understanding how parental and adolescent need satisfactions are associated. To respond to this gap, this study examined whether (1) parents' need satisfaction predicts adolescents' need satisfaction (parental needs effect), (2) adolescents' need satisfaction predicts parents' need satisfaction (child's needs effect), and (3) parental perception of adolescent's need satisfaction, a possibly influential point of view, predicts adolescents' need satisfaction (parental perception effect). Two Japanese longitudinal (two waves) intergenerational datasets were used to attain our research aims: the first included 200 parent-adolescent dyads (78% mothers; 55% girls;  $M_{age} = 14$ ), and the second included 408 mother-adolescent dyads (52% girls;  $M_{age} = 14$ ). Findings from cross-lagged path models only supported parental perception effects: parents' T1 perception of their adolescent's need satisfaction predicted their adolescent's T2 self-reported need satisfaction, especially for autonomy and competence needs. In other words, the more a parent thinks their adolescent's needs are satisfied, the more their adolescent will then report having their needs met. Furthermore, the effects were not mediated by autonomy-supportive or controlling parenting practices. Findings highlight the importance of parents' perceptions, which may benefit the design of new interventions on basic psychological needs. Preprint here: <https://doi.org/10.31234/osf.io/wpgvt>

<https://event.fourwaves.com/self-2022/abstracts/b9873699-1e03-40c2-80dd-cd865cec92b1>

# 101 - Comparisons in Everyday Life

Alexandra Petrak<sup>1</sup>, Jens Möller<sup>1</sup>, Fabian Wolff<sup>2</sup>

<sup>1</sup>Kiel University, <sup>2</sup>University of Koblenz-Landau

Students compare their abilities in one domain with those of their peers (social comparisons), their achievements over time (temporal comparisons), and their achievements in other domains (dimensional comparisons). Separate diary studies confirmed that social, temporal, and dimensional comparisons occur in everyday life with consequences for mood states and motivational variables.

The present study is the first to examine the frequency and direction (upward, lateral, downward) of all three comparison types in everyday life in one study. Over one week, N = 136 university students (Study 1) and N = 103 high-school students (Study 2) recorded their spontaneous comparisons concerning the academic domain (Study 1: 1,123 comparisons, mean = 8.3; Study 2: 488 comparisons, mean = 4.7). In line with prior studies, we expected mostly social and more temporal than dimensional comparisons. We found in both samples the expected frequency of the three comparison types (Study 1: social: 56.6%, temporal: 35.4%, dimensional: 21.7%; Study 2: social: 70.3%, temporal: 24.0%, dimensional: 7%).

Chi-square tests showed significant interaction effects between comparison type and comparison direction in both samples (both  $\chi^2(4) \geq 16.063$ ,  $p < .01$ ). Whereas university students executed more social upward comparisons, high-school students preferred social lateral comparisons. In contrast to university students, high school students preferred temporal downward comparisons. In both samples, dimensional comparisons were equally often upward and downward directed.

Our results draw light to the relation between comparison type and direction in everyday life.

<https://event.fourwaves.com/self-2022/abstracts/66095635-b742-4ad2-9737-49899b9b49ed>

## 100 - The need to differentiate introjected regulation

Sonja Bieg<sup>1</sup>, Florian H. Müller<sup>2</sup>, Almut E. Thomas<sup>3</sup>

<sup>1</sup>University of Education Weingarten, <sup>2</sup>University of Klagenfurt, <sup>3</sup>Institute of Pedagogy of Elementary and Primary Education

The focus of the present study is introjected regulation within Self-Determination Theory which describes behavioral reasons to promote ego involvement with a focus on approval from the self and others. Previous studies have shown that a distinction between approach and avoidance within introjected regulation show differentiated correlations to intrinsic, identified regulation, the three basic needs, well-being, and negative affect. The aim of this study is to investigate four factors of introjection representing the approach/avoidance component and the approval of self and others. We were further looking for associations with well-being and anxiety.

We conducted our study with a sample from universities from Germany and Austria, N = 409 students (84% female) with a mean age of M = 24.3 (SD = 5.96). Results of confirmatory factor analyses show that a differentiation of introjected regulation into an approach and avoidance component with a focus on approval of others or self fits the data better than a model with one-Factor for introjection ( $\chi^2 = 331.62$ ; df = 131; p < .000; CFI = .935; TLI = .915; RMSEA = .062, SRMR = .046). Furthermore, a bifactorial model fits the data well ( $\chi^2 = 59.65$ ; df = 23; p < .000; CFI = .976; TLI = .954; RMSEA = .063, SRMR = .034) and confirms the theoretical postulations. The introjected approach regulation with focus on the self is positively related with well-being whereas the introjected avoidance regulations (focus on self and others) are negatively related with well-being and positively with anxiety.

A differentiation of introjected regulation helps to evaluate the quality of motivation more reliable.

<https://event.fourwaves.com/self-2022/abstracts/8174b3bc-a7c6-4cba-9619-8a889fb24f3b>

## **97 - The Role of Students' Passion and Emotions in Complete Versus Partial Resilience Following Failure**

Sonia Rahimi<sup>1</sup>, Virginie Paquette<sup>1</sup>, Robert Vallerand<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

Resilience is defined as the ability to recover and to return to normal, or near normal, levels of functioning after facing adversity (Bonanno, 2005; Fletcher & Sarkar, 2013; Rutter, 1979). Few studies have examined resilience to discern its presence in different life areas with passionate individuals. Thus, the overarching objective of the present research was to assess resilience following failure in a multifaceted manner, as well as test the mediating role of emotions in the resilience process of passionate students. A passion-resilience model was proposed and tested in three studies (Study 1: n = 320, Study 2: n = 319, Study 3: n = 236) where students were assigned to experimentally manipulated failure/success conditions. It was hypothesized that failure would positively predict negative emotions and negatively predict positive emotions, HP would positively predict positive emotions, and negatively predict negative emotions, and OP would positively predict negative emotions and, to a lesser degree, positive emotions. In turn, positive emotions were assumed to promote complete resilience both within and outside the domain students were passionate about (academia), while negative emotions were assumed to hinder resilience. Results provided support for this model. Failure led to no resilience in all three studies, HP facilitated complete resilience in all three studies, and OP led to partial resilience in Studies 1 and 2 and no resilience in Study 3. Implications for the field of resilience and future research on passion are drawn.

<https://event.fourwaves.com/self-2022/abstracts/57dad17a-6202-433e-9ca5-8d803d49e162>

## **96 - Autonomy support as a predictor of primiparous mothers' subjective well-being when returning to work following a 1-year parental leave**

Laurence Bélanger-Trudelle<sup>1</sup>, Julie C. Laurin<sup>1</sup>, Anne-Sophie Huppé<sup>1</sup>, Alexandra Cournoyer<sup>1</sup>

<sup>1</sup>Université de Montréal

The return to work after parental leave represents a period that may affect the well-being of some primiparous mothers. This study explores the relationship between maternal perception of partner autonomy support during parental leave and maternal subjective well-being upon return to work, beyond specific leave conditions (maternal fatigue), maternal characteristics (age), child characteristics (age, temperament), and family characteristics (family income). Data from 151 primiparous mothers, recruited to complete online questionnaires when their babies were approximately 6 (T1) and 11 months old (T2) were analyzed. Multiple regression was conducted in SPSS. Results suggest that perceived autonomy support positively predicts life satisfaction and negatively predicts negative affect. Surprisingly, autonomy support did not appear to positively predict positive affect; fatigue subsumed all variance in the model.

<https://event.fourwaves.com/self-2022/abstracts/466ee5e0-dcc0-48ef-975e-fa0b0993582d>

## **95 - Introducing a pictural scale to measure leader identity: A new avenue for the study of complex constructs**

Moïra Rault-Bélisle<sup>1,2</sup>, Sébastien Héту<sup>1,2</sup>, Simon Grenier<sup>1,2</sup>

<sup>1</sup>Psychology Department, <sup>2</sup>Montreal University

Identity is a difficult construct to measure. This is also the case in the leadership literature where several scales have been proposed to measure leader identity. Our study aims to compare different measures of leader identity and to introduce a new way to measure this concept: a pictural scale. We compare two short literal scales taken from Hiller (2005) and Hammond and al. (2017) to a pictural scale of inclusion of leadership in the self, adapted from Aaron and al.'s "Inclusion of the Other in the Self Scale" (1992). The pictural scale, the descriptiveness measure of Hiller's "Leadership Self-Identity Scale" (HLS; 2005) and four items chosen from Hammond and al.'s four-factor model (HLI; 2017) (strength, integration, level of inclusiveness and meaning) were completed by 31 adult participants (23 women). Correlation analysis show a strong positive significant correlation between the two literal scales ( $r = .755$ ;  $p < 0.01$ ). Moderate significant correlations are found between the pictural scales and HLS ( $r = .485$ ;  $p < 0.01$ ), as for HLI ( $r = .429$ ;  $p < 0.05$ ). Results indicate that our pictural scale could be an alternative way to measure leadership, as for measuring the complex concept of integration of leadership in the self. This has implications for studying populations with difficulties concerning introspection or language comprehension, populations with which it's impossible to use scales such as HLS and HLI. We recommend to conduct further studies to explore the validity and reliability of pictural scales for the evaluation of leader identity and other potential complex identity measures.

<https://event.fourwaves.com/self-2022/abstracts/c35f2ac8-0f34-4b86-9043-662e8c767e73>

## 93 - Assessing mentors' Facilitation of Basic Needs for Post-Secondary Students with Intellectual Disabilities

James Van Haneghan<sup>1</sup>, Alexandra Chanto-Wetter<sup>1</sup>

<sup>1</sup>University of South Alabama

One goal of post-secondary programs for students with intellectual disabilities (ID) is to facilitate self-determination. Self-determination Theory posits that contexts that support the basic needs of autonomy, competence, and relatedness facilitate self-determination. Post-secondary programs commonly use mentors for the students with ID. Mentors interact with students in academic, work, and social contexts. How they respond to the students could impact levels of self-determination. Thus, developing an assessment of mentors' responsiveness to needs may provide useful information for research on mentors' support of basic needs.

We developed a situational judgment task that sampled 17 academic, work, and social scenarios. Three responses to each situation were rated on a 1 (very ineffective) to 7 (very effective) scale. Scores were based on the number of times the most self-determined response was rated highest. We collected initial reliability and validity data from three samples: Students knowledgeable of special education (N = 52), introductory biology students (N = 64), and psychology students (N=40).

We calculated Cronbach's alphas for the first two samples and found the levels to be acceptable (.83 and .88). In order to provide criterion validity evidence, we administered the Sheltering Scale from the CLAS-ID. The Sheltering scale measures beliefs that people with ID need to be sheltered from the outside world. High scores on sheltering indicate lesser belief in self-determination. We found negative correlations between Sheltering scores and Situational Judgment Task scores in each samples ( $r = -.32$ ,  $r = -.29$ , and  $r = -.51$ ). Thus, these data provide initial reliability and validity evidence.

<https://event.fourwaves.com/self-2022/abstracts/561bff19-500f-4817-bae8-4527a9538328>



## **92 - The Internal Dynamics of Affective, Cognitive and Behavioural Engagement in Math: Contribution of Student Anxiety and Opposition-Defiance**

Isabelle Archambault<sup>1</sup>, Sophie Pascal<sup>1</sup>, Elizabeth Olivier<sup>1</sup>, Véronique Dupéré<sup>1</sup>, Michel Janosz<sup>1</sup>, Corinne Hébert<sup>1</sup>

<sup>1</sup>Université de Montréal

Children presenting anxious and oppositional-defiance behaviours are at increased risk of presenting lower affective, cognitive, and behavioural engagement over time (Olivier, Morin, et al., 2020). Theory and research conducted among adolescents also partially endorse the existence of a downward spiral connecting the three dimensions of engagement in a hierarchically structured manner (Ellis & Ashbrook, 1988; Hawthorne et al., 2019; Li & Lerner, 2013). Yet, the mediation processes linking student anxiety and opposition-defiance to a deterioration of affective, cognitive, and behavioural engagement have to be further investigated. Based on a sample of 460 elementary school students (4<sup>th</sup>-6<sup>th</sup> grade; 48% boys) from Montreal (Canada) followed across two consecutive years, the present study aimed to assess how anxiety and opposition-defiance in children contribute or not to a decrease in their short- (over the school year) and longer-term (after one year) affective, cognitive, and behavioural engagement in math.

Results indicated that students presenting signs of anxiety or opposition-defiance at the beginning of the school year reported lower math engagement by the end of the year and the following year. Of even greater clinical significance, results also highlighted the presence of a downward spiral linking student anxiety and opposition-defiance with a decline in affective, cognitive, and behavioural engagement in math. These mediating processes are important for understanding how student difficulties contribute to their feelings during math activities, which can pose longer-term risks to self-regulation, and subsequently to their behavioural investment in this subject. These results will be further discussed.

<https://event.fourwaves.com/self-2022/abstracts/3e7dbcad-e678-4d84-ba3f-475c816fb371>

## **91 - Determinants of parental psychological need satisfaction at the beginning of their child's schooling**

Geneviève Boisclair Châteauvert<sup>1</sup>, Catherine F. Ratelle<sup>1</sup>, David Litalien<sup>1</sup>, Stéphane Duchesne<sup>1</sup>, André Plamondon<sup>1</sup>, Julien Bureau<sup>1</sup>

<sup>1</sup>Université Laval

Parents' involvement in their child's schooling is recognized as a key predictor of student learning and academic success. Hence, understanding the factors that promote or hinder parents' ability to adequately support their child's schooling is essential. Self-determination theory posits that individuals behave more optimally and engage more positively with others (e.g., with their child) when their psychological needs (autonomy, competence, and relatedness) are satisfied. This study aimed to identify the factors that support or thwart parental psychological needs at the beginning of their child's schooling.

Data comes from a longitudinal study involving a stratified sample of 1,448 parents (76% women) that completed an online questionnaire measuring need satisfaction and frustration as well as predictors that can be grouped into parental factors (e.g., values, self esteem), child factors (e.g., school competence), environmental factors (e.g., work, family), and school factors (e.g., school climate).

Our preliminary results showed that parents reported their needs as being highly met and weakly frustrated. Parents' need for autonomy was the least satisfied and more frustrated need.

Child factors more strongly predicted parental needs, especially children school competence and having a child with special needs (e.g., ADHD). Several parental factors were also important predictors, the main ones being their intrinsic values, self-esteem, and education level. Among the school factors, the quality of the relationship with their child's teacher and the school climate were most important predictors.

These findings are examined with respect to their contribution to the literature on parental involvement and to educational interventions and family-school partnerships.

<https://event.fourwaves.com/self-2022/abstracts/a9e55d4f-76b8-4925-99c6-95523b61966f>

## 90 - UNIVERSITY STUDENTS' SLEEP DURING AN EXAM PERIOD: THE ROLE OF DIFFERENT TYPES OF MOTIVATION AND TEST ANXIETY

Marlies Van de Castele<sup>1</sup>, Branko Vermote<sup>1</sup>, Maarten Vansteenkiste<sup>1</sup>, Bart Soenens<sup>1</sup>, Koen Ponnet<sup>1</sup>

<sup>1</sup>Ghent University

Although previous research found that university students' sleep during an exam period can get severely compromised, making it a critical period to study sleep (e.g., Zunhammer et al., 2014), much less is known about which psychological factors and learning attitudes may impact students' sleep outcomes during this demanding academic period. Therefore, the current study aims to investigate how qualitatively different types of motivation, as outlined within Self-Determination Theory (Ryan & Deci, 2017), influence university students' sleep and energy before and during exams. A second aim was to examine test anxiety as a potential intervening mechanism.

In the present short-term longitudinal study, 121 students ( $M_{\text{age}} = 21.69$ , 78% female) were assessed on their study motivation, test anxiety and sleep-related functioning, before and during an exam period. From pre-exam to exam period, sleep outcomes and study motivation seemed to deteriorate, while test anxiety increased. Results from path analyses displayed indirect effects of controlled motivation on poor sleep and daily dysfunction via increased test anxiety (i.e., fully mediated), so that students feeling internally or externally pressured whilst preparing for exams experienced higher levels of test anxiety, putting them at risk for insufficient sleep and exhaustion. Contrary, autonomous motivation, partly through lower test anxiety, related to better sleep outcomes and more energy, highlighting the benefits of voluntary functioning for restorative sleep and vitality. These findings indicate that keeping university students more autonomously engaged and avoiding excessive pressure might help to prevent test anxiety and buffer against impaired sleep when preparing for exams.

<https://event.fourwaves.com/self-2022/abstracts/73623276-08ff-4c14-9ce5-dd7078c18373>

## **89 - May activism lower materialistic aspirations? – intervention project for teens**

Anna Maria Zawadzka<sup>1</sup>, Magdalena Iwanowska<sup>1</sup>, Aleksandra Lewandowska-Walter<sup>1</sup>,  
Blanka Kondratowicz<sup>1</sup>

<sup>1</sup>University of Gdańsk

The aim of this research project was to check how intervention related to participation in workshops on activism may produce changes in the area of materialistic and non-materialist aspirations of teens and their willingness to engage in activism and assume activist identity. Three intervention studies on high school teenagers were conducted. The key element of the project was participation of teens in a series of specially-designed workshops, during which they learned about activism is – what it is, how activists get motivation, how and where activists work, - and about selected forms of activist activities (e.g. writing petitions, participating in activist conservation events between workshops). The level of the studied variables was assessed twice - pre-test and post-test – using Kasser Aspiration Index, Activist Identity and Commitment Scale, and Inventory of Activist Activities. The number of activist events in which the teens participated was also controlled for. The results of the study showed that activating activism increases the awareness of undertaken activist activities and higher willingness to undertake such activities, and also weakens activist identity. What is more, the studies indicated that activism intervention is related to financial success aspirations. The obtained results broaden the existing knowledge of effective ways of designing activist interventions, which can help promote actions for the common good and decrease materialistic aspirations.

<https://event.fourwaves.com/self-2022/abstracts/4a8f9cd1-f5f6-49bf-bc0b-5e6cdb951f62>

## 88 - Does loving-kindness meditation increase giving behaviors?

Rémi Thériault<sup>1</sup>, Romane Masson<sup>1</sup>, Marion Archambault<sup>1</sup>, Stéphane Dandeneau<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

**Problem.** Altruistic, caring, and giving behaviors are essential for the optimal functioning of society and communities. Although loving-kindness meditation has a reputation for making people more kind, generous, and selfless, few studies have examined whether this is indeed the case, particularly in the case of charitable giving. **Contribution.** This study will contribute to the literature by clarifying whether or not loving-kindness meditation has real beneficial effects on behavior, beyond claims in popular culture and Eastern philosophies. **Methodology.** Three participant groups (~ 50 / group) have completed or will complete a donation (cash) task to 24 different charities after each completing a 6-week program. The meditation group listens to one guided love-loving-kindness meditation per week (~ 30 minutes), in addition to daily meditations (~ 10 minutes). The focus group listens to one podcast per week on the topic of loving-kindness (~ 30 minutes), in addition to daily readings (~ 10 minutes). Finally, the passive waiting list control group has no particular activity to do beyond completing the charity task. **Preliminary results.** Preliminary analyzes suggest that the three groups do not appear to differ in terms of the average amount given, at least immediately following the intervention. These findings somehow challenge popular feelings about the effects of loving-kindness meditation, but it could be that this was due to the online format of the intervention. Further analyses will clarify whether any effects emerge at 6-week follow-up post-intervention.

<https://event.fourwaves.com/self-2022/abstracts/4010af90-6ba3-4398-b799-b24ef0630c05>

## **87 - Impact of Change-Oriented Feedback on the Use of Signature Strengths and Psychological Need Satisfaction in Sport**

Caroline Galipeau<sup>1</sup>, Philippe Laliberté<sup>2</sup>, Joëlle Carpentier<sup>1</sup>, Pierre Sercia<sup>2</sup>, Maroua Salhi<sup>1</sup>, Jacques Forest<sup>1</sup>

<sup>1</sup>ESG - Université du Québec à Montréal, <sup>2</sup>Université du Québec à Montréal

Peterson and Seligman (2004) defined signature strengths (SS) as the five predominant strengths of an individual. The importance of evolving in an environment conducive to their use for the optimal functioning of individuals has been demonstrated many times in the workplace (e.g. Dubreuil et al., 2014). However, the impact of using SS in sport has received little attention. We therefore know little about the determinants and consequences of the use of these strengths in high performance athletes. Based on self-determination theory (Ryan and Deci, 2017), it is proposed that having a coach who provides need supportive change-oriented feedback (COF) (Carpentier and Mageau, 2013), promotes the use of SS by athletes. It is also postulated that athletes with more opportunity to use their SS will have higher levels of satisfaction of their basic psychological needs of competence, autonomy and relatedness. 80 Canadian athletes taking part in the selection for the National Dragon Boat Team participated in this study. Multiple regression results confirm that receiving COF is positively related to the use of SS by the athletes ( $b = 0.50$ ,  $p < 0.01$ ). As postulated, the use of those strengths is in turn positively related to the satisfaction of the athletes' psychological needs ( $b = 0.19$ ,  $p < 0.05$ ). And when need satisfaction is regressed on both COF and SS use, the effect of COF on need satisfaction is still significant ( $b = .32$ ,  $p < .01$ ). The indirect effect of COF on need satisfaction via SS use is also significant ( $b = .10$ ,  $p < .01$ ).

<https://event.fourwaves.com/self-2022/abstracts/2eaf560f-2d54-42f5-9e50-048e0a7a92ca>

## **85 - Authentic leadership and basic psychological needs on employee vitality and emotional exhaustion: A study among call center employees.**

Jean-François Gagnon<sup>1</sup>, Sophie Drouin Rousseau<sup>2</sup>, Claude Fernet<sup>2</sup>, Stéphanie Austin<sup>2</sup>

<sup>1</sup>Université de Sherbrooke, <sup>2</sup>Université du Québec à Trois-Rivières

Conscious of their thoughts, values and strengths and of those of others, authentic leaders behave as a way to gain self-awareness, morality, transparency and to adopt a balanced information processing. They thus play a central role in creating healthy work environments that promote psychological well-being. Nonetheless, the theory has been relatively silent about the motivational mechanisms that could explain how authentic leadership behaviors contribute to an employee well- and ill-being. This study aims to examine whether the satisfaction of employees' needs for autonomy, competence and relatedness help explain the link between authentic leadership behaviors and two well-known indicators of ill- and well-being: emotional exhaustion (psychological state of fatigue at work) and vitality (psychological state of vigor at work). The data were gathered from a sample of 139 customer service agents from a call center in Québec, Canada. Mediation analyses were performed using Mplus. Results showed that employees' perceptions of authentic leadership behaviors relate to their feeling of exhaustion and vitality via the satisfaction of the need for autonomy. These results suggest that in order to maintain optimal affective functioning in their employees, leaders of call centers must achieve to act in an authentic manner as a way of supporting autonomy. Theoretical and managerial implications will be discussed.

<https://event.fourwaves.com/self-2022/abstracts/a7bb81a0-c15c-4f99-81ce-3a00aa42069b>

## **84 - Investigation of recuperation strategies : how could they reduce the spillover effect of work-related stress on positive and negative affect of employees outside of work?**

Felix A. Proulx<sup>1</sup>, Gabrielle Beaupré<sup>2</sup>

<sup>1</sup>Université de Montréal, <sup>2</sup>Université du Québec à Montréal

Previous research has shown that rest-time outside of work is essential for the physical and psychological functioning of employees (Sonnentag et al., 2017). While most studies tend to theoretically separate work and personal life, the interest of this present study lies in the spillover effect of work-related affects to the personal sphere of employee's life, when they are in rest period. More precisely, this cross-sectional study aims to understand which recuperation strategies (i.e. detachment, relaxation, mastery and control) described by Sonnentag and Fritz (2007) can reduce the negative impact of stressors at work on psychological well-being of employees during rest-time. The results of this study (n=114) reveal that control strategy moderate the existing relationship between role conflict and positive/negative affects at rest. Likewise, detachment and relaxation strategies moderate the positive relationship between role ambiguity and negative affects at rest. The practical and theoretical implications of these results point to the importance of recuperation during rest-time, for a better quality of life in and outside of work.

<https://event.fourwaves.com/self-2022/abstracts/893c348f-d0ca-4db6-9fa3-3ef33e64a6fa>



## **82 - Exploring contrast and assimilation effects during the first year of high school in selective and non-selective schools**

Isabelle Plante<sup>1</sup>, Catherine Fréchette-Simard<sup>1</sup>, Kathryn Chaffee<sup>1</sup>, Annie Dubeau<sup>1</sup>, Frédéric Guay<sup>2</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Université Laval

A great deal of research provides empirical support for both contrast and assimilation effects in school. While considerable evidence indicates that academic self-concept decreases when students engage in social comparisons with a high-ability reference group (a negative contrast effect, a.k.a. Big-Fish-Little-Pond effect, Marsh, 1987; Marsh & Parker, 1984), other research instead shows that belonging to a high-ability group makes students feel positive about their abilities – a so-called assimilation effect (Marsh, Chessor, Craven, & Roche, 1995). The current study examined whether and how the reference group influenced students' academic self-concept, motivation (expectancies and task values) and achievement in mathematics and language arts during the transition from a non-selective public elementary school to either a non-selective public high school (n = 789) or a private or selective public high school (n = 781). Results of multilevel analyses revealed that after controlling for students' achievement in grade 6 and at the beginning of high school, group mean scores in mathematics were positively related to students' motivation and grades in mathematics. Similarly, group mean scores in language arts positively influenced students' motivation at the beginning and at the end of the first year of high school as well as their beginning-of-year achievement in this domain. Such results suggest that during the transition to high school, assimilation effects outweigh contrast effects. In addition, these findings generally apply to both non-selective public schools and private or selective public high schools.

<https://event.fourwaves.com/self-2022/abstracts/f15454d3-d39d-48a7-bffb-45cb570ba370>

## **81 - Secondary Students' Achievement Goals in Math and Language Arts: Determinants and Outcomes**

Kathryn Chaffee<sup>1</sup>, Isabelle Plante<sup>1</sup>, Annie Dubeau<sup>1</sup>, Frédéric Guay<sup>2</sup>

<sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Université Laval

The types of achievement goals students set has been shown to have consequences for students' motivation and educational outcomes. Performance-approach goals (focused on achieving good grades and recognition) and mastery-approach goals (goals to learn as much as possible from the school subject) have been linked to positive educational outcomes (e.g. Lou & Noels, 2017), whereas mastery-avoidance and performance-avoidance goals have been primarily linked to maladaptive outcomes. One factor that may shape these goals is the classroom environment. In this study, we tested the relations between students' perceptions of the performance-approach, performance avoidance, and mastery goal structures of their classrooms at the beginning of the first year of secondary school and their own performance and mastery goals at the end of the academic year. We also measured students' classroom engagement and final grades. Data were gathered from 1,651 secondary school students. Results from path models revealed that in both math and language arts classes, students' perceptions of classroom mastery goal structures at the beginning of the school year positively predicted their subsequent adoption of mastery-approach goals, and perceptions of classroom performance-avoidance goals predicted adoption of both performance-approach and performance-avoidance goals. In turn, students' final grades in math and language arts were predicted by their mastery goals at the end of the school year, but not by performance goals. Students' end-of-term engagement in language arts was positively predicted by mastery goals. In math, both students' mastery-approach goals and their performance-approach goals were associated positively with engagement.

<https://event.fourwaves.com/self-2022/abstracts/86cb13a2-e82f-40b3-b4cd-1775275f2827>

## **80 - The role of science learning activities for motivational-affective outcomes and career expectations in science, technology, engineering or mathematics (STEM): An international comparison of Germany and Canada.**

Anastasia Doroganova<sup>1</sup>, Gabrielle Beaupré<sup>2</sup>, Anja Schiepe-Tiska<sup>3</sup>, Geneviève Taylor<sup>2</sup>

<sup>1</sup>Technische Universität München, <sup>2</sup>Université du Québec à Montréal, <sup>3</sup>Universität Koblenz-Landau

Within the theoretical framework of the Expectancy-Value-Theory (Eccles & Wigfield, 2002) this study investigates the effect of different dimensions of inquiry-based learning activities (procedural, epistemic, and social) for students' STEM career expectations and the role of science self-efficacy and motivation as possible mediators, comparing Germany and Canada.

Previous studies found that different dimensions of inquiry-based learning activities were differentially related to STEM career expectations. While hands-on activities and interactions showed a positive effect, experiments were negatively associated with STEM expectations (Sheldrake et al., 2017; Taskinen et al., 2009). The role of motivational-affective outcomes as mediators in this relationship has been reported in some studies. However, previous research also showed direct effects between inquiry-based learning activities and STEM career expectations (Hampden-Thompson & Bennett, 2013).

Given previous PISA results (Schiepe-Tiska et al., 2016), we expect the mediation effect of science self-efficacy and motivation to be less impactful on STEM career expectation in Germany, than in Canada. Accordingly, a stronger direct effect of inquiry-based activities is expected in Germany compared to Canada.

Data drawn from PISA 2015 consists of two nationally representative subsamples of 20058 Canadian and 6504 German 15-year-old students. Preliminary results showed that science self-efficacy is positively related to STEM career expectations in both countries, while motivation only correlates positively in Canada. Further, all explored dimensions of inquiry-based activities correlate positively to STEM career expectations, except procedural activities, which correlate negatively in Canada and are non-significant in Germany. Further analysis including invariance test and multigroup analysis will be conducted and discussed.

<https://event.fourwaves.com/self-2022/abstracts/302f6f8b-54d0-4de0-b680-4ccb7ddfedb8>

## **79 - Effect of a short mindfulness-based exercise on career goal self-concordance and well-being among undergraduate students**

Gabrielle Beaupré<sup>1</sup>, Geneviève Taylor<sup>1</sup>, Kaspar Philipp Schattke<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

Based on Self-Determination Theory (SDT - Deci & Ryan 2000), self-concordant goal selection (e.g, autonomous motivation to pursue a goal) is related to higher well-being, while non-concordant goals can lead to negative outcomes. For example, choosing an academic program for controlled reasons predicts psychological distress, poorer academic results, and a greater risk of dropping out of school (Guay, Ratelle et Chanal, 2009; Taylor et al., 2014). This is important because students often worry about their career choices, and this can generate psychological distress. Previous research has shown that higher levels of dispositional mindfulness, a non-judgmental awareness of sensations, thoughts and emotions (Kabat-Zinn, 2009), are positively associated with self-concordant goal-setting (Brown & Ryan, 2003). Moreover, studies have shown that mindfulness-based interventions can reduce stress and depressive symptoms and increase well-being. However, most studies have focused on intensive and long-term interventions, and few studies have examined the effects of brief mindfulness-based exercises. The present experimental study aimed to evaluate the impact of a short mindfulness-based exercise (15 minutes) on goal self-concordance and well-being among university students. Participants (N=61) were randomly assigned to an experimental (body scan exercise) or control condition (magazine reading). All participants then set career goals based on a fictional scenario. State mindfulness, self-concordance, life satisfaction, positive affect and negative affect were evaluated. Results show that the body scan exercise significantly increased state mindfulness and two components of well-being: life satisfaction and positive affect. Theoretical and practical implications will be discussed.

<https://event.fourwaves.com/self-2022/abstracts/d0c8f8a0-900c-4f84-84f7-a3b5c9bc3746>

## **77 - Finnish lower secondary schools' hidden ability grouping: Relation to learning outcomes, motivation, and educational choice**

Sirkku Kupiainen<sup>1</sup>, Ninja Hienonen<sup>1</sup>, Satu Koivuhovi<sup>1</sup>

<sup>1</sup>University of Helsinki

Small between-school differences in the OECD PISA have been seen to indicate equality of Finnish education. In TIMSS 2011, however, Finland stood out among the Nordic countries with high between-class differences (Hansen et al., 2014). Drawing on longitudinal data of Helsinki lower secondary schools (grade 7 to 9, N = 4,000), we look at the impact of selective class-formation on students' cognitive competence, learning motivation, and school achievement. The attitudinal scales comprise agency beliefs (e.g. Chapman et al., 1990), academic self-concept (e.g. Marsh, 1990), and goal orientation (e.g. Elliot & Dweck, 1988).

It was found that 36% of students studied in selective classes based on a special curricular emphasis and aptitude testing, and 5% in small classes for SEM students. Half of the selective classes were based on an academic subject (e.g., language, mathematics) and half on a non-academic subject (e.g., music, sports). Students in the selective classes outperformed students in the other classes in cognitive competence with the difference growing from grade 7 to grade 9 ( $\eta^2 = .276$  vs.  $\eta^2 = .434$ ,  $p < .001$ ) but the difference in GPA did not reflect this change ( $\eta^2 = .391$  vs.  $\eta^2 = .391$ ,  $p < .001$ ), indicating a possible source for BFLPE (see Wolff et al., 2021). Differences and change in motivational attitudes were small for both grade levels ( $\eta^2 = .004-.031$ ,  $p < .01/.001$ ), possibly indicating a joint impact of BFLPE and BIRGE. In the presentation, we will explore the phenomenon pairing students of selective and non-selective classes by propensity scoring.

<https://event.fourwaves.com/self-2022/abstracts/81f46d10-3cb1-4dff-9c78-3ffcf12c4895>

## **75 - Nurturing adolescents' identity development. The role of autonomy-supportive parenting and parents' own experience of an authentic inner compass**

Branko Vermote<sup>1</sup>, Bart Soenens<sup>1</sup>, Maarten Vansteenkiste<sup>1</sup>, Charlotte Schrooyen<sup>1</sup>, Wim Beyers<sup>1</sup>

<sup>1</sup>Ghent University

The formation of a mature identity is a key developmental challenge for adolescents (Erikson, 1968), with parents playing a critical role herein. In the present study, we sought to identify the roots of adolescents' identity development, thereby considering both the role played by parents' own sense of having an authentic inner compass and their reliance on a variety of autonomy-supportive strategies. Specifically, apart from considering the role of parents' perspective-taking and offer of choice, we additionally considered the role of several identity-specific autonomy-supportive practices, such as parents' Reflective Authentic Inner Compass Facilitation (RAIC) and their Inherent Value Demonstration (IVD).

The present study was conducted among 290 parent-child dyads, with one and child reporting on identity development and autonomy-supportive parenting in general and with respect to identity-development in particular. Results show first that, after including RAIC and IVD, all direct and indirect effects from autonomy support to the authentic inner compass and identity development became insignificant for the adolescents' reports. Second, both RAIC and IVD were, directly and indirectly, related to more exploration by the adolescent. This was, however, not found in the data from the parents. Third, indirect effects from Reflective authentic inner compass facilitation and inner value demonstration to commitment and rumination via the authentic inner compass were also observed, but only for the adolescents' reports. Fourth, parents' own experience of having an authentic inner compass relates to the authentic inner compass of their offspring. This effect goes through RAIC and IVD as perceived by the adolescent.

<https://event.fourwaves.com/self-2022/abstracts/10ad65ea-489a-461d-98bc-d2ae5239e190>

## **73 - Intraindividual dynamics of state academic self-concept and perceived achievement in everyday school life: An experience-sampling study**

Christoph Niepel<sup>1</sup>, Herbert W. Marsh<sup>2</sup>, Jiesi Guo<sup>2</sup>, Reinhard Pekrun<sup>2</sup>, Jens Möller<sup>3</sup>

<sup>1</sup>Department of Behavioural and Cognitive Sciences, University of Luxembourg,  
<sup>2</sup>Institute for Positive Psychology and Education, Australian Catholic University, <sup>3</sup>Institute for Psychology of Learning and Instruction, Kiel University

Academic achievement and academic self-concept have been found to be reciprocally related and mutually reinforcing across time. So far, existing research has focused on interindividual (between-person) relations across longer periods of time. This is problematic in that findings from interindividual approaches do not necessarily correspond to those from intraindividual (within-person) approaches. Furthermore, a study examining short-term dynamics of self-concept and achievement in real time – as it is possible with intensive longitudinal data – seems to be missing.

To close this gap, the present study investigated intraindividual dynamics of students' momentary (state) self-concept and lesson-specific perceived achievement (i.e., self-reported comprehension) from one school lesson to the next. Here, we focused on mathematics.

We implemented an experience-sampling (e-diary) study and examined data from 372 German ninth and tenth graders over a period of 3 weeks after every mathematics lesson. State mathematics self-concept and lesson-specific perceived achievement were each assessed with 3 items. A multilevel confirmatory factor analysis confirmed the 2-factor structure at the within and the between level. Lesson-specific perceived achievement showed more intraindividual variation over time than state self-concept. We used dynamic structural equation modeling in Mplus and specified a multilevel first-order vector autoregressive model.

We found intraindividual reciprocal relations between state self-concept and perceived achievement on a lesson-to-lesson basis. We discuss our findings with respect to their practical and theoretical implications.

Note. This research has already been published.

<https://event.fourwaves.com/self-2022/abstracts/8e31aa6c-7269-4aab-b9a6-2cb09bf8bfa6>

## **72 - The source of teacher satisfaction – examining the relationship among basic psychological need, social support and well-being of Hong Kong secondary school teachers**

Bick Har LAM<sup>1</sup>, Lan YANG<sup>1</sup>, Eric Chi Keung CHENG<sup>1</sup>, Rebecca Wing Yi CHENG<sup>1</sup>,  
Jasmine Yan Kiu NG<sup>1</sup>

<sup>1</sup>The Education University of Hong Kong

Social support is a feature of instructional behaviour, it is an engaged behaviour of enthusiastic teachers. As an altruistic behaviour, teachers' social support to students has been regarded as a factor that impact teachers' well-being, however, this factor has yet to explore. The present study attempts to fill such research gap.

The paper first reports a survey study based on 309 Hong Kong teachers. The path analysis results showed that Psychological Need Satisfaction at Work (BPNW) significantly predicts the three indicators of well-being, i.e. Psychological Meaningfulness, Health and Work Engagement. The predictive patterns of BPNW on well-being are mostly consistent. The results also suggested that the mediating effects of social support between BPNW and well-being indicators are small. Given the positive correlations with both BPNW and well-being indicators, social support can be regarded as an instructional behaviour that would benefit teacher development.

The second part of the paper reports interviews of a sample of 15 teachers. Content analysis suggests that teachers' source of satisfaction has largely derived from engaging with students, such as in assisting students' growth, or developing good teacher-student relationships; teacher satisfaction derives from higher-order value of a job (i.e. serving students) that causes psychological meaningfulness and commitment. Implications to the development of enhancement programs promoting BPNW to boost teachers' well-being and engaging teaching behaviour will be discussed. The study highlights eudemonia satisfaction as the core of well-being, for teachers, social support behaviour may be significant indicator of work engagement.

<https://event.fourwaves.com/self-2022/abstracts/b2885686-8b9f-4f54-8199-a1c5d0113d21>



## **71 - Can extracurricular learning level motivational differences between students in a biology context?**

Linda Schürmann<sup>1</sup>

<sup>1</sup>University of Koblenz-Landau

According to self-determination theory, autonomous types of motivation are most beneficial for learning. Extracurricular learning settings (ELS) might support autonomous motivation differently than regular school settings. The purpose of this study was to describe differences in motivation between them in more detail. In a biological-ecological context, we investigated the differences in student motivation at an ELS and at school in the light of students' general motivation for biology. We administered a self-report questionnaire on students' general motivation for biology as a subject, on intrinsic, identified, and extrinsic regulation and on amotivation to 124 biology major students (16-19 years) at a German grammar school, once at the biological-ecological ELS and twice at school. Repeated-measurement analyses of variance displayed a main effect of the learning setting for identified regulation (higher at school) and amotivation (higher at ELS) and of students' general motivation for biology for external regulation and amotivation (advantage of a high level of general motivation). For intrinsic motivation, we found a significant interaction between the learning setting and the general motivation for biology. Students with a low level of general motivation for biology reported lower levels of intrinsic motivation at school but not at the ELS. Results suggest that ELS are able to supplement school learning in an autonomously motivating way, especially in students with low general motivation for a certain subject. Nevertheless, possible challenges like higher amotivation levels should be taken into account. Varying contexts (subjects, performance, learning settings) and prospective research are discussed.

<https://event.fourwaves.com/self-2022/abstracts/72298a6c-aa32-47c1-a9ee-7f549ddb90c9>

## **69 - Emotional and Motivational Processes and their Role for Self-Regulation of Learning – Understanding the Process of Self-Regulated Learning and Motivation in Vocational Education**

Mathias Mejeu<sup>1</sup>, Tina Hascher<sup>1</sup>

<sup>1</sup>University of Bern

The promotion of self-regulated learning (SRL) is central to the optimization of learning and instruction in schools. SRL can be seen as a process that is divided into different phases (Zimmerman, 1986; Schmitz & Wiese, 2006) and a major challenge continues to be the identification and interaction of different elements in this process (Zeidner, 2019).

Our contribution presents the implementation and effects of an intervention in a vocational school, in which the process of learning in a specifically designed self-directed vocational classroom (EG) is investigated in comparison to a control group (CG). For this purpose, a mixed-methods study was carried out, that followed the learners over one year through multilevel analysis with  $n = 119$  learners (EG = 46; CG = 73). Each week, learners completed a short questionnaire by app, in which they provided information on the application of their (meta-) cognitive strategies as well as motivational and emotional states.

Our results show that members of the EG invests more time in their learning and show a stronger application of (meta-)cognitive strategies. However, there are no differences in the motivational and emotional states compared to the control group. This result can be explained by the specific learning situation: Not only inter-, but also intra-individual differences related to instructional settings are responsible for successful SRL.

<https://event.fourwaves.com/self-2022/abstracts/c676d9e5-71cf-4636-a14c-9c551364093b>

## 67 - Entrepreneurial Career Commitment Scale (ECCS) – Evidence of Psychometrical Properties

Étienne St-Jean<sup>1</sup>, Ismail Elalaoui<sup>1</sup>, Maripier Tremblay<sup>2</sup>

<sup>1</sup>Université du Québec à Trois-Rivières, <sup>2</sup>Université Laval

Although entrepreneurship is considered by some researchers as a career, many researchers focus on entrepreneurial intention, with very few looking at the actual entering in entrepreneurship (Fayolle & Liñán, 2014), and almost any about retention in the profession. From the many pieces of research in the field of career, the concept of career commitment has been proposed and used for many years (Katz, Rudolph, & Zacher, 2019). This concept would be very promising to understand why people become entrepreneurs, and how they manage to stay in this career. We propose an adaptation of the Career Commitment Scale (Carson & Bedeian, 1994) in entrepreneurship and tested its psychometrical properties with two samples of entrepreneurs (n=226 and n=400). We demonstrate that ECCS is related to satisfaction in being an entrepreneur, and negatively related to intention to quit, amongst others. The nomological network suggests strong validity and reliability of the scale in French and English. We contribute to providing a new scale that would be relevant to study entrepreneurship as a career.

Carson, K., & Bedeian, A. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior*, 44(3), 237-262.

Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5), 663-666.

Katz, I. M., Rudolph, C. W., & Zacher, H. (2019). Age and career commitment: Meta-analytic tests of competing linear versus curvilinear relationships. *Journal of Vocational Behavior*, 112, 396-416.

<https://event.fourwaves.com/self-2022/abstracts/72bcd457-84d4-4ac1-a438-f78bb008beb1>

## **66 - But I'm not Brilliant: Brilliance beliefs help explain the inverse gender gaps in psychology and philosophy**

Heather Maranges<sup>1</sup>, Maxine Iannucci<sup>2</sup>, Katharina Nieswandt<sup>2</sup>, Ulf Hlobil<sup>2</sup>, Kristen Dunfield<sup>2</sup>

<sup>1</sup>Wake Forest University, <sup>2</sup>Concordia University

Understanding gender gaps in academia is difficult because gender-imbalanced fields differ in many ways. We compared two fields that have inverse gender gaps but also historic and topical overlap: Philosophy and Psychology. Men outnumber women in philosophy whereas the opposite is true in psychology. We developed a questionnaire to empirically investigate theorized explanations for academic gender gaps. Specifically, we examined the stereotypical belief that brilliance is more often associated with men than with women, and with philosophy, not psychology (i.e., brilliance beliefs; Leslie & Cimpian, 2015), internal beliefs about abilities (i.e., mindsets; Dweck, 2006), gender differences in interest and combativeness (Kourany, 2010), as well as prioritization of family, money, and status in choosing a career (e.g., Deutsch & Yao, 2014). Examining 467 undergraduates in philosophy and psychology classes across North America, we find support for the brilliance stereotype. That is, women view themselves as less brilliant than men view themselves, and this partially explains women's tendency to major in psychology and men's tendency to major in philosophy. Men hold more fixed mindsets than women, yet mindsets do not predict major. We also find that self-reported interest, combativeness, and prioritization of having a family, wealth, and status all feed into feelings of self-belonging and choice of major. Together, these findings highlight how beliefs about the self are important for understanding why men and women pursue training in different academic fields.

<https://event.fourwaves.com/self-2022/abstracts/4467ee6e-aa08-4d48-8ca1-02fe5d403e8e>

## **65 - The importance of parental feedback for children's reading motivation and their reading comprehension**

Frank Hellmich<sup>1</sup>, Fabian Hoya<sup>1</sup>

<sup>1</sup>Paderborn University

Parental support is considered to be an important prerequisite for children's learning processes. Especially, parents' feedback on learning outcomes is regarded to be an important factor for children's competencies and their performance-related personality development. Feedback is understood as information by significant others with the intention to support students' learning processes and to clarify discrepancies between actual performances and desired learning goals (Hattie & Timperley, 2007). Following Eccles' (2005) 'Expectancy-Value-Theory', significant other's feedback on learning outcomes leads to an increase or a decrease of their intrinsic and extrinsic learning motivation. Conversely, effects of feedback on children's learning outcomes are mediated by their intrinsic and extrinsic motivation. Currently, the question whether and to what degree parents' pronounced feedback and children's perceived feedback on learning outcomes are compatible is not fully answered yet. In addition, the role of parental feedback on children's motivation and their learning outcomes is only little investigated so far. Thus, we examined N=407 third and fourth grade students' reading comprehension depending on their parental feedback (pronounced/perceived) and their intrinsic and extrinsic reading motivation. The results of our study indicate that students' reading comprehension is predicted by their intrinsic and extrinsic motivation. However, students' reading comprehension cannot be explained by the parental feedback (pronounced/perceived). Whereas the parental pronounced negative feedback predicts students' perceived negative feedback, students' perceived positive feedback cannot be explained by their parents' pronounced positive feedback. The effect of parents' feedback (pronounced/perceived) on children's reading comprehension is not mediated by their intrinsic and extrinsic reading motivation.

<https://event.fourwaves.com/self-2022/abstracts/70b4c807-9cec-42ed-8e7f-7f3b4e0bfb9a>

## **64 - Elementary School Teachers' Self-Efficacy in Inclusive Education – An investigation of the associated sources**

Katja Franzen<sup>1</sup>, Barbara Moschner<sup>2</sup>, Frank Hellmich<sup>1</sup>

<sup>1</sup>Paderborn University, <sup>2</sup>University of Oldenburg

The ratification of the UN-Convention on the Rights of Persons with Disabilities evokes questions about the appropriate preparation of teachers for their upcoming tasks in inclusive classrooms. In this regard, teachers' self-efficacy is considered as a main personal resource which underlies the fruitful implementation of school inclusion. Self-efficacy is defined as the confidence in one's competences to achieve desired goals, even under challenging circumstances (Bandura, 1997). Bandura (1997) highlighted four main sources of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. However, despite the apparent importance of teachers' self-efficacy beliefs, few studies deal with the impact of those sources on teachers' self-efficacy to teach in inclusive classrooms. Therefore, we investigated the effect of mastery and vicarious experiences, verbal persuasion, and affective states on teachers' self-efficacy towards inclusive education. In our study, N=524 German elementary school teachers filled in a questionnaire which contains scales regarding their self-efficacy in and their willingness to inclusive education as well as concerning the assumed four sources. Results from structural equation modeling underscore the importance of the different presumed predictors of teachers' self-efficacy and especially of teachers' mastery experiences. Moreover, the results show a significant contribution of vicarious experiences and teachers' affective states to the variance of their self-efficacy, whereas verbal persuasion did not emerge as a significant unique predictor. Teachers' self-efficacy again turned out to be a significant predictor of teachers' willingness to inclusive education.

<https://event.fourwaves.com/self-2022/abstracts/f56c444d-b482-4efb-8155-f382b6e399a1>

## **63 - The importance of primary school teachers' self-efficacy beliefs and their attitudes for their everyday practices in heterogeneous classrooms**

Gamze Görel<sup>1</sup>, Marwin Felix Löper<sup>1</sup>, Frank Hellmich<sup>1</sup>

<sup>1</sup>Paderborn University

Since the UN-Convention on the rights of persons with disabilities, various questions arise concerning the role of teachers' personal resources in their everyday practices in inclusive classrooms. Teachers' professional personalities and their intentions concerning inclusive teaching are considered to be important prerequisites for successful learning environments. In detail, teachers' attitudes towards inclusion and their self-efficacy beliefs concerning the organization of inclusive education are assumed to be important predictors for their management of heterogeneity in inclusive classrooms (e.g., Savolainen, Engelbrecht, Nel, & Malinen, 2012; Sharma & Jacoby, 2016). Therefore, we examined the relevance of primary school teachers' personal resources, such as their attitudes towards inclusion and their self-efficacy beliefs concerning inclusive teaching, in terms of their everyday practices in inclusive classrooms on the basis of the 'Theory of Planned Behavior' (Ajzen, 1991). We investigated N = 290 primary school teachers' everyday practices according to their attitudes towards inclusion, their self-efficacy beliefs concerning inclusive education, their perceptions of their school managements' expectations and their intentions regarding inclusive education. The results of our study indicate that primary school teachers' everyday practices in heterogeneous classrooms are significantly predicted by their intentions regarding the implementation of inclusive education and by their attitudes towards inclusive education but not by their self-efficacy beliefs or by their perceptions of their school managements' expectations. Specifically, the effect of teachers' attitudes on their everyday practices in inclusive classrooms is significantly mediated by their intentions regarding the implementation of inclusive education.

<https://event.fourwaves.com/self-2022/abstracts/1a94a7dc-a623-4d0c-acda-ac7ccdcdbd4c>

## **62 - Do primary school students' contact experiences matter for their attitudes towards peers with special needs?**

Marwin Felix Loeper<sup>1</sup>, Mike Lehofer<sup>2</sup>, Susanne Schwab<sup>2</sup>, Frank Hellmich<sup>1</sup>

<sup>1</sup>Paderborn University, <sup>2</sup>University of Vienna

Social participation of all children in the classroom is a crucial condition for successful inclusion in primary schools (Koster, Nakken, Pijl, & van Houten, 2009). Especially students' attitudes towards peers with special educational needs (SEN) are essential for the unconditional participation of children with SEN in inclusive education (De Boer, Pijl, & Minnaert, 2012). Therefore, several studies (e.g., Schwab, 2015) show that primary school students generally hold neutral to moderately positive attitudes towards peers with SEN. Nevertheless, some students also tend to be rather negative towards peers with SEN (De Boer et al., 2012). Unfortunately, broad explanations for primary school students' attitudes towards peers with SEN are still missing.

In our study, we therefore surveyed N = 589 students without SEN and N = 71 students with SEN from third and fourth grade primary schools about their attitudes towards and their contact experiences with peers with SEN. In addition, teachers were asked about the prosocial behaviour and behavioural difficulties (e.g., emotional symptoms) of their students. The results of a multilevel regression analysis indicate that students' attitudes towards peers with SEN can be significantly explained by their contact experiences with peers with SEN and their gender – where girls are more positive than boys. Overall, the results underline the importance of students' contact experiences with disabled peers for their attitudes towards students with SEN. In further studies, high-quality contact experiences should be investigated in-depth to improve the social participation of students with SEN in inclusive education.

<https://event.fourwaves.com/self-2022/abstracts/a328699c-e63d-4bb1-9612-792182abfe53>



## **61 - Primary school students' social self-concepts, their empathy, and their attitudes towards peers with social and emotional difficulties**

Marwin Felix Loeper<sup>1</sup>, Frank Hellmich<sup>1</sup>

<sup>1</sup>Paderborn University

Primary school students with social and emotional difficulties represent a group at risk of social exclusion in inclusive education. Contrary to their peers without or with other difficulties (e.g., learning difficulties), they have fewer friends and social interactions in the classroom, feel lonely more often and experience less social acceptance from their classmates (Avramidis, Avgeri, & Strogilos, 2018). Consequently, children with social-emotional difficulties have limited participation opportunities inside and outside the inclusive classroom.

In this context, primary school students' attitudes towards peers with social-emotional difficulties are crucial for the unconditional social participation of these children in inclusive primary schools (De Boer, Pijl, & Minnaert, 2012). Unfortunately, students' attitudes towards peers with social-emotional difficulties are significantly lower than towards peers with other difficulties (Schwab, 2015). Until now, determinants of primary school students' attitudes towards peers with social-emotional difficulties – such as their empathy (perspective taking/empathic concern), their social self-concepts, or their contact experiences with disabled peers – are not completely clarified.

In our study, we therefore surveyed N = 512 third and fourth grade primary school students about their attitudes towards peers with social-emotional difficulties, their empathy (perspective taking/empathic concern), their social self-concepts, and their contact experiences. Whereas the results of a structural equation model indicate that students' attitudes towards peers with social-emotional difficulties are significantly predicted by their empathic concern and their contact experiences, they are unrelated to students' social self-concepts and their ability of perspective taking. However, children's ability of perspective-taking and empathic concern can be explained by their social self-concepts.

<https://event.fourwaves.com/self-2022/abstracts/5afadb7e-ba54-48a9-8cee-eea33266289e>

## **60 - Individual complex pathways of changing motivational interaction behaviours: Protocol for qualitative process evaluation of a training intervention with a complex systems lens**

Elina Renko<sup>1</sup>, Minttu Palsola<sup>2</sup>, Melina Puolamäki<sup>2</sup>, Nelli Hankonen<sup>2</sup>

<sup>1</sup>University of Helsinki, <sup>2</sup>University of Tampere

Accumulating evidence points to several benefits of motivational interaction in physical activity (PA) promotion. However, we do not yet know how professionals can best adopt motivating interaction styles, nor how they can stop using suboptimal or even demotivating styles with their patients and clients. Interaction systems are complex – unpredictable and messy. Consequently, we emphasize the importance of understanding the interaction style change as an adaptive dynamic process embedded in complex systems. This paper presents a study protocol for a process evaluation from a complex-systems perspective within a feasibility study of the newly developed training intervention. The interaction training intervention for PA and sport professionals (based on self-determination theory, SDT) teaches participants interaction behaviour-change strategies, including habit-formation/-breaking strategies. A complex-system lens is integrated to qualitative process-evaluation design already at the beginning, and informs the study's evaluation focus, theoretical position, data collection methods, analysis, as well as interpretation and presentation of findings. Utilizing a longitudinal qualitative interview approach with 15 participants (three interviews per participant), aims to capture the training participant's accounts of their dynamic interaction system undergoing change. Longitudinal design enables the exploration of individuals' evolving complex pathways of changing their motivational interaction behaviours, and sheds light on how participants' pathways inter-relate. It allows participants to explain what, how and why they are experiencing at more than one time point and enables us to understand the interaction between temporal movement, dynamics between peoples' agency and structural determinants.

<https://event.fourwaves.com/self-2022/abstracts/11a24983-1e6f-4885-9594-30c3c8a54ae1>

## 59 - An exploration of aloneness identity

Rowena Leary<sup>1</sup>

<sup>1</sup>University of York

The purpose of this project is to explore aloneness identity. It is proposed that aloneness is a broad construct that exists along a continuum, ranging from solitude (positive), to loneliness (negative, spanning social, emotional and existential loneliness). Further, individuals vary in the extent to which they are happy being alone, and the type of social contact they prefer. It is suggested that these preferences form an individual's aloneness identity; this affects their personal propensity to experience a particular type of aloneness, with some being more at risk than others of chronic forms of loneliness.

Two qualitative studies have provided initial support for these proposals through rich narrative data. The first considered high and low point stories of individuals during the first COVID-19 UK lockdown, evidencing the existence of all four proposed facets of aloneness along the aloneness continuum within the general population (solitude, and social, emotional and existential loneliness). The second study explored the same participants' memories of childhood high and low points, indicating how individual preferences for sociability or solitude affected their sense of identity through retrospective, reflective data.

Exploring how experiences and perceptions of aloneness differ between individuals, and across the lifespan, will facilitate better understanding of individual differences in aloneness identities. Crucially, this will enable individual, targeted interventions to be developed to address specific forms of loneliness, particularly the most severe forms of loneliness.

<https://event.fourwaves.com/self-2022/abstracts/5e39b414-d04b-4165-90b8-ff867532de69>

## 57 - Exploring Differences in Self-Compassion and Positive Affect between First-Generation and Non-First-Generation University Students

Joshua. C Remedios<sup>1</sup>, Katie. E Gunnell<sup>1</sup>

<sup>1</sup>Carleton University

Self-compassion and positive affect are positive mental health factors that are related to improved university student outcomes (e.g., academic goal pursuit). Researchers have suggested that there are differences in mental health between students who had parents that attended university (i.e., non-first-generation students) and those that did not (i.e., first-generation students). The purpose of this project was to examine differences in self-compassion and positive affect between first-generation and non-first-generation students. Based on the cultural mismatch theory, we hypothesized that first-generation students would report lower scores in positive affect, self-kindness and mindfulness and higher scores in common humanity. Participants ( $N = 533$ ,  $M_{age} = 20.09$  years,  $SD = 4.3$  years; 81% female) completed measures of self-compassion and positive affect. Based on independent sample t-tests, we found no statistically significant differences between first-generation and non-first-generation students for self-kindness,  $t(525) = -.67$ ,  $p = .51$ ,  $d = .05$ , mindfulness,  $t(525) = -.99$ ,  $p = .32$ ,  $d = .08$ , common humanity,  $t(525) = .38$ ,  $p = .21$ ,  $d = .04$ , or positive affect,  $t(525) = .97$ ,  $p = .33$ ,  $d = .08$ . These findings suggest that generational status may not be the most fundamental aspect contributing to disparities in positive mental health in university students. Researchers should examine if other factors such as social class or minority status are related to differences in positive mental health in these two groups of university students.

<https://event.fourwaves.com/self-2022/abstracts/9b195b75-7d46-481c-9dce-7ffc9e3dc6cf>

## 55 - Academic and Social Achievement Goals: Latent Profiles and External Linkages

Marko Lüftenegger<sup>1</sup>, Martin Daumiller<sup>2</sup>, Lisa Bardach<sup>3</sup>

<sup>1</sup>University of Vienna, <sup>2</sup>University of Augsburg, <sup>3</sup>University of Tübingen

Students engage in class because of academic and social motivations. These can be expressed through their academic and social achievement goals. Despite their relevance for how students feel, perform, and behave in class, previous research has mostly focused on one or the other, while joint investigations are scarce. We therefore sought to investigate the interplay between academic and social motivations. Using a person-centered approach, we analyzed the configurations of academic and social achievement goals, and their joint effects for how secondary school students feel, behave, and perform in class. We relied on data from 1,938 Austrian secondary students (mean age: 14.28, SD = 1.51 years). Based on the students' answers regarding their academic mastery, performance-approach, performance-avoidance and social development, social demonstration-approach, and social demonstration-avoidance goals, we conducted latent profile analyses. We identified four profiles: (a) strong pursuit of all goals, (b) strong mastery and social development goals, but middle levels of performance and demonstration goals, (c) strong mastery and social development, but low performance and demonstration goals, and (d) low academic goals and moderate social goals. Profile membership was differentially associated with students' perceived goal structures, age, and gender, as well as their sense of belonging, bullying perpetration, self-concept, and grades. In conclusion, our study indicated that different groups of students can be distinguished based on how strongly they pursue academic mastery and performance goals but also to the degree to which they pursue social goals, which in turn is meaningfully associated with how they feel, perform, and behave in class.

<https://event.fourwaves.com/self-2022/abstracts/c28d559f-9b79-4cb6-a782-7b7b8c59b5f8>

## **54 - The internal/external frame of reference model in the physical and verbal subdomain and their associations with general self-esteem**

Lena Henning<sup>1</sup>, Dennis Dreiskämper<sup>1</sup>, Maike Tietjens<sup>1</sup>

<sup>1</sup>University of Münster, Germany

Based on 825 students from fifth- to ninth grade, this cross-sectional study investigated how grades relate to self-concept formation in the academic (i.e., verbal) and non-academic (i.e., physical) domain using the Internal/External Frame of Reference Model. Relations between the self-concept domains and general self-esteem were investigated. Considering the well-established empirical evidence on gender differences in the different subdomains, measurement and structural invariance were tested across female and male students. Grades, self-concept, and self-esteem were assessed via questionnaires. Structural equation modeling revealed positive relations between grades and the associated self-concept subdomains. A negative association was found between the grade in Physical Education and the verbal self-concept. In addition, the findings demonstrate that the association between the physical self-concept and the general self-esteem was stronger than the association between the verbal self-concept and self-esteem. Gender-stereotypical differences were found only in the mean values of the self-concept subdomains and general self-esteem, but not with regard to the relations among constructs. The results indicate that dimensional comparison might occur across the physical and verbal domains. Furthermore, physical self-concept might be a salient and meaningful source for general self-esteem in youth. Implications for self-esteem enhancing interventions in youth and adolescence will be discussed.

<https://event.fourwaves.com/self-2022/abstracts/fa57a3fc-e48e-481f-90c9-7e5afb77c6bc>

## 53 - Transforming the Self through Yoga : implications for Health and Wellbeing

Meetu Khosla<sup>1</sup>

<sup>1</sup>University of Delhi, India

Yoga purifies the mind and body, helps in coping with stress, and transforms the inner self. Jnana Yoga and Bhakti Yoga elucidate the path of wisdom and devotion to strengthen the inner self, create resilience, and influence wellbeing. The present research aims to study how the practice of yoga helps in regulating the negative disruptive emotions and cognitions, inculcating positive values and meaning in life, promoting health and wellbeing. 420 participants (200 men and 220 women) aged between 18 to 65 years (Mean: 35 years, SD= 2.34) from North India participated in the study. The participants were assigned to the Yoga (YG) or non-yoga (NYG) group depending upon their practice/nonpractice of jnana and bhakti-yoga. The measures used were Emotion Regulation Questionnaire (Gross & John, 2003), Meaning in Life Questionnaire (MLQ, Steger, et al. 2006), Satisfaction with Life Questionnaire (SWLS), Positive Affect and Negative Affect Schedule (PANAS, Watson, Clark & Tellegen, 1988), General Health Questionnaire (GHQ, Goldberg & Valerie, 1979). t-tests revealed that the YG as compared to the NYG had greater subjective wellbeing as they displayed greater life satisfaction and positive affect, used cognitive reappraisal than expressive suppression, meaning in life using adaptive coping strategies, and better health. Yoga practice significantly reduced negative affect, feelings of stress, anxiety, sadness, and anger. The findings highlight the benefit of yoga practice in controlling the mind, calming emotions, developing a positive perspective in life, promoting self-discipline and self-control. This study has implications for transforming the self and enhancing health and wellbeing.

<https://event.fourwaves.com/self-2022/abstracts/5cd01cc8-9b84-4c6d-b150-430022e3004f>

## **52 - From self-concept to -knowledge to -regulation: A proposal based on students' domain-specific academic self-concepts and achievements**

Axel Grund<sup>1</sup>, Christoph Niepel<sup>1</sup>

<sup>1</sup>University of Luxembourg

We initially tested whether besides possessing a positive self-concept, possessing an accurate self-concept has an incremental effect on students' school adaptation. As self-knowledge index, we calculated ipsative profile correlations between 9<sup>th</sup> grade students' academic self-concepts (i.e., how well students think they do) in the domains Math, German, and French and their respective achievement test scores in these domains (i.e., how well students actually do). We then related students' self-knowledge to their general performance across these tests, their school satisfaction, and their perceived quality of the teacher-student relationship, assuming that accurate self-concepts lay the foundation for adaptive self-regulation processes (e.g., building on strengths and remedying or accepting weaknesses). In a first sample (N = 6279), we found that self-knowledge explained an incremental amount of variance in school adaptation above and beyond students' general and domain-specific self-concepts in multiple regression analyses. The better aligned students' self-concept profile was with their actual achievement profile, the better their performance across these domains, the more satisfied students were with schooling, and the better their relationship with their teachers. Except for school satisfaction, these findings were replicated in another cohort of 9<sup>th</sup> grade students (N = 6493), and they remained robust when we used rang-correlation instead of Pearson-correlation to derive our self-knowledge index. Notably, both indices seemed largely independent from students' self-concepts and, on average, students seem to better "know" about their academic abilities compared to other aspects of their personality. We discuss necessary improvements to further substantiate the adaptive role of self-knowledge in self-regulation.

<https://event.fourwaves.com/self-2022/abstracts/59bcf93c-3e6d-4945-bab9-58254d395593>



## **51 - Examining the Effectiveness of Peer Mentor Training to Recognize Self-Determined Responses that Facilitate the Psychological Needs of Competence, Autonomy, and Relatedness of Students with Intellectual Disabilities.**

Alexandra Chanto-Wetter<sup>1</sup>

<sup>1</sup>University of South Alabama

Self-determination and mentoring are valuable components of programs for students with intellectual disabilities. A Self-Determination Theory-based training intervention using a randomized posttest-only control-group design was used to examine the effectiveness of peer mentor training to help facilitate the self-determination of students with Intellectual Disabilities. The intervention consisted of a 30 min video training followed by a posttest. The mentors' ability to use information obtained during training to choose the best action for a given scenario was assessed using a web-based situational judgment posttest (SJT). Statistically significant moderate intervention effects were found. The hypothesis that a short-term training improved the peer mentors' recognition of self-determined responses that facilitated the psychological needs of the students with intellectual disabilities was supported. Post training feedback indicated that peer mentors perceived the training as positive, felt the scenarios were useful, and gave examples of interactions with mentees that encouraged autonomy, competence, and demonstrated relatedness. The study adds to the literature on improving mentoring for students with Intellectual Disabilities in postsecondary education programs. The study expands the use of SDT further in a different population sample to support that training in self-determination creates differences between groups when using situational judgment tasks to measure the training's effectiveness. However, further research is needed to corroborate if mentors' post training acquired skills are transferable to real-world situations and to learn how the intervention shapes the peer mentors' performance and self-efficacy.

<https://event.fourwaves.com/self-2022/abstracts/ba1221c0-e79e-49f6-9d79-b2842aa07313>

## **50 - Spirituality and its influence on identity reconstruction following traumatic injury: a qualitative study**

Thi Luan Nguyen<sup>1</sup>, Michaela Guthridge<sup>1</sup>, Melita Joy Giummarra<sup>1, 2, 3</sup>, Anna Devlin<sup>1</sup>, Shanthi Ameratunga<sup>1, 4, 5</sup>, Jennie Ponsford<sup>6, 7</sup>, Sandra Reeder<sup>8</sup>

<sup>1</sup>Department of Epidemiology and Preventive Medicine, School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia, <sup>2</sup>Caulfield Pain Management and Research Centre, Caulfield Hospital, Alfred Health, Caulfield, Victoria, Australia, <sup>3</sup>National Disability Insurance Association, Melbourne, Victoria, Australia, <sup>4</sup>School of Population Health, University of Auckland, Auckland, New Zealand, <sup>5</sup>Population Health Directorate, Counties Manukau District Health Board, South Auckland, New Zealand, <sup>6</sup>School of Psychological Sciences, Monash University, Clayton, Victoria, Australia, <sup>7</sup>Monash-Epworth Rehabilitation Research Centre, Epworth Hospital, Richmond, Victoria, Australia, <sup>8</sup>Central Clinical School, Department of Neuroscience, Monash University, Melbourne, Victoria, Australia

Traumatic injury can result in changes to a person's identity. Spirituality has been found to support identity reconstruction, however, the specific mechanisms by which this occurs after serious injury have not been thoroughly investigated. We analysed semi-structured interview data collected in a longitudinal qualitative study investigating recovery experiences after serious injury. The present study explored how spirituality influenced identity reconstruction for 30 adults at 3, 4 and 5 years postinjury. People with serious neurotrauma were excluded. Interview transcripts were analysed using a phenomenological approach and reflexive thematic analysis. The following were considered features suggestive of spirituality: the injury being viewed as a meaningful life experience, generating a change in purpose and/or values, and eliciting greater self-awareness after injury. These features appeared to influence identity reconstruction over time for most participants. Specifically, meaning and purpose influenced the types of experiences that participants reflected on, which contributed to helpful postinjury perceptions of self. Purpose and values appeared to assist some participants with the transition into new roles post-injury resulting in identity reconstruction. People with greater self-awareness reported increased agency and hope across the years. Our findings suggest people who are intrinsically spiritual in their orientation, particularly in their perception of self, may be better equipped to cope, adapt and make sense of their experience's years after serious injury.

<https://event.fourwaves.com/self-2022/abstracts/9192d8ef-3368-4322-a994-a77beb9890fb>

## **48 - Can mindfulness meditation instructions be more autonomy and competency supportive?**

Louis-Nascan Gill<sup>1</sup>, Geneviève Taylor<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

Mindfulness is a useful psychological skill that promotes adaptative psychological changes and wellbeing. The development of mindfulness is generally considered as contingent upon a regular practice of meditation. Unfortunately, maintaining adherence to meditation is challenging and many aspiring meditators fail to maintain the needed level of practice, especially in long-term. Self-Determination Theory (SDT), a seminal model of human motivation, may provide elegant and practical ways to increase adherence to meditation. In the present paper, we explore how mindfulness attitudes of acceptance and non-striving may interfere with the need for autonomy and competency. We propose that (1) empowering meditator to choose when to engage or disengage from challenging experiences, instead of always promoting an approach orientation to experience, can support the need for autonomy and that (2) defining clear stages of mastery of mindfulness, with operational and realistic criteria of success, can provide meaningful feedback that supports the need for competency. These propositions run contrary to some core principles of mindfulness, suggesting the existence of a tradeoff between mindfulness fidelity and autonomy/competency support. Two experimental studies complement this theoretical discussion, comparing the immediate effects of “typical” and “autonomy/competency supportive” mindfulness instructions on meditation adherence and need satisfaction. Results show partial support for our propositions, but also highlight the challenges associating with the integration of SDT principles to meditation. Longitudinal protocols for testing and refining these strategies are presented.

<https://event.fourwaves.com/self-2022/abstracts/6b776ba5-6c8b-4e60-b93c-257d817e875b>

## **46 - Bidirectional effects between school engagement and math performance: an intra-individual perspective among elementary students**

Cléo Thibert-Dagenais<sup>1</sup>, André Plamondon<sup>1</sup>

<sup>1</sup>université Laval

Engagement in school refers to the attitude and quality of a pupil's participation in his school environment and represents the manifestation of motivation. According to the Self-System Model of Motivational Development (SSMMD), a student's engagement has a direct effect on his academic performance while his performance has no direct effect on his engagement (Skinner and al. 2009). Although this hypothesis concerns an intra-individual process, it has not been tested using an intra-individual perspective in a longitudinal design from the start of formal schooling. This study explores the two-way intra-individual links between student engagement and math performance in grades 1 through 5. Data were collected annually between the 1st and 5th year of primary school from 15,402 students from the American study ECLS-K: 2011. Math performance was measured by standardized tests administered to students while classroom engagement was assessed using questionnaires completed by teachers. Intra-individual bidirectional effects were derived using the random intercepts cross-lagged panel model (RI-CLPM). The analyses indicate bidirectional effects with very small effect sizes (engagement → math performance,  $\beta = .02$  to  $.10$ ; math performance → engagement,  $\beta = -.04$  to  $.10$ ). In contrast, both variables were more strongly accounted for by stable inter-individual differences (engagement,  $\beta = .74$  to  $.76$ ; math performance,  $\beta = .86$  to  $.93$ ). These findings in elementary school students do not support the dynamic process of the SSMMD model. The discussion addresses the importance of distinguishing between intra- and inter-individual processes to better understand the role of school engagement.

<https://event.fourwaves.com/self-2022/abstracts/e3e73e43-7d63-43fd-bf72-a36fc892f1c7>

## **45 - The association between physical activity and flourishing over time in an undergraduate student population**

Kimia Fardfini<sup>1</sup>, Joshua C. Remedios<sup>1</sup>, Cecilia Jorgenson<sup>1</sup>, Katie E. Gunnell<sup>1</sup>

<sup>1</sup>Carleton University

Engaging in physical activity is associated with decreased mental illness and symptomatology. Less is known about the relationships between physical activity and positive mental health over time. For example, based on past cross-sectional or two-time point studies, researchers have found evidence that physical activity is associated with greater positive mental health. Conversely, others have found evidence that positive mental health is associated with greater physical activity. Therefore, the purpose of this study was to evaluate if the relationship between physical activity and flourishing is reciprocal over time. Participants in a student participant pool at a Canadian university completed self-report measures of physical activity and psychological flourishing monthly for three months. Data will be analyzed using latent growth curve modelling to detect if there is a reciprocal relationship between physical activity and flourishing across time. The model will include age, sex, depressive symptoms, and anxiety symptoms as covariates. Data have been linked across time points and preliminary cleaning has taken place. Verification of statistical assumptions and main data analyses are currently underway. Study findings may clarify the complex relationship between physical activity and positive mental health in undergraduate students.

<https://event.fourwaves.com/self-2022/abstracts/df54b68e-b17b-4f3c-b062-1f364f13bded>

## **44 - The depth of stories: How Black young adults' affect disclosure in narratives about the COVID-19 pandemic and the BLM protests improved adjustment over the year 2020**

Élodie Audet<sup>1</sup>, Helen Thai<sup>1</sup>, Anne Holding<sup>1</sup>, John Davids<sup>2</sup>, Xiaoyan Fang<sup>2</sup>, Richard Koestner<sup>1</sup>

<sup>1</sup>McGill University, <sup>2</sup>Black Community Resource Centre

A series of turbulent events took place during the year of 2020. The present study investigates whether the way Black young adults constructed their narratives regarding the stressful events of the COVID-19 pandemic and the Black Lives Matter (BLM) protests related to adjustment over time. A two-wave mixed prospective and retrospective longitudinal study was conducted in July and December 2020 and included a total of 96 Black young adults. Narrative reports were collected at baseline to determine the psychological interpretations of the two events and were coded based on affect disclosure. Both time points examined adjustment to the COVID-19 pandemic and the BLM protests as well as the extent to which the basic psychological needs for autonomy, relatedness, and competence were affected. Our results showed that affect disclosure in narratives at baseline was associated with better adjustment over time. Additionally, results of process analyses showed that satisfaction of the basic psychological need for autonomy (e.g., feelings of personal agency, choice, and volition) mediated the association between narratives and adjustment. These results suggest that engaging in affect disclosure may be associated with heightening adjustment because it enhances individuals' need for autonomy, potentially resulting in a beneficial integration of the events into their broader life narratives. These findings highlight the potential of well-constructed narratives to impact adjustment over time and have implications for clinical practice to support Racialized communities during unprecedented events.

<https://event.fourwaves.com/self-2022/abstracts/1634c781-8db5-4f03-8010-77a15b021fb3>

## 43 - The influence of parents' tone of voice on children's motivation

Silke Paulmann<sup>1</sup>, Berdien Vrijders<sup>2</sup>, Maarten Vansteenkiste<sup>2</sup>, Netta Weinstein<sup>3</sup>

<sup>1</sup>University of Essex, <sup>2</sup>Ghent University, <sup>3</sup>University of Reading

According to Self-Determination Theory (SDT), parents can motivate their children in more controlling or more autonomy-supportive ways, thereby, respectively, thwarting and nurturing children's basic need for autonomy or volition. Although the impact of parents' motivational language (i.e. what parents say) has received quite some attention, parents' tone of voice (i.e. how parents say things) has often been overlooked. Therefore, the current study investigated whether controlling and autonomy-supportive speech are characterized by distinct acoustic patterns. To this aim, 107 Dutch parent-child interactions of children (Mean age = 11.19) completing a series of puzzles together with their parent were analyzed. Results of a hierarchical linear modelling analysis showed that autonomy-supportive messages were conveyed using a slower speech rate and a quieter voice than controlling messages, which were uttered with a faster rate and a louder voice. Follow-up correlational analyses exploring whether the tone of voice used by parents could affect children's self-reported motivation states, indicated that only the acoustic parameter intensity yielded significant results. That is, the louder parents talked, the more controlled children felt. The present study indicates new possibilities for cross-fertilization between the research literature on parenting, SDT and prosody, thereby highlighting how parents can affect their children's functioning through different channels.

<https://event.fourwaves.com/self-2022/abstracts/23da1043-4cfe-49f4-97df-1ecbc8f96aa3>

## **41 - The role of need satisfaction in retirees' friendship, family, and romantic life spheres: a cross-sectional and longitudinal analysis of psychological well-being in retirement**

Flavie Dion-Cliche<sup>1</sup>, Romane Masson<sup>1</sup>, Nathalie Houlfort<sup>1</sup>, Andréanne Laframboise<sup>1</sup>

<sup>1</sup>Université du Québec à Montréal

Retirement is a major event in an adult's life course, and well-being outcomes can contribute to the understanding of how people adjust to this transition from work to retirement (Stenling et al., 2021; Wang 2012). A theoretical framework particularly suited to the understanding of well-being changes is self-determination theory (SDT; Ryan and Deci 2017). Indeed, it is likely that need satisfaction (NS) is affected by major life events, such as retirement. However, research on changes in NS during the transition to retirement is scarce (Henning et al. 2019). Thus, the purpose of this research was twofold. We first sought to examine the relationship between retirees' psychological NS across important life spheres and psychological well-being (PWB) through retirement transition (longitudinal study, n = 60). We also aimed to examine how retirees' NS in their friendship, family and romantic life spheres contribute to their PWB and life satisfaction (LS) once in retirement (cross-sectional study, n = 217). Results from both studies showed that NS in the friendship and family spheres were positively associated with retirees' PWB and LS. Specific to the longitudinal study, the results show that NS does not change during the transition to retirement but, with the loss of the work sphere, NS reorganizes across the remaining life spheres. Also, the results indicate that the satisfaction of needs before retirement can contribute to the satisfaction of needs after retirement. The theoretical and practical implications will be discussed.

<https://event.fourwaves.com/self-2022/abstracts/87a8f685-90a5-40fa-ba51-b1464406e94d>



## **40 - Self-Beliefs and Their Relations: Current Findings From Studies Taking a Meta-Perspective**

Fabian Wolff<sup>1</sup>, Jennifer Meyer<sup>2</sup>, Thorben Jansen<sup>2</sup>

<sup>1</sup>University of Koblenz-Landau, Koblenz , <sup>2</sup>Leibniz Institute for Science and Mathematics Education

Students' self-beliefs are of great importance, for example, to their identity, well-being, life choices, and motivation. Thus, the question of what factors relate to self-beliefs is of high relevance. This symposium will present the findings of three studies that have examined self-beliefs and motivation from a meta-perspective. The first two studies will focus on students' academic self-concept. More specifically, Study 1 will present findings from a meta-analysis of the 2I/E model, which describes the formation of students' self-concepts through social, dimensional, and temporal comparisons, to examine how students' self-concept formation depends on various comparison processes. This research will be complemented by Study 2, a second-order meta-analysis that integrates findings from 80 meta-analyses on the relations of self-concept, self-efficacy, and self-esteem with numerous other variables. Finally, Study 4, another second-order meta-analysis, focuses on academic motivation, which is strongly related to other self-beliefs, and summarizes findings from 125 meta-analyses, which have examined the relations of motivation and various student and instructional variables. In summary, all three studies provide up-to-date findings on the relations of central self-beliefs and motivation by integrating and comparing data from different studies and/or countries. A central goal of this symposium will be to bring these findings together and discuss their impact with leading experts from the field.

<https://event.fourwaves.com/self-2022/abstracts/cbd700d5-c800-417f-9ab0-743a86606b82>

## **39 - Servant Leadership and Employee Wellbeing: A Cross-cultural Investigation of the Moderated Path Model in Canada, Pakistan, China, the US and Brazil**

Zheni Wang<sup>1</sup>, Alexandra Panaccio<sup>2</sup>, Usman Raja<sup>3</sup>, Magda Donia<sup>4</sup>, Guylaine Landry<sup>5</sup>, Michelle Morelo Pereira<sup>6</sup>, Maria Cristina Ferreira<sup>7</sup>

<sup>1</sup>Southern CT State University, <sup>2</sup>Concordia University, <sup>3</sup>Brock University, <sup>4</sup>University of Ottawa, <sup>5</sup>Université du Québec à Montréal, <sup>6</sup>State University of Minas Gerais, Divinópolis, <sup>7</sup>Salgado de Oliveira University, Niterói

### **Abstract**

Drawing on samples from Canada, Pakistan, China, the US, and Brazil comprising over 800 employees, we examined whether servant leaders (SL) - characterized as putting the needs of others above their own (Greenleaf, 1970) - promote employees' wellbeing via autonomous motivation, accounting for employees' power distance and collectivism values as moderating variables. Autonomous motivation (Deci & Ryan, 1985; 2000), a type of self-regulation, sustains one's wellbeing (Baard, Deci, & Ryan, 2004). Personal values facilitate one's work behaviors (Kamakura & Mazzon, 1991) cross-culturally. Multigroup CFA results confirmed matrix invariance of all the measures. The path and moderation analyses result using multilevel SEM supported the positive direct and indirect paths among SL, autonomous motivation, and psychological wellbeing across the five cultures; Collectivistic value negatively moderating the relationship between servant leadership and autonomous motivation across the Chinese and US samples. In addition, with only a limited number of items, measurements of SL and vitality achieved scalar invariance. ANOVA test results also confirmed the significant comparative differences in these two variables among the cultural groups. Theoretical and practical implications of the research findings and future directions for leadership and employee motivational training in diverse cultural contexts are discussed.

### **Keywords:**

Servant leadership, autonomous motivation, personal values, psychological wellbeing

<https://event.fourwaves.com/self-2022/abstracts/370426b3-6e2b-43a1-bd40-066c43cec880>

## **38 - Self compassion as a Protective factor against Covid-19 Pandemic**

Dr Meetu Khosla<sup>1</sup>

<sup>1</sup>Associate Professor, University of Delhi, Delhi, India

The rapid emergence of COVID-19 in India caused severe emotional turmoil which drastically impacted the mindset and life of the youth. There was an aura of fear, distress, negativity that made life miserable and unhappy. This study aimed to explore the effect of self-compassion intervention on Coping with the Pandemic among young women and examine its implications for Life Satisfaction and Emotional wellbeing. 80 young women students from Delhi University (Mage=19.5 years) participated in the online study. 40 participants each were randomly assigned to the control condition (CC) and self-compassion condition (SCC). Baseline measures of self-compassion (Self-compassion Scale, Neff, 2003), life satisfaction (Satisfaction with Life Scale, Diener, Emmons, Larsen, & Griffin, 1985), and emotional wellbeing (PANAS, Watson, Clark & Tellegen, 1988) along with perceived stress (PSS, Cohen 1983) and coping styles (ESQ, Elklit, 1996) were taken. Participants in the self-compassion condition were trained to cultivate self-compassion for 40 minutes daily for one week and then asked to practice thrice for six weeks. Post-intervention measures were taken at the end of six weeks and after a follow-up of 8 weeks. ANCOVA revealed that self-compassion training significantly improved emotional wellbeing, life satisfaction, self-compassion, self-kindness, mindfulness, self-acceptance, problem-focused coping, reducing the degree of perceived stress and negative affect. Findings reveal that regular practice of self-compassion facilitates coping, and protecting one against the harmful effects of a stressful situation. This has implications for developing mental health programs for buffering the effects of stress and reducing the risk of developing mental health problems.

<https://event.fourwaves.com/self-2022/abstracts/e56cad6e-90c3-4417-8f25-0e73b95bcf62>

## **37 - Need satisfaction and need frustration as motivational dual- process to become prosocial and antisocial students.**

Hye-Ryen Jang<sup>1</sup>, Johnmarshall Reeve<sup>1</sup>, Sung Hyeon Cheon<sup>2</sup>, Yong-Gwan Song<sup>3</sup>

<sup>1</sup>Australian Catholic University, <sup>2</sup>Korea University, <sup>3</sup>Pukyong National University

We used the dual-process model within the self-determination theory framework to explain how physical education (PE) teachers' motivating styles and students' psychological needs explain longitudinal changes in the prosocial and antisocial behavior. Using a longitudinal research design, 1,006 middle and high school students (55% female) from 32 different secondary school classrooms completed the same questionnaire at the beginning (T1), middle (T2), and end of a semester (T3). Multilevel structural equation modeling (MSEM) analyses showed that T1 perceived autonomy support predicted T2 increase in need satisfaction ( $\beta = .09$ ,  $p = .019$ ), which predicted T3 increase in prosocial behavior ( $\beta = .26$ ,  $p < .001$ ), and also that T1 perceived teacher control predicted T2 increase in need frustration ( $\beta = .08$ ,  $p = .027$ ), which predicted T3 increase in antisocial behavior ( $\beta = .19$ ,  $p < .001$ ) (i.e., dual-process effects). Using Monte Carlo approach that is suitable to test mediational effect in MSEM, both mediational processes were significant (i.e., T1 perceived autonomy support  $\rightarrow$  T2 need satisfaction  $\rightarrow$  T3 prosocial behavior; T1 perceived teacher control  $\rightarrow$  T2 needs frustration  $\rightarrow$  antisocial behavior). Further, T1 high prosocial behavior ( $\beta = .11$ ,  $p < .001$ ) and low antisocial behavior ( $\beta = -.10$ ,  $p = .002$ ) both predicted T2 increase in perceived teacher-provided autonomy support (i.e., reciprocal effects). Overall, these findings highlight the important longitudinal interdependencies among perceived PE teacher autonomy support, need satisfaction, and prosocial behavior as well as the important longitudinal interdependencies among perceived PE teacher control, need frustration, and antisocial behavior.

<https://event.fourwaves.com/self-2022/abstracts/404b8eac-589e-447c-b31e-326634be3e44>

## **35 - Dealing with the Work Scheduling Challenges: A complete temporal analysis of employees' situational work motivation and well-being**

Zheni Wang<sup>1</sup>, Alexandra Panaccio<sup>2</sup>, Alison Wall<sup>1</sup>

<sup>1</sup>Southern CT State University, <sup>2</sup>Concordia University

Work schedule is a challenge to manage under the perceptions that employees dislike unconventional working hours for many psychological, social, and economic reasons. This research used a complete temporal approach (Shipp & Cole, 2015) to answer the research question of how time (subjective and objective time of the day, day of the week) predicts employees' daily/weekly well-being (vitality and affect; Ryan & Deci, 2001; Ryan & Frederick, 1997), basic needs satisfaction, and situational work motivation under the framework of self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2017) and hierarchical model of self-determined motivation (Vallerand, 1997; Vallerand & Ratelle, 2002). We collected the multi-level data using the survey structure outlined under the day reconstruction method (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) with both full-time corporate employees during the pandemic in the United States (US) and pre-pandemic part-time working undergraduate students in Canada in two studies. Multi-level structural equation modeling results showed that vitality started at a high level and decreased with both subjective and objective time of the day and day of the week. At the same time, affective well-being didn't demonstrate similar daily/weekly temporal patterns. In addition, work events scheduled during the weekend also had a significant positive indirect effect on vitality and positive affect through increasing basic needs satisfaction and situational autonomous motivation. Finally, we discussed the theoretical and practical implications of flexible work scheduling and how telecommuting/technology shapes new work configurations.

<https://event.fourwaves.com/self-2022/abstracts/847a7cbd-73d2-487a-bfd4-ccbb37976cf2>

## **34 - Zooming their way through university: Which Big 5 traits facilitated students' adjustment to online courses during the COVID-19 pandemic**

Élodie Audet<sup>1</sup>, Shelby Levine<sup>1</sup>, Ezelbahar Metin<sup>1</sup>, Sophie Koestner<sup>1</sup>, Stephanie Barcan<sup>1</sup>

<sup>1</sup>Department of Psychology, McGill University

Many students struggled with the abrupt transition to online classes required by the COVID-19 pandemic. The present research used a self-determination theory framework to examine the role of the Big 5 personality traits in university students' adaptation to online learning, measured by their quality of motivation, subjective well-being, self-efficacy, online engagement, and online satisfaction. A longitudinal study was conducted across the 2020 fall semester and included a total of 350 university students who answered surveys in September and December. Results showed that conscientiousness and openness to experience were associated with higher self-efficacy and with different forms of autonomous motivation for online learning. Conscientiousness was related to identified motivation, whereas openness to experience was related to intrinsic motivation. In contrast, neuroticism was related to increases in controlled motivation. Only openness to experience was strongly related to engagement with online learning and higher levels of subjective well-being. These findings suggest that openness to experience may be an adaptive trait for students' transition to online classes during these times of uncertainty.

<https://event.fourwaves.com/self-2022/abstracts/bd7a921f-d77f-4af5-95ab-3dda51215d05>

### **33 - Navigating the ups and downs: Peer and family autonomy support during personal goals and crises on identity development**

Élodie Audet<sup>1</sup>, Shelby Levine<sup>1</sup>, Anne Holding<sup>2</sup>, Theodore Powers<sup>3</sup>, Richard Koestner<sup>1</sup>

<sup>1</sup>Department of Psychology, McGill University, <sup>2</sup>Department of Psychology, New York University, <sup>3</sup>Department of Psychology, University of Massachusetts

Forming an identity is a critical developmental task that is affected by important people in an individual's social environment, such as friends and family members. This investigation compared whether autonomy support from different sources (family/peer) given in distinct contexts (personal goals/crises) was associated with identity exploration and commitment in university students over an 8-month academic year. The study used a five-wave prospective longitudinal design with identity measured at baseline and termination. Participants were asked to name two individuals who supported them during personal goal pursuits and two who supported them during times of crisis. Supporters were sorted into convoys of family and peers. Results showed that perceiving autonomy support during crises from both sources was associated with an increase in identity exploration, suggesting that family members and peers may play an important role during crises and in promoting identity exploration. By contrast, only family autonomy support for goals was related to greater identity commitment, suggesting that perceiving autonomy support from family in distinct circumstances may encourage different aspects of identity development. Basic need satisfaction mediated the relation between family autonomy support for goals and identity commitment and between family (but not peer) autonomy support during crises and identity exploration.

<https://event.fourwaves.com/self-2022/abstracts/5f7da107-f354-456d-9c76-6c5049769997>

## **32 - Need satisfaction and need frustration as motivational dual- process to become prosocial and antisocial students**

Hye-Ryen Jang<sup>1</sup>, Johnmarshall Reeve<sup>1</sup>, Sung Hyeon Cheon<sup>2</sup>, Yong-Gwan Song<sup>3</sup>

<sup>1</sup>Australian Catholic University, <sup>2</sup>Korea University, <sup>3</sup>Pukyong National University

We used the dual-process model within the self-determination theory framework to explain how physical education (PE) teachers' motivating styles and students' psychological needs explain longitudinal changes in the prosocial and antisocial behavior. Using a longitudinal research design, 1,006 middle and high school students (55% female) from 32 different secondary school classrooms completed the same questionnaire at the beginning (T1), middle (T2), and end of a semester (T3). Multilevel structural equation modeling (MSEM) analyses showed that T1 perceived autonomy support predicted T2 increase in need satisfaction ( $\beta = .09$ ,  $p = .019$ ), which predicted T3 increase in prosocial behavior ( $\beta = .26$ ,  $p < .001$ ), and also that T1 perceived teacher control predicted T2 increase in need frustration ( $\beta = .08$ ,  $p = .027$ ), which predicted T3 increase in antisocial behavior ( $\beta = .19$ ,  $p < .001$ ) (i.e., dual-process effects). Using Monte Carlo approach that is suitable to test mediational effect in MSEM, both mediational processes were significant (i.e., T1 perceived autonomy support  $\rightarrow$  T2 need satisfaction  $\rightarrow$  T3 prosocial behavior; T1 perceived teacher control  $\rightarrow$  T2 needs frustration  $\rightarrow$  antisocial behavior). Further, T1 high prosocial behavior ( $\beta = .11$ ,  $p < .001$ ) and low antisocial behavior ( $\beta = -.10$ ,  $p = .002$ ) both predicted T2 increase in perceived teacher-provided autonomy support (i.e., reciprocal effects). Overall, these findings highlight the important longitudinal interdependencies among perceived PE teacher autonomy support, need satisfaction, and prosocial behavior as well as the important longitudinal interdependencies among perceived PE teacher control, need frustration, and antisocial behavior.

<https://event.fourwaves.com/self-2022/abstracts/404b8eac-589e-447c-b31e-326634be3e44>



## **31 - Mindset, well-being and academic success: articulation of growth mindset, proactive coping and motivation in an achievement context**

Sacha Parada<sup>1</sup>, Jean-François Verliac<sup>1</sup>

<sup>1</sup>Université Paris Nanterre

This work aims to demonstrate the beneficial effects of growth mindset interventions on French university students, and to develop a comprehensive model linking both achievement and well-being factors to explain the successful – or not – adjustment of new students. Specifically, we hypothesize that individuals endorsing a growth mindset (malleable view of internal traits such as intelligence – opposed to a fixed mindset, Dweck & Legget, 1988) will foster autonomous regulation (being motivated to act by the potential gain or personal meaning of the action, or its intrinsic enjoyment – opposed to controlled regulation, Deci & Ryan, 2002). Doing so, students will endorse mastery-approach goals (approaching studying with learning and personal gain objectives – opposed to performance-avoidance goals, Bargh et al., 2010) and proactive coping strategies (positive reinterpretation of stressful events as challenges to overcome and continuous efforts to accomplish set objectives, Greenglass, 2002). We were able to statistically model the proposed theoretical articulation of variables, and find some effects of the growth mindset intervention in 3 experimental studies. Results were confirmed with meta-analysis and multi-level analysis. A confirmatory factor analysis was performed to validate the proactive coping scale developed and used in this work. Exploratory analysis also revealed the central role of mindset (malleable vs. fixed) present in the academic environment on the articulation of the variables at play. Results obtain for the intervention as well as the relevance of the established theoretical model are discussed in view of the current literature on the phenomenon of growth mindset (see meta-analysis by Sisk, 2018).

<https://event.fourwaves.com/self-2022/abstracts/a3032963-0869-43d9-95ba-913e89f5fd58>

## **29 - Predictors and Outcomes of Early Adolescents' Perceived Mastery after a Math Task**

Calah J. Ford<sup>1</sup>, Ellen L. Usher<sup>2</sup>

<sup>1</sup>Georgetown College, <sup>2</sup>University of Kentucky

Self-efficacy, the beliefs learners hold about what they can do, develops largely from how learners perceive and interpret the success level their direct experiences (i.e., perceived mastery). Although researchers have shown a strong relationship between perceived mastery and math self-efficacy, less is known about the factors that may influence learners' perceptions of mastery. The purpose of this study was to investigate how performance-related factors (i.e., number correct, perceived effort, perceived difficulty) might predict learners' perceived mastery in the domain of math. A secondary aim was to consider how those perceptions of mastery may be related to math self-efficacy, reengagement, intrinsic motivation, and performance. Adolescent students' (N = 286; Grades 4-8) completed two sets of three novel, online, algebraic math puzzles, in this correlational study. After each puzzle, students rated how difficult the puzzle was and how much effort they put forth. After the first puzzle set, students evaluated their perceived mastery on the task, task-specific math self-efficacy, and intrinsic motivation. They were also asked whether they wanted to reengage in the task. Students then completed a second set of puzzles. Path analyses revealed that when students perceived the task as difficult, they felt less successful. Conversely, when students reported exerting a high level of effort on the task, they felt more successful. Perceived mastery was directly and positively associated with task-specific math self-efficacy, intrinsic motivation, and performance on subsequent puzzles. Task-specific math self-efficacy was positively associated with intrinsic motivation, but negatively associated with subsequent performance. Implications of these findings are discussed.

<https://event.fourwaves.com/self-2022/abstracts/f6b61e97-a931-4c69-a49e-11b4bbd4744b>

## **28 - Higher Vocational Education Tourism Students' Career Choice in a Crisis Era**

Alexander SeeShing Yeung <sup>1</sup>, Monica Wai Chun Choy<sup>2</sup>

<sup>1</sup>Australian Catholic University , <sup>2</sup>Technological and Higher Education Institute of Hong Kong

Some disciplines in higher vocational education are more prone to damage by any crisis such as COVID-19, and tourism education is one of them. For a student to choose a tourism course, they will consider the conflict between their own intrinsic interest (motivational) and potential extraneous (demotivational) factors. To understand how vulnerable vocational education may be in an era of crisis, 407 tourism students in Hong Kong higher education were surveyed. Structural equation modelling found Affect was more positively correlated with all three outcomes than was Extraneous. Hence in face of challenges arising from extraneous factors, students still tend to have a strong intent to join the workforce, take it as a lifelong career, and remain resilient despite the hardship. The findings suggest that vocational education providers in tourism should consider revamping the curriculum and incorporate more technology in pedagogical approaches and ensure transferability of learnt skills/knowledge to re-build students' confidence and interest to launch their career after graduation.

<https://event.fourwaves.com/self-2022/abstracts/8558469d-27b4-4c77-940f-d567d2b147d2>

## 27 - Promoting College Students' Learning Motivation through Self-determination Theory-based Intervention

Yurou Wang<sup>1</sup>, Yadan Zhao<sup>2</sup>, Jihong Zhang<sup>3</sup>, Kaiwen Man<sup>1</sup>

<sup>1</sup>University of Alabama, <sup>2</sup>Dalian Neusoft University of Information, <sup>3</sup>The University of Iowa

It was widely acknowledged that the COVID-19 pandemic jeopardized students' motivation. This research uses three studies to explore whether the diminished learning motivation could recover over time and how the recovery happens. The first study was grounded in Self-determination Theory (SDT) to explore the motivation and regulation styles that affect students' academic performance mid- and post-COVID-19. Data were collected at two-time points (mid-COVID-19-pandemic: 12/2020; post-COVID-19 pandemic: 06/2021) with 223 Chinese undergraduate students. Results showed that students' regulation styles were external (study because of rewards or punishments). Therefore, in Study 2 (randomly selected 128 students from the participants in Study 1), a newly designed SDT-informed intervention was conducted to discover whether students' regulation styles can be improved to more internal types. The intervention contains four parts: a pretest of regulation styles, a video of knowledge about motivation and students' interview, a discussion session, and a posttest of regulation styles. Students' and teachers' feedbacks were collected after the intervention for modification and redesigning. In Study 3, the improved version of the intervention was delivered to college freshmen (participants). The intervention was administered in the experiment group (86 students), while no intervention was delivered in the control group (64 students). Students' regulation styles and end-of-semester academic performance were compared to understand the intervention's effectiveness. The results showed college students were not able to recover learning motivation by themselves, but after getting the SDT-based intervention, students were more likely to hold internal and autonomous regulation styles. Practical implementations of these findings were discussed.

<https://event.fourwaves.com/self-2022/abstracts/ecd12876-144a-4bf6-9091-5c55d2e00372>

## **26 - How self-determination theory can help us provide better health care to individuals, families and communities: Understanding the benefits of collaborative autonomy.**

Koestner Richard<sup>1</sup>, Ted Powers<sup>2</sup>, Shelby Levine<sup>1</sup>

<sup>1</sup>McGill University, <sup>2</sup>University of Massachusetts at Dartmouth

Self-determination theory (SDT) has emerged as perhaps the most important, empirically supported theory of human motivation in the 21<sup>st</sup> century. SDT highlights three basic psychological needs (autonomy, relatedness and competence) but it is unique in its emphasis on exploring the meaning and relevance of autonomy in our everyday lives. Previous research has confirmed the importance of autonomy support (from health care providers and close others) for health behaviors such as smoking cessation, diabetes management, and weight loss. Dr Koestner reviews his collaborative work on weight loss and vaccine hesitancy to argue that autonomy should be viewed as essentially collaborative rather than individualistic. He will describe his recent work on vaccination hesitancy in visible minority groups and discuss how a conception of “we-autonomy” rather than “me-autonomy” can help us to work effectively to overcome motivation problems such as vaccine hesitancy and the failure to internalize health care guidance.

<https://event.fourwaves.com/self-2022/abstracts/585d2b2a-bf16-40db-88bd-5484e520df91>

## **25 - Can we predict fathers' parental self-efficacy before the baby is born?**

Karl Larouche<sup>1</sup>, Tamarha Pierce<sup>1</sup>, Francine de Montigny<sup>2</sup>, Deborah Da Costa<sup>3</sup>, Christine Gervais<sup>2</sup>

<sup>1</sup>School of psychology, Université Laval, <sup>2</sup>Department of Nursing Sciences, Université du Québec en Outaouais, <sup>3</sup>Faculty of Medicine, McGill University

Fathers generally perceive themselves as less competent caretakers of young children than mothers (Gilmore & Cuskelly, 2009). Considering that fathers with higher levels of parental self-efficacy are usually more involved in parenting, which is generally recognized to enhance children's psychosocial development (Lamb, 2010, Tremblay & Pierce, 2011), it is important to understand what promotes the parental self-efficacy of fathers (PSEF). This study examines the contribution of prenatal factors to the understanding of the PSEF of fathers of infants, namely paternal and maternal psychological well-being (i.e., happiness, depression, anxiety), marital satisfaction, and fathers' perception of social support availability. It tests if prenatal contributions remain significant when postnatal factors usually associated with PSEF are considered. Three hundred and twenty couples, recruited in community health settings, completed questionnaires in the third trimester of pregnancy and when the child was 8-9 months old. A structural equation model indicates that paternal and maternal psychological well-being during pregnancy both significantly contribute to explaining PSEF almost a year later, while marital satisfaction and perception of social support availability strongly correlate with both spouses' psychological well-being. Although the coparental alliance and fathers' attitudes toward paternal and maternal roles, added in a second model, help explain the PSEF, the contributions of paternal and maternal psychological well-being remain unchanged. The importance of considering the psychological well-being of both spouses, before the birth of the baby, to understand PSEF will be discussed.

<https://event.fourwaves.com/self-2022/abstracts/259a848c-dbb3-45b0-897b-42840e715d4c>

## **24 - A Longitudinal Person-Centered Representation of Elementary Students' Motivation: Do Perceptions of Parent and Teacher Achievement Goals Matter?**

Lindsey Nadon<sup>1</sup>, Elizabeth Olivier<sup>2</sup>, István Tóth-Király<sup>1</sup>, Isabelle Archambault<sup>2</sup>, Alexandre J.S. Morin<sup>1</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Université de Montréal

Children's propensity to move towards positive educational outcomes (i.e., approach achievement goals) develops through their social experiences in various contexts, like at school or in the home (Anderman & Maehr, 1994; Kaplan & Maehr, 2002; Friedel et al., 2007). Furthermore, children's perceptions of the goals that their teachers and parents hold for them within these contexts are also critical when seeking to understand how their own achievement goals emerge and influence important educational and socio-emotional outcomes (Meece, Anderman & Anderman, 2006). The current study provides a novel contribution to the existing literature by jointly considering children's emerging achievement goals together with their perceptions of the achievement goals held for them by their parents and teachers via the adoption of a person-centered perspective. A sample of 619 elementary students (Grades 3-5), recruited in French-speaking and ethnically-diverse Montreal neighbourhoods, completed questionnaires in the spring of two consecutive school years. The French adaptation of the Patterns of Adaptive Learning Scales (Duchesne et al., 2012; Midgley et al., 2000) was used to assess students' own achievement goals, as well as their perceptions of the goals held for them by their parents and teachers. Four qualitatively and quantitatively distinct profiles were identified, consistent with the idea that achievement goals tend to spread across sources (i.e., children, parents, teachers), at least from children's perspective: Low on all goals (18%), high on all goals (19%), Mastery oriented (23%; i.e., high levels of mastery goals and low levels of performance goals across all sources), and Low mastery goals (40%; i.e., average performance goals and low mastery goals across all sources). These profiles proved to be highly similar over time, and latent transition analysis revealed that profile membership was moderately to highly stable from one school year to the next. These profiles differed in terms of teacher-reported academic achievement and student-reported anxiety. Specifically, mastery-oriented students displayed significantly higher levels of achievement than students' from all other profiles. In terms of anxiety, the profiles displaying the lowest levels of anxiety were the mastery-oriented and low on all goals profiles. Finally, profile membership was predicted by children's perception of their own competence in Math and French, such that students with higher perceived competence were significantly more likely to belong to the high on all goals and mastery-oriented profiles.

<https://event.fourwaves.com/self-2022/abstracts/7aad981d-3bd9-4b5d-b8fa-dacc13a79a20>

## **23 - The Phantom Mediator: Does Coping Help Explain the Relationship Between Fandom Identification and Well-Being in Furies and Star Wars Fans?**

Victoria A. Smodis McCune<sup>1</sup>, Courtney N. Plante<sup>2</sup>, Grace Packard<sup>3</sup>, Stephen Reysen<sup>4</sup>, Adrianna Mendrek<sup>2</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Bishop's University, <sup>3</sup>Georgia State University, <sup>4</sup>Texas A&M University-Commerce

Research based on social identity theory typically reveals lower levels of well-being among members of stigmatized minority groups. However, more recently, some studies have indicated that one's identification with the minority group could help to counter the negative effects of stigmatization. In the present series of studies, we analyze the relation between group identification and well-being among members of fandom (communities or subcultures built around a marked interest for a specific aspect of the popular culture, such as specific books or movies, and who are typically stigmatized as a result of their group membership), and test whether this relation is mediated by approach coping strategies. Study 1 relied on a sample of N = 186 furies (people playing the role of anthropomorphic animal characters), recruited through online furry fan pages. Study 2 relied on a sample of N = 188 Star Wars fans, recruited from online Star Wars fan pages. Study 1's results provided evidence for a significant mediation of the relation between fandom identification and well-being through approach coping strategies. More precisely, individuals who identified more with their fandom tended to report a higher tendency to use approach coping strategies which, in turn, were associated with higher levels of well-being. In contrast, Study 2's results failed to find evidence of mediation but supported the presence of positive associations between fandom identification, approach coping, and well-being. Both studies thus supported earlier findings of positive associations between identification with individuals' fandom and well-being, as well as substantial differences in these associations across distinct types of fandom. Implications of these results, as well as direction for future studies, will be discussed more thoroughly as part of the presentation.

<https://event.fourwaves.com/self-2022/abstracts/5daf4376-e7e7-4ce6-9903-4f4207dada65>



## **22 - Multi-trait Multimethod Measurement Models of Teacher-Student and Parent-Student Relationships in Youth with Intellectual Disabilities**

Céleste Dubé<sup>1</sup>, Alexandre J.S. Morin<sup>1</sup>, Christophe Maïano<sup>2</sup>, Elizabeth Olivier<sup>3</sup>, Danielle Tracey<sup>4</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Université du Québec en Outaouais, <sup>3</sup>Université de Montréal,

<sup>4</sup>Western Sydney University

Due to their more limited cognitive skills, reports from youth with intellectual disabilities (ID) are often ignored (Turk et al., 2012), or collected using scales that have never been validated for this population (Stringer & Heath, 2008). In this study, a short version of Pianta and Steinberg (1992) measures of teacher-student relationships (TSR), focusing on warmth and conflict) were adapted for youth with ID, and expanded to also cover their perceptions of relationships with their parents (parent-student relationships: PSR). The psychometric properties of these adapted measures were verified using sample of Australian (n = 253) and French Canadians (n = 142) adolescents with intellectual disabilities. In addition, their teachers and parents were asked to complete the same measures (TSR or PSR) focusing on their perceptions of their relationships with the target student, once while referring to their own feelings directed at the target student, and once while referring to their perceptions of the student's feeling toward them. Multi-trait multimethod analyses revealed that: a) youth, parents, and teachers were able to reliably assess the warmth and conflict dimensions of both TSR and PSR; b) that parents and teachers reports of their own perspective could not be differentiated from their perception of the student perspective; c) that each type of informant ratings were distinct from one another (with  $r < .500$ ), and provided complementary sources of information. The results further supported the measurement invariance of these measures across Canadian and Australian respondents, and longitudinally over a one year period.

<https://event.fourwaves.com/self-2022/abstracts/ff038d4f-331f-4707-a27a-c63432ca96ab>

## 21 - Substantive Methodological Synergies in Research on Student Motivation and Engagement.

István Tóth-Király<sup>1</sup>, Elizabeth Olivier<sup>2</sup>, Alexandre J.S. Morin<sup>1</sup>, David Litalien<sup>3</sup>, Mariann Valuch<sup>4</sup>, Beáta Bőthe<sup>2</sup>, Gábor Orosz<sup>5</sup>, Adrien Rigó<sup>6</sup>, Frédéric Guay<sup>3</sup>, Joshua L. Howard<sup>7</sup>, William Gilbert<sup>3</sup>, Benoit Galand<sup>8</sup>, Virginie Hospel<sup>8</sup>

<sup>1</sup>Concordia University, <sup>2</sup>Université de Montréal, <sup>3</sup>Université Laval, <sup>4</sup>University of Dundee, <sup>5</sup>Stanford University, <sup>6</sup>ELTE Eötvös Loránd University, <sup>7</sup>Monash University, <sup>8</sup>Université catholique de Louvain

Educational researchers currently face a time of fast-paced methodological innovations, growing interconnectedness, and exponential increases in computing power. This creates exciting opportunities for them to revisit unresolved issues, to tackle previously inaccessible problems, and to investigate new areas (Marsh & Hau, 2007). These opportunities come at the cost of having to keep pace with these new developments. Substantive-methodological synergies are specifically designed to fill this gap. In the present symposium, we illustrate advanced statistical models, and combinations of them, that have yet to be applied regularly in educational research. Focusing on student engagement and motivation, we illustrate: Paper 1) How multi-group latent profile analyses combined with preliminary bifactor analyses can be used to identify academic self-determination profiles and to test the similarity of these profiles across two samples of high school students; Paper 2) How multi-group latent profile analyses combined with preliminary exploratory structural equation modeling can be used to identify academic motivation profiles and to test the similarity of these profiles across disciplines among a large sample of PhD students; Paper 3) How growth mixture analyses combined with preliminary bifactor analyses can be used to identify profiles of secondary school students characterized by distinct longitudinal self-determination trajectories; Paper 4) How multilevel path analyses, combined with bifactor modeling, can be used to contrast alternative perspectives on the combined role of need-supportive teaching practices in the prediction of student engagement. Presenters will ensure a coverage of methodological and theoretical implications of the results.

<https://event.fourwaves.com/self-2022/abstracts/ee506b09-bf00-4b46-af52-323ee5649ad2>

## 20 - Substantive Methodological Synergies in Person-Centered Organizational Research.

Stéphanie Austin<sup>1</sup>, Alexandre J.S. Morin<sup>2</sup>, Ann-Renée Blais<sup>3</sup>, Nicolas Gillet<sup>4</sup>, Sophie Drouin Rousseau<sup>1</sup>, Claude Fernet<sup>1</sup>, Léandre-Alexis Chénard Poirier<sup>5</sup>, Jean-Sébastien Boudrias<sup>6</sup>, Simon A. Houle<sup>2</sup>

<sup>1</sup>Université du Québec à Trois-Rivières, <sup>2</sup>Concordia University, <sup>3</sup>Statistics Canada,

<sup>4</sup>Université de Tours, <sup>5</sup>Université du Québec à Montréal, <sup>6</sup>Université de Montréal

Quantitative researchers live in really exciting times of fast-paced methodological innovations, backed up with increasing computing power and growing interconnectedness and data availability. This creates opportunities to address previously inaccessible research problems, to revisit unresolved issues, and to address new research questions (Marsh & Hau, 2007). However, this also creates concerns for substantive researchers who fail to keep pace with new methodological developments. Substantive-methodological synergies are specifically designed to fill this gap. In the present symposium, we do so by illustrating breakthrough applications of advanced person-centered analytic models that have yet to be applied regularly in the organizational sciences. Whereas more common variable-centered analyses focus on average associations obtained across variables in a specific sample of participants, person-centered analyses focus on the identification of subpopulations of participants differing quantitatively and qualitatively from each other. In this symposium, focusing on employee burnout, engagement, commitment, and leadership perception, we illustrate how: Paper 1) classical latent profile analyses can be extended to more than one level of analyses; Paper 2) How latent transition analyses can be used to study longitudinal person-centered associations across constructs; Paper 3) How a hybrid combination of latent profile and mixture regression analyses can help to resolve the classical within-domain exacerbation phenomenon on the dual role of abusive and constructive leadership; Paper 4) How growth mixture analyses can contribute to our understanding of longitudinal trajectories of occupational commitment. Presenters will ensure a dual coverage of methodological considerations involved in model estimation and of the theoretical implications of the results.

<https://event.fourwaves.com/self-2022/abstracts/24706fd2-66da-41ae-b858-ff9a9cc048a4>

## **18 - Do I participate for the good reasons? Profiles of motivation in extracurricular activities among students at disadvantaged high schools**

Anne-Sophie Denault<sup>1</sup>, David Litalien<sup>1</sup>, André Plamondon<sup>1</sup>, Véronique Dupéré<sup>2</sup>, Isabelle Archambault<sup>1</sup>, Frédéric Guay<sup>1</sup>

<sup>1</sup>Université Laval, <sup>2</sup>Université de Montréal

Participation in ECAs could be especially beneficial for adolescents living in socioeconomically disadvantaged communities (Crosnoe et al., 2015; Morris, 2015). From an intervention standpoint, it is thus important to know what motivates these adolescents to participate in these activities and what are the key experiences fostering more self-determined forms of motivation. Based on self-determination theory (SDT; Ryan & Deci, 2000), the study's aim was threefold: to identify high school student profiles of motivation for participating in extracurricular activities, to predict profile membership using indicators of need satisfaction and gender, and to verify whether the profiles predicted continued participation the following year. The sample was composed of 263 students at disadvantaged high schools (54% girls,  $M_{age} = 14.54$ ). Results revealed four profiles based on three types of motivation (intrinsic, identified, and introjected): Poorly motivated ( $n = 113$ , low scores on all types), Moderately motivated ( $n = 93$ , average scores on all types), Highly motivated ( $n = 11$ , high scores on all types), and Autonomously motivated ( $n = 46$ , high scores on intrinsic and identified, and low scores on introjected motivation). Perceived autonomy support from the activity leader and competence were the most robust predictors of profile membership. The Autonomously motivated profile also predicted continued ECA participation relative to the Poorly motivated profile. These results could provide useful information to school staff working in low-resources schools to support student participation in ECAs over time.

<https://event.fourwaves.com/self-2022/abstracts/595dd855-3c4c-4d07-806d-3541e4ae4edc>

## **16 - Assessment and conceptualization of perceived competence in ice hockey**

Vincent Huard Pelletier<sup>1</sup>, Jean Lemoyne <sup>1</sup>

<sup>1</sup>Université du Québec à Trois-Rivières

Perceived competence refers to an individual's perception of his own abilities in a given performance domain (Horn, 2004). It is a multidimensional and hierarchical concept that influences the quality of the sports experience (Bortoli et al., 2011), but it is often difficult to measure it currently in ice hockey because the existing questionnaires are not specific to this sport and concentrate mainly on physical self-concept or sport competence (Huard Pelletier et al., 2020). To compensate for the shortcoming in the literature, we decided to develop and validate the Test of perceived Competencies in Hockey (TECH). Our analyses reveal that perceived competence in ice hockey is divided into 6 dimensions (physicality, hockey IQ, offensive abilities, defensive abilities, leadership and resilience) and that the 29-item tool had to be reduced to 26 items to achieve satisfying content validity and reliability measures. A two-factor analysis by ESEM also revealed the presence of a general ice hockey competence factor on which all items loaded significantly. The following phases of the project will allow us to measure its criterion validity with the on-ice and off-ice performances of a sample of approximately 200 elite ice hockey players. Our results highlight the challenges related to the assessment and conceptualization of perceived competence in a sport as complex as ice hockey, while demonstrating its feasibility. The questionnaire can be filled out in less than 5 minutes by ice hockey players 12 years old or older, making it potentially very useful for sports sciences academic and ice hockey practitioners.

<https://event.fourwaves.com/self-2022/abstracts/e92818d2-5e43-45d7-a853-42d0e3243974>

## **13 - Mastery, performance, outcome, and work-avoidance goals: Longitudinal trajectories and relations to achievement and well-being**

Junlin Yu<sup>1</sup>, Pia Kreijkes<sup>2</sup>, Katariina Salmela-Aro<sup>1</sup>

<sup>1</sup>University of Helsinki, <sup>2</sup>University of Cambridge

Despite calls to broaden the goals studied, research continues to focus primarily on mastery and performance goals. This four-year study examined the development of outcome and work-avoidance goals across the middle school transition alongside mastery and performance goals. In doing so, it identified the trajectories and consequences of outcome and work-avoidance goals, as well as revisited the debate concerning the relations of mastery and performance goals with achievement. A cohort of 1072 Finnish students were assessed at four time points from the end of elementary school through middle school (Grades 6-9, ages 13-16). Latent growth models revealed that students' mastery, outcome, and performance-avoidance goals declined, but work-avoidance goals increased over time. Contrary to mastery and performance-avoidance goals, outcome and work-avoidance goals displayed stability across the school transition but showed more pronounced changes towards the end of middle school. Furthermore, changes in outcome and work-avoidance goals were closely tied to the development of academic achievement, life satisfaction, and burnout. Change in performance-approach goals, however, was unrelated to changes in student outcomes. Pre-transition growth mindset and perceived competence did not mitigate the decline of student motivation, but teacher emotional support stalled the increase in work avoidance. Based on the findings, we suggest that researchers incorporate other goals that are commonplace in authentic achievement contexts and are consequential for student learning and well-being.

<https://event.fourwaves.com/self-2022/abstracts/6a63dda9-6562-48c4-b55b-aa56da9bd5d9>

## **12 - The Moderating Role of Classroom Goal Structure in the Relation between Students' self-evaluation bias of their competence and mathematics achievement.**

Nadia Leroy<sup>1</sup>

<sup>1</sup>Université Grenoble Alpes

**Background.** Self-evaluation bias of school competence corresponds to the gap between a student's real potential based on a standardized test and their self-evaluation of school competence (Bouffard & Narciss, 2011). This gap can be positive (overestimation of competence) or negative (underestimation). Although many results showed that a negative self-evaluation bias is linked to negative consequences in school contexts, the influence of a positive self-evaluation bias is not yet clear. Several researchers argue that a positive self-evaluation bias is adaptive because it acts as an inner resource that fuels the motivation to learn (e.g., Bouffard et al., 2006). Other researchers (e.g., Butler & Winne, 1995) argue in favor of realistic self-evaluations being the only adaptive ones whereas overestimation could be deleterious. To date, no study has explored how the effects of students positive self-evaluation bias combine with their perceptions of the classroom goal structure to explain the different patterns of results in the literature.

**Aims.** The first aim was to examine the link between students' perceptions of the classroom goal structure and their positive self-evaluation bias. The second aim was to investigate how the classroom goal structure, as perceived by students, moderates the relationship between students' positive self-evaluation bias and mathematics achievement.

**Sample.** Participants were 978 6<sup>th</sup> grade students.

**Results.** Our results indicated that the relationship between a positive self-evaluation bias and mathematics achievement was negatively moderated by the perception of a classroom goal structure promoting a performance achievement goal.

<https://event.fourwaves.com/self-2022/abstracts/18675770-e8bd-439b-a569-bbb1322307e9>

# 11 - The Role of Emotional Contagion in the Transmission of Passion in Education

Tanya Chichekian<sup>1</sup>, Sonia Rahimi<sup>2</sup>, Robert Vallerand<sup>2</sup>

<sup>1</sup>Université de Sherbrooke, <sup>2</sup>Université du Québec à Montréal

An emerging stream of research has demonstrated the powerful role of teachers' emotions in influencing students' motivation, an effect called emotional contagion wherein students "catch" their teachers' emotions. The present research tests a passion transmission model between teachers and students. According to the Dualistic Model of Passion, a loved activity becomes internalized into a person's identity in either an autonomous or controlled fashion, fostering the development of a predominantly harmonious passion (HP) or obsessive passion (OP). The objectives of this research were to examine: (1) the role of teacher autonomy support and passion for teaching to explain students' passion for a specific discipline and (2) the mediating role of emotions in the transmission of teachers' passion to students' passion from the perspective of teachers (Study 1, n = 208, 73 males, 135 females) and students (Study 2, n = 200, 122 males, 78 females). In both studies, the potential to transmit obsessive or harmonious passion in education was supported by students' perceptions of their teachers' autonomy-support and passion for teaching and mediated by the vital role of positive and negative emotions. These findings provide preliminary support for a Passion Transmission Model through an emotional contagion, whereby passion could be viewed as being contagious in the classroom. Such results highlight the vital role that emotions could potentially play in the transmission process and guide future research focusing on the use of interventions to promote positive emotions in teachers.

<https://event.fourwaves.com/self-2022/abstracts/38182035-cebf-4f10-beb9-c2c98d722b0f>



## 10 - A New Interpretation of the Comparison Effects in the I/E Model and Generalized I/E Model

Fabian Wolff<sup>1</sup>

<sup>1</sup>University of Koblenz-Landau, Koblenz Campus

The internal/external frame of reference (I/E) model describes the formation of students' math and verbal self-concepts by the joint effects of social comparisons (where students compare their subject-specific achievements with those of their classmates) and dimensional comparisons (where students compare their math and verbal achievements with each other). To date, researchers have examined this model in numerous studies. However, these studies have overestimated the effects of social comparisons because they did not recognize that the social comparison effects in the I/E model also result from dimensional comparisons. In this presentation, I will explain this misunderstanding by developing the difference I/E (dIff/E) model, which represents the joint effects of social and dimensional comparisons more adequately. Furthermore, I will transfer my argument to the generalized I/E (GI/E) model, which was introduced to describe the impact of social and dimensional comparisons on various domain-specific constructs (e.g., students' self-concepts in multiple subjects), but in which the so-called "social comparison effects" are also composed of social and (several) dimensional comparison effects. To substantiate my argument, I will analyze data in which students were explicitly asked to rate their math achievement in comparison to their peers and to their verbal achievement, using both the I/E model and dIff/E model approach. Moreover, I will discuss specific findings of prior I/E model studies, which require a reinterpretation or only become plausible in light of the insight that dimensional comparisons affect the social comparison effects in the I/E model. Finally, I will make suggestions for future (G)I/E model studies.

<https://event.fourwaves.com/self-2022/abstracts/89bc311e-cb6a-4239-942a-e6da50ca2b68>

## **9 - How a Socially Shared Approach May Rescue the Teaching of Learning Regulation**

Laurie Faith<sup>1</sup>

<sup>1</sup>OISE / University of Toronto

Self-regulated learning (SRL) is a fundamental skill for school and life. Much is known about how to effectively teach and support it in a classroom, though teachers often retreat to more structured, external learning regulation. Experts have identified the important role of pedagogical knowledge and personal self-regulated learning in helping teachers successfully persevere with SRL teaching attempts, and teacher training programs target these specifically with pre, post, and concurrent learning experiences. In this paper, we explore the real-time learning and development that may be available to teachers during socially shared forms of learning regulation (SSLR). Specifically, we argue that by engaging with their students in whole-class SSLR teachers may receive urgently needed pedagogical information and personal SRL development. We present qualitative interview data gathered from 12 users of an SSLR intervention to characterize the in-service learning and growth that the use of this approach may enable.

<https://event.fourwaves.com/self-2022/abstracts/41cefc2a-b5d9-45b7-a0de-a93f90db6755>

## 8 - Mindset and Achievement Goals: A Dual-Domain Study with Student-Athletes

Patrick Gaudreau<sup>1</sup>, Melodie Chamandy<sup>1</sup>, Laurence Boileau<sup>1</sup>

<sup>1</sup>University of Ottawa

Student-athletes are constantly in high stake situations for which they must attain high standards of achievement in order to succeed. This constant pressure can make it easier for some students to pursue goals that aim to master or to improve on their skills (i.e., mastery goal orientation; self-improvement orientation), while for others, the goal is to outperform others (i.e., performance goal orientation). Of importance, students' achievement goals have been suggested to be shaped by their implicit beliefs toward achievement (Dweck et al., 1995). Students who believe that skills are fixed and difficult to change possess an entity belief. Conversely, students who believe that skills can be increased through effort possess an incremental belief. To date, no studies have examined how these processes operate in the lives of university student-athletes in both their school and sport activities. The present study examined the mindset and achievement goals of 557 student-athletes in a dual-domain model. Structural equation modeling revealed that entity and incremental beliefs were distinct – yet not-mutually exclusive – constructs across (Entity;  $r = .48$ ,  $p < .001$ ; Incremental;  $r = .29$ ,  $p < .001$ ) and within (Academic;  $r = -.16$ ,  $p < .001$  Sport;  $r = -.13$ ,  $p < .001$ ) domains. Incremental beliefs at school and in sports were respectively associated with mastery-oriented goals in school ( $\beta = .17$ ) and sport ( $\beta = .13$ ). Student-athletes hold different set of beliefs at school and in sports. Despite wanting to achieve the highest levels of performance, they know that mistakes and failures are part of the process.

<https://event.fourwaves.com/self-2022/abstracts/f2dc6648-93f4-4602-816e-19cef118f85b>

### 3 - From residency to practice: Motivations for learning of early-career family physicians

Mao Ding<sup>1</sup>, Oksana Babenko<sup>1</sup>, Olga Szafran<sup>1</sup>, Lillian Au<sup>1</sup>, Sudha Koppula<sup>1</sup>

<sup>1</sup>University of Alberta

**Background:** In medical education, an understanding of motivations for learning is important for developing strategies for physician learning to address patients' evolving needs. Physicians with mastery motivation (goals) are better prepared to learn, adapt, and succeed.

**Objectives:** To examine the motivations for learning (goals) of family physicians over three years in practice following completion of a competency-based medical education (CBME) residency program.

**Method:** A longitudinal survey study of a family medicine resident cohort (n=70) at a large Canadian university was performed. Data were collected at the end of residency training, one and three years into clinical practice. 52 (74%), 43 (61%), and 29 (41%) residents completed the questionnaire at each time. Baranik et al.'s instrument was used to measure three types of motivations (goals): mastery – self-directed, intrinsic motivation towards learning; performance approach – motivation towards impression management; and performance avoidance – motivation towards ego-protection.

Descriptive and multivariate analyses of variance were performed. **Results:** Irrespective of time in practice, mean scores were the highest on the mastery goals and the lowest on the performance avoidance goals ( $P < 0.001$ ). With time, however, mastery scores decreased ( $P = 0.04$ ).

**Conclusion:** Family physicians trained in a CBME residency program continued to be mastery-oriented in the first three years of independent practice. While this finding is reassuring, the downward trend in mastery scores is alarming. Future research is needed to determine how residency programs can better support graduating physicians in maintaining mastery goals throughout their practice.

<https://event.fourwaves.com/self-2022/abstracts/0361528c-48ac-4d02-94fe-2da765bb70f0>

## **2 - Autonomy support and autonomous motivation's roles in the school-to-work transition and well-being of students with learning difficulties**

Pascale Dubois<sup>1</sup>, Frédéric Guay<sup>1</sup>, Marie-Catherine St-Pierre<sup>1</sup>

<sup>1</sup>Université Laval

School-to-work transition is a challenging period for students with learning difficulties (LD). However, little is known about how self-determination theory (SDT) concepts could help explain both the status of this transition and well-being during this period for this population. Therefore, we investigate the role of four sources of autonomy support (mother, father, teacher, and friends), and autonomous motivation toward job search to predict these two outcomes.

We conducted two studies. The first study - the retrospective one- comprised 37 young adults with developmental language disorder, a specific disorder associated with LD (mean age=25.19). The second study- the prospective one- was conducted among 218 students (mean age=17.00) with learning difficulties.

In the retrospective study, perceived autonomy support was significantly associated with job search autonomous motivation ( $b=.25$ ,  $p<.05$ ), with a positive prediction from the father and teacher. Second, autonomous motivation did positively predict well-being ( $b=.36$ ,  $p<.001$ ). In the prospective study, we used structural equation modeling to examine the same relations. The overall models had good fit indices for school-to-work transition (RMSEA=.000, CFI=1.000, TLI=1.011) and for well-being (RMSEA=.023,  $p=.997$ , CFI=.989, TLI=.986). Autonomy support from father, and friends in the first case, significantly predicted autonomous motivation, which in turn positively predicted school-to-work transition and well-being.

As postulated by SDT, the autonomy support provided by various sources is important in fostering an autonomous motivation toward job search, which in turn supports well-being and school-to-work transition. Therefore, the social environment in which students with LD evolve seems to matter.

<https://event.fourwaves.com/self-2022/abstracts/c35eb244-0e20-4652-b206-58e74eee9ac1>

# **1 - Black Girls' Conceptualization of Belonging in Middle School Math Classrooms: A Race-Reimagined Approach**

Brooke Harris-Thomas<sup>1</sup>

<sup>1</sup>Michigan State University

There is evidence to suggest that culture and context significantly impacts how an individual construes opportunities to belong. This case study explores the conceptualization of belonging in math from middle school Black girls' perspectives. In centering Black girls' voices and experiences, the girls in this study become significant contributors to educators' understanding of the dynamic nature of school belonging from a race-reimagined perspective. Using multiple data sources, the participants were able to convey their operationalized view of belonging within their math classrooms. While findings did reveal a picture of belonging consistent with prior research, there seemed to be evidence to suggest that the Black girls in the study saw competence as a precursor to experiencing belonging within the math classroom.

<https://event.fourwaves.com/self-2022/abstracts/9e24c009-209d-45e4-a0b2-ef4e855e600a>