

# Hedonic and Eudaimonic Motives Toward University Studies: How They Relate to Each Other and to Well-Being Derived from School

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## Abstract

Eudaimonic motives (seeking growth, authenticity, excellence, meaning), hedonic enjoyment motives (seeking pleasure, fun), and hedonic comfort motives (seeking relaxation, ease) are major ways people pursue well-being. These motives have been primarily studied at the global level and hedonic enjoyment and hedonic comfort motives are often combined. To date, no studies have examined these well-being motives for the academic context. The aim of this research was to examine the factor structure of the Hedonic and Eudaimonic Motives for Activities scale (HEMA; Huta & Ryan, 2010) in the academic context, the intercorrelations between these motives in this context, and the relationship between these motives and well-being derived from academic studies. In a sample of undergraduate students ( $n = 405$ ) principal components analysis and confirmatory factor analysis of the HEMA showed that a three-factor model was a better fit than a two-factor model in the academic context. The correlations between hedonic enjoyment motives and hedonic comfort motives were also not too large, suggesting that they are different concepts in the academic context. Consistently, both eudaimonic and hedonic enjoyment motives positively related to well-being experiences measured, whereas hedonic comfort motives did not. Eudaimonic motives also had significantly stronger relationships with experiences of school satisfaction, meaning, elevation, self-connectedness, and interest at school compared to hedonic enjoyment motives. These studies indicate that it is important to distinguish between eudaimonic, hedonic enjoyment, and hedonic comfort motives in the academic context and that they have different relationships to well-being derived from school.

**Keywords:** Eudaimonia, hedonia, well-being, students, school

## Introduction

Researchers have identified several main ways in which people pursue well-being and fulfillment in their activities and in life. These can be called well-being motives and include eudaimonic motives (seeking growth, authenticity, excellence, and meaning), hedonic enjoyment motives (seeking pleasure, enjoyment, and fun), and hedonic comfort motives (seeking relaxation and ease; Bujacz, Vittersø, Huta, & Kaczmarek, 2014;

Huta & Waterman, 2014; Ryan & Deci, 2001; Waterman, 1993). As proposed by Vallerand's (1997) hierarchical theory, various motives (including well-being motives) exist at several different levels: the global level (trait level), the situational level (state level), and the contextual level (domain level such as school, work, leisure, sports, arts, etc.).

As reviewed below, eudaimonic, hedonic enjoyment, and hedonic comfort motives can relate to each other and

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to well-being differently depending on the context being examined, making it important to distinguish between contexts when studying these motives. However, these motives have been primarily studied at the global level (e.g., Huta, Pelletier, Baxter, & Thompson, 2012; Huta & Ryan, 2010; Kryza-Lacombe, Tanzini, & O'Neill, 2018; Ortner, Corno, Fung, & Rapinda, 2018; Peterson, Park, & Seligman, 2005), and occasionally at the situational level (Huta & Ryan, 2010; Huynh, Oakes, Shay, & McGregor, 2017), without differentiating between contexts. Some studies have examined these motives at the contextual level by investigating people's eudaimonic and hedonic motivation toward different activities such as physical exercise (Mack et al., 2011), physical exercise education (Behzadnia & Ryan, 2018), leisure activities (Anić, 2014), and entertainment consumption (Igartua & Barrios, 2013; Oliver & Raney, 2011; Tsay-Vogel & Krakowiak, 2016). Researchers have also measured these motives at a global level but focused on contextual outcomes such as academic achievement and job satisfaction (Kryza-Lacombe et al., 2018; Martínez-Martí & Ruch, 2017; Proyer, Annen, Eggimann, Schneider, & Ruch, 2012) or specific populations such as cardiac rehabilitation graduates and community and residential staff supporting adults with autistic spectrum conditions (Merrick, Grieve, & Kogan, 2017; Saunders, Huta, and Sweet, 2018).

Despite some focus on the contextual level in past studies, no research has yet examined eudaimonic, hedonic enjoyment, and hedonic comfort motives toward university studies (i.e., the kind of fulfillment students hope to experience during their university studies), including the factor structure, the intercorrelations between these motives, and how they relate to well-being derived from school. University studies is of particular interest because it is an integral part of most people's lives, as over half of Canadians aged 25 to 64 have college or university qualifications (Statistics Canada, 2017). Furthermore, motivation for attending university is diverse because there are multiple aspects of university culture that attract students. For example, some students may focus more on the opportunity to learn and master a field of study that interests them, which is more compatible with eudaimonic motives. This is why, as described in detail later, eudaimonic motives seem to be particularly good fit for the academic context. In contrast, other students may focus on the social aspects of school, including the development of peer groups and engaging in a culture of partying (Marzell, Bavarian, Paschall, Mair, & Saltz, 2015), which is more congruent with hedonic motives. Consequently, hedonic motives

seem to be less ideal for deriving well-being from university studies, especially when considering hedonic comfort motives, because students may spend too much time engaging in non-academic activities.

The university culture also provides a flexible schedule with less structure and monitoring, making it the first time that many students (e.g., coming from high school) have substantial freedom and choice in how they spend their time (Moffat, 1991). This increase in autonomy and responsibility makes the type of fulfillment students wish to derive from education (e.g., personal growth and excellence, enjoyment and fun, or comfort and ease) especially important, because one's motives will likely impact the activities and experiences they seek in their free time. Although no research presently examines well-being motives toward school, one study appears to support the benefit of eudaimonic motives in the academic context. Specifically, eudaimonic motives measured at the global level related to higher GPA in college students (Kryza-Lacombe et al., 2018), whereas hedonic motives did not.

To further examine whether eudaimonic motives are a better fit than hedonic motives in the academic context, the present study examined the relationship between well-being motives toward school and well-being derived from university studies. This is important because research has consistently shown that well-being relates to several positive outcomes in specific contexts, including work, health, and relationships (e.g., Kansky & Diener, 2017). Well-being at school has also related to several adaptive outcomes in the academic context, including higher grades, persistence, hope, self-esteem, internal locus of control, and global well-being (e.g., Gilman & Huebner, 2003; Huebner & Gilman, 2006), as well as lower levels of emotional problems such as anxiety, depression, negative self-concept, somatization, and hostility (e.g., Kaplan, 2017). Furthermore, experiencing positive emotions at school can broaden one's attention, cognition, action, and build physical, intellectual, and social resources (Fredrickson, 2001; Fredrickson & Branigan, 2005). As such, examining the relationship between students' well-being motives toward university studies and well-being derived from it can provide educators with insight on which motives lead to more adaptive outcomes.

### **Eudaimonic, Hedonic Enjoyment, and Hedonic Comfort Motives**

In examining well-being motives, we recognize that researchers have defined and operationalized eudaimonia and hedonia in four different definitional

categories (Huta & Waterman, 2014): Orientations (e.g., personal reasons, motives, values, and goals); behaviours (e.g., actions that people engage in); experiences (e.g., subjective emotions, feelings, and cognitive-affective appraisals); and functioning (e.g., abilities, habits, strengths, and accomplishments). In the present study we focus on eudaimonia and hedonia as orientations (and more specifically motives). When referring to eudaimonia and hedonia as orientations, we will use the terms *eudaimonic motives* and *hedonic motives* throughout.

As reviewed by Huta and Waterman (2014), and elaborated by Huta (2015), we define eudaimonic motives as the pursuit of authenticity (being true to oneself, autonomy), meaning (caring about the bigger picture, contributing), excellence (quality performance, ethical behavior), and growth (developing one's potential, striving toward maturity). Hedonic motives are defined as the pursuit of pleasure (positive emotions, enjoyment) and comfort (relaxation, ease). The two main scales in the literature that measure eudaimonic and hedonic motives are the Hedonic and Eudaimonic Motives for Activities (HEMA) scale (Huta & Ryan, 2010) and the Orientations to Happiness (OTH) scale (Peterson, Park, & Seligman, 2005). The HEMA is used in the present study because it measures both hedonic enjoyment and hedonic comfort, while the OTH only measures hedonic enjoyment. In our research, we wished to determine whether there was a significant difference between enjoyment motives and comfort motives in the academic context because we think the distinction will be particularly relevant. For example, hedonic enjoyment motives may represent engagement in the pleasurable aspects of school, whereas hedonic comfort motives may represent avoidance from the responsibilities of school. Therefore, we set out to examine the factor structure of the HEMA when applied to the academic context.

### Factor Structure of Well-Being Motives

No studies to date have examined the factor structure of well-being motives toward the academic context. Most research has focused on the distinction between well-being motives at the global level. These studies show that eudaimonic and hedonic motives separate into distinct factors, regardless of whether the HEMA (Huta & Ryan, 2010; Huta, 2016a) or the OTH (e.g., Anić & Tončić, 2013; Chen, 2010; Peterson et al., 2005; Ruch, Harzer, Proyer, Park, & Peterson, 2010) was used. However, with the HEMA, there is also evidence for the viability of a three-factor solution that differentiates hedonic enjoyment and hedonic comfort motives (Asano,

Igarashi, & Tsukamoto, 2014; Asano, Tsukamoto, Igarashi, & Huta, 2018; Bujacz, Vittersø, Huta, & Kaczmarek, 2014).

Two studies have examined the factor structure of eudaimonic and hedonic motives using the HEMA at the contextual level. When studying motives for people's favourite leisure activities, Anić (2014) found that the HEMA separated into eudaimonic and hedonic factors. In the physical education context, Behzadnia and Ryan (2018) found that a Persian translation of the HEMA separated into three factors.

Overall, it appears there is support for two- and three-factor variants of the HEMA in both the global and some contextual levels. We thus investigated whether the HEMA is better characterized by two (eudaimonic and hedonic motives) or three factors (eudaimonic, hedonic enjoyment, and hedonic comfort motives) in the academic context to help improve the way in which well-being motives toward school are measured, thus providing a more accurate understanding on how these motives relate to each other and well-being derived from academic studies.

### Relationship Between Well-being Motives

The relationship between eudaimonic and hedonic motives has varied substantially depending on the level of motivation being studied (i.e., global, situational, contextual), making the relationships between these motives in the academic context of particular interest. When describing the strength of the relationship we will use Cohen's (1992) guidelines for small, moderate, and large effect sizes for Pearson correlations (.10, .30, .50 respectively).

Most research that examined the relationship between motives at the global level using a two factor-model has shown that eudaimonic and hedonic motives typically related positively with each other to a small to moderate degree (Anić & Tončić, 2013; Chen, 2010; Huta, 2012; Huta et al., 2012; Huta & Ryan, 2010; Kryza-Lacombe et al., 2018; Ortner et al., 2018; Peterson et al., 2005; Ruch, et al., 2010; Saunders et al., 2018). When examining a three-factor model at the global level, eudaimonic motives typically positively related with hedonic enjoyment motives to a large degree and with comfort motives to a small degree (Asano et al., 2014; Asano et al., 2018; Bujacz, et al, 2014). Hedonic enjoyment and hedonic comfort motives were also typically positively related with each other to a moderate to large degree.

When shifting focus to the contextual level, research has shown that different types of activities significantly impact how eudaimonic and hedonic motives relate to

each other. Anić (2014) examined motives toward people's favourite leisure activities and found that the type of activity moderated the relationships between eudaimonic and hedonic motives such that active leisure activities (i.e., artistic, sports, and dancing) had large correlations between hedonic and eudaimonic motives, whereas entertainment leisure activities (i.e., media and music, reading, socializing, and outdoor activities) had moderate correlations between them. Mack and colleagues (2011) also found a large positive correlation between eudaimonic and hedonic motives when studying leisure-time physical exercise. Finally, Behzadnia and Ryan (2018) examined the relationship between motives toward the physical exercise education context using a three-factor solution. They found that eudaimonic motives positively correlated with hedonic enjoyment motives to a moderate degree and with hedonic comfort motives to a small degree, whereas hedonic enjoyment and hedonic comfort motives positively correlated with each other to a moderate degree. Overall, these results indicate that the relationship between well-being motives differ across life contexts and depend on whether a two- or three-factor solution is being examined. It is currently unclear how strongly these well-being motives relate with each other in the academic context and with well-being experiences.

### Well-Being Experiences

Past research on students' well-being at school has predominantly measured *subjective well-being* (SWB; Diener, Suh, Lucas, & Smith, 1999), which includes feelings of high positive affect, low negative affect, and high life satisfaction (e.g., Huang, 2011; Huebner, 2006; Liu, Mei, Tian, & Huebner, 2016; Pekrun, Elliot, & Maier, 2009; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011; Tian, 2008). Several researchers believe measuring SWB alone provides an incomplete picture of well-being and argue that it is important to measure other experiences (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011; Huta, 2016b; Vittersø, 2013; Waterman, 1993). Experiences proposed to be important for a more well-rounded understanding of well-being includes: The experience of *meaning* (feeling that one's experiences and activities have been personally meaningful, valuable, and have broader implications; Delle Fave et al., 2011; Huta, 2017; Huta & Ryan, 2010; Steger, Frazier, Oishi, & Kaler, 2006; Steger, Shin, Shim, & Fitch-Martin, 2013); *elevation* (inspiration, awe, uplifted spirit, and sense of self-transcendence; Haidt, 2000; Huta & Ryan, 2010; Keltner & Haidt, 2003); *self-connectedness* (feeling connected with

oneself and in touch with what one values; Huta, 2012; Schlegel, Hicks, King, & Arndt, 2011); and *interest* (engagement, interest, immersion; Vittersø & Søholt, 2011). These experiences have theoretically been referred to as eudaimonic, since they are less about affective pleasantness than about cognitive-affective feelings of fit, integration, congruence, and "feeling right". In addition, it has been proposed that *vitality* (feeling alive and energized) is an important outcome and should be assessed more routinely (Ryan & Frederick, 1997). To our knowledge, the only well-being experience beyond SWB that has received considerable attention in the academic context has been interest/engagement (e.g., Fredericks, Blumenfeld, & Paris, 2004; Kuh, 2009; Mazer 2013). By considering eudaimonic, hedonic enjoyment, and hedonic comfort motives, the present study sought to consider whether each of these motives relate to specific forms of well-being in the academic context.

### Correlations of Well-Being Motives with Well-Being Experiences

Research has demonstrated that both eudaimonic and hedonic motives have related to greater levels of personal well-being, although in different ways. At the global level, eudaimonic motives have been more positively related to meaning, elevation, self-connectedness, and interest, and more negatively related to depression and stress, whereas hedonic motives are more positively related to carefreeness and state-level affect (Huta, 2016b; Huta & Ryan, 2010; Kryza-Lacombe et al., 2018; Ortner et al., 2018; Peterson et al., 2005). Both hedonic and eudaimonic motives have positively related to positive affect, life satisfaction, and vitality at the global level to the same degree. Asano and colleagues (2014, 2018) also examined the differential correlates of these motives when separating hedonic motives into hedonic enjoyment and hedonic comfort motives. In these studies, eudaimonic motives were consistently positively correlated with experiences of positive affect and meaning, hedonic enjoyment motives were consistently positively correlated with experiences of positive affect, meaning, and calmness, and hedonic comfort motives were consistently positively related to calmness.

To our knowledge, one study has examined the relationship between eudaimonic and hedonic motives and well-being experiences at the contextual level. When examining motives toward physical exercise education classes, Behzadnia and Ryan (2018) found that eudaimonic motives related to more positive affect, life

satisfaction, vitality, meaning, self-esteem, and less negative affect during student's physical exercise classes. Hedonic enjoyment motives and hedonic comfort motives related to more carefreeness and *more* negative affect, whereas both eudaimonic and hedonic enjoyment motives related to more experiences of elevation. Therefore, eudaimonic motives appeared to relate to more indicators of well-being in the physical exercise education context compared to hedonic enjoyment and hedonic comfort motives.

Given the limited work on eudaimonic and hedonic motives at the contextual level, more research is needed to understand the nuances of how eudaimonic and hedonic motives relates to various kinds of well-being in different contexts, including at school. We were interested whether eudaimonic motives in the academic context would relate to well-being to a greater degree than hedonic motives, as was found in the physical exercise education context (Behzadnia & Ryan, 2018).

### Present Study and Hypotheses

The present study is the first to examine well-being motives toward university studies (i.e., the academic context) and had two main objectives. The first was to investigate the factor structure of the HEMA and the intercorrelations between eudaimonic, hedonic enjoyment, and hedonic comfort motives in this context. This was intended to provide clarity on whether well-being motives in this context is better differentiated into two or three factors. The second objective was to examine how well-being motives differentially relate to a diverse set of well-being experiences derived from school. This was meant to provide insight into what types of motives will help students derive the most well-being from their studies.

When examining the factor structure of the HEMA and the intercorrelations between the motives, we expected a three-factor model to emerge, as found in some studies in the global (e.g., Bujacz et al., 2014) and contextual (Behzadnia and Ryan, 2018) levels. We believe the conceptual difference between hedonic enjoyment and hedonic comfort motives will be particularly noticeable in the academic context because students with hedonic enjoyment motives (e.g., seeing school as a chance to learn about topics of personal interest, finding the fun in the learning, relishing the creative process, seeking to benefit from the social aspects) are not likely to be the same individuals as those with hedonic comfort motives (e.g., wanting their university studies to be easy, wanting to feel relaxed at school). While the former group of students is likely to be engaged in their education and thus benefit from what

school has to offer, the latter group will likely be disengaged and frustrated. This is quite different from some other life contexts – for example, when a person watches a film for entertainment, they may be motivated by *both* a desire for enjoyment and relaxation. Therefore, our first hypothesis is:

**Hypothesis 1:** When examining the factor structure of the HEMA in the academic context, we expect that there will be a distinction between eudaimonic motives, hedonic enjoyment motives, and hedonic comfort motives. In addition, we expected that the correlation between hedonic enjoyment and hedonic comfort motives will be small to moderate, unlike findings at the global level where the correlation tends to be moderate to large (Asano et al., 2014; Asano et al., 2018; Bujacz, et al, 2014). We also expected eudaimonic motives to be related to hedonic enjoyment motives to a small to moderate degree, and to be unrelated to hedonic comfort motives.

Moreover, we believe that eudaimonic motives are a particularly good fit in the academic context because these motives explicitly involve trying to learn, striving for excellence, and getting to know oneself, which are major aims of school. Thus, a eudaimonically oriented person would find that school satisfies their personal aims. The person would also be particularly proactive and engaged, which would increase the likelihood of success at university, and in turn boost well-being. Eudaimonic motives may also allow students to be more accepting of uncomfortable feelings (e.g., strain, confusion, and frustration) when learning difficult and complex material. Therefore, our second hypothesis is:

**Hypothesis 2:** In the academic context, eudaimonic motives will have a significantly stronger link with well-being experiences than hedonic enjoyment and hedonic comfort motives will, even when it comes to those experiences which tend to relate as strongly or more strongly to hedonic motives in cross-context findings.

Additionally, hedonic enjoyment motives may be a good fit in the academic context at times because zestful attitude is generally beneficial, and there is some degree of fit between hedonic enjoyment motives and well-being at school if the student interprets their studies as an opportunity for enjoyment (e.g., as noted above, seeing their education as a chance to learn about topics of personal interest, finding the fun in the learning, relishing the creative process, seeking to benefit from the social aspects of school). However, not all hedonic enjoyment motives would be conducive to well-being at

school (e.g., wanting all courses and tests to be highly enjoyable, wanting to socialize rather than pay attention in class and thus obtaining poor grades). Therefore, our third hypothesis is:

**Hypothesis 3:** In the academic context, hedonic enjoyment motives will have a significant positive relationship with well-being experiences at school, even though it may be weaker than the link shown between eudaimonic motives and well-being.

Finally, we expected hedonic comfort motives to be a particularly poor fit in the academic context because academic success requires activities that are incompatible with relaxation and taking an easy. School tends to be challenging (producing both positive and negative emotions; D’Mello, Lehman, Pekrun, & Graesser, 2014; Pekrun et al., 2011) and requires active effort, engagement, and commitment. Hedonic comfort motivation raises the likelihood of mental disengagement, making it difficult for a person to derive satisfaction from the material being learned, as well as behavioral disengagement, increasing the risk of falling behind. Therefore, our fourth hypothesis is:

**Hypothesis 4:** In the academic context, hedonic comfort motives will either be unrelated or negatively related to well-being experiences at school. These motives will also relate with well-being experiences significantly less than eudaimonic and hedonic enjoyment motives will.

## Method

### Participants

A total of 405 undergraduates from two North American universities participated. They were 74% female, 24% male, and 2% did not identify their gender. The sample had a mean age of 20.99 years ( $SD = 3.58$ ). Ethnicity was asked with an open-ended question and 49% identified as white, 8% as Asian, 7% as black, 5% as Middle-Eastern, 2% as Indian, 2% as Hispanic, 1% as Aboriginal, and 27% either did not report their ethnicity or ethnicity could not be derived from their responses (e.g., Canadian, British, Italian). The distribution across undergraduate years 1 through 5 was 3%, 49%, 25%, 18%, and 4%, with 2% not identifying their year of study. The distribution across students’ primary majors were 19% in sciences, 16% in health sciences, 16% in psychology, 15% in arts, 14% in other social sciences, 9% in engineering and computer sciences, 6% in business and management, 2% in education, and 4% did not share their major. Ethical approval was obtained for the study from the universities and all participants

provided informed consent.

### Procedure

The first 103 participants were recruited from various courses. Students volunteered and provided their e-mails to a research assistant in class. They were subsequently e-mailed a link to a 30-minute online survey. Participants were emailed a reminder one week later if they had not completed the survey. Once the 103 participants were collected, a larger sample was desired in order to conduct confirmatory factor analysis (CFA) on the HEMA. Thus, another 302 participants signed up to complete a 30-minute online survey in exchange for credits toward their introductory psychology course. Only students who were at least in their second year of their program could participate in the study to create greater parallels with the initial sample of 103 participants (where only 2% of the participants were in first year). In addition, we reasoned that first-year students who had only completed a few weeks or months of school did not have enough experience to accurately assess their motivation and well-being in the academic context.

### Measures

#### Eudaimonic and hedonic motives toward university studies.

We used the Hedonic and Eudaimonic Motives for Activities (HEMA) scale by Huta and Ryan (2010) to measure *eudaimonic motives* and *hedonic motives* for the academic context. Instructions were “To what degree do you typically approach your university studies with each of the following intentions, whether or not you actually achieve your aim?” Eudaimonic motives included four items (e.g., “Seeking to develop a skill, learn, or gain insight into something,” “Seeking to pursue excellence or a personal ideal”). Hedonic motives were measured using five items, but on theoretical and empirical grounds (see results section) hedonic motives were separated into *hedonic enjoyment motives* and *hedonic comfort motives*. Hedonic enjoyment motives were measured with three items (e.g., “Seeking enjoyment,” “Seeking fun”) and hedonic comfort motives were measured with two items (“Seeking relaxation,” “Seeking to take it easy”). Principal components analyses and confirmatory factor analyses of the items, as outlined in the results section, supported this distinction. Some items had cross-loadings approaching .50 but still had a much higher factor loading (.75 or greater) on their predicted factor. A Likert scale from 1 (*absolutely untrue*) to 7 (*absolutely true*) was used. Cronbach’s alphas are reported in Table 1.

**Well-being experiences derived from school.** For all measures of well-being experiences, participants

indicated how their university studies made them feel and responded from 1 (*absolutely untrue* or *do not agree at all*) to 7 (*absolutely true* or *strongly agree*). Experiences commonly used by researchers to measure subjective well-being were included such as *positive affect*, *negative affect*, and *school satisfaction*. Positive affect and negative affect were measured using the 4-item positive affect scale (e.g., “happy,” “enjoyment/fun”) and 5-item negative affect scale (e.g., “worried/anxious,” “frustrated”) by Diener and Emmons (1984), in which participants were asked “Please indicate how much of your university studies make you feel each of the following?” School satisfaction was measured using the 5-item Satisfaction with Life Scale by Diener, Emmons, Larsen and Griffin (1985) adapted to the academic context. Participants were asked the degree in which they agree with five statements (e.g., “In most ways, my education is close to my ideal,” “I am satisfied with my education”).

As mentioned earlier, we wished to examine well-being experiences beyond what is covered by subjective well-being, especially since other experiences can be very relevant in the academic context. These experiences include *meaning*, *elevation*, *self-connectedness*, *interest*, and *vitality*. Feelings that school has *meaning* was measured with the 12-item scale by Huta and Ryan (2010) (e.g., “meaningful,” “valuable”) where participants were asked, “To what degree do you feel that your activities and experiences during your university

studies are...” *Elevation* was measured using the 13-item scale by Huta and Ryan (2010) and *self-connectedness* with the 5-item scale by Huta (2012). Items for both elevation (e.g., “enriched,” “morally elevated”) and self-connectedness (e.g., “connected with myself,” “aware of what matters to me”) had the same instructions and were included with the items of positive affect and negative affect. *Interest* was measured with two items from the Interest scale developed by Vittersø and Søholt (2011) (i.e., “interested,” “engaged”) where participants were asked, “How well does each of the following describe how you feel about your university studies.” Finally, *Vitality* was measured using the 6-item version of the Subjective Vitality Scale by Ryan and Frederick (1997), as shortened by Bostic, Rubio, and Hood (2000) (e.g., “I feel energized,” “I have energy and spirit”), where participants were instructed, “Please respond to each of the following statements by indicating the degree to which the statement is true for you with regards to your education”. All Cronbach’s alphas are reported in Table 1.

## Results

### Descriptive Statistics

The means and standard deviations of every variable measured are displayed in Table 1. As seen in Table 1, all Cronbach’s alphas are at an acceptable level (above .70).

**Table 1.** Mean, standard deviation, and Cronbach’s alpha for all measured variables

Variable	Mean	Standard Deviation	Cronbach’s Alpha
<i>Well-Being Motives Toward University Studies</i>			
Eudaimonic motives	5.58	.99	.78
Hedonic motives	4.31	1.29	.82
Hedonic enjoyment motives	4.73	1.40	.87
Hedonic comfort motives	3.68	1.64	.72
<i>Well-Being Experiences Derived from School</i>			
Positive Affect	4.63	1.30	.90
Negative Affect	3.97	1.28	.82
School Satisfaction	4.47	1.36	.89
Meaning	5.31	1.00	.93
Elevation	4.22	1.16	.93
Self-Connectedness	4.62	1.24	.86
Interest	5.52	1.07	.74
Vitality	3.88	1.37	.92

**Table 2.** Factor loadings of items for the Hedonic and Eudaimonic Motives for Activities Scale (HEMA) in the academic context

Item	Two-Factor Model		Three-Factor Model		
	1	2	1	2	3
<i>Eudaimonic Motives</i>					
Seeking to use the best in yourself?	<b>.79</b>	.22	<b>.81</b>	.33	.10
Seeking to pursue excellence or a personal ideal?	<b>.78</b>	.31	<b>.79</b>	.42	.14
Seeking to do what you believe in?	<b>.76</b>	.28	<b>.80</b>	.37	.17
Seeking to develop a skill, learn, or gain insight into something?	<b>.76</b>	-.04	<b>.74</b>	.21	-.24
<i>Hedonic Enjoyment Motives</i>					
Seeking fun?	.36	<b>.82</b>	.30	<b>.88</b>	.47
Seeking enjoyment?	.49	<b>.78</b>	.42	<b>.90</b>	.38
Seeking pleasure?	.45	<b>.75</b>	.37	<b>.91</b>	.32
<i>Hedonic Comfort Motives</i>					
Seeking relaxation?	.06	<b>.74</b>	.16	.44	<b>.86</b>
Seeking to take it easy?	-.08	<b>.73</b>	.02	.39	<b>.88</b>

*Note.* In two-factor model Factor 1 is eudaimonic motives and Factor 2 is hedonic motives; In three-factor model Factor 1 is eudaimonic motives, Factor 2 is hedonic enjoyment motives, and Factor 3 is hedonic comfort motives; Loadings of .50 or greater are indicated in bold.

### Principal Components Analyses of the HEMA Scale in the Academic Context

An exploratory principal components analysis (PCA) was performed to determine whether the items on the HEMA separated into three factors, as predicted in Hypothesis 1. In the unrotated solution, the first factor had an eigenvalue of 3.80 and explained 42% of the variance, the second factor had an eigenvalue of 1.86 and explained an additional 21% of the variance, the third factor had an eigenvalue of .86 and explained an additional 10% of the variance, the fourth factor had an eigenvalue .56 and explained an additional 6% of the variance, and the fifth factor had an eigenvalue of .49 and explained an additional 5% of the variance. When considering the eigenvalues, only two factors had an eigenvalue of one or above, suggesting a two-factor solution. However, a third factor explained a substantial amount of variance (10%) and the scree plot appeared to level off after the third eigenvalue. Thus, we decided to test both two- and three-factor solutions.

As shown in Table 2, the rotated component structure matrix using a Direct Oblimin rotation ( $\Delta = 0$ ) cleanly separated the items for both two- (eudaimonic and hedonic motives) and three- (eudaimonic, hedonic enjoyment, and hedonic comfort motives) factor models into the predicted factors. In addition, there was no cross-loadings above .50 in the two-factor solution or three-factor solution.

These results give fair support to Hypothesis 1, where we predicted that the HEMA can be separated into three components in the academic context. However, these results also suggest that a two-factor model may also be appropriate. Therefore, we performed a confirmatory factor analysis (CFA) to compare the two models more directly (see results below). This was to see which model was a better fit in the academic context.

### Confirmatory Factor Analyses of the HEMA Scale in the Academic Context

A confirmatory factor analysis was performed to determine whether a two-factor or three-factor model fit the data better. Using guidelines from Schweizer (2010) the following fit indices were used with their respective cut-offs:  $\chi^2$ , normed  $\chi^2$  ( $\chi^2/\text{df}$ ; good fit is below 2, acceptable fit is below 3), TLI (good fit is above .95, adequate fit is above .90), CFI (good fit is above .95, adequate fit is above .90), RMSEA (good fit is below .05, acceptable fit is below .08) and SRMR (expected to be below .10). As shown in Table 3, both models had an SRMR below .10. For the two-factor solution separating eudaimonic motives (four items) and hedonic motives (five items), none of the other four indices showed adequate fit. For a three-factor solution separating eudaimonic motives (four items), enjoyment motives (three items), and comfort motives (two items), two out of the four other indices (TLI and CFI) had adequate fit.

**Table 3.** Confirmatory factor analysis fit indices for the HEMA

Model	df	$\chi^2$	$\chi^2/df$	TLI	CFI	RMSEA (90% CI)	SRMR
2-factor	26	203.11***	7.81	.83	.88	.13 (.11 to .15)	.09
3-factor	24	103.02***	4.29	.92	.95	.09 (.07 to .11)	.06

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

Normed  $\chi^2$  can also be considered in the acceptable fit range when considering more lenient guidelines (normed  $\chi^2$  below five indicates acceptable fit; Wheaton, Mithen, Alwin, & Summers, 1977), thus making three of the four other indices reaching an adequate fit for the three-factor solution. Regardless, the three-factor solution had more indices in the acceptable range and the differences between the chi-square of each model was significant ( $\chi^2$  difference = 100.09,  $df$  difference = 2,  $p < .001$ ), suggesting a three-factor solution is clearly a better fit in the academic context.

The standardized factor loadings for the two models were also examined, as shown in Figure 1. The two-factor solution revealed that two of the five items for hedonic motives had factor loadings below .50 (i.e., seeking relaxation and seeking to take it easy). This is noticeably lower than the other three items representing hedonic motives, which are all above .80 (i.e., seeking pleasure, seeking fun, seeking enjoyment). Of note, the two items that load on hedonic motives below .50 represent hedonic comfort motives, whereas the other three items measure hedonic enjoyment motives. In contrast, when examining the three-factor solution, all items measuring hedonic enjoyment motives and hedonic comfort motives items load on their respective factors above a .70 factor loading. In both models all items that measure eudaimonic motives are above .55, with three of the four above .70. These results provide further support that hedonic enjoyment and hedonic comfort motives are distinct in the academic context

because the factor loadings were consistently higher in the three-factor solution than the two-factor solution.

Overall, as predicted in Hypothesis 1, a three-factor model appears to have a better fit and to be a more appropriate model in the academic context. All correlational analyses are still reported using both the two- and three-factor models to be able to compare results with previous research and explore the differential relationships of hedonic enjoyment motives and hedonic comfort motives with well-being derived from school.

#### **Inter-Correlations of Well-Being Motives in the Academic Context**

The values in Table 4 show the inter-correlations of all the well-being motives measured. Results reveal that the correlation between hedonic enjoyment and hedonic comfort motives was only moderate, supporting Hypothesis 1 that predicted substantial distinctness between these motives. In further support of Hypothesis 1, eudaimonic motives had a moderate positive relationship with hedonic enjoyment motives. We also expected eudaimonic motives and comfort motives to be unrelated to each other, but results show that they were positively related to each other to a small degree. When considering the two-factor solution, eudaimonic and hedonic motives also related to each other positively to a moderate degree. Overall, none of the relationships between the three motives in the three-factor solution were above a moderate level, suggesting the three motives have substantial distinctness from each other.

**Table 4.** Zero-order correlations between well-being motives toward university studies

	Eudaimonic Motives	Hedonic Motives	Hedonic Enjoyment Motives	Hedonic Comfort Motives
Eudaimonic Motives	-			
Hedonic Motives	.33***	-		
Hedonic Enjoyment Motives	.43***	.89***	-	
Hedonic Comfort Motives	.10*	.82***	.47***	-

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

## Relationship between Well-Being Motives toward University Studies and Well-Being Experiences Derived from School

To examine Hypotheses 2, 3, and 4, zero-order correlations were performed between each well-being motive toward university studies and well-being experiences derived from school. Hypothesis 2 predicted that eudaimonic motives would significantly relate to all well-being experiences at school. As displayed in Table 5, this was supported as eudaimonic motives significantly positively correlated with every measure of well-being, and with lower levels of negative affect. Hedonic motives also significantly positively correlated with every measure of well-being except for negative affect, which was unrelated. In addition, the sub-components of hedonic motives related quite differently to well-being experiences. In Hypothesis 3 we predicted that hedonic enjoyment motives would have a significant positive relationship with well-being experiences derived from school, whereas in Hypothesis 4 we predicted that hedonic comfort motives would be unrelated or negatively related to well-being experiences. These hypotheses were supported as hedonic enjoyment motives significantly positively related to every well-being experience at school, and lower levels of negative affect. Hedonic comfort motives were not related to well-being experiences, except for being positively related to vitality. These results also further support Hypothesis 1 where we predicted that it would be important to separate hedonic motives into enjoyment-seeking and comfort-seeking components in the academic context.

Given that eudaimonic, hedonic, and hedonic enjoyment motives all significantly positively correlated with most well-being experiences, we conducted paired-correlation t-tests comparing the magnitudes of

correlations. Hypothesis 2 predicted that eudaimonic motives would have a significantly stronger relationship with well-being experiences than would hedonic enjoyment and hedonic comfort motives. This was partly supported as eudaimonic motives had significantly stronger positive correlations than hedonic motives and hedonic enjoyment motives for experiences of school satisfaction, meaning, elevation, self-connectedness, and interest (see Table 5). Eudaimonic motives also had significantly stronger correlations than hedonic motives, but not hedonic enjoyment motives, for experiences of positive affect, negative affect, and vitality. Finally, both eudaimonic and hedonic enjoyment motives had a significantly stronger relationship with all well-being experiences than hedonic comfort motives (see Table 5).

## Discussion

The present study investigated well-being motives toward university studies in a sample of undergraduate students. To our knowledge this is the first study to examine well-being motives for the academic context, and how these motives relate to well-being experiences derived from school. Our first objective was to examine the factor structure of the HEMA (Huta & Ryan, 2010) in the academic context, as well as the intercorrelations of its subscales. We found that a three-factor solution (eudaimonic, hedonic enjoyment, and hedonic comfort motives) was a better fit than a two-factor solution (eudaimonic and hedonic motives). In addition, the correlations between hedonic enjoyment motives and hedonic comfort motives were not so large as to suggest that the concepts are synonymous in this context. Hedonic enjoyment and hedonic comfort motives may emerge as one factor at the global level or in some contexts (e.g., leisure) because they both reflect pursuing affective pleasantness.

**Table 5.** Zero-order correlations between well-being motives and well-being experiences derived from school

	Eudaimonic Motives	Hedonic Motives	Hedonic Enjoyment Motives	Hedonic Comfort Motives
Positive Affect	.44*** <sup>a</sup>	.30*** <sup>b</sup>	.42*** <sup>a</sup>	.05 <sup>c</sup>
Negative Affect	-.16*** <sup>a</sup>	-.06 <sup>b</sup>	-.13*** <sup>a</sup>	.06 <sup>c</sup>
School Satisfaction	.37*** <sup>a</sup>	.20*** <sup>c</sup>	.26*** <sup>b</sup>	.05 <sup>d</sup>
Meaning	.49*** <sup>a</sup>	.20*** <sup>c</sup>	.28*** <sup>b</sup>	.02 <sup>d</sup>
Elevation	.49*** <sup>a</sup>	.26*** <sup>c</sup>	.33*** <sup>b</sup>	.09 <sup>d</sup>
Self-Connectedness	.56*** <sup>a</sup>	.22*** <sup>c</sup>	.29*** <sup>b</sup>	.05 <sup>d</sup>
Interest	.45*** <sup>a</sup>	.14** <sup>c</sup>	.26*** <sup>b</sup>	-.06 <sup>d</sup>
Vitality	.41*** <sup>a</sup>	.33*** <sup>b</sup>	.39*** <sup>a</sup>	.15** <sup>c</sup>

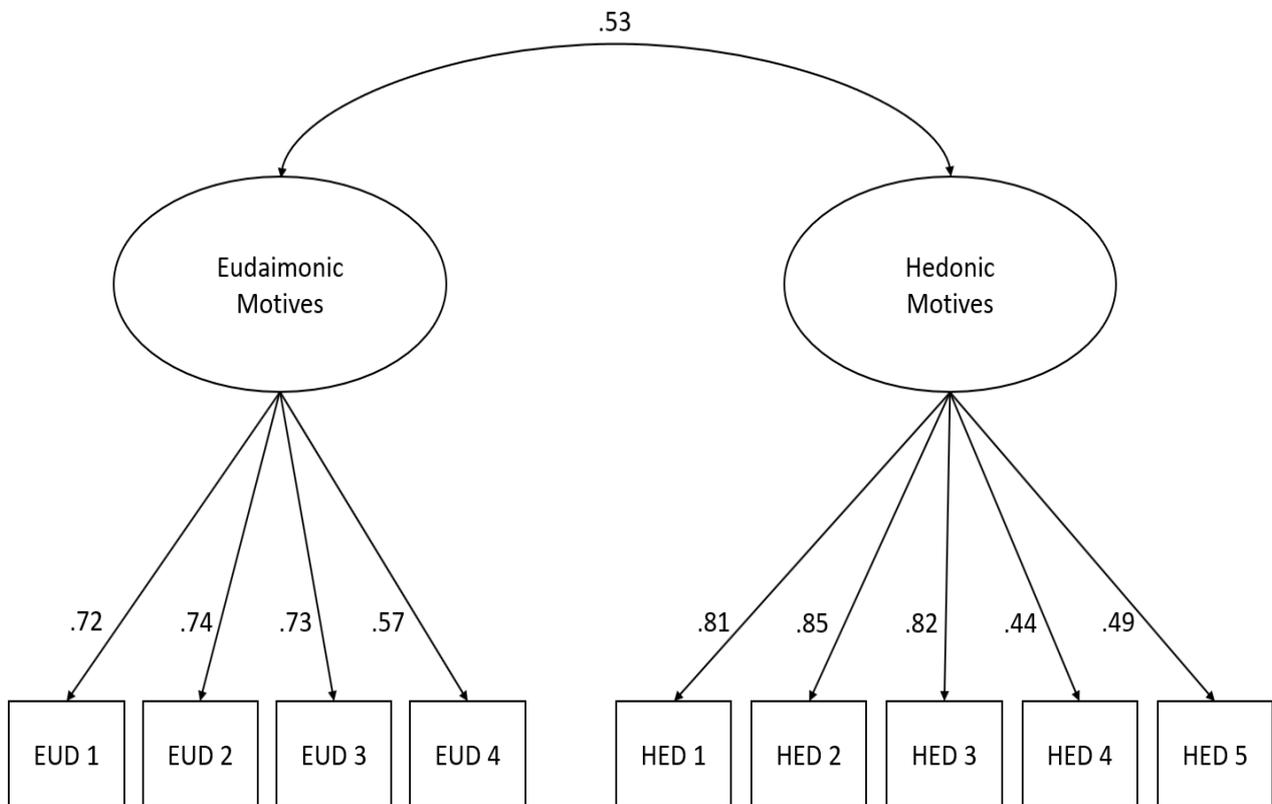
Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; Within each row, different superscripts (a,b,c,d) indicate significantly different magnitude of correlations with paired-correlation t-tests ( $t > 1.96$ ,  $p < .05$ ).

However, in the academic context hedonic enjoyment motives may translate into engagement in the pleasurable aspects of education (e.g., interesting topics, new ideas, socializing), whereas hedonic comfort motives may translate into disengagement or avoidance with the difficult or unpleasant parts of university studies (e.g., studying, homework, research) where active attention and engagement is required.

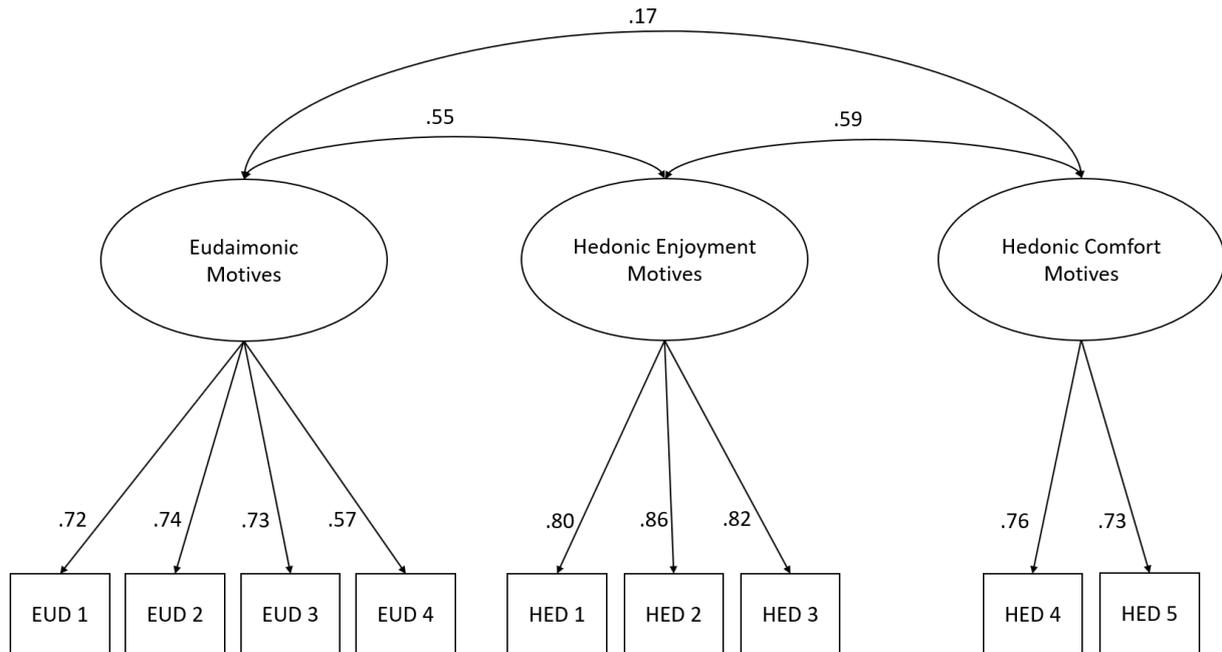
These findings are consistent with other studies investigating hedonic enjoyment and hedonic comfort motives at the global level (Asano et al., 2014; Asano et al., 2018; Bujacz, et al, 2014) and in the physical exercise education context (Behzadnia & Ryan, 2018) where a three-factor model best fit the data. This growing body of evidence suggests that the HEMA could be expanded

to increase the number of items representing hedonic comfort motives from two items to three. This will likely increase the internal consistency of hedonic comfort motives scale, as its Cronbach’s alpha has been lower compared to eudaimonic and hedonic enjoyment motives in the present study and past research (Behzadnia & Ryan, 2018; Bujacz et al., 2014). This will create higher quality research when differentiating between hedonic enjoyment and hedonic comfort motives because it may also result in a cleaner separation between factors and better fit indices for a three-factor solution when this distinction is important. This will allow research to make more accurate predictions about where and when hedonic enjoyment and hedonic comfort motives would have a positive or negative influence on well-being.

a) Two-Factor Model of the HEMA



## b) Three-Factor Model of the HEMA



**Figure 1.** Standardized factor loadings for the two-factor and three-factor models of the Hedonic and Eudaimonic Motives for Activities scale (HEMA) in the academic context.

*Note.* EUD 1 = Seeking to use the best in yourself; EUD 2 = Seeking to pursue excellence or a personal ideal; EUD 3 = Seeking to do what you believe in; EUD 4 = Seeking to develop a skill, learn, or gain insight into something; HED 1 = Seeking fun; HED 2 = Seeking enjoyment; HED 3 = Seeking Pleasure; HED 4 = Seeking to take an easy; HED 5 = Seeking relaxation.

Our second objective was to examine the relationship between well-being motives and well-being experiences derived from school. We found that eudaimonic motives had significant correlations with all well-being experiences. This supports our prediction that eudaimonic motives are highly congruent with the aims of school, which largely involve learning, growing intellectually and individually, and achieving excellence. Furthermore, eudaimonic motives had a significantly stronger relationship with experiences of school satisfaction, meaning, elevation, self-connectedness, and interest than did hedonic enjoyment motives (as well as hedonic motives and hedonic comfort motives). Thus, it appears that eudaimonic motives are more related to experiences that tend to be considered eudaimonic (e.g., meaning, elevation, self-connectedness, and interest; Delle Fave et al., 2011; Huta, 2015; Vittersø, 2013) or the cognitive aspect of subjective well-being (i.e., life satisfaction; Diener et al., 1999). In contrast, eudaimonic motives did not have a significantly stronger relationship with positive affect, negative affect, and vitality than hedonic enjoyment motives. Thus, eudaimonic motives did not have an advantage when considering the affective aspects of subjective well-being (i.e., positive and negative affect; Diener et al., 1999) and vitality (Ryan &

Frederick, 1997), an affective experience of energy and aliveness. This demonstrates the importance of measuring well-being in a broader fashion beyond only affective experiences, especially in the academic context. That is, school is about much more than just feeling good, it is also about a cognitive-affective integration such as feeling satisfied with school (school satisfaction), inspired (elevation), engaged with the material (interest), that the material is congruent with one's values and beliefs (self-connectedness), and that it fits within one's conception a broader picture (meaning).

These results suggest that it is important for teachers, academic staff, and academic organizations to facilitate an environment at school that emphasizes students to explore their personal values (authenticity), experience personal growth (growth), and develop competence as a person (excellence). Only emphasizing the pleasurable aspects of education (a hedonic enjoyment motivation) will not help students reap the benefits of eudaimonic motivation, which allows students to tolerate negative emotions (Ortner et al., 2018) that are unavoidable at school. This is especially important at university because it is the first time that many emerging young adults encounter an environment with a lot of freedom and responsibility to manage their own time. This can make

it easy and tempting for students to pursue immediately pleasurable aspects of university (e.g., socializing and partying) too much when there are several other activities that are important (e.g., required school work) and provide meaningful and long-lasting benefits (e.g., learning and understanding a topic thoroughly). In addition, emerging adulthood is a time to explore and develop one's identity (Marcia, 1993), which can include the topics they are interested in and the careers they want to pursue. Thus, grappling with one's identity, interests, and career choice is more congruent with eudaimonic motives (e.g., the pursuit of personal growth and clarifying one's true self and values) than hedonic ones. Helping students pursue eudaimonic aims in their educations will help them derive more diverse benefits from school beyond feeling good, such as feeling engaged, aligned with their work, connected to themselves and their values, and feeling their academic endeavors fit in the bigger picture.

Despite the clear benefits of eudaimonic motives for students' well-being derived from university studies, hedonic enjoyment motives also had significant relationships with all well-being experiences. This suggests that students not only benefit from pursuing excellence and growth in their studies, but also pursuing enjoyment and positive experiences. Indeed, past research shows that hedonic motives relate to an up-regulation of positive emotions (Ortner et al., 2018). The positive relationship between hedonic enjoyment motives and well-being experiences at school, although smaller than eudaimonic motives, may be partly due to the ability to foster and savour positive experiences, whether from engaging in inherently interesting topics or social experiences at university. Seeking and subsequently experiencing positive emotions at university can broaden students' scope of attention and cognition (Fredrickson, 2001; Fredrickson & Branigan, 2005), and help them complete their academic work and perform better in their classes. These results suggest that educators and teachers should also encourage students to seek enjoyment and pleasure from their studies. To do this, teachers could try to emphasize some of the positive aspects of topics and be creative with material that feels more mundane and boring.

Finally, hedonic comfort motives had non-significant correlations with all well-being experiences (except for vitality), and these correlations were significantly weaker than the correlations for eudaimonic motives and hedonic enjoyment motives. Comfort motives appear to be the least adaptive when it comes to school. Comfort implies relief from effort, strain, and discomfort, all of

which are par for the course when it comes to learning. This interpretation is consistent with the literature studying achievement goals (i.e., competence focused aims in achievement contexts) where approach goals (i.e., to master material or outperform others) are more adaptive than avoidance goals (i.e., to not fail at understanding material or to not do worse than others; Elliot, Murayama, & Pekrun, 2011; Huang, 2011). Thus, there does not seem to be much benefit in teachers emphasizing a comfort approach to school unless there is a specific reason to do so (e.g., taking breaks during high stress work).

Although there is little empirical research on how to foster eudaimonic or hedonic enjoyment motives in individuals, there is an extensive literature on autonomy supportive teaching (e.g., Reeve, 2006) with practical tips on how to foster autonomous motivation (e.g., Kuszurkar, Croiset, & Ten Cate, 2011), which has several similarities with eudaimonic motives (e.g., both emphasize pursuing activities because it aligns with one's values and feels true to the self) and hedonic enjoyment motives (e.g., both emphasizing pursuing activities because of the inherent pleasure and joy of them). One recommendation from this literature that may foster eudaimonic motives includes acknowledging, validating, and normalizing negative affect in school to allow students to experience these feelings as a normal part of the experience, and thus help them be more likely to persist and keep eudaimonic motives toward their work in mind. It is also important for teachers to communicate the value of uninteresting activities to help students see the broader implications and value of learning complex material that will feel tedious at times. For hedonic enjoyment motives, teachers could potentially identify and nurture what students find inherently interesting and pleasurable to allow themselves to freely explore what they enjoy in school, while also providing structure and optimal challenges to ensure students are still making strides in the right direction.

### Limitations and Future Directions

Although the exploratory principal components analyses demonstrated that the items of the HEMA most strongly loaded on their intended factors (with .75 or greater factor loadings), there were some items that had cross-loadings approaching .50. Thus, researchers should be mindful of these cross-loadings in future studies with the HEMA. We also expect that well-being motives are predictors of experiences of well-being at school, but we cannot infer causation from the present study because it was cross-sectional. Some longitudinal studies have

examined the link between motives and well-being at the global level (Asano et al., 2018; Huta & Ryan, 2010; Saunders et al., 2018) but future studies could examine this in more specific contexts. This research also only examined students at undergraduate university programs. Thus, these results cannot necessarily be extended to students before they enter university (high school and elementary school) or in graduate student populations. The sample was also predominantly white and predominantly female, further limiting the generalizability of our results. This research can benefit from being examined in different cultures or different topics of study (e.g., fine arts, sciences, trades) where the academic climates may be different.

Future research can also continue to elucidate both theoretical and practical concerns. Future studies can examine the factor structure of the HEMA in the academic context, as well as other contexts, when adding an additional hedonic comfort motive item such as "Seeking to be comfortable" (Huta 2016a). As described earlier a two-item hedonic comfort scale does not always have adequate internal consistency, whereas other studies that have added a third item do (Asano et al., 2014, 2018). The present study also suggests that eudaimonic motives and hedonic enjoyment motives toward the academic context relate to higher well-being derived from school. Thus, future studies should address ways in which students come to pursue these motives in the academic context by examining how past learning experiences or teaching styles (e.g., autonomy supportive compared to controlling teaching styles) influence the way students orient themselves toward their studies.

### Conclusion

The present study was the first to investigate well-being motives toward the academic context. We found evidence through both exploratory principal components analyses and confirmatory factor analyses that well-being motives are likely better separated into three motives (i.e., eudaimonic, hedonic enjoyment, and hedonic comfort motives) in the academic context, rather than two (i.e., eudaimonic and hedonic motives), as often conceptualized in research at the global level across domains (Huta & Ryan, 2010; Peterson et al, 2005).

Not only was there evidence for the distinctiveness between these motives when applied to the academic context, but these motives related differently to well-being experiences derived from school. Eudaimonic motives was most strongly related to a diverse set of well-being experiences, while hedonic enjoyment

motives also clearly provided some benefit. In contrast, it appears hedonic comfort motives had little benefit to students' well-being experiences from school. This suggests that students will derive well-being from their studies in the broadest and most diverse way when they pursue them for personal growth, authenticity, and excellence (eudaimonic motives), while also not omitting the importance of seeking enjoyment and pleasure at school (hedonic enjoyment motives). Teachers, academic staff, and academic organizations should aspire to provide an environment that facilitates enjoyment in education, as well as help students pursue school in a way that aligns with their own personal values and that helps them develop skills, competence, and growth as a person.

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