

# Moderating Role of Personal Values in Relations between Psychological Capital and Academic Adjustment

Batel Hazan-Liran<sup>1</sup>, Alexander Zibenberg<sup>2</sup>

<sup>1</sup>Ph.D. Tel-Hai College, Upper Galilee, Israel  
[batelliran@gmail.com](mailto:batelliran@gmail.com)

<sup>2</sup>Ph.D. Tel-Hai College, Upper Galilee, Israel  
ORCID: 0000-0001-7239-9071  
[alexanderzib@telhai.ac.il](mailto:alexanderzib@telhai.ac.il)

## Abstract

Previous studies suggest that students' academic success can be improved by maintenance and development of a state-like motivational resource named psychological capital (consisting of hope, self-efficacy, resilience and optimism). The present study examines the stability of this relationship by asking whether Personal Values (trait-like) are a context variable that modifies the relation between psychological capital and academic adjustment. More specifically, we argue that the openness-to-change value represents a context which moderates the relationship between psychological capital and students' academic adjustment. We hypothesize that the positive relationship between psychological capital and academic adjustment is stronger in individuals who score lower on the openness-to-change value. The study sample was 160 students: their examination results fully support the proposed hypotheses. The findings suggest students with a reduced sense of autonomy, self-direction, and independence can rely on situational psychological resources to promote their academic adjustment. However 'hope' did not exhibit the same interaction effect with openness to change. This finding indicates that the positive relation between hope and academic adjustment did not differ across students with a low versus a high openness-to-change value. The theoretical and practical implications of these findings are discussed.

**Keywords:** Psychological Capital, Academic Adjustment, Openness-to-Change, Personal Values

## Introduction

Many young adults see higher education as a way to achieve success (Lowe and Cook 2003; Solberg-Nes et al. 2009), but for some students, the transition from high school causes distress and anxiety. Others cope better with academic duties and requirements (McKenzie and Schweitzer 2001; Solberg-Nes et al. 2009) and make the transition to academic life more efficiently (Houghton et al. 2012; van Rooij et al. 2018).

Students' ability to adjust is consistently positively correlated with psychological capital (PsyCap) (Author et al. 2019; Luthans et al. 2012; Vanno et al. 2014), a motivational resource representing a positive state of development and

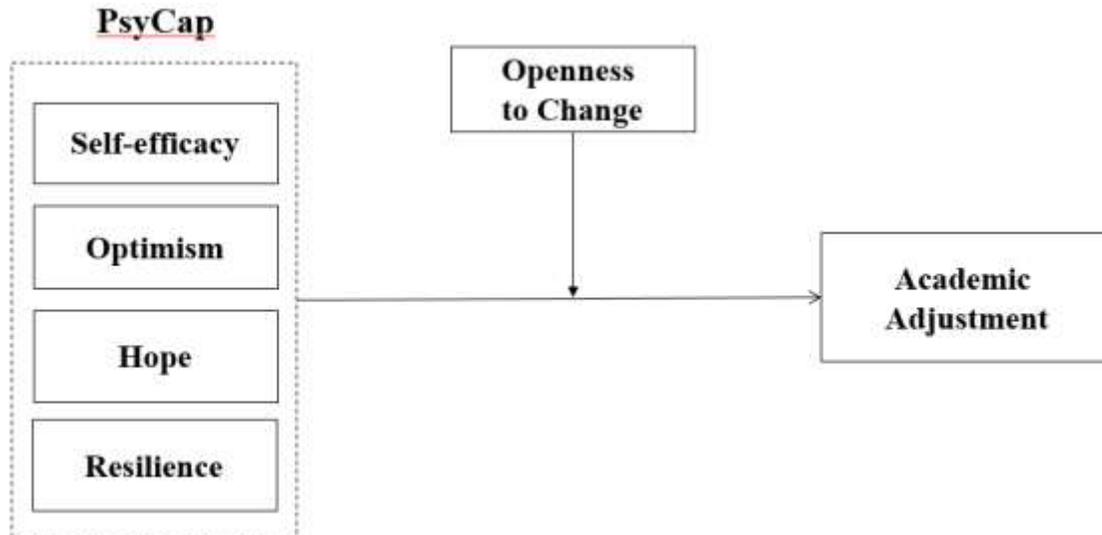
considered relatively malleable (state-like) (Luthans et al. 2006a; Luthans et al. 2008; Luthans et al. 2007). Students with higher levels of PsyCap have higher grade-point-averages (GPAs), intrinsic motivation, study engagement, academic well-being, and satisfaction (Avey et al. 2011; Luthans et al. 2012; Siu et al. 2014; Riolli et al. 2012).

To date, researchers have not asked whether relations between PsyCap and academic adjustment are moderated by personal context (trait-like). Accordingly, we focused on personal values as a possible mediating factor. We tested the extent to which openness-to-change values (Schwartz 1992), which highlight independent

thought, actions, feelings, and readiness to change, moderate the relationship between PsyCap and academic adjustment (Figure 1). In other words,

we focused on two motivational resources, one situational and the other personal, and examined their impact on students' academic adjustment.

**Figure 1: Research model**



### Academic Adjustment and Psychological Capital

Adjustment is the process whereby we balance needs and manage obstacles (Mesidor and Sly 2016). Students attend university to acquire theoretical and professional knowledge and skills to maximize their social and vocational opportunities in the future, but this requires adjustment. They encounter new learning standards and frameworks (Baker and Siryk 1984, 1986, 1989; Lowe and Cook 2003), diverse academic duties, obstacles (McKenzie and Schweitzer 2001; Solberg-Nes et al. 2009; van Rooij et al. 2018), emotional and social challenges, and undesired outcomes, such as failure, stress and anxiety, as they seek to reach their academic goals (Rahat and Ilhan 2016).

Some students muster personal strengths, coping strategies, and positive resources, make an adaptive adjustment, and feel enthusiastic about the study process. Others struggle; they express feelings of dissatisfaction, fear, stress, and anxiety (Chemers et al. 2001; Author et al. 2019; Lowe and Cook 2003; Stelnicki et al. 2015). As academic adjustment is considered a key factor in future occupational integration, several studies

have attempted to clarify what positively impacts students' academic progress. Findings consistently show students with higher levels of intrinsic motivation and social support and a more adaptive coping style are more likely to succeed academically (Rahat and Ilhan 2016; Siu et al. 2014).

Attributes found to sustain academic adjustment are hope (Buckelew et al. 2008; Davidson et al. 2012; Lackaye et al. 2006), efficacy (Brady-Amoon and Fuertes 2011; Chemers et al. 2001), resilience (Martin and Marsh 2006; Miller 2002), and optimism (Solberg-Nes et al. 2009). These four "heroic" capacities constitute a higher-level motivational core construct conceptualized as psychological capital (PsyCap) (Luthans 2002; Luthans and Youssef 2004; Luthans et al. 2006b; Luthans et al. 2007). Luthans et al. (2007) define PsyCap's HERO capacities as:

(1) Persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; (2) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (3) making positive attribution (optimism) about succeeding now and in the future; (4) when beset by problems and adversity,

sustaining and bouncing back and even beyond (resiliency) to attain success. (p. 3)

These four capacities are deemed state-like in nature, malleable, and open to change and development through short-term interventions, but are relatively more stable than pure states like moods and emotions (Luthans et al. 2006a; Luthans et al. 2008; Luthans et al. 2007). In the academic context, PsyCap has been correlated with higher GPA (Luthans et al. 2012; Vanno et al. 2014), enhanced levels of intrinsic motivation and study engagement (Siu et al. 2014), and better academic adjustment (Author et al. 2019). In the same vein, learning empowerment (students' sense of competence in their learning process) fully mediates the relations between PsyCap and study engagement (You 2016).

As PsyCap comprises four positive resources (HERO), all considered state-like, it is reasonable to assume that developing students' PsyCap should help them adjust to the academic environment (Author et al. 2019). This raises the possibility that trait-like characteristics can explain the relations between PsyCap and academic adjustment. We sought to clarify whether and how personal values, considered more trait-like (Luthans and Youssef-Morgan 2017), moderate the relations between PsyCap and academic adjustment. Arguably, a student's personal values have a "buffer effect," which may influence PsyCap's impact on academic adjustment.

### Personal Values

Values underlie attitudes and behaviors and are central to self-concepts (Vecchione et al. 2016b). They are general beliefs about personally desirable end states or behaviors assembled in order of their personal importance; as such, they guide evaluation and choice (Bardi et al. 2014; Schwartz 1992). Motivational goals incorporate subjective values (Oppenheim-Weller et al. 2018). Importantly for this study, value theorists consider values to be stable across situations and over time (e.g., Hitlin and Piliavin 2004; Rokeach 1973; Schwartz 1992). People see their values as especially desirable, even more than other personal characteristics (Roccas and Sagiv 2017),

and if they are highly satisfied with their values, they do not wish to change them (Roccas et al. 2014).

To conceptualize and measure value importance, we used Schwartz's values theory (Schwartz 1992). Based on data from more than 70 cultural groups, Schwartz (1992) devised a model comprised of ten values reflecting an individual's personal worldview. In this model, personal values serve as standards for judging all kinds of behavior, events, and people. Schwartz arranged the ten values in four categories on two axes. One axis distinguishes self-transcendence (universalism, benevolence) from self-enhancement (power, achievement); the other distinguishes conservation (security, conformity, tradition) from openness-to-change (self-direction, stimulation). We argue openness-to-change values are especially relevant to relations between PsyCap and academic adjustment.

### Openness-to-Change Values and their Relations to PsyCap

Openness-to-change values emphasize curiosity, action, creativity, pleasure, and readiness for new ideas (e.g., Caracciolo et al. 2016; Schwartz 2012; Vecchione et al. 2016a). Individuals with openness-to-change values demonstrate a need for autonomy and independence (Schwartz et al. 2012) and seek intellectual and emotional experiences (Myyry and Helkama 2001). These values are anxiety-free, not anxiety-based (Schwartz 2010), so individuals endorsing them rely on themselves rather than others to relieve the anxiety accompanying uncertainty (Roccas et al. 2010; Sverdlik and Oreg 2015) and have more resources for proactive goal striving (Parker et al. 2010). They are likely to be self-motivated (Arthaud-Day et al. 2012), show greater responsibility (Ariza-Montes et al. 2017), active engagement (Tamir et al. 2016), and intellectual curiosity (Schwartz 2010). Thus, the positive resources facilitated by openness-to-change values seem likely to support students' ability to adjust to the academic environment and protect them when they deal with stressors and uncertainty. It also seems likely that students who lack these values and their accompanying

resources will rely on situational motivational psychological resources to cope with challenges and adversity and thus attain success.

As stated earlier, PsyCap is a situational resource directed at influencing outcomes, especially in the academic environment (Hazan-Liran and Miller 2019, 2022). In other words, PsyCap is more state-like on the state-trait continuum than openness-to-change values. The expected contribution of PsyCap in this regard is its potential to improve academic adjustment when individuals manifest low levels of openness-to-change. No research has examined the interaction between PsyCap and openness-to-change values, and no value in Schwartz's values theory has been linked to academic adjustment. Our study adds to the literature by examining possible relations between personality traits and PsyCap in the academic context.

Research finds PsyCap has a greater direct impact on outcomes than personality traits. The latter are too wide to predict specific outcomes and therefore should be tested in conjunction with specific motivational resources (Code and Langan-Foz 2001; Dewal and Kumar 2017). Choi and Lee (2014) examined such a conjunction; after controlling for personality traits, they concluded PsyCap makes a precise contribution to life outcomes, such as feelings of happiness and well-being. Dewal and Kumar (2017) found PsyCap was positively correlated to individuals' openness to experience. This finding suggests personality traits may influence life outcomes both directly and indirectly via other factors, for example, PsyCap.

If we assume personality traits facilitate behaviors that promote mental health (Ozer and Benet-Martinez 2006), it makes sense to think the interaction between these traits and psychological motivational resources will be positively correlated to academic adjustment. To test the moderating role of openness-to-change on the relations between PsyCap and academic adjustment, we first examined the direct relationship between PsyCap and academic adjustment. Specifically, hypothesis 1 predicted PsyCap would have a positive effect on academic adjustment. In the next step, we tested whether openness-to-change would moderate relations between PsyCap and academic

adjustment. Hypothesis 2 predicted the positive relations between PsyCap and academic adjustment would be stronger among individuals with low levels of openness-to-change values.

## Method

### Participants and Procedure

The sample comprised 160 students at a higher education institution in Israel; 94.4% women, average age 29.60 years ( $SD = 9.30$ ). Given the distribution, it is difficult to generalize the findings to the general population (see limitations). However, there is no reason to assume the effects in this sample would differ from the general population. Participants were recruited via convenience sampling. The questionnaires were set in hard copy versions.

## Instruments

### *Academic Adjustment Questionnaire (AAQ)*

A shortened Hebrew version of Students' Adaptation to College Questionnaire (SACQ) by Baker and Siryk (1989) was used to measure academic adjustment. The original SACQ items were partly reworded to adapt their content to the reality of Israeli university students. Only one subscale was used (academic achievements) instead of four (the other three are social skills, personal and emotional well-being, and students' satisfaction with their academic institution) as in the original questionnaire. AAQ has six items, for example, "I enjoy academic work"; "I find it hard to begin working on my course requirements." The items are evaluated on a nine-point Likert scale from "Suits me very much" (1) to "Doesn't suit me at all" (9). AAQ's scoring range is 6-54; a higher score indicates higher academic adjustment.

### *Psychological Capital Questionnaire (PCQ)*

The PsyCap questionnaire (Luthans et al., 2007) was designed to assess the HERO capacities of a state-like nature, with direct reference to desired outcomes. The original questionnaire was modified to measure its sustaining potential in the

academic context. PCQ comprises 24 items, the appropriateness of which is evaluated on a five-point Likert scale from “Strongly disagree” (1) to “Strongly agree” (5). It has four six-item subscales, each designed to assess one of the four target psychological capacities: self-efficacy—“I feel confident in presenting my position at meetings related to my studies”; hope—“I can think of many ways to reach my current study goals”; optimism—“I always look on the bright side of things regarding my studies”; resilience—“I can deal with study-related difficulties because I’ve experienced difficulty before.” PCQ’s scoring range is 24-120; a higher score indicates higher PsyCap.

### *Portrait Value Questionnaire (PVQ)*

The Portrait Value Questionnaire (PVQ: Schwartz et al. 2012) was used to measure openness-to-change values. PVQ contains short verbal portraits of hypothetical individuals. Each describes a person’s aspirations which implicitly reflect the importance of a specific value. Openness-to-change contains 12 items, for example: “It is important to him to develop his own opinions”; “It is important to him to take risks that make life exciting”; “It is important to him to figure things out himself”. For each portrait, respondents answer the question “How much is this person like you?” Options range from “Not like me at all” (1) to “Very much like me” (6).

Values are inferred from respondents’ self-reported similarity to those described in the scale items.

### **Control Variables**

We controlled for year of study, as this may influence academic adjustment. It is reasonable to assume that over time, organizational socialization helps a student integrate. Moreover, the characteristics of openness-to-change values, such as intellectual challenge and curiosity, are likely to be more prominent at the beginning of the transition into an academic environment. Therefore, we created a dummy variable (year of study): 1=first year (21.25%, N=34); 0=other years.

### **Data Analysis**

We used the statistical package STATA.

### **Results**

Means, standard deviations, reliability coefficients, and correlations of study variables are presented in Table 1.

**Table 1: Means, standard deviations and correlations among variables**

Variables	Mean	S.D.	( $\alpha$ )	1	2	3	4	5	6
1. Academic adjustment	3.85	.55	.65						
2 PsyCap	3.63	.51	.85	.50**					
3. Self-efficacy	3.93	.65	.84	.44**	.89**				
4. Optimism	3.78	.61	.73	.52**	.86**	.66**			
5. Hope	4.04	.61	.81	.49**	.86**	.79**	.70**		
6. Resilience	3.73	.63	.70	.25**	.90**	.67**	.64**	.69**	
7. Openness-to-change	4.86	.67	.86	.13	.37**	.38**	.29**	.37**	.31**

\*\*p<.01, N=160

The first hypothesis was tested via multiple regression analysis controlling for year of study.

Academic adjustment was positively related with the whole core construct of PsyCap ( $\beta = .52$ ;

$p < .01$ ) and also with the four positive capacities: self-efficacy ( $\beta = .38$ ;  $p < .01$ ), optimism ( $\beta = .47$ ;  $p < .01$ ), hope ( $\beta = .45$ ;  $p < .01$ ), resilience ( $\beta = .32$ ;  $p < .01$ ) (Table 2). Hypothesis 1 on the relations

between PsyCap and academic adjustment was supported.

**Table 2: Predictors of academic adjustment (controlling for year of study)**

Predictors	Unstandardized coefficients				
	B	Std. error	Standardized beta	t	p-value
PsyCap	.52	.07	.51	7.13	.00
Self-efficacy	.38	.06	.44	6.11	.00
Optimism	.47	.06	.52	7.40	.00
Hope	.45	.06	.49	6.99	.00
Resilience	.32	.07	.36	4.67	.00

N=130

We examined the hypothesized moderating effects of openness-to-change (hypothesis 2) following Aiken and West (1991). Among students who emphasized openness-to-change values, the effect of PsyCap on academic adjustment was weaker than among students who emphasized them less ( $\beta = -.38$ ;  $p < .01$ ). Similar effects were found for three PsyCap capacities (see Table 3). However,

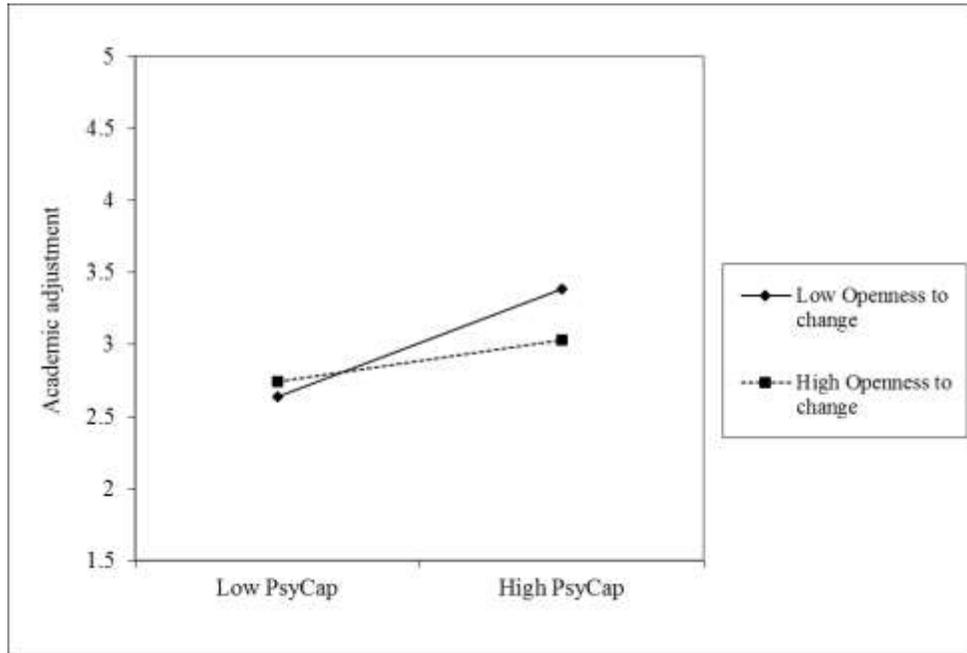
the moderating effect of openness-to-change values on relations between hope and academic adjustment was not significant. Thus, hypothesis 2 was partially supported. For ease of interpretation, we depict these interactions in Figures 2-5.

**Table 3: Moderating effect of openness-to-change on relations between PsyCap and academic adjustment (controlling for year of study)**

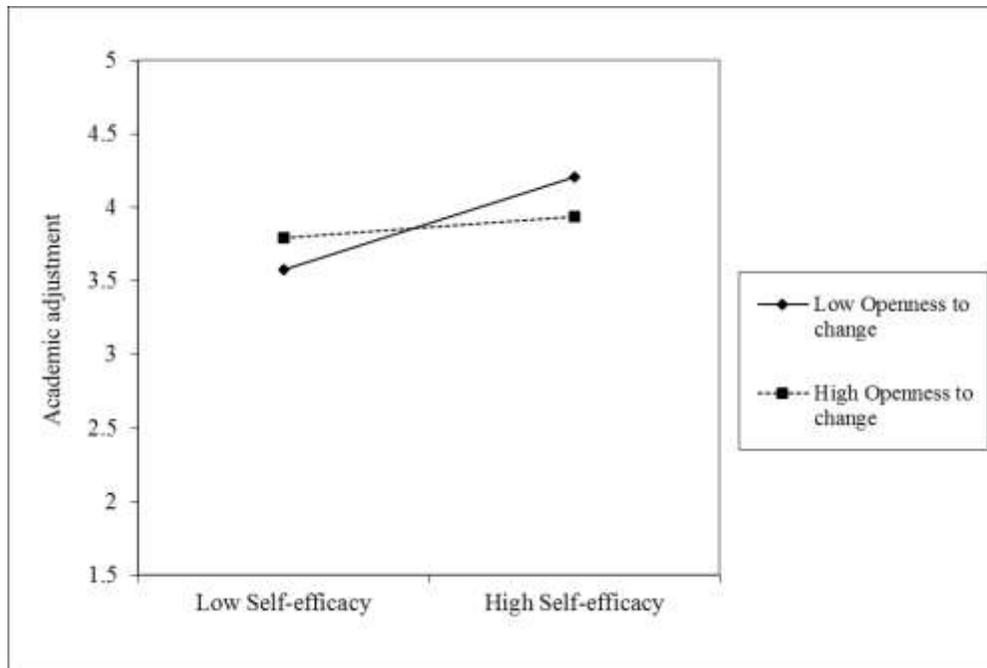
Predictors	Moderation effect ( $\beta$ )	SE	t	p
PsyCap	-.38	.10	-2.71	.00
Self-efficacy	-.28	.09	-3.13	.00
Optimism	-.27	.10	-2.64	.00
Hope	-.11	.07	-1.35	n.s.
Resilience	-.34	.11	-3.00	.00

N=130

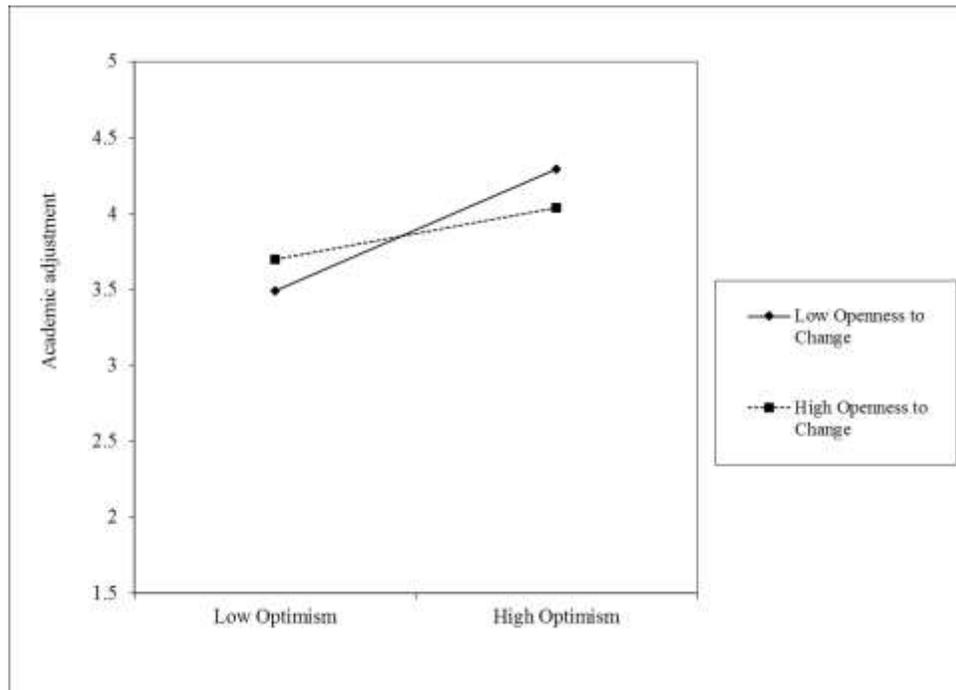
**Figure 2: Moderating effect of openness-to-change on relations between PsyCap and academic adjustment**



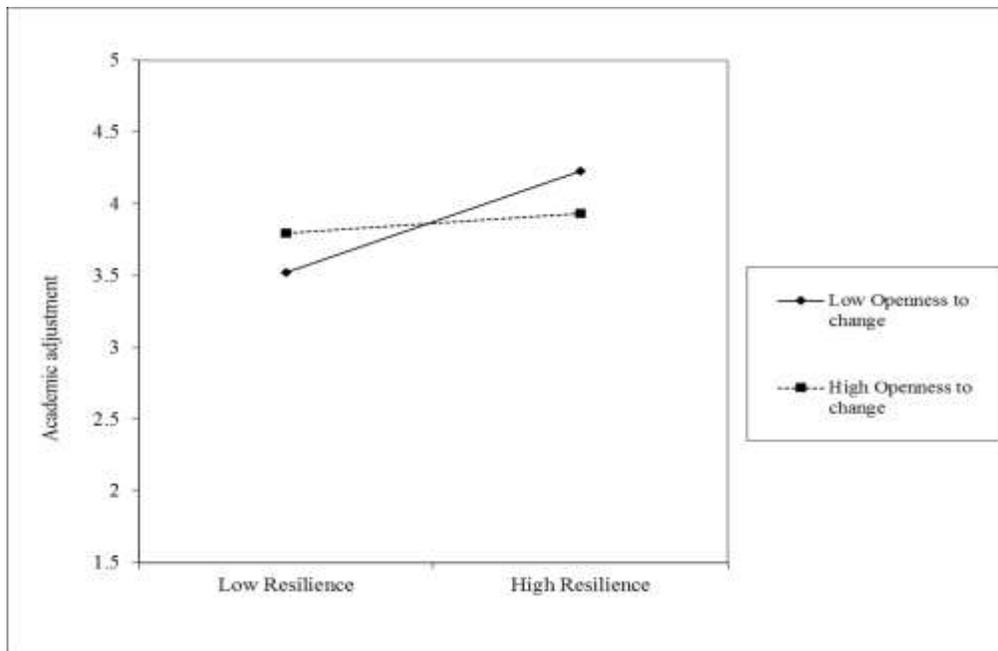
**Figure 3: Moderating effect of openness-to-change on relations between self-efficacy and academic adjustment**



**Figure 4: Moderating effect of openness-to-change on relations between optimism and academic adjustment**



**Figure 5: Moderating effect of openness to change on the relationship between Resilience and Academic adjustment**



## Discussion

We tested the moderating effect of personal

values, specifically openness-to-change values (Schwartz 1992), on the relations between PsyCap and academic adjustment. Results showed PsyCap

positively correlated with students' academic adjustment, replicating previous studies emphasizing PsyCap's contribution to academic adjustment (e.g., Avey et al. 2011; Siu et al. 2014).

We further found that having openness-to-change values (or not) was a condition under which PsyCap was particularly relevant for students' academic adjustment. In this line of thinking, students with higher levels of openness-to-change are more creative and independent; they tend to rely more on their internal personal characteristics and to rely less on situational motivational resources, such as PsyCap, to achieve academic success. Of note, however, our findings corroborate this hypothesis for PsyCap overall and for three of PsyCap's resources: self-efficacy, optimism, and resilience. This finding is in line with previous studies showing students characterized by lower levels of positive personal values will rely on their PsyCap to address challenges and adversity (Code and Langan-Foz 2001; Dewal and Kumar 2017).

Interestingly, hope did not have the same interaction effect. The positive relations between hope and academic adjustment were the same whether students manifested low or high openness-to-change values. A possible explanation is that hopeful individuals tend to think independently and strive to achieve goals but also consider multiple paths when confronted by obstacles (Snyder 2002). Thus, hope may be a motivational resource that helps students direct their energy to maximize academic opportunities and sustain academic adjustment regardless of personal values. Previous studies have emphasized the unique importance of hope to academic performance (Carmona-Halty et al. 2019; Gallagher et al. 2017; Rand et al. 2011). In one study, hope was the only psychological construct that consistently predicted academic performance above and beyond educational history and other positive resources (Gallagher et al. 2017).

The above interpretation supports the claim that PsyCap as a core holistic construct is bigger than the sum of its parts (Luthans et al. 2007). Taken together, the four positive capacities help individuals acknowledge their strengths, activate their personal capacities appropriately to achieve

their goals, and apply the energy and motivation required to face a frequently changing academic reality. At the same time, each capacity makes a unique contribution to adjustment.

Some limitations need to be acknowledged. First, all data were collected in self-reports, possibly exaggerating the strength of relations due to common method variance (Podsakoff and Organ 1986; Podsakoff et al. 2012). Second, data were collected from one educational institution, and participants were predominantly female (94.4%). The findings must be interpreted with caution; future research should validate their generalizability to a more balanced gender population.

## Conclusions and Future Directions

The study suggests students' successful academic adjustment stems from personal and situational factors and represents the ability to merge psychological and personal capacities. It demonstrates that personal values represent a context in which the impact of PsyCap on academic adjustment is not universal. Students with lower levels of openness-to-change values can compensate in the academic environment by developing state-like nature psychological capacities.

As the academic environment is very complex, and adaptation in different fields has different requirements, students' levels of academic adjustment will vary as well. The key to academic success may not lie in the ability to adapt to one dimension or another but in internal and situational characteristics and the interaction between them. Students may be completely unaware of how to succeed, but research suggests that those who do not have trait values that encourage flexibility, creativity, and independence can still develop motivational personal resources such as psychological capital.

The findings have practical implications. Education researchers are interested in structuring the educational context to maximize student-learning outcomes (Lazowski and Hulleman 2016). The importance of students' personal values and the need to support the development of

psychological motivational resources should be considered when designing intervention programs.

### Declaration of Conflict of Interest

On behalf of all authors, the corresponding author states there is no conflict of interest.

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