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Future work self and proactive career behavior, the serial mediating effect of academic passion and resilience

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ABSTRACT

University students develop proactive behaviors for better employability. An image of a future work self can motivate proactive actions in students. Personal resources such as academic passion and resilience may be the way by which the future work self generates proactive career behaviors. This paper aims to study the mediating effects between future work self, academic passion, and resilience to predict proactive career behavior. A total of 802 undergraduate students with ages ranging from 18 to 27 years ($M = 23.2$, $SD = 2.7$) were recruited for this study. Descriptive analysis, correlations, and reliability of the scales have been performed. Then, a hierarchical regression model was designed to study the effect of interaction in a serial model with passion and resilience using PROCESS. The results showed significant independent indirect effects of future work self through harmonious passion and resilience on proactive career behavior. Furthermore, a serial mediation through harmonious academic passion and resilience was found. These results provide evidence of the role that academic passion plays in generating personal resources such as resilience. The future work self may as well be a motivator for proactive career-oriented behavior in students.

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Yo laboral futuro y proactividad en la carrera profesional, el efecto mediador serial de la pasión académica y la resiliencia

RESUMEN

Los estudiantes universitarios desarrollan conductas proactivas para una mejor empleabilidad. Una imagen de un yo laboral futuro puede motivar acciones proactivas en los estudiantes. Los recursos personales, como la pasión académica y la resiliencia, pueden ser la forma en que el yo laboral del futuro genere proactividad en la carrera profesional. Este artículo tiene como objetivo estudiar los efectos mediadores entre el yo laboral futuro, la pasión académica y la resiliencia para predecir la proactividad en la carrera profesional. Un total de 802 estudiantes de pregrado son reclutados para el estudio en edades comprendidas entre los 18 y 27 años ($M = 23.2$, $DT = 2.7$). Para ello, se realizan análisis descriptivos, correlaciones y fiabilidad de las escalas. Posteriormente, se diseña un modelo de regresión jerárquica para estudiar el efecto de la interacción en un modelo serial con pasión y resiliencia utilizando PROCESS. En los resultados se observan efectos indirectos independientes significativos del yo laboral futuro a través de la pasión armoniosa y la resiliencia sobre el comportamiento profesional proactivo. Además, se obtiene una mediación seriada a través de la pasión académica armoniosa y resiliencia. Estos resultados proporcionan evidencia del papel que tiene la pasión académica para generar recursos personales como la resiliencia. También, el yo laboral futuro, puede ser un motivador para un comportamiento proactivo orientado a la carrera en estudiantes.

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Introduction

During their academic training, university students tend to develop goal-oriented self-regulating behaviors in order to enhance their employability. This process inevitably involves challenging changes that require persistence in building resilience (Fay & Frese, 2001). Proactive career behavior is a relevant predictor of enhanced employability among university graduates (Guan et al., 2014). Proactive career behavior entails an active action to find a new job, secure an existing job, or develop long-term career opportunities (Grant & Parker, 2009; Parker & Collins, 2010). Actions such as exploring different career options and developing strategies for goal achievement, participating in professional seminars, seeking advice from others, or engaging in courses to improve the required skills for their future job reveal proactive career behavior in students. In this regard, the future work self has proven to predict these proactive behaviors in university students (Guan et al., 2014; Strauss et al., 2012; Taber & Blankemeyer, 2015).

The future work self and academic passion

The future work self is defined as an imagined, hoped-for future identity that captures the career-related hopes and aspirations of an individual (Strauss et al., 2012). Future work self serves as a standard against which the present self can be compared (Carver & Scheier, 1998). Therefore, it acts as a motivational resource that favors control and guides action (Oyserman & Markus, 1990). When individuals face discrepancies between their present and future selves, a self-regulatory process aimed at achieving the desired future is triggered (Strauss & Kelly, 2016). Strauss et al. (2012) suggested that said discrepancy effect only occurs if the future work self is clear and easy to imagine, namely, if it is salient. It has been noticed that this discrepancy tends to improve employability in university students in the long term (Guan et al., 2014; Strauss et al., 2012). It also may interact with curiosity and confidence (Taber & Blankemeyer, 2015), and with career adaptability and self-efficacy (Guan et al., 2014). The self-regulatory process also explains the efforts and the overcoming of obstacles since, when proactive behavior is perceived as identity-congruent with present and future selves in an automatic self-identity evaluation process (Strauss & Kelly, 2016), difficulties are seen as a sign of relevant behavior (Oyserman, 2009). Thus, the future work self is expected to be related to proactive career behavior, but also to resilience.

Concerning passion, it is understood as a strong inclination towards an activity that individuals like, that is important, with which they identify, and in which they are willing to invest large amounts of time and energy (Vallerand & Houlfort, 2003). Passion for an activity not only includes an affective component, but also an internalization component (Pollack et al., 2020). This internalization into one's identity can be either autonomous or controlled. This, in turn, leads to two differentiated forms of passion: harmonious, which is associated with an autonomous internalization, and obsessive, which is associated with a controlled internalization (Vallerand & Houlfort, 2003). In the academic field, academic passion is defined as a strong inclination to study a subject, invest time and energy in it, and identify with it (Lisbona et al., 2012). Research has shown that academic passion in undergraduate university students affects their well-being (Bernabé et al., 2014, 2023). Self-determination theory (Deci & Ryan, 2000) explains how an activity is performed with passion. Thereby, regarding academic behavior, an activity is referred to as self-determined when it satisfies basic psychological needs (e.g., competence, autonomy, and relatedness). Consequently, the more the students feel their psychological needs are satisfied, the more likely it is that they engage in learning and studying activities. This, in turn, would increase their involvement in the activity, improving their implication and

leading to the development of passion (Vallerand et al., 2014). These results have been observed in the study by Orsini et al. (2019) where they found that dental students' optimal experiences during the year, positively influenced the satisfaction of their basic psychological needs, which in turn favored harmonious passion. Vallerand and Houlfort's (2003) dualistic model of passion suggests that there are two forms of passion: harmonious passion and obsessive passion. The difference between them is the locus of control of activity engagement (Manchiraju & Sadachar, 2018). Harmoniously passionate students feel that they have voluntarily and autonomously chosen to participate in the desired activity, while obsessively passionate students experience pressure to participate in the activity (Vallerand, 2015). According to the dualistic model of passion, when students from the first group are prevented from engaging in their passionate activity, they experience an increased feeling of control and balance with the rest of activities in their everyday lives. Conversely, the second group suffers discomfort partly due to intrusive thoughts about what they should be doing instead. (Vallerand et al., 2014). Furthermore, identity can also explain passion (Vallerand & Houlfort, 2003). In this regard, Berzonsky (2011) posits the existence of three identity processing styles: informational, normative, and diffuse avoidant. Bouzigarene et al. (2018) suggest that the two first are associated with passion. The informational style entails the acceptance of identity commitments arising from a thorough exploration process of identity choices. It is characterized by the flexibility to change one's self-image, and it is associated with harmonious passion. On the other hand, normative style involves the construction of one's identity by imitating social norms and internalizing other people's meanings, beliefs, and values, striving to maintain their points of view instead of changing them. It is related to obsessive passion (Bouzigarene et al., 2018). In this way, that identity of future work self, flexible about self-image, and emerging from a thorough process will positively predict harmonious passion. The contrary will occur if the future work self arises from others' social norms, beliefs, and values. The flexibility of the informational style relative to self-image also explains the self-identity evaluation process that generates identity congruence proposed by Strauss and Kelly (2016). Therefore, it is expected that students with a clear and congruent future work self, elaborated by a thorough process, will experience more harmonious passion and less obsessive passion in their academic behavior.

Academic passion and resilience

Resilience has proved to be a personal resource for students in the face of adverse situations. It improves their academic performance and increases academic engagement, social support, and optimism (Ayala & Manzano, 2018; Brewer et al., 2019; Morales-Rodríguez, 2021). Moreover, it is a predictor of adaptation in female engineers as well as in middle-education students (Khilji & Pumroy, 2018; Santilli et al., 2020). However, resilience has rarely been studied in passionate people even though they are expected to achieve a certain level of it to surmount adversity and develop their passionate activity (Vallerand, 2015). This effect may occur through a "positive pathway" since experiencing positive emotions predicts resilience in students (Carmona-Halty et al., 2021; Ramos-Díaz et al., 2019; Rivera et al., 2021; Sarrionandia et al., 2018). The Broaden-and-Build Theory (Fredrickson, 2001) explains the role of positive emotions in building resilience and proactivity in career development. According to this theory, positive and negative emotions may have adaptive functions and distinct and complementary physiological effects. Negative emotions are associated with specific action tendencies, that focus and limit one's thoughts and actions. In contrast, positive emotions broaden individuals' thoughts and actions thereby building important personal resources such as resilience (Fredrickson, 1998, 2001; Tugade &

Fredrickson, 2007). Concerning academic passion, the harmonious dimension is expected to promote resilience to a greater extent than the obsessive one (Fisher et al., 2018; Paquette et al., 2022; Vankakova et al., 2021). This is because challenge appraisals are associated with the first, while threat appraisals are associated with the second (Lavoie et al., 2021). It has also been observed that experiences of affect influence proactivity, since experiencing negative emotions leads to more conservative behaviors and risk avoidance, while positive emotions promote self-change goals (Ilies & Judge, 2005). In this respect, Zhang et al. (2022) found that harmonious passion predicts proactive work behavior, while no significant effects were observed for obsessive passion.

Furthermore, resilience is a personal resource included in the positive psychological capital (Luthans et al., 2015). It can be a predictor of proactive career behavior in students since it predicts career adaptability in employees (Safavi & Bouzari, 2019), as well as perceived employability in university students (Ayala & Manzano, 2021; Baluku et al., 2021). In this regard, Bateman (2016) suggests that proactivity is a goal-oriented self-regulatory process. In line with this approach, individuals implement proactive strategies to confront changes in the status quo and to modify the paths in order to direct them toward the desired future. This inevitably requires the assumption of risks that involve the threat of a loss of resources, which in line with the conservation of resources theory (Hobfoll, 2011), will mobilize resilience to minimize risks and increase gains. Therefore, it is expected that students' resilience, as part of their positive psychological capital, will positively predict proactive career behavior.

The present study

This paper aims to study the mediating effects between future work self, academic passion, and resilience as predictors of proactive career behavior. In this regard, the integrative model of proactive behavior proposed by Parker et al. (2010) seems relevant to this study. According to the Proactive Motivation Process and Antecedents Model (PMPA) (Parker et al., 2010), proactivity in career development is determined by both motivational and goal generation processes. Motivational states include variables based on control (“can do”), intrinsic motivation (“reason to”), and positive affect (“energized to”). Whereas goal setting processes comprise, on the one side, variables based on goal generation, such as imagining a different future or planning changes of the self; and on the other hand, variables based on the striving to achieve them and the persistence to overcome obstacles. As it has been said, future work self, passion, and resilience have been demonstrated to have independent effects on the prediction of proactivity (Paquette et al., 2022; Strauss et al., 2012; Zhang et al., 2022), yet the effects of the interaction between them are still unknown. Therefore, it is expected that future work self, since it acts as a contrast between the current and the desired image (“Reason to”), will predict academic passion (“Energized to”). This, in turn, will predict resilience to predict students' proactive behavior.

To summarize, it is expected that the effect of the future work self to predict students' proactive behavior will follow a “positive pathway”: it will be greater and significant through the harmonious dimension of academic passion. This is due to two reasons: first, the future work is congruent with the present self; studying for a university degree leads to a future identity flexible with one's self-image, thus satisfying basic psychological needs in line with the self-determination theory (Deci & Ryan, 2000); second, according to the dualistic model of passion, harmonious passion is associated with positive affect emotions (Vallerand & Houlfort, 2003). These emotions, as the broaden-and-build theory proposes (Fredrickson, 2001), predict the mobilization of personal resources

to overcome obstacles. In this case, resilience is related to proactivity (Fay & Frese, 2001). Nevertheless, intermediate effects of the future work self via a “negative pathway” are unlikely to occur. The reason for this is that students with a certain level of obsessive passion may have a less defined future work self emerging from social norms, meanings, and values. Therefore, their choice of studying for a particular university degree might have not been neither voluntary nor desired. This creates discomfort and an increase in defensive or avoidance behaviors that demobilize the development of personal resources to overcome obstacles. *Hypothesis 1:* The future work self is related to both, resilience, and proactive career behavior. *Hypothesis 2:* The future work self will be associated to a greater extent with harmonious passion rather than with obsessive passion. *Hypothesis 3:* Academic passion, namely its harmonious dimension, is associated with resilience and proactivity in career development. *Hypothesis 4:* Resilience is positively associated with proactive career behavior. *Hypothesis 5:* The future work self will have an indirect effect through academic passion, namely its harmonious dimension, and resilience on proactive career behavior.

Method

Participants

A total of 802 undergraduate students (age: 18–27) were recruited. The sample consisted of 68.2 % women and the average age was 23.2 years ($SD = 2.7$). The students were enrolled in university undergraduate programs (93.4%), specifically, in psychology (62.1%), engineering (15.8%), business administration (6.4%), law (4.8%), arts and language science (4.6%), sciences (2.4%), education (2.2%), and health science (1.7%). Their distribution across academic years is as follows: first year (13.8%), second year (24.3%), third year (19.4%), and fourth year (42.5%).

Instruments

Sociodemographic characteristics. An *ad hoc* questionnaire was developed to collect sociodemographic data such as sex and age. Data regarding the enrolled program and academic year were also collected.

Future Work Self. The future work self (Strauss et al., 2012) scale was used to measure students' future work representation. It was adapted for Spanish university students for the present study (see supplementary material). Factorial Confirmatory Analysis confirmed unidimensional structure ($KMO = .79$, $\chi^2 = 2389.18(10)$, $p < .001$, $VAR = 58.81\%$; $\lambda [.81 - .63]$). Participants were instructed to imagine their hoped-for work self in terms of the kind of work they hope to be doing and what they will be like at their hoped-for job. Keeping that image in mind, participants were instructed to rate 5 items (e.g., “what type of future I want in relation to my work is very clear in my mind”). A 5-point Likert-type response (1 = strongly disagree, 5 = strongly agree) was used. Validity and reliability tests of the questionnaire for the assessed dimension were conducted ($\alpha = .87$, $\omega = .87$, $CFC = .92$, $AVE = .71$).

Academic Passion. It was evaluated using the Spanish version of the Academic Passion Scale (Lisbona et al., 2012), adapted from Vallerand et al.'s (2003) original version for university students. The scale consisted of 14 items distributed across two factors: *harmonious passion* (seven items, such as, “I'm totally involved in my studies”) and *obsessive passion* (seven items, such as, “My mood depends on whether or not I am able to study something”). A 5-point Likert-type response (1 = strongly disagree, 5 = strongly agree) was used. The validity and reliability analysis of the questionnaire for the assessed dimensions showed the fol-

lowing results: *harmonious* ($\alpha = .88$, $\omega = .87$, CFC = .92, AVE = .64); *obsessive* ($\alpha = .87$, $\omega = .88$, CFC = .64, AVE = .92).

Resilience. It was evaluated using the Connor-Davidson's Resilience Scale (Connor & Davidson, 2003), validated for its use in Spanish populations (Soler Sánchez et al., 2016), and adapted to Spanish university students for this study. Factorial Confirmatory Analysis confirmed the unidimensional structure of the study sample (KMO = .887, $\chi^2 = 2930.611(45)$, $p < .001$, VAR = 40.71%, $\lambda [.52 - .72]$). The questionnaire consisted of 10 items (e.g., "I am able to adapt to changes") distributed on a single factor. A 5-point Likert-type response format (1 = not true at all; 5 = true nearly all the time) was used. Validity and reliability tests of the questionnaire for the assessed dimension were conducted ($\alpha = .86$, $\omega = .87$, CFC = .92, AVE = .53).

Proactive Career Behavior. It was evaluated using the Proactive Career Behavior Scale (Strauss et al., 2012) adapted to Spanish university students by Bernabé et al. (2018). The scale consisted of 13 items distributed across four factors: *career planning* (four items, such as, "I am planning what I want to do in the next few years of my career"); *proactive skill development* (three items, such as, "I develop skills which may not be needed so much now but will be of use in future positions"); *career consultation* (three items, such as, "I seek advice from my professor/s about additional training or experience I need to improve my future work prospects"); *network building* (three items, such as, "I am building a network of colleagues I can call on for support"). A Likert-type response scale from 1 to 5 was used (1 = strongly disagree, 5 = strongly agree). The validity and reliability tests of the questionnaire for the assessed dimensions showed the following results: *career planning* ($\alpha = .85$, $\omega = .85$, CFC = .91, AVE = .72); *proactive skill development* ($\alpha = .77$, $\omega = .78$, CFC = .86, AVE = .67); *career consultation* ($\alpha = .92$, $\omega = .93$, CFC = .96, AVE = .89), and *networking building* ($\alpha = .85$, $\omega = .86$, CFC = .92, AVE = .78). For the entire scale, validity and reliability tests showed the following results: $\alpha = .87$, $\omega = .86$, CFC = .98, AVE = .77. The total scale average was used as an indicator.

Procedure

The study design was cross-sectional. Participants were invited by the research team and provided with the link to the questionnaire via different online platforms. Snowball sampling was followed. Data collection was carried out during the second semester of the academic year using Qualtrics®. Before administering the questionnaire, the participants were notified of the confidentiality and anonymity of their answers, provided informed consent, and agreed to proceed with the research. This study has the approval of the ethics committee of the National University of Distance Education and conforms to the ethical guidelines of the Declaration of Helsinki.

Data analysis

Descriptive statistical analyses were applied to questionnaire scores and tests of reliability. Mean, standard deviation, and Pearson product-moment correlation ($p < .05$, $p < .01$) were computed. According to Hair et al. (2007), Mahalanobis Distance (D^2) was estimated to identify outliers. The validity and reliability of the measurement instruments were determined using Cronbach's α , McDonald's ω , Composite Reliability (CFC), and Average Variance Extracted (AVE) coefficients. In general, α , ω and CFC values from .70 and AVE values from .50 are suggested as appropriate (Hair et al., 2011; Kalkbrenner, 2023). Hierarchical regression analysis for the model of *proactive career behavior* was computed using research variables. Next, the PROCESS macro for SPSS for serial multiple mediation (Model 6) was used. This procedure allows to study direct and indirect effects of *future work self* on *proactive*

career behavior while modeling a process in which *future work self* is related to *passion*, which in turn, is related to *resilience*, concluding with *proactive career behavior* as an outcome (Figure 1). Bias-corrected bootstrapped point estimates for the indirect effects of the independent variable on the dependent variable were calculated together with standard errors and 95% confidence intervals. The total effect is the additive result of the direct effects and all the mediating indirect effects. Bootstrapping with 5000 samples was used with bias-corrected and accelerated intervals to make inferences. The analyses were conducted using the SPSS statistical package.

Results

Preliminary analysis

The results of the descriptive analyses are shown in Table 1. Mahalanobis Distance test showed no outliers in the study sample (all p 's > .001). Statistically significant correlations were observed between *future work self*, *harmonious passion*, *resilience*, and *proactive career behavior* (all p 's < .01). The study found no significant correlation between *obsessive passion* and *future work self* ($p = .41$) and *resilience* ($p = .72$). Conversely, a positive correlation was found between *obsessive passion* and *proactive career behavior*.

Table 2 shows the output of the previously performed regression analysis. In the first step, *resilience* predicted *proactive career behavior* ($R^2 = .125$, $p = .001$). In the second step, *obsessive passion* was included ($\Delta R^2 = .050$, $p = .001$), and the model was also statistically significant. In the third and fourth steps, *harmonious passion* ($\Delta R^2 = .174$, $p = .001$) and *future work self* ($\Delta R^2 = .036$, $p = .001$) were included, respectively.

Direct and indirect effects analysis

Firstly, regarding the path analysis of the proposed model (see Figure 2), results revealed that *future work self* is associated with *resilience* ($\beta = .28$, SE = .023, $p = .001$) and *proactive career behavior* ($\beta = .21$, SE = .023, $p = .001$). It is also associated with *harmonious passion* ($\beta = .29$, SE = .03, $p = .001$), but not with *obsessive passion* ($\beta = -.05$, SE = .034, $p = .200$). The results for passion showed a positive effect of its *harmonious* dimension on *resilience* ($\beta = .24$, SE = .027, $p = .001$), on *obsessive passion* ($\beta = .30$, SE = .040, $p = .001$) and on *proactive career behavior* ($\beta = .41$, SE = .027, $p = .001$). Conversely, *obsessive passion* had no significant effect on *resilience* ($\beta = -.09$, SE = .024, $p = .007$) but it showed a positive effect on *proactive career behavior* ($\beta = .09$, SE = .023, $p = .001$). For *resilience*, results showed a significant effect on *proactive career behavior* ($\beta = .16$, SE = .035, $p = .001$).

Secondly, the indirect effects of the theoretical model were analyzed. All variables included in the proactive career behavior serial mediation model were significant ($R^2 = .62$, $F = 120.979$, $p = .001$). Concerning the total effect of *future work self* on *proactive career behavior* ($R^2 = .38$, $F = 137.008$, $p = .001$), adequate values were observed ($\beta = .38$, SE = .024, $p = .001$). The same occurred with its direct effect ($\beta = .15$, SE = .023, $p = .001$). Table 3 shows the indirect effects of *future work self* on *proactive career behavior*. Thus, all mediating variables of the serial mediation model were statistically significant.

The different pathways of the proposed model were analyzed, and the outcomes are shown in Figure 2. Results revealed two serial indirect effects of *future work self* on *proactive career behavior* (Table 3). One, through *harmonious passion* and *resilience*, and the other through *harmonious passion* and *obsessive passion*. The contrast between the serial indirect effects of both mediators (*harmonious passion* > *resilience*) compared to their independent

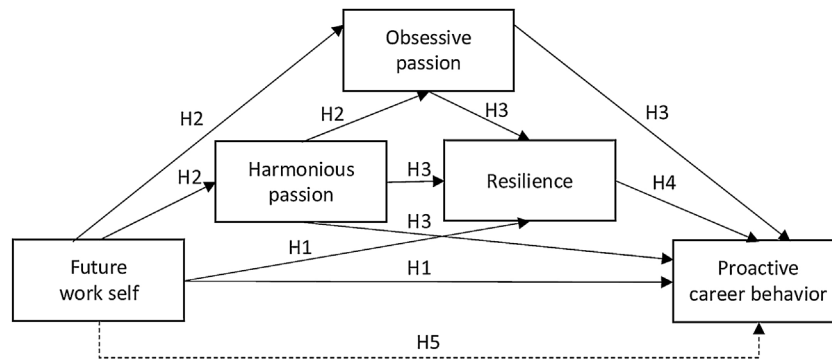


Figure 1. Proposed theoretical model.

Table 1
Cronbach values, descriptive analysis, and Pearson correlation matrix

	M	SD	1	2	3	4	5	6	7	8	9
1. Future work self	3.40	.99	-								
2. Harmonious passion	3.59	.87	.29**	-							
3. Obsessive passion	2.42	.95	.04	.28**	-						
4. Resilience	3.86	.65	.34**	.35**	-.01	-					
5. Proactive career behavior	3.93	.73	.39**	.54**	.22**	.35**	-				
6. Career planning	3.89	.86	.36**	.44**	.15**	.26**	.66**	-			
7. Proactive skill development	3.74	.85	.33**	.47**	.18**	.34**	.71**	.48**	-		
8. Career consultation	2.65	1.25	.25**	.38**	.16**	.20**	.77**	.29**	.36**	-	
9. Network building	3.30	1.09	.21**	.31**	.15**	.26**	.74**	.29**	.35**	.43**	-

** p-value < .01.

Table 2
Regression model for proactive career behavior model

Variable		β	SE	95% CI		p-value
				LL	UL	
Model 1						
Resilience	F = 111.078 R ² = .125 p-value = .001	.354	.038	.324	.472	.001
Model 2						
Resilience	F = 82.411 R ² = .175 p-value = .001	.357	.037	.329	.473	.001
Obsessive passion		.224	.025	.124	.223	.001
Model 3						
Resilience	F = 138.583 R ² = .349 p-value = .001	.222	.034	.182	.317	.001
Obsessive passion		.090	.024	.023	.116	.001
Harmonious passion		.458	.027	.337	.443	.002
Model 4						
Resilience	F = 120.979 R ² = .385 p-value = .001	.164	.035	.116	.253	.001
Obsessive passion		.093	.023	.027	.117	.001
Harmonious passion		.413	.027	.299	.405	.001
Future work self		.206	.023	.107	.196	.001

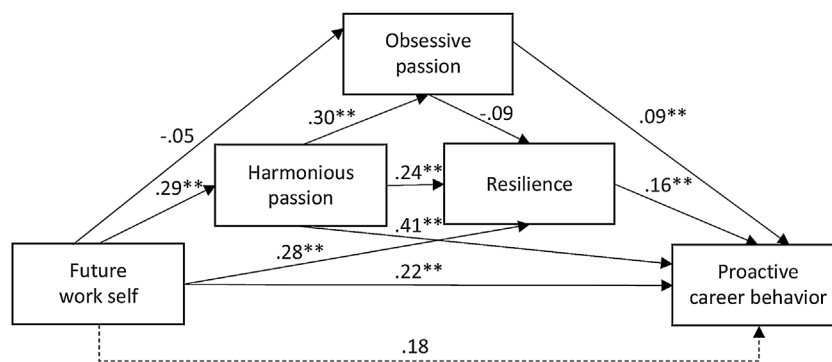


Figure 2. Final model proactive career behavior.

** p < .01.

Table 3
Indirect effects on students' proactive career behavior

Pathways	Boot Estimate	Boot SE	Boot 99% CI	
			BootLL	BootUL
Indirect effects				
Future work self ->				
Harmonious passion	.121	.013	.066	.118
Obsessive passion	-.004	.004	-.017	.004
Resilience	.046	.011	.001	.017
Harmonious passion -> Obsessive passion	.008	.003	.003	.013
Harmonious passion -> Resilience	.011	.003	.004	.021
Obsessive passion -> Resilience	.001	.001	-.001	.003
Harmonious passion -> Obsessive passion -> Resilience	-.001	.001	-.003	.001

indirect effects revealed higher effects when treated separately ($\beta = .034$, $SE = .010$, $IC [.016 - .056]$). Furthermore, indirect effects of *future work self* on *proactive career behavior* showed higher values through *harmonious passion* than through *resilience* ($\beta = .075$; $SE = .021$ $IC [.034 - .117]$). The contrast between *harmonious passion-obsessive passion* path and *harmonious passion-resilience* path was non-significant ($\beta = -.003$, $SE = .004$, $IC [-.011 - .005]$).

Discussion

This paper aims to study the mediating effects between *future work self*, *academic passion*, and *resilience* in order to predict *proactive career behavior*. On the one hand, the results of the study confirm that the *future work self* is associated both with *resilience* and with *proactive career behavior* (*hypothesis 1*). Therefore, according to [Strauss and Kelly \(2016\)](#), a self-regulatory process is observed among participants, in which the *future work self* is a motivator that predicts the efforts and the overcoming of obstacles, thus increasing resilience-building and improving *proactive career behavior*. On the other hand, the study also confirms the association between the *future work self* and *harmonious passion* (*hypothesis 2*) but not with *obsessive passion*. Thereby, as expected, the participants created flexible and thorough future work selves via an informational process ([Bouizegarene et al., 2018](#)) that predicted higher harmonious passion, while there was no statistical evidence that it was related to the obsessive dimension. Regarding the mediating variables of the proposed model, namely *academic passion* and *resilience*, the study results confirm the association between the harmonious dimension of passion with both *resilience* and *proactive career behavior* (*hypothesis 3*) while, at the same time, *resilience* is positively associated to *proactive career behavior* (*hypothesis 4*). Consequently, a “positive pathway” through which *harmonious passion* predicts an increase in *resilience* is confirmed, in line with previous studies ([Carmona-Halty et al., 2021](#); [Fisher et al., 2018](#); [Paquette et al., 2022](#); [Ramos-Díaz et al., 2019](#); [Rivera et al., 2021](#); [Sarrionandia et al., 2018](#); [Vankakova et al., 2021](#)). Although results show that *harmonious passion* through *obsessive passion* influences *proactive career behavior*, the serial mediation effects of *harmonious passion* and *resilience* are higher than when considering the mediating variables separately. A possible explanation for this is that students with higher scores in the *obsessive dimension* may try to develop proactive behaviors that are congruent with their activity. This is not necessarily guided by their future work self, but by satisfying a need for congruence with their experience, such as responding to the needs of others.

The study also found that students who develop a *harmonious passion* for their studies overcome obstacles and have higher levels of *resilience*. Regarding *proactive career behavior*, these results corroborate previous findings ([Safavi & Bouzari, 2019](#); [Zhang et al., 2022](#)). Thus, the *harmonious dimension* as well as the *resilience* are predictors of *proactive career behavior*. The results of this study show that study behavior, when performed harmoniously, is asso-

ciated with increased career planning, networking, or counseling seeking, in order to achieve professional goals. These results further confirm the adaptive function that *harmonious passion* and *resilience* might have in resource gaining, as the broaden-and-build theory suggests ([Fredrickson, 2001](#)). Besides, the role that psychological capital may have in predicting proactivity is highlighted. Lastly, the results of this study confirm the indirect effect of the *future work self* through *academic passion* and *resilience* on *proactive career behavior* (*hypothesis 5*). Specifically, students' level of elaboration of their future work selves positively predicts *harmonious academic passion*, which in turn, predicts *resilience*, and eventually *proactive career behavior* in the participants of the research. Nevertheless, the results did not show any statistically significant effects consistent with a possible “negative pathway”, given that no mediating effects have been found on the side of the obsessive dimension between *future work self* and *proactive career behavior*. These results only reveal a marginal positive direct effect of *obsessive passion* on *proactive career behavior*.

It is evinced that greater elaboration of the *future work self* leads to high motivation and mobilization of personal resources in order to improve aspects such as planning, counseling seeking, or development of the skills that the students consider essential for their work self-image. Concerning passion for their studies, differences are observed in the results. For *harmonious passion*, it would act as a motivator guided by the *future work self* and would predict both, *resilience*, and *proactive career behavior*. Nevertheless, no effect has been observed for *obsessive passion*, therefore it is expected that an elaborated image of the participant's future work self will not be directly related to the *obsessive passion* dimension. These results may be explained based on the conceptualization of both dimensions *per se*, given that *harmonious passion* is associated with intrinsic motivators (i.e., enjoyment of the activity) and greater well-being, while *obsessive passion* is mainly guided by external contingencies (i.e., adapting to others' expectations) and greater discomfort. In consequence, the *future work self* would elicit a desired role guiding the study behavior harmoniously and enhancing resilience-gaining. Proactive career behavior was observed in the research sample, as a result of these effects considered both independently and in series. The results also demonstrate the interaction effects inside the motivational states as proposed by [Parker et al. \(2010\)](#) in their theoretical model. Thereby, *harmonious academic passion* (“energized to”), as well as *resilience* (“can do”), and *future work self* (“reason to”), predict *proactive career behavior* independently, but also when they interact with each other. Thus, as it has been found, the elaboration of a future identity causes a discrepancy with the present self which favors a passionate study behavior, improving resilience while overcoming obstacles.

This investigation, although cross-sectional, suggests the multi-causality of students' behaviors, perceptions, and attitudes toward their careers that interact with each other through spirals or positive and negative pathways ([Xanthopoulou et al., 2009](#)). That is to say that, in positive terms, according to [Fredrickson \(2001\)](#), the

existence of greater strengths and resources, such as harmonious passion, will allow the mobilization of higher levels of effort and energy with a predictably better result; this fact is reinforced by initial resources (Parker et al., 2010). Furthermore, even though the voluntary nature of the participation in the study may have biased the study towards more motivated students, the sample showed a broad range of scores for the evaluated variables with appropriate levels of variability.

The limitations of this study include the use of self-report tests and a cross-sectional design. Although they are usually applied in the analysis of this type of variables, they may introduce a bias in participants' responses (Podsakoff et al., 2003), therefore, a more sophisticated design would be preferable for future studies. Regarding the sample composition, by gender and university degree, students' perceptions about certain university degrees are exposed to gender stereotypes (Barberá et al., 2008). Consequently, a wider sample of university degrees and a gender approach would be desirable.

From a pragmatic perspective, this study provides evidence of the relevance of having institutional adequate professional and academic counseling that fulfills the specific demands of university students in terms of vocational, academic, and professional orientation. This adequate counseling and orientation for undergraduate students may favor two aspects: firstly, the choice of studies based on their passion, which in turn will favor greater success and academic well-being. Secondly, it will ensure that the student's choice is realistic and that the study choice correctly meets the expressed expectations as a dynamic process. In addition, as has already been said, a greater image of the work self will be linked to a greater mobilization of other resources such as motivation. Lastly, this study corroborates the importance of strengthening resources such as passion or resilience, as elements of the psychological capital which is directed toward promoting greater well-being and future work counseling.

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Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.psicoe.2023.10.002>.

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