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## Chapter 4

# Positive Youth Development, Social Contribution, and Pro-environmental Behaviour in a Sample of Spanish Emerging Adults

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**Abstract:** Positive Youth Development (PYD) is a strength-based perspective that posits that healthy development emerges because of the alignment between personal strengths and contextual assets. This work is based on the 5Cs model of PYD, which comprises five thriving indicators (competence, confidence, connection, character and caring) which are expected to be associated with positive youth outcomes. The aim of this study was to examine the relationships between the 5Cs of PYD and indicators of social contribution and pro-environmental behaviours. A cross-sectional study was conducted in winter and spring of 2021 with a sample of 1044 emerging adults (75.5% females;  $M_{age} = 20.47$ ,  $SD = 3.08$ ) from 11 universities in Spain, who completed online self-report measures of PYD, social contribution and pro-environmental behaviour. The results showed that overall PYD was positively associated with both social contribution (especially family contribution and advising peers) and pro-environmental behaviours. Connection and character had the strongest positive associations with social contribution, while character and caring had the strongest associations with the pro-environmental behaviours. In line with these findings, PYD promotion programs could be a valid intervention approach to foster more contribution to others and pro-environmental behaviours.

*Keywords:* 5Cs of PYD, social contribution, pro-environmental behaviour, emerging adults, Spain.

## Introduction

Youth research has traditionally taken a deficit perspective, which has marked the design of intervention programs (Geldhof et al., 2014). Research evidence indicates that youth interventions have less impact if they only focus on risks and vulnerabilities and suggest that promoting healthy development requires a strength-based approach (Benson et al., 2006; Kia-Keating et al., 2011). The Positive Youth Development (PYD) framework defines a strength-based conception of the transition to adult life in which positive results emerge as consequence of the intersection between personal skills and contextual developmental assets in young people (Dimitrova & Wiium, 2021; Gomez-Baya et al., 2022; Lerner, 2005; Lewin-Bizan et al., 2010). This theory is derived from developmental systems theory, that states that youth development emanates from the reciprocal interactions between biological, individual, and contextual influences (Lerner et al., 2005). Lerner and his colleagues (2005) conceptualized a 5Cs model of PYD – that is, five interactive strengths, which are supposed to be associated with better health and well-being (Bowers et al., 2010; Domiguez-Espinosa et al., 2021; Gomez-Baya et al., 2021; Milot Travers & Mihalik, 2021). Specifically, the 5Cs, also referred to as thriving indicators, are competence (a positive perceived self-efficacy in different aspects), confidence (an overall positive self-worth), connection (positive relationships with others), character (internalization of society rules), and caring (ability to act with both sympathy and empathy with other people).

Lerner et al. (2003) defined thriving as a youth trajectory characterized by contribution to self, family, community, and civil society. Contribution as a result of thriving is considered as the sixth C within the PYD model. Some studies have differentiated thriving components, both at the individual level (e.g., self-regulation skills, resilience, psychological and academic adjustment, and healthy lifestyles) and at the social level (e.g., prosocial behaviours and social engagement with others) (Branquinho & Gaspar de Matos, 2019; Catalano et al., 2004; Durlak et al., 2007; Gaspar de Matos et al., 2018; Olson & Goddard, 2015). Some studies have concluded that the 5Cs and positive outcomes are bidirectionally related across development. In this connection, Lewin-Bizan et al. (2010) conducted a longitudinal study in the United States and showed some upward spirals or positive developmental cascades. Bidirectional interrelations were observed in the follow-up among positive parenting, better self-regulation skills,

more PYD and greater social engagement. Geldhof et al. (2013) indicated that the process of developing thriving consists of adaptive self-regulations between youth strengths and ecological assets. Thus, thriving should not only be conceived at an individual level, but it is also important to highlight the relevance of the developmental contexts and relationships.

Lerner et al. (2003, 2012) concluded that thriving is the basis of personhood and civil society and is a remarkable marker of health and successful developmental dynamics between the person and the context. Sherrod (2007) argued that the construct of civic engagement may partly overlap with the contribution dimension (the sixth C) of PYD model, underlining the proactive role of youth as “agents of change in building the assets-promoting qualities of communities and societies” (p. 63). In this regard, Umholtz (2013) encouraged the design of intervention to promote youth engagement through environmental-based experiential education for sustainable development. An intervention program developed by this author showed that environmental education could help to create life purpose and reconnect with their community and environment, in youth with low SES. From a social constructivist approach, PYD would be a consequence of environmental education, since it provides contextualized and collaborative learning, as well as individualized attention (Umholtz, 2013). Thus, a positive interaction may be expected between youth participation in environmental action and both individual and community development (Bøhlerengen & Wiium, 2022; Gómez-Baya et al., 2020).

Developing youth as active citizens may contribute to creating the needed environmental and social change to reach more sustainable communities (Schusler et al., 2009). Schusler and Krasny (2010) examined environmental action as context for youth development. In a qualitative study, these authors conducted narrative interviews with educators of environmental action programs for youth and with their youth participants. These programs produced an improvement in environmental attitudes and behaviours, as well as presented other positive outcomes, such as increased decision-making and citizenship skills and enhanced physical and psychological well-being. Thus, PYD intervention programs may offer a practical framework for understanding the power of environmental action to care for and improve both the environment and youth well-being. Consequently, complementary social and environmental action would be expected to support more positive outcomes in youth development. Schusler et al. (2009, p. 16) defined environmental action as the “process of co-creating environmental

and social change that builds individuals' capabilities for further participation contributing to personal and community transformation”.

### **The Present Study**

Although some evidence has been collected within the relational developmental systems regarding thriving outcomes from PYD, more research is needed to examine the separate role of the 5Cs. The relational developmental systems theory posits that contribution is positively associated with the presence of the 5Cs, so that both social contribution and contribution to environment could be described as expected correlates of thriving. More research is needed to investigate the relationships between PYD and both social contribution and pro-environmental behaviours. Social contribution can be considered as an understanding of and commitment to enhance other people and one's community that transcend self and self-interest (Lerner et al. 2003). Pro-environmental behaviours can be defined, following Emmons (1997), as deliberate behaviours, composed of decisions, planning, implementation and reflection, aimed at achieving a concrete environmental result. To date, PYD literature has given more focus to social participation and engagement, and less efforts have been made to examine the association between PYD and environmental action. This evidence could be useful to support the design of programs to integrate the promotion of PYD and youth contributions to both society and environment.

Furthermore, most research has been performed in the United States and countries in Northern Europe, so that more evidence is also needed to find the validity of the model in other countries, such as Spain. The latest demographic data from the Spanish Youth Institute (2017) have shown a population of 7 117 534 young people aged between 15 and 29 (50.8% males). Youth population represents 15.3% of the total population of Spain, a percentage that is lower than that from the European Union (17.4%). Moreover, in Spain, better youth policies are necessary to promote social participation (only 27.5% of Spanish youth collaborate with an NGO or with some association, and up to 61.5% show little or no interest in politics) and to improve youth employment (nearly half a million of young people aged between 16 and 29 are unemployed) (Comas Arnau, 2010; Spanish Youth Institute, 2021). Thus, the aims of the present study were: a) to describe the 5Cs of PYD, social contribution and pro-environmental behaviours in a sample of Spanish emerging adults, in order to examine the need to design

intervention programs; and b) to identify the associations between the 5Cs of PYD and different indicators of social contribution and pro-environmental behaviours. Positive associations are expected between the 5Cs of PYD and social and pro-environmental contribution, in line with previous studies on thriving indicators (Branquinho & Gaspar de Matos, 2019; Catalano et al., 2004; Durlak et al., 2007; Gaspar de Matos et al., 2018; Olson & Goddard, 2015).

## Methods

### Participants and Data Collection Procedure

A cross-sectional study was carried out online in the winter and spring of 2021, with a sample of 1044 youth (75.5% females; Age range = 18–28;  $M_{age} = 20.47$ ,  $SD = 3.08$ ). These participants were enrolled in 11 universities from different parts of Spain: University of Huelva, Loyola University (Campus of Seville and Cordoba), Complutense University of Madrid, University of Granada, University of Salamanca, University of La Laguna, University of Zaragoza, University of Santiago, Polytechnic University of Valencia, University of Valencia, and University of Oviedo. They were selected by convenience, controlling for geographical distribution, that is, including universities from the North, South, West, East, Central, and the island territory. In each university, the degrees and academic years were randomly selected. Regarding nationality, most of the participants were Spanish (95.2%). 33.9% of the sample lived in a big city (>300 000), 32.4% lived in medium-sized cities (between 50 000 and 300 000), and the other third of the sample lived in small towns and rural areas. Most of the sample indicated a socioeconomic status as the mean of the population (83.6%). With regards to the degree of study, 41.6% studied Social Sciences and Law, 24.7% studied Health sciences, 20.3% studied Sciences, Engineering or Architecture, and 13.5% studied Arts and Humanities.

### Instruments

#### **Positive Youth Development**

PYD Short Form by Geldhof et al. (2014) and adapted to Spanish by Gomez-Baya et al. (2019), which is a self-report questionnaire composed of 34 items, assessed Competence (6 items; a positive view of one's actions in

different domains; e.g., “I do very well in my class work at the university”;  $\alpha = .73$ ), Confidence (6 items; a sense of self-worth in general; e.g., “When I am an adult, I’m sure I will have a good life”;  $\alpha = .77$ ), Character (8 items; considered as respect for the rules of one’s society and culture, and a sense of integrity; e.g., “I hardly ever do things I know I shouldn’t do”;  $\alpha = .59$ ), Connection (8 items; positive relationships with others; e.g., “I feel like an important member of my local community”;  $\alpha = .77$ ) and Caring (6 items; defined as developing sympathy and empathy for others; e.g., “It bothers me when bad things happen to any person”;  $\alpha = .82$ ). The items were assessed using a 5-point Likert-type scale, 1 = strongly disagree and 5 = strongly agree, 1 = not important and 5 = extremely important, or 1 = not at all like me and 5 = very much like me. Mean scores were calculated for each dimension of the 5Cs with their respective indicators. Overall PYD score was created by calculating the mean of the five dimensions.

### **Social Contribution**

Five indicators, adapted from Geldhof et al. (2014) were administered: “How many hours do you spend in a typical week: volunteering or doing something without pay to make your community a better place / helping friends or neighbours / helping your family / mentoring others or advising peers / participating in university committees or government?”. Five response options were used, “0 hours,” “1 hour,” “2 hours,” “3–5 hours,” and “6 or more hours,” encoded from 1 to 5.

### **Pro-environmental Behaviours**

Ten indicators of pro-environmental behaviours were presented, which were specifically developed for the purposes of the present research. These items were organized in two separated blocks. The first block was introduced by this sentence “Please indicate how often you perform each of the following behaviours” and the indicators were: 1) When it is feasible for me, I try to go on foot or by bicycle to places; 2) When buying food, I look at the place where it is produced and I try to choose those that are produced locally (nearly); 3) In the cold months, at home or at work, I try to have the heating high enough to be able to be in short sleeves or with little clothing; 4) When I have had the opportunity to do so, I have planted trees; 5) I turn off the lights when leaving the rooms, and 6) I tend to use the plane for my leisure or work trips even though

there are alternatives by train. Response categories were: always or almost always, quite a few times, about half the time, a few times, never or very rarely.

Furthermore, the second block was introduced by this sentence “Please indicate to what extent you consider it likely that you would do the following”, and these indicators were described: 1) If I had to buy electrical appliances, I would pay more attention that the price is not high than that they consume little energy; 2) If I were to buy or rent a house, it would be very important for me that the water for domestic use (shower, bathroom, kitchen) could be heated with solar energy; 3) If I had to choose the heating system for my house, I would try to use solar energy, even if it is more expensive than other systems, and 4) If I was driving a car, I would try to go at a lower speed than the maximum allowed (120 km/h) to save fuel. The indicators are assessed following this response scale: sure yes, maybe yes, I don’t know, probably not, sure not.

### **Data Analysis Strategy**

Descriptive statistics are presented for PYD overall score and its separate 5Cs (i.e., mean and standard deviation). Frequency distribution is presented for the indicators of social contribution and pro-environmental behaviour. An overall score of social contribution was calculated to perform the subsequent analyses. Further, bivariate zero-order Pearson correlations were conducted between PYD, the 5Cs and the indicators of social contribution and pro-environmental behaviour. These analyses were performed with the statistical package SPSS 21.0 (IBM Corp, 2012).

## **Results**

### **Descriptive Statistics of Study Variables**

Table 4.1 shows the descriptive statistics of the 5Cs and the overall score of PYD. Moderate to high means were detected in the 5Cs and the overall PYD score. The greatest mean was observed in caring, while the lowest one was found in competence. Table 4.1 also presents bivariate correlations between the dimensions. Results showed positive associations among the 5Cs. The strongest correlations were observed between competence, confidence, and connection. However, caring did not correlate with competence nor confidence.

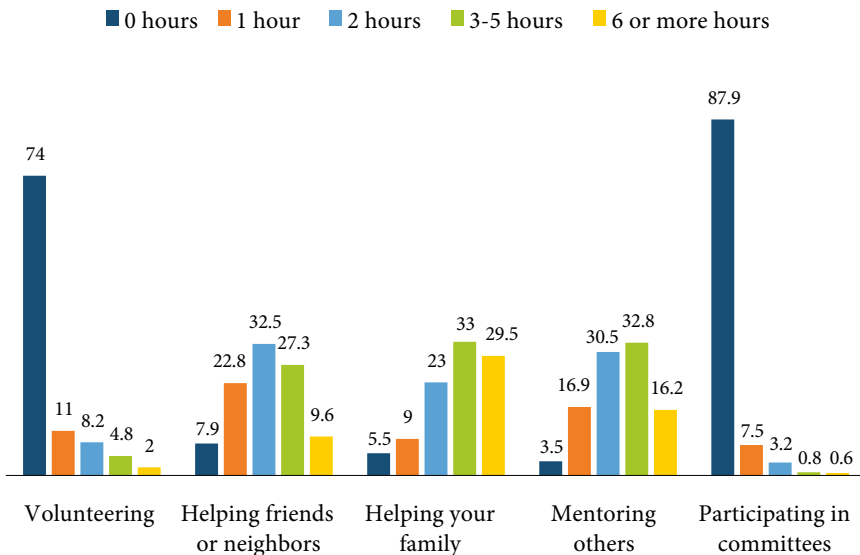


**Table 4.1** *Descriptive Statistics of PYD and the 5Cs, and Bivariate Correlations.*

	Min	Max	Mean	SD	1	2	3	4	5	6
1. Competence	1.00	5.00	3.01	.71	1					
2. Confidence	1.50	5.00	3.64	.69	.60***	1				
3. Connection	1.50	5.00	3.61	.61	.51***	.55***	1			
4. Caring	1.50	5.00	4.32	.59	.06	.01	.20***	1		
5. Character	2.00	5.00	4.00	.43	.27***	.43***	.40***	.43***	1	
6. Overall PYD	2.05	5.00	3.71	.42	.75***	.78***	.78***	.45***	.68***	1

Note. \*\*\*  $p < .001$ .

Figure 4.1 represents the percentage distribution of the responses in the indicators of social contribution. The most frequent activities of social contribution were helping the family and mentoring others or advising peers. Nearly two-thirds of the sample helped their family three hours or more in a week, while nearly half reported advising others. Furthermore, the participation in university committees or government was very low, as well as the participation in volunteering activities.

**Figure 4.1** *Percentage Distribution of the Indicators of Social Contribution*

Furthermore, Table 4.2 describes the percentage distribution of the indicators of pro-environmental behaviour. Most of the sample indicated that they went on foot or by bike when possible and turned off the lights when leaving the rooms. However, less than a quarter of the sample bought local food and planted trees. Furthermore, less than half of the sample bought electrical appliances depending on the consumption, would rent/buy a house with solar energy, or reduced speed to save fuel. Moreover, just half of the sample would choose a solar heating system.

**Table 4.2** *Percentage Distribution of the Responses in the Indicators of Pro-environmental Behaviour.*

	Never or very rarely	A few times	About half the time	Quite a few times	Always or almost always
Go on foot or by bike	12.1	13.2	11.2	25.5	38.1
Buy local food	34.5	28.0	14.2	14.6	8.7
Have the heating high	59.0	23.3	7.8	5.8	4.1
Have planted trees	44.8	26.8	10.5	9.3	8.6
Turn off the lights	1.7	1.9	3.8	13.1	79.5
Use the plane	61.3	15.8	8.5	6.2	8.2
	Sure yes	Maybe yes	I don't know	Probably not	Sure not
Electrical appliances depending on the price, not the consumption	17.3	24.6	18.4	28.6	11.1
Rent/buy a house with solar energy	16.6	36.5	19.1	21.3	6.5
Heating system with solar energy	17.2	32.8	23.6	19.7	6.7
Lower speed to save fuel	24.2	22.2	18.5	24.1	11.0

In the second block of indicators, character correlated with buying electrical appliances depending on the consumption, more probability to rent/buy a house with solar energy, using a heating system with solar energy, and reducing speed to save fuel. Caring was positively related to greater probability of renting/buying a house with solar energy and lower speed to save fuel. Finally, competence correlated with lesser probability of buying electrical

appliances depending on the consumption and lesser probability of reducing speed to save fuel. Overall PYD was associated with renting or buying a house with a solar system and using a heating system with solar energy. All the significant correlations observed between PYD and pro-environmental behaviours were small in size.

**Table 4.3** *Bivariate Correlations between PYD, 5Cs and the Indicators of Social Contribution.*

	Volunteering	Helping friends or neighbours	Helping your family	Mentoring others	Participating in committees	Overall social contribution
Competence	.11***	.09**	.09**	.11***	.14***	.16***
Confidence	.03	.06	.13***	.05	.07*	.11***
Connection	.18***	.14***	.27***	.20***	.15***	.31***
Caring	.16***	.17***	.17***	.21***	-.04	.24***
Character	.23***	.20***	.20***	.19***	.05	.29***
Overall PYD	.19***	.17***	.24***	.21***	.11***	.31***

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

**Table 4.4** *Bivariate Correlations Between PYD, 5Cs and the Indicators of Pro-environmental Behaviour (Block 1).*

	Go on foot or by bike	Buy local food	Have the heating high	Have planted trees	Turn off the lights	Use the plane
Competence	.04	.04	-.11**	.04	-.06	-.08*
Confidence	-.02	.05	-.06	.05	-.02	-.03
Connection	.02	.05	-.02	.03	-.04	-.06
Caring	-.02	.03	.07*	.08*	-.07*	.04
Character	.04	.16***	.06	.12***	.07*	.01
Overall PYD	.01	.08*	-.03	.08*	-.01	-.05

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

**Table 4.5** *Bivariate Correlations Between PYD, 5Cs and the Indicators of Pro-environmental Behaviour (Block 2)*

	Electrical appliances depending on the price, not the consumption	Rent/buy a house with solar energy	Heating system with solar energy	Lower speed to save fuel
Competence	-.08*	-.02	-.01	-.10**
Confidence	.04	.01	.05	-.02
Connection	-.01	.03	.06	-.01
Caring	.01	.12***	.06	.10**
Character	.09**	.21***	.19***	.16***
Overall PYD	.01	.09*	.09**	.02

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

## Discussion and Conclusion

The aims of the present study were to examine PYD, social contribution and pro-environmental behaviours in a sample of Spanish emerging adults, as well as to analyse their interrelations. First, results pointed out moderate to high means in PYD overall score and its respective 5Cs, with the highest score detected in caring and the lowest in competence. Regarding social contribution, more frequent contribution was observed in helping family and advising/mentoring others, while less contribution was detected for the participation in committees and volunteering. These results are consistent with previous studies with Spanish youth (Gomez-Baya et al., 2019), and indicate a greater social engagement with people in the microsystem (family and peers) and more barriers to participate in community initiatives, as already noted by Comas Arnau (2010).

With regards to pro-environmental behaviours, most of the sample indicated that they went on foot or by bike whenever possible and turned off the lights when leaving the rooms. However, the other pro-environmental behaviours showed more reduced frequencies. Second, several correlations were found between PYD and social contribution/pro-environmental behaviours. Small to moderate positive associations were detected between the 5Cs and

the indicators of social contribution. The strongest correlations were found with family contribution and advising peers. These results may be due to the closer connection of youth with their microsystem, which allows them to provide a more direct and prolonged service.

The dimensions of PYD with the strongest correlation with social contribution were connection and character. Furthermore, only a small number of positive correlations were observed between the 5Cs and the pro-environmental behaviours. The dimensions of PYD more related to pro-environmental behaviours were character and caring. The findings on the correlations between PYD and social contribution are in line with a previous study with Spanish sample by Gomez-Baya et al. (2019), and with other works by Crocetti et al. (2014) in Lithuanian youth and Lewin-Bizan et al. (2010) in an American sample. Furthermore, the correlations between PYD and pro-environmental behaviours are in line with findings by Bøhlerengen and Wiium (2022) on environmental attitudes, behaviours, and responsibility perceptions in Norwegian youth, and by Kabir and Wiium (2021) on environmental concerns on emerging adults in Ghana. These results are consistent with the developmental contextual view of thriving as presented by Lerner et al. (2003), in which thriving youth are expected to show a commitment to society beyond the limits of one's own existence. Thus, civic engagement is an expression of PYD (Sherrod, 2007).

The present study has revealed evidence for the interrelations between PYD and both social and pro-environmental contribution, as expressions of thriving. Another novelty of the present study is the identification of specific associations with the 5Cs. Connection, caring and character were the dimensions with the strongest correlations with these forms of contribution. These Cs reflect positive relationships with others, empathy and compassion for others, and respect for social norms, which represent other-oriented aspects of PYD (while competence and confidence may be more self-oriented).

Some practical implications may be derived from these results. As argued by Lerner (2015), the PYD framework could guide the design of evidence-based actions aimed at meeting the challenges of the twenty-first century. These actions may produce changes in the relationships between youth and their developmental contexts in order to contribute to social justice and environmental protection. Recently, Lerner et al. (2021) indicated that all young people could thrive when equal and fair opportunities are provided to build agency through participation in and leadership of meaningful activities. First,

more initiatives should be conducted to encourage youth volunteerism and participation in committees and politics in their own communities. Moreover, more programs should be developed to promote pro-environmental behaviours and more ecological consciousness in youth population. Second, some programs to foster social and environmental engagement should be designed, which in turn may encourage the fulfilment of the 5Cs (competence, confidence, connection, character and caring). As indicated by Agans et al. (2014), extracurricular programs may be important ecological assets to promote positive developmental outcomes, because they provide some opportunities to learn and practice life skills, establishing mutually beneficial intergenerational relationships, and engaging in socially valued activities. In this connection, previous research has showed that the breadth of participation in out-of-school activities was related to greater PYD, more contribution and less risk behaviours.

Recently, Branquinho and Gaspar de Matos (2019) examined the efficacy of the project Dream teens, a youth participatory action-research project, in a national sample of Portuguese adolescents and youth. Results indicated that the participation was considered by youth as a remarkable individual asset and was related to greater integration in volunteer activities and mentoring, more positive leadership skills and more active citizenship. In the Dream teens project, adolescents and youth participants are empowered to design projects applicable to their own contexts and to create ways to improve youth civic participation. Participants felt that their voices were heard, being considered as experts in their own living contexts and their own psychological well-being. Indeed, Frasquilho et al. (2018) argued that these adolescent-led intervention projects were specifically effective in promoting PYD. Furthermore, recent work by Schusler et al. (2019) has proposed some possibilities to integrate youth participation and ecological and social work by examining youth reflections about their roles in the movements of social and environmental justice, after celebrating the “Where I Stand Youth Summit” in Chicago. These authors concluded that youth population can build agency and solidarity in relation to social and environmental justice, by redefining what knowledge matters, changing the intentions to act and providing opportunities for self-restoration in their own communities.

Despite the novelty of this study and the promising results detected for the PYD literature, some limitations may be acknowledged. Because

a cross-sectional design has been followed, the conclusions can only be based on the bidirectional associations, so that no directionality may be concluded. Thus, a longitudinal study could be recommended as a future research line to examine if PYD contributes to social contribution and pro-environmental behaviour, or perhaps PYD emerges as a result of the contribution to others or the environment. Moreover, other variables could be controlled in future research, such as empathy or self-regulation skills, because they could be potential mechanisms or mediators. Because self-report measures were used to assess the 5Cs and contribution, scores could be biased by social desirability, and assessment with multiple informants may be recommended. A qualitative study could be a promising research line to explore the mechanisms implicated within these correlations observed in the present study.

As a conclusion, the present work has presented some evidence for the positive relationships of PYD with both social contribution and environmental behaviour in a sample of Spanish emerging adults, as well as presenting the separate interrelations for the 5Cs. These results have underlined the need to encourage social contribution and pro-environmental behaviours in Spanish youth, and the importance of addressing this goal jointly with the promotion of PYD.

## **Ethics Statement**

The studies involving human participants were reviewed and approved by the bioethics committee of the University of Huelva. The participants provided their written informed consent to participate in this study.

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