

Character strengths in Spanish music students: An exploratory study

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Received: 9-9-2017

Accepted: 24-10-2017

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Summary. *The factors in the choice of musical instruments and how it influences and modifies the personality of the musicians are a common theme in research. However, less attention has been given to the formative effect of music on the character of music students, whose long-term commitment to acquiring professional competences as performers, teachers, conductors or composers can be examined using the research on Positive Psychology, which is mainly concerned with furthering people's psychological wellbeing. This paper profiles the virtues and character strengths of a sample of eighty Spanish students completing bachelor's degrees in music during the academic year 2016-2017, using the VIA Inventory of Strengths –free version (VIA-IS) (Peterson & Seligman, 2004) to analyse the respondents' key strengths. The survey showed high scores in judgment and lower scores in self-regulation. The results were contrasted with samples of students in bachelor's degrees in the social sciences.*

Key words: *character strengths; music education; virtues; musicians; music students*

Fortaleses de caràcter en els estudiants de música espanyols: un estudi exploratori

Resum. *Els factors que contribueixen a l'elecció dels instruments musicals i la seva influència i modificació en la personalitat dels músics són un tema comú en la recerca. Tanmateix, s'ha posat menys atenció a en aspectes com l'efecte formatiu de la música en el caràcter dels estudiants de música; el compromís d'aquestes persones amb l'adquisició de competències professionals a llarg termini com a intèrprets, professors, directors o compositors pot ser examinat aplicant la Psicologia Positiva, que s'ocupa principalment del benestar psicològic de les persones. Aquest article estudia les virtuts i les fortaleses del caràcter d'una mostra de vuitanta estudiants espanyols cursant el grau en música durant el curs 2016-2017 amb el VIA Inventory of Strengths – versió lliure (VIA-IS; Peterson & Seligman, 2004) per analitzar les fortaleses clau dels enquestats. Els resultats van mostrar puntuacions altes en judici i menors en auto-regulació. Els resultats es contrasten amb mostres d'estudiants de grau en ciències socials.*

Paraules clau: *fortaleses del caràcter; educació musical; virtuts; músics; estudiants de música*

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Introduction

Despite adapting their music degrees to the European Higher Education Area (EHEA), each country approaches this subject differently depending on its customs, laws and beliefs, as much in compulsory education (Rodríguez-Quiles & Dogani, 2011) as in conservatories (Rojiko, 2011; Schippers, 2009). In Spain, music education is officially organized in three clearly differentiated cycles: a lower cycle comprising four different levels, called *Grado Elemental*; an intermediate cycle of six levels, called *Grado Profesional*; and finally an upper cycle, again of four levels, called *Grado Superior* (Zaldívar, 2016). The dropout rate in the first two cycles of this long journey is causing concern for many schools, which see their livelihood endangered (Valencia & Escandell, 2003). At the same time, teachers are trying to meet students' demands and aspirations (Lorenzo, Escandell & Castro, 2015) and considering even a modification of legislation as the possible solution (Bujez, 2007), in a changing world in which ways of consuming music are changing too (Aróstegui, 2016). As a case in point, the *Grado Superior* is aimed at training instrumentalists and future professional musicians. To complete this cycle students have to develop a series of technical, personal and intrapersonal skills that will enable them to perform in an ever more demanding musical world.

Several factors must be taken into account when talking about aspiring musicians. Perhaps the most decisive of these and the one that will mark their present and future career prospects is the choice of musical instrument (Beauvillard, 2006). This element is one of the most extensively studied by researchers, who have analysed the psychological and sociological reasons behind the decision (Chang, 2007), among them the timbre, aesthetic nature and accessibility of the instrument, sexual stereotypes, family influences, friendships (Fortney, Boley & DeCarbo, 1993; Graham, 2005; Hudson, 2004; Oya & Herrera, 2013; Payne, 2009) and, of course, the instrumentalist's personality. There are also many researches that analyse how the study of music can influence and modify the personality of musics, like Corrigan, Schellenberg & Misura (2013) who worked with 118 adults and 167 children aged 10 to 12 years to find out whether individual differences in cognition and personality predict that he takes music classes and for how long, concluding that personality variables are at least as good as cognitive variables at predicting music training; or Gromko (2005), who worked with a group of 43 children and another control group of 60, confirming that children who received 4 months of musical instruction showed significantly greater gains in skills and competences.

Our research, following the lines established by Kemp (1997) or Hargreaves and Marshall (2010), falls within the context of the description of the profiles of music students. But it differs from all previous work because we use positive psychology and character strengths to evaluate, relationship not used until now

in the field of musical education.

Positive psychology and character strengths

Positive psychology is an area of contemporary psychology linked not only to illness and medicine but also, in line with Aristotelian philosophy, to emotions, character traits and the institutions that help cultivate a happy and prosperous life (Seligman & Csikszentmihalyi, 2000). In other words, the wellbeing of each individual is its ultimate aim.

The theory allows us to define more precisely the contours of human well-being, by fully incorporating the study of positive elements such as the strengths and positive emotions. Positive psychology thus extends the framework of research and practice of psychology and, in particular, of clinical and health psychology. Thus, psychology is not only a specialty dedicated to disease or mental health, but it also deals with a wide range of topics including work, education, insight, love, growth, and play; that is, with all those goods that allow us to lead a good life (Seligman & Csikszentmihalyi, 2000).

Like Aristotle, the authors of positive psychology argue that practical wisdom is the principal virtue of the human being, since it allows us to take the best decisions about the type of behavior that we should adopt in different contexts. And, in line also with Aristotle, these authors argue that it is the habit and exercise of good character that allows us to lead a "good life".

Positive psychology is based on a specific model of the individual that has developed from American popular culture since the end of the eighteenth century. This model, which might be referred to as "positive individualism", transmits the content of psychology, medicine and economics through hundreds of self-help manuals. The central theme is the power of individual thought for overcoming disease, the material and the world, for attracting wealth and health and achieving happiness. However, at present, positive psychology seeks to distance itself from the more overt metaphysical aspects of positive individualism, although it maintains some ahistorical, asocial and subjectivist conceptions of the individual.

Positive psychology is complementary to the usual way of contemplating psychological reality, since it seeks to develop models of prevention. Models of vulnerability, on the other hand, seek to identify risk factors neglecting the investigation of protective factors. Research in prevention has discovered that there are human strengths that act as buffers against mental illness (Seligman & Csikszentmihalyi, 2000), for this reason we believe it is so important to study character strengths and its relationship with well-being.

According to Aristotle, virtues are characteristics that enable us to lead a good life, be happy, act morally, be good citizens and achieve wellbeing. In this respect, the positive psychology approach to virtues and strengths or character traits is subject-centred rather than focused on the action of the individual

(Gustems & Sánchez, 2015). This link between Aristotelian theory and empirical evidence is where the primary contribution of positive psychology lies: converting the philosophical model into a theory applicable to educational practice.

In this context, Park, Peterson and Seligman (2004) drew up a set of evidence-based criteria by which a trait may be considered a character strength. A number of conditions must be met for this to be the case, such as ubiquity, positivity, measurability, distinctiveness, individuality and so on. Moreover, character strengths also acquire a universal dimension, as empirical data have demonstrated that they are remarkably present in a similar form in the populations of at least 54 countries across five continents (Park, Peterson & Seligman, 2006).

Peterson and Seligman began their online study of strengths in 2001 through the VIA-IS survey (available free of charge at www.viacharacter.org) analysing 20 strengths, to which they subsequently added another four, making the current total of 24 (Peterson & Seligman, 2004). Since then, the website has gathered over 1.3 million responses, giving rise to a large number of scientific articles focusing on a wide range of professional and student communities, but not know, till the moment, on future musicians.

The proposal the authors put forward defines six virtues, which, in turn, include several strengths of character (see table 1).

There is a double dimension to these 24 strengths of character: on the one hand, social motivation versus

individualism and, on the other, cognitive aspects in contrast to the emotional. Park, Peterson and Seligman (2004) demonstrated that the strengths people scored most highly for were those associated with interpersonal relationships, while the lowest scores were associated with the mind and self-regulation; and in a later study, in descending order, the most prevalent character strengths in humans were kindness, justice, honesty, gratitude and perspective (Park, Peterson & Seligman, 2006).

Most people have from three to seven strengths that make up their “core”, or “signature strengths”. These are the strengths a person uses more frequently, linked to their sense of identity and authenticity (Peterson & Seligman, 2004) and connected with positive experiences and feelings, such as satisfaction with life (Proctor, Maltby & Linley, 2011).

Therefore, the aim of this study was to use the VIA-IS survey to evaluate the character-strength profile of a substantial sample of students studying for the *Grado Superior* in music in Spanish conservatories. This kind of study, which emphasizes differences character strengths, hasn’t never been done in music students. Thus, with this research we try to help to know the personality of the music interpreters.

Method

Participants

The sample on which both questionnaires were applied consisted of 80 participants (44 men and 36 women)

Table 1. Virtues and strengths according to Peterson and Seligman (2004)

Virtue	Strength	Description
Wisdom	Creativity	Thinking of novel and productive ways to conceptualize and do things
	Curiosity	Taking an interest in ongoing experience for its own sake
	Perspective	Being able to provide wise counsel to others; having ways of looking at the world
	Judgment	Thinking things through and examining them from all sides
	Love of learning	Mastering new skills, topics, and bodies of knowledge
Courage	Perseverance	Finishing what one starts
	Bravery	Not shrinking from threat, challenge, difficulty, or pain
	Honesty	Presenting oneself in a genuine way
	Zest	Approaching life with excitement and energy
Humanity	Social intelligence	Being aware of the motives and feelings of other people
	Kindness	Doing favors and good deeds for others
	Love	Valuing close relations with others
Justice	Leadership	Being loyal to the group
	Fairness	Treating all people the same according to notions of fairness and justice
	Teamwork	Working well as a member of a group or team
Temperance	Forgiveness	Forgiving those who have done wrong
	Self-Regulation	Regulating what one feels and does
	Prudence	Being careful about one’s choices
	Humility	Letting one’s accomplishments speak for themselves
Transcendence	Spirituality	Having coherent beliefs about the higher purpose and meaning of the universe
	Apprec. of beauty & Excellence	Noticing and appreciating beauty and excellence
	Hope	Expecting the best in the future and working to achieve
	Gratitude	Being aware of and thankful for the good things that happen
	Humour	Liking to laugh and tease

from 18 to 36 years of age ($M = 22.1$, $SD = 6.529$), all students at Spanish higher conservatories completing bachelor's degrees in music during the academic year 2016-2017. The data were processed anonymously by means of identification codes to preserve student anonymity and confidentiality of the results, and the project followed the Code of Good Research Practices of the University of Barcelona (2010).

The sample ($n = 80$) is made up of guitarists ($n = 18$), pianists ($n = 15$), percussionists ($n = 8$), clarinetists ($n = 7$), violinists ($n = 7$), flautists ($n = 4$), violoncellists ($n = 5$), saxophonists ($n = 5$), singers ($n = 4$), trumpeters ($n = 3$), bassists ($n = 2$) and bassoonists ($n = 2$). The distribution by instrument family shows that the sample is composed of 21 wind instrumentalists, 19 plucked string, 13 bowed string and 12 keyboard players, 11 percussionists and four vocalists. Some 76.3% of the students ($n = 61$) usually play in a group, while the remainder ($n = 19$) do not.

As regards musical styles, 41 of the participants (the majority) study classical music, 15 participants study jazz music, 17 participants study rock/pop music, four participants study traditional music, two participants study latin music and only one participant study early music.

Instruments

We conducted a descriptive, exploratory, cross-sectional study by applying the VIA Inventory of Strengths (VIA-IS, Peterson and Seligman, 2004). This instrument is a questionnaire that measures 120 items of character strength, using a 5-point scale to measure each of the six virtues and 24 strengths of character mentioned above. It is administered online and takes from 15 to 20 minutes to complete. We informed the students beforehand of the details necessary to respond to each question on the basis of *whether the phrase describes what you are like*. The answers are given on a five-point Likert scale (1 = very much unlike me, 5 = very much like me).

The scores for each of the 24 strengths have a potential range from five to 25, where the highest scores show a greater presence of the indicated strength. The VIA-IS has a satisfactory internal consistency measured by Cronbach's alpha coefficient ($\alpha > .70$), with test-retest correlations over four months that show high reliability ($r_s = .70$).

In this research, as we have used the VIA Inventory of Strengths-*free version* we haven't the numerical data in the results, but we have the order of the strengths of each musician. In addition to the VIA-IS we used an ad-hoc online questionnaire which provided academic and sociodemographic information on the participants and enabled us to relate the results on the basis of variables that are described in later sections.

Data analysis

To discover our sample students' strengths, the 24 items included in the VIA-IS were put in order, selecting the

five strengths in which participants obtained the highest score and the five in which the scores were lowest. SPSS version 21 software was used for all statistical calculations. In order to make the comparisons between the different groups, we performed the ANOVA and *t-Test* tests, but we only reflect the cases in which there are statistical significance.

Results

Distribution of the results obtained with the VIA-IS-*free version* questionnaire offers us information about the most and least developed virtues and strengths in the sample of music students. We set out below each of the 24 strengths and the position in which they appear, enabling us to see which strengths are more or less prevalent, based on the number of identical replies given. The scores that gained first places are highlighted in light grey, and those that came last in dark grey (see table 2).

For example, judgment is the strength that appears most times in the first positions (three times in the first position, nine times in the second position, five times in the third position, four times in the fourth position and 10 times in the fifth position).

Focussing on the core strengths (the five highest and five lowest scores in the sample), we find judgement in first place with the highest score, followed by fairness and curiosity, then appreciation of beauty and teamwork (see table 3).

In contrast, the least developed strengths, in ascending order, are spirituality, self-regulation, humility, perspective and love of learning (see Table 4).

Bearing in mind the virtues, we can see that wisdom is the virtue that appears most in the core strengths ($n = 95$), while temperance ($n = 118$) and transcendence ($n = 115$) are most repeated among the least developed strengths.

If we analyse the results by gender, although there are no significant statistical differences, we can see that men coincide in indicating that their five most developed strengths are, in descending order, judgement, appreciation of beauty, curiosity, fairness and creativity. However, women express their five most developed strengths as being teamwork, fairness, curiosity, honesty and judgement. Thus with respect to gender, men and women coincide in three core strengths (judgement, curiosity and fairness) and two core virtues (wisdom and justice) (see table 5).

With regard to the least developed strengths, men coincide in the lowest scores, which are, in ascending order, spirituality, self-regulation, humility, perspective and prudence. Women coincide in spirituality, followed by self-regulation, humility, humour and love of learning. Consequently, in gender terms men and women coincide in scoring less in three strengths (humility, self-regulation and spirituality) and in three virtues (wisdom, temperance and transcendence) (see table 6).

Though no significant differences were appreciated in relation to musical style ($F_{(5,394)} = 1.556$, $p = .172$), a

Table 2. Number of replies obtained in each strength, in order

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Wisdom																									
Creativity	5	9	3	1	3	5	5	3	6	4	7	1	5	4	2	1	1	3	2	1	5	1	3		
Curiosity	8	7	6	4	3	5	9	6	3	2	5	1	2	1	2	1		2	4	1	2		2		
Perspective	2	1	2		1	2			1	5	3	3	3	6	4	5	6	6	5	6	6	6	1	6	
Judgment	3	9	5	3	10	3	2	3	5	1	5	1	5	1	2	4	3	7	4	1	1	1	1		
Love of learning	2	2	3	1	2	1	1	3	1	3	2	4	5	7	3	4		3	12	6	2	1	7	5	
Courage																									
Perseverance	1	4	4	3	4	1	1	4	3		2	2	6	6	6	2	5	5	7	3	1	3	2	1	
Bravery	4	3	1	6	5	4	3	3	3	7	3	4	1	7	3	2	5	2	2	1	3	4	3	1	
Honesty	4	4	9	4	3	9	4	3	3	5	6	3	3		1	3	1	3		4	5	1	2		
Zest	1	5	1	1	2	7	1	3	4	2	4	5	6	3	2	10	6	6	3	4	3	4			
Humanity																									
Social intelligence	1	1	3	4	3	4	5	2	2	2	4	5	4	3	10	3	4	6	3	3	3	3	2		
Kindness	3	5	3	5	8	1	2	6	7	7	3	6	6	3	2	1	3	3	2	2		1		1	
Love	8	4	4	1	6	7	11	3	1	5	2		4	3	2	2	4	3	3		1	4	1	1	
Justice																									
Leadership	1	2	1	1	2	6	2	4	4	5	3	4	1	5	2	6	4	5	2	4	4	2	6	4	
Fairness	10	4	6	6	3	2	7	8	6	2	3	4	1	2	2	2	4	2	1	1		1	2	1	
Teamwork	5	4	5	5	8	5	5	2	4	3	5	3	3	3	4	3	4	2	1	3	1	1	1		
Temperance																									
Forgiveness	3	2	3	5	4	2	6	2	1	3	3	7	5	5	3	3	3	3	2	3	5	2	3	2	
Self-Regulation		1	2			1	2	1	1	2	1	1	1	2	2	4	2	2	7	10	4	8	12	14	
Prudence	1		5	7	3	5	5	2	4	2	4	2		3	5	1	3	5	2	6	11	2	2		
Humility		1	1	3	1		1	4	4	4	1	1	5	2	5	3	3	2	5	5	7	12	8	2	
Transcendence																									
Spirituality	2	1								1							1	2	7	5	5	7	11	37	
Aprecc. of beauty & Exc.	10	3	5	6	3	4		6	5	3	3	2	2	3	6	2	7	2		2	1		2	3	
Hope	3	3	4	2	2	1	3	3	4	2	4	11	3	4	5	10	2	1	3	4	1	2	3		
Gratitude		3	1	6	2	2	1	4	5	8	4	4	6	4	5	5	4	2	2	3	4	3	1	1	
Humour	3	5	3	5	2	3	4	5	3	2	1	2	3	3	2	3	5	3	1	2	5	7	5	1	

Table 3. Highest scoring signature strengths

Order	Character Strength	Virtue	Frequency in the top five
1st	Judgment	Wisdom	n = 30
2nd	Fairness	Justice	n = 29
3rd	Curiosity	Wisdom	n = 28
4th	Aprecc. of beauty	Transcendence	n = 27
5th	Teamwork	Justice	n = 27

Table 4. Lowest scoring signature strengths

Order	Character Strength	Virtue	Frequency over the past 5 places
20th	Love of learning	Wisdom	n = 21
21st	Perspective	Wisdom	n = 25
22nd	Humility	Temperance	n = 34
23rd	Self-regulation	Temperance	n = 48
24th	Spirituality	Transcendence	n = 65

Table 5. Highest scoring signature strengths by gender

Order	Character Strength		Virtue	
	Men	Women	Men	Women
1st	Judgment (n=19)	Teamwork (n = 14)	Wisdom	Justice
2nd	Aprecc. of beauty (n = 18)	Fairness (n = 13)	Transcendence	Justice
3rd	Curiosity (n=16)	Curiosity (n = 12)	Wisdom	Wisdom
4th	Fairness (n=16)	Honesty (n=11)	Justice	Courage
5th	Creativity (n=15)	Judgment (n = 11)	Wisdom	Wisdom

distinction can be made between instrumentalists who study classical music, jazz and rock/pop; students of traditional, early and latin music were not considered

here, as their representation in the sample is very low (n = 7). Thus, we see the core strengths of classical music students are primarily judgement, teamwork, curiosity, fairness and kindness. Jazz students' strengths are honesty, curiosity, fairness, humour and kindness, while those studying rock/pop score highest in love, appreciation of beauty, creativity, curiosity and teamwork. Coincidences therefore exist in two strengths (curiosity and fairness) between jazz and classical

Table 6. Lowest scoring signature strengths by gender

Order	Character Strength		Virtue	
	Men	Women	Men	Women
20th	Prudence (n = 13)	Love of learning (n = 9)	Temperance	Wisdom
21st	Perspective (n = 16)	Humour (n = 13)	Wisdom	Transcendence
22nd	Humility (n = 21)	Humility (n = 13)	Temperance	Temperance
23rd	Self-regulation (n = 30)	Self-regulation (n = 18)	Temperance	Temperance
24th	Spirituality (n = 36)	Spirituality (n = 29)	Transcendence	Transcendence

music students, two strengths (curiosity and teamwork) between classical music and rock/pop students and one strength (curiosity) between students of jazz and those of rock/pop. As we can see, curiosity is common to the core strengths of all students (see table 7).

The least developed strengths in students of classical music are, in reverse order, spirituality, self-regulation, humility, perspective and humour. In the case of jazz students, the lowest scoring strengths are spirituality, self-regulation, forgiveness, humility and prudence, while rock/pop students scored lowest in spirituality, self-regulation, leadership, humility and perspective. Thus all students have spirituality, self-regulation and humility in common among their least developed strengths. In addition to these, classical music and rock/pop students have perspective in common, as the strength, which is least, developed (see table 8).

Table 7. Highest scoring strengths by musical style

Order	Character Strength Virtue		
	Classical (n = 41)	Jazz (n = 15)	Rock/pop (n = 17)
1st	Judgment (n=16) Wisdom	Honesty (n = 7) Courage	Love (n = 9) Humanity
2nd	Teamwork (n = 16) Justice	Curiosity (n = 6) Wisdom	Apprec. of beauty (n = 9) Transcendence
3rd	Curiosity (n = 15) Wisdom	Fairness (n = 6) Justice	Creativity (n = 6) Wisdom
4th	Fairness (n = 15) Justice	Humour (n = 6) Transcendence	Curiosity (n = 6) Wisdom
5th	Kindness (n = 15) Humanity	Kindness (n = 6) Humanity	Teamwork (n = 6) Justice

Table 8. Lowest scoring strengths by musical style

Order	Character Strength Virtue		
	Classical (n = 41)	Jazz (n = 15)	Rock/pop (n = 17)
20th	Humour (n = 12) Transcendence	Prudence (n = 6) Temperance	Perspective (n = 5) Wisdom
21st	Perspective (n = 14) Wisdom	Humility (n = 6) Temperance	Humility (n = 7) Temperance
22nd	Humility (n = 18) Temperance	Forgiveness (n = 7) Temperance	Leadership (n = 8) Justice
23rd	Self-regulation (n = 25) Temperance	Self-regulation (n = 11) Temperance	Self-regulation (n = 9) Temperance
24th	Spirituality (n = 31) Transcendence	Spirituality (n = 13) Transcendence	Spirituality (n = 16) Transcendence

In terms of instrument family, we observe that the core strengths that most appear among bowed-string players are fairness, forgiveness, love, curiosity and judgement. In the case of wind instrumentalists, teamwork is the highest scoring strength, followed by appreciation of beauty, fairness, judgement and kindness, while the most developed strength of students of plucked-string instruments is appreciation of beauty, followed by curiosity, judgement, creativity and fairness. Keyboard instrumentalists score highest in kindness, bravery, judgement, honesty and perseverance, and for percussionists the most highly scored strengths are love, honesty, fairness, teamwork and appreciation of beauty. The most developed strengths among singers are judgement, kindness, love, curiosity and prudence. As we can see, all of the students share numerous strengths, irrespective of their instrument family (see table 9).

In the case of the least developed strengths by instrument family, string instrumentalists score lowest in spirituality, humility, self-regulation, perspective and prudence, while wind instrumentalists present the lowest scores in spirituality, self-regulation, humility, humour and perspective. The least developed strengths among plucked-string instrumentalists are spirituality, leadership, self-regulation, humility and gratitude, and among keyboard players are self-regulation, spirituality, humility, perspective and prudence. Percussionists score lowest in spirituality, self-regulation, prudence, perspective and leadership, and among singers the least developed strengths are spirituality, humour, self-regulation, bravery and humility. As we can see, all students coincide in many of the less developed strengths, irrespective of their instrument family (see table 10).

In the comparison of instrument families, only percussionists present statistical differences between the sexes both in core strengths ($t = -2.151$, $p = .038$) and in least developed strengths ($t = 2.066$, $p = .046$). Disregarding gender differences, statistical significance can also be observed in the core strengths ($t = -3.026$, $p = .010$) of jazz and traditional music students. However, no statistical differences are observed between instrument families.

As regards participation in musical groups, the results indicate that students who regularly play in a group have mainly developed judgement, curiosity, fairness, appreciation of beauty and teamwork, whereas the most developed strengths of those that do not are kindness, bravery, honesty, creativity and appreciation of beauty. As we can see, the two categories only coincide in appreciation of beauty (see table 11).

The strengths least developed by instrumentalists who regularly play in a group are spirituality, self-regulation, humility, perspective and prudence. In the case of students who do not usually play in a group, the lowest scores are found in spirituality, self-regulation, humility, gratitude and leadership. As we can see, the two categories coincide in three strengths and two virtues (see table 12). However, no statistical differences are observed on the basis of whether or not students participate in musical groups.

Table 9. Highest scoring strengths by instrument family

Order	Character Strength Virtue					
	Bowed-string	Wind	Plucked- string	Keyboard	Percussion	Voice
1st	Fairness (n = 6) Justice	Teamwork (n = 10) Justice	Apprec. of beauty (n = 9) Transcendence	Kindness (n = 9) Humanity	Love (n = 5) Humanity	Judgment (n = 3) Wisdom
2nd	Forgiveness (n = 6) Temperance	Apprec. of beauty (n = 8) Transcendence	Curiosity (n = 8) Wisdom	Bravery (n = 7) Courage	Honesty (n = 4) Courage	Kindness (n = 2) Humanity
3rd	Love (n = 5) Humanity	Fairness (n = 8) Justice	Judgment (n = 8) Wisdom	Judgment (n = 7) Wisdom	Fairness (n = 3) Justice	Love (n = 2) Humanity
4th	Curiosity (n = 4) Wisdom	Judgment (n = 8) Wisdom	Creativity (n = 7) Wisdom	Fairness (n = 5) Justice	Teamwork (n = 3) Justice	Curiosity (n = 2) Wisdom
5th	Judgment (n = 4) Wisdom	Kindness (n = 7) Humanity	Fairness (n = 7) Justice	Perseverance (n = 5) Courage	Apprec. of beauty (n = 3) Transcendence	Prudence (n = 2) Temperance

Table 10. Lowest scoring strengths by instrument family

Order	Character Strength Virtue					
	String	Wind	Plucked string	Keyboard	Percussion	Voice
20th	Prudence (n = 4) Temperance	Perspective (n = 6) Wisdom	Gratitude (n = 5) Transcendence	Prudence (n = 5) Temperance	Leadership (n = 3) Justice	Humility (n = 1) Temperance
21st	Perspective (n = 4) Wisdom	Humour (n = 7) Transcendence	Humility (n = 9) Temperance	Perspective (n = 6) Wisdom	Perspective (n = 4) Wisdom	Bravery (n = 4) Courage
22nd	Self-Regulation (n = 6) Temperance	Humility (n = 8) Temperance	Self-Regulation (n = 10) Temperance	Humility (n = 7) Temperance	Prudence (n = 5) Temperance	Self-Regulation (n = 2) Temperance
23rd	Humility (n = 7) Temperance	Self-Regulation (n = 10) Temperance	Leadership (n = 10) Justice	Spirituality (n = 12) Transcendence	Self-Regulation (n = 6) Temperance	Humour (n = 3) Transcendence
24th	Spirituality (n = 9) Transcendence	Spirituality (n = 17) Transcendence	Spirituality (n = 16) Transcendence	Self-Regulation (n = 14) Temperance	Spirituality (n = 7) Transcendence	Spirituality (n = 4) Transcendence

Table 11. Highest scoring strengths by participation in groups

Order	Character Strength		Virtue	
	Musical groups	No musical groups	Musical groups	No musical groups
1st	Judgment (n = 24)	Kindness (n = 8)	Wisdom	Humanity
2nd	Curiosity (n = 23)	Bravery (n = 8)	Wisdom	Courage
3rd	Fairness (n = 23)	Honesty (n = 7)	Justice	Courage
4th	Apprec. of beauty (n = 21)	Creativity (n = 7)	Transcendence	Wisdom
5th	Teamwork (n = 20)	Apprec. of beauty (n = 6)	Justice	Transcendence

Table 12. Lowest scoring strengths by participation in groups

Order	Character Strength		Virtue	
	Musical groups	No musical groups	Musical groups	No musical groups
20th	Prudence (n = 18)	Leadership (n = 6)	Temperance	Justice
21st	Perspective (n = 19)	Gratitude (n = 6)	Wisdom	Transcendence
22nd	Self-Regulation (n = 27)	Humility (n = 7)	Temperance	Temperance
23rd	Humility (n = 35)	Self-Regulation (n = 13)	Temperance	Courage
24th	Spirituality (n = 51)	Spirituality (n = 14)	Transcendence	Transcendence

Discussion and conclusions

Students who reach the *Grado Superior* cycle of music studies at Spanish higher conservatories have passed through a series of filters. These include grade passes, simultaneously studying compulsory education and music, and hours of individual practice with their instrument. At the same time, they have shared long sessions of group rehearsals, discovering new repertoires and satisfying technical requirements. In this respect and as we have seen in Tables 2, 3 and 4, it is logical that those strengths and virtues with the highest scores — judgement, fairness, curiosity, appreciation

of beauty and teamwork — form the profile of someone who evaluates all of the aspects that make up a piece of music (such as choosing the most appropriate technique for each passage, tempo, style of the period, information on the author, etc.). This type of person also treats colleagues as equals (without making distinctions based on instrumental ability), shows curiosity when presented with new repertoires, knows how to see and understand the beauty that may lie hidden behind a score, and can fit in well to any musical group (respect, collaboration, adaptation to leadership) for the sake of a better result.

However, we can also discern the profile of students who, based on the lowest scoring strengths—spirituality, self-regulation, humility, perspective and love of learning—are unaware of the meaning of life. They cannot control their feelings and are impressionable in the face of emotions (which will entail difficulties in performance technique). They also believe they are better than the rest (maybe due the difficulties they encountered passing the selection processes that lead to this cycle of music studies, or to misunderstood self-esteem), lack a global vision of processes (profession, musical career, etc.) and are poor advisors. In general, they are wary of accepting new challenges or leaving their comfort zone (changes in instrumental technique, style, ambience, etc.).

Our data show students with dichotomous scoring in the virtue of wisdom, in contrast to similar studies conducted among students of other Spanish university degrees, where wisdom was among the least developed virtues. The different development of character strengths that comprise this quality (two of the highest scoring and two of the lowest) causes a degree of inconsistency in the case of advanced musicians or students, as they do not usually resemble what is conventionally considered “wise” or “learned” people. Nonetheless, the least developed virtues coincide with these studies—temperance and transcendence—probably due to the age of the participants and their socio-cultural context (Calderón-Garrido, Forés-Miravalles & Gustems-Carnicer, 2016; Gustems & Calderón, 2015; Jiménez, Alvarado & Puente, 2013; Saldaña et al., 2014).

Despite the cultural differences, previous studies by Shimai, Otake, Park, Peterson and Seligman (2006) with a sample of young people aged 18–24 in the USA and Japan concluded that one of the lowest scoring strengths was the same as in our sample: self-regulation. The results of our study as regards the highest scoring strengths are similar to those obtained by Park, Peterson and Seligman (2006), who found fairness and judgment to be two of the most frequent. Consequently, our sample of students has two of the “universal” strengths in common with others, and we can therefore state that the profile of the group is conventional and positively “human”. The few differences that exist between the two samples highlight a profile in which, as we described, strengths have developed that can be considered characteristic of the music student.

In the comparison by gender, we see that both sexes have developed similar strengths, though creativity appears in the case of men. This is probably one of the most socially recognized qualities of musicians (Haddon & Burnard, 2016) and, at the same time, coincides with some of the studies mentioned above, in which men indicated creativity ($n = 15$) as one of their most developed strengths (Calderón-Garrido, Forés-Miravalles & Gustems-Carnicer, 2016). Nonetheless and as in previous studies, there are no statistical differences. These data are consistent with the studies conducted by Hallam et al. (2016) with a sample of 3,325 music students aged 6–19.

Results in terms of musical style with jazz, in contrast to the other styles, showing honesty to be the most developed strength. This is almost certainly due to the quest for authenticity, for a characteristic sound and phrasing that marks the jazz musician (Benedek, Borovnak, Neubauer & Kruse-Weber, 2014), together with a certain educational tradition that seeks to highlight that singularity (Virkkula, 2016). Also notable is the appearance of love as a strength among students of rock/pop, which we can associate with the close relationship between that genre of music and mood, far more active than in the other styles (Istók, Brattico, Jacobsen, Ritter & Tervaniemi, 2013). Standing out in the least developed strengths is prudence among jazz students, which falls in line with the constant need to make choices regarding how their music is interpreted and accept them without considering whether they are right or wrong (Pachet, Roy, Moreira & d’Inverno, 2013).

The category of instrument family shows a surprising result in which, unlike the other students, string instrumentalists have developed the strength of forgiveness. This reflects the situation within an orchestra in which the string sections tend to play in unison; when one musician makes a mistake the rest of the section try to avoid it being noticed. In a similar fashion the strength of perseverance scores highly among keyboard players, who have to repeat each passage, usually alone, over and again to achieve perfection. Honesty is prominent among percussionists, fruit of the impossibility of hiding mistakes made on instruments in this section. In the case of the voice, prudence stands out, being closely related to the sensitivity of the instrument and the need to conserve it in perfect condition (Dalia & Pozo, 2006).

The differentiation between instrumentalists who regularly play in groups and those who do not indicate that students who are members of a group have developed the strengths of teamwork and fairness, essential for performing in any such collective. Those who do not participate, however, have developed honesty, as this will mark their interpretive stamp without the guidance of the conductor’s baton, and the bravery necessary to perform solo on a stage. In contrast, it is notable that instrumentalists who do not play in a group have failed to develop leadership, which is logical if we consider that they have no peers with whom to cultivate this strength.

In any case, Aristotle and positive psychology show us that education in virtues requires actions that go beyond theory. Therefore our obligation is to train musicians in strengths that correspond to the different settings in which they will grow professionally. As we have seen in this study, musicians make up a community that contrasts with other communities and, at the same time, the diversity among instruments brings out the differences between those who study them. Nonetheless and as today’s world of work requires, we should encourage teachers to seek comprehensive development in musicians, with none of the stylistic or gender-based distinctions we have described. They should

make it possible for a pianist expert in Bach to perform Matilda the Musical with equal solvency, or the tenor saxophonist fan of Dexter Gordon to read a part in Ravel's Bolero. Moreover, training multi-talented musicians in this way will avoid the disconnection between what they listen to and what they study (Hargreaves & Marshall, 2010).

In short, though this study is exploratory and cross-sectional in nature and not intended to establish causes or effects, it presents clear evidence of intentional development of certain strengths described by the VIA-IS. We can therefore state that the VIA-IS survey is a questionnaire that enables the competency profile of music students to be assessed. Future studies could be aimed at evaluating proposals for the implementation of programmes that seek to improve musicians' character strengths and professional competencies, as well as evaluate how musical education influences their character strengths.

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