



Character strengths, moral motivation and vocational identity in adolescents and young adults: a scoping review

Jorge L. Villacís¹ · Concepción Naval¹ · Jesús De la Fuente^{1,2}

Accepted: 27 June 2022 / Published online: 19 July 2022
© The Author(s) 2022

Abstract

Past reviews have examined the association between positive personality traits known as character strengths and work-related outcomes. However, little is known about the role of positive traits in the pre-career stage. This study aims to fill this gap by mapping the peer-reviewed literature on the relationships between character strengths, moral motivation and vocational identity in adolescents and young adult students. Scopus and Web of Science databases were used to identify English written sources published between 1980 and October 2020. Documents had to include one of the 24 positive psychology character strengths or a moral motivation construct (moral reasoning, moral identity or moral emotions) and one vocational identity process (commitment, exploration or reconsideration). 136 documents were selected (123 quantitative, 8 qualitative, and 5 theoretical). 15 strengths were studied together with a vocational identity process. The most investigated strengths were prudence (27.9%) curiosity (20.6%), hope (20.6%) and love (19.9%). Only one moral motivation construct (the moral emotion of empathy) was associated with vocational commitment. Four character strengths were the most studied in association with vocational identity. These strengths coincided with some skills and competencies promoted in career counselling. Some suggestions for future research on vocational development and character education are stated.

Keywords Character strengths · Moral motivation · Personality · Decision-making · School-to-work transition · Vocational identity

Introduction

In the last two decades, there has been a resurgence in the scientific study of character and virtue. Understood as a set of well-motivated dispositions to act both in self and other-benefitting ways (Fowers et al., 2021, p. 118), virtues have been related to experiencing positive emotions, environmental adaptation, and the achievement of personal life

goals (Niemić, 2020; Peterson & Seligman, 2004). Empirical research has evidenced the association between these positive personality traits and different facets of psychological well-being (Wagner et al., 2020). Also, past literature reviews have found support for the positive role of character strengths in different life domains. Character strengths have been compared to the 21st century competencies that lead to educational attainment (Lavy, 2020). In the work domain, the possession and use of character strengths have been related to job satisfaction, engagement and performance (Miglianico et al., 2020).

One area on which character strengths can be especially relevant is vocational development. According to Erik Erikson's psychosocial theory (1963, p. 235), settling on an occupation is considered a principal task for identity development during adolescence and young adulthood (Porfeli et al., 2013). To achieve a vocational identity -i.e., having found and being in preparation to exercise an occupation-, some psychosocial strengths have been stated as necessary (Erikson, 1980). In a previous literature review,

✉ Jorge L. Villacís
jvillacis.l@unav.es

Concepción Naval
cnaval@unav.es

Jesús De la Fuente
jdlfuente@unav.es

¹ School of Education and Psychology, University of Navarra, University Campus, 31080 Pamplona, Spain

² School of Psychology, University of Almería, 04120 Almería, Spain

psychosocial strengths as secure attachment, self-esteem, and self-efficacy have been found related to occupational identity (Chávez, 2016). However, current advances in the empirical study of character were not part of the scope of that review. Such advances include the positive psychology classification of character strengths and virtues (Peterson & Seligman, 2004; Seligman, 2019), and the latest theoretical suggestions for developing a science of virtue (Fowers et al., 2021; Wright et al., 2021). The present research aims to extend the knowledge in this area by systematizing the existent research regarding the contribution of character strengths to the development of vocational identity among adolescents and young adults.

Character strengths and moral motivation

The study of character strengths is one of the central topics of positive psychology (Seligman, 2019). After identifying six core-virtues (wisdom, courage, humanity, justice, temperance, and transcendence) in the principal moral systems and religions, Peterson & Seligman (2004) proposed a list of 24 character strengths. These strengths were considered as the “psychological ingredients -processes or mechanisms- that define the virtues” (Peterson & Seligman, 2004, p. 13; see Table 1 for a list of the 24 character strengths). To be counted as a character strength, positive traits from previous psychological research and historical catalogues had to meet several criteria, including being trait-like, being morally valued in themselves, and contributing to individual fulfilment (cf. Peterson & Seligman, 2004, pp. 16–28). Some strengths were included with more than one label (e.g., “hope” was presented with the labels of “optimism”, “future-mindedness”, and “future orientation”). This “piling on synonyms” strategy was justified by considering character strength categories as comprised by sets of related traits with a “family resemblance” (see Peterson & Seligman 2004, p. 16). The model of 24 character strengths grouped around 6 virtues has received the name of the VIA model due to its standardized measure the VIA-IS questionnaire (McGrath & Wallace, 2021).

Despite being widely diffused, the positive psychology model of character has received some criticism. Authors from the fields of moral philosophy and moral education have raised their concerns about the suitability of the VIA model for evaluating the motivational aspects of character (Han, 2019; Kristjánsson, 2013; Miller, 2019). It has been argued that most of the items in the VIA-IS questionnaire assess behaviours or emotions related to the 24 character strengths. However, the reasons or motives behind those behaviours or emotions are not an object of evaluation (Miller, 2019). Thus, for instance, it would be possible to imagine a happy and socio-emotionally well-adjusted

salesperson who employs his social intelligence strength for immoral ends such as scamming his customers (cf. Han, 2019). What seems to be absent in the character strengths model is an assessment of the motivation underlying the manifestation of virtuous traits.

According to the existing literature, the interior or motivational aspects of character traits have been studied under the “umbrella” concept of moral motivation (see Heinrichs et al., 2013). Such concept encompasses different psychological processes that underlie the manifestation of character behaviours. These processes include cognitive aspects, emotional states, and personal goals (Darnell et al., 2019; Thoma & Bebeau, 2013). Main moral motivation processes in literature include moral reasoning, moral identity and moral emotions (cf. Darnell et al., 2019; see also Hardy 2006). Moral reasoning refers to the cognitive processes involved in understanding what is just or fair in a moral dilemmatic situation (Snarey & Samuelson, 2014). Moral identity is conceived as the degree to which moral values are fundamental to the subjective sense of identity (Kingsford et al., 2018). Lastly, moral emotions can be understood as the affective states of empathy and compassion that contribute to moral behaviour (Darnell et al., 2019; Hardy, 2006). Such emotional states are able to transform abstract moral principles into prosocial warm representations charged with motivational force (Hoffman, 2000).

Moral motivation, similarly to character strengths, has been conceptually related to flourishing and satisfaction of basic psychological needs (Curren & Ryan, 2020). Recent empirical research has found support for the positive association between experiencing satisfaction in being a moral person and psychological thriving (Prentice et al., 2020). Moral motivation has been also studied in the context of the professional domain (Bebeau & Thoma, 2013; Carr, 2018). It has been stated that moral motivation is necessary for enacting ethical decision-making in professional dilemmatic situations (Carr, 2014).

Following suggestions of recent research on the scientific study of virtue (Fowers et al., 2021; Wright et al., 2021), we consider moral motivation as an ingrained part of the assessment of a holistic conception of character strengths in the present work.

Vocational identity processes

Vocational identity also called occupational or career identity can be defined as “the conscious awareness of oneself as a worker” (Skorikov & Vondracek, 2011, p. 693). It reflects the degree up to which an individual is committed to follow a specific career path after exploring different alternatives (Porfeli et al., 2013). Derived from Erik Erikson’s (1994) identity theory, this construct has been related to pre-adult

factors of healthy psychosocial development (Chávez, 2016). Recent research has also evidenced the association between vocational identity and educational identity (Negru-Subtirica et al., 2018; Negru-Subtirica & Pop, 2018), academic engagement (Wong & Kaur, 2018), resilience (Fusco et al., 2019), career goals (Lee et al., 2020), and psychological well-being (Green, 2020).

The vocational identity construct is composed by three psychological processes that facilitate career development (Porfeli et al., 2013). These processes are career commitment, career exploration, and career reconsideration. To settle on an occupation, adolescents and other young people are expected to develop a strong sense of commitment toward a specific occupational path. This is reflected by the process of career commitment or decisiveness. The second vocational identity process is career exploration. This process involves the acquisition of knowledge about career alternatives and the personal qualities required for pursuing them. Finally, the third vocational identity process is career reconsideration. This process refers to the re-examination of current commitments, and the search for better available career alternatives (Porfeli et al., 2013).

A recent review of the vocational literature evidenced that most of the vocational identity processes can be grouped under the general category of career preparedness attitudes (Marciniak et al., 2020). These attitudes denote adolescents' or young adults' thoughts and feelings about making career choices and entering the labour market (Marciniak et al., 2020). Empirical research has evidenced the association between these vocational attitudes and both personality traits and well-being (Marciniak et al., 2020).

Relationships between character strengths, moral motivation and vocational identity across adolescence and young adulthood

Character strengths and moral motivation have been stated as relevant constructs within the career domain. This claim has been supported both theoretically and empirically. In recent theoretical articles, some authors have stated that positive psychology constructs, including character strengths, could be used as fertile sources of innovative approaches in career development. The positive associations between character strengths, well-being, and job performance are taken as a departure point to develop character-based interventions in career counselling (Dik et al., 2019; Robertson, 2018). Other researchers have argued that moral motivation seems to be an important factor in exercising a profession. The development of morally internal dispositions are thought to be necessary for fulfilling the professional duties and also for grasping the social significance of any professional practice (Bebeau & Thoma, 2013; Blond et al., 2015;

Carr, 2014). Regarding empirical findings, a recent literature review has shown that the use of character strengths at work is associated with job satisfaction, work engagement, well-being and job performance (Miglianico et al., 2020). Moral motivational aspects of character have been also correlated with ethical decision making in professional dilemmatic situations (Arthur & Earl, 2020). This literature is taken as suggesting that both character strengths and moral motivation are key constructs for promoting well-being and ethical performance in the career domain.

Since character is associated with well-being and ethical behaviour in the workplace, a question may arise about its positive contribution during the pre-career stage. Character strengths are considered as important factors for academic success (Lavy, 2020), and several initiatives have been carried out to promote these positive personality traits in the school (Adler, 2016; Naval et al., 2015) and higher education settings (Brooks et al., 2019; Jubilee Centre for Character and Virtues & Oxford Character Project, 2020; Lamb et al., 2021). However, the study of how character strengths can enhance vocational development before the entrance to the labour market has been only scarcely addressed. For some vocational psychologists, there is a convergence between the aims of career counselling and the development of human strengths (Owens et al., 2019; Savickas, 2003). Some of the competencies promoted in career counselling -e.g., future orientation, meaning of work, self-efficacy- are thought to be highly similar to the human strengths studied by positive psychology -e.g., hope, transcendence, self-regulation- (Savickas, 2003). A recent review of the literature on adolescent career preparedness has shown that some individual differences -e.g., big five traits, optimism, emotional intelligence, cognitive flexibility- are positive influencing factors of vocational development (Marciniak et al., 2020). These personality traits are conceptually close to the strengths of character studied in positive psychology (Peterson & Seligman, 2004). These pieces of evidence are thought to suggest that character strengths can be beneficial personality resources in exploring for and committing to a specific occupation.

The positive contribution of character to vocational development seems to be especially relevant during the periods of adolescence and young adulthood. In such periods, the acquisition of a sense of ego-identity has been proposed as the central task for healthy psychosocial development (Chávez, 2016; Erikson, 1994; Kroger & Marcia, 2011). According to Erikson (1994), the formation of identity requires the integration of previous childhood experiences, personal qualities -including psychological strengths-, and future aspirations. All these elements are blended in a personal self-concept on which socially validated adult roles -e.g., citizen, parent, and worker- are pursued and

eventually established (Kroger & Marcia, 2011). Character strengths and moral motivation are thought to facilitate the accomplishment of the task of choosing, preparing for and assuming the adult role of a worker. Moreover, possessing character traits enhances the exploration of occupational paths, the commitment toward a selected occupation and an open-minded attitude for future career changes and job opportunities. These three processes are all described as part of the construct of vocational identity (Porfeli et al., 2013).

The present study

A past literature review has examined the association between the psychosocial factors -including psychological strengths- proposed by Erik Erikson and the development of a vocational identity (Chávez, 2016). However, the scope of such a study did not include all the positive personality traits that can be accounted as comprising character. Following the latest research on the measurement of character strengths and virtues (Fowers et al., 2021; Wright et al., 2021), we consider that character in this study is composed of the combination of character strengths and moral motivation. Character strengths represent the behavioural dimension of character, a set of observable virtuous habits. Moral motivation involves the reasons, attitudes and emotions that give support to the manifested character behaviours. To fill the current gap, the present study aims to systematically map the existent peer-reviewed literature on the relationships between character strengths and moral motivation, with respect to vocational identity processes in adolescents and young adults. In achieving this goal, we expect to answer the following specific research questions:

- What character traits have been related to vocational identity in the existing literature?
- How are publications in this topic distributed over time?
- What are the characteristics of the empirical and theoretical studies included?
- What association patterns are reported in quantitative research?

Method

Among the different types of literature synthesis, we opted for conducting a scoping review. This method is intended “to map *rapidly* the key concepts underpinning a research area and the main sources of evidence available” (Arksey & O’Malley, 2005, p. 21). A scoping review approach was selected due to the following reasons. First, this approach has been argued as the most suited for determining the scope

of a topic that has not been fully examined before (Munn et al., 2018). Past reviews have supported the relationship between some personality factors and occupational identity (Chávez, 2016), however, not all the character strengths and moral motivation constructs that are thought to comprise character according to the latest research were considered (Fowers et al., 2021; Wright et al., 2021). Second, given the different labels used for classifying character strengths, a scoping review seemed to be appropriate to put the available evidence in order and serve as a precursor for future systematic reviews. Lastly, we opted to map the peer-reviewed literature as an initial step that could be complemented by future research that includes grey literature. This is due to the interest in mapping high-quality sources, which would offer some guidance for the work of researchers and practitioners from the fields of character education and career counselling.

To conduct this scoping review, we followed the guidelines proposed by Arksey & O’Malley (2005) and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping reviews checklist (Tricco et al., 2018). Developed as a source for helping researchers, policymakers and patients or consumers, the PRISMA-ScR checklist offers rationales and examples of 20 essential and 2 optional reporting items in Scoping Reviews.

Eligibility criteria and search strategy

To be included in this review, sources of evidence needed to address the relationship between any of the 24 character strengths, or a moral motivation construct, and at least one of the vocational identity processes. Also, selected sources were required to explore such relationships in adolescents or young adult students. Both empirical and theoretical sources were admitted. In the case of quantitative research, character strength measures had to be trait-like (not state measures, such as state hope), and consider conduct in general settings (not specific situations, like self-regulated learning). These requirements were established to follow the original conceptualization of character strengths (cf. Peterson & Seligman, 2004, pp. 12–14). Likewise, character strengths had to be conceived as traits or personality characteristics in qualitative and theoretical sources. Lastly, only sources written in English were included. This restriction is for the following reasons: it was the most commonly used language among the studies found, and it is a language in which the authors are confident.

For identifying potentially relevant sources, a systematic search was carried out on the Scopus and Web of Science databases up to October 8, 2020. The complete search strategies for both databases are included in Appendix 1. The search terms utilized are presented in Table 1. Based on

Table 1 Search terms organized by construct and concept

Construct	Concept	Search terms
<i>Character strengths</i>	General	Character-strength, values-in-action
	Beauty	Appreciation-of-beauty, beauty, awe, wonder
	Bravery	Bravery, valour, courage
	Citizenship	Citizenship, social-responsibility, loyalty, teamwork
	Creativity	Creativity, originality, ingenuity
	Curiosity	Curiosity, novelty-seeking, openness
	Fairness	Fairness, justice
	Forgiveness	Forgive, forgiveness, forgivingness, mercy
	Gratitude	Gratitude
	Hope	Hope, optimism, future-mindedness, future-orientation
	Humility	Humility, modesty
	Humour	Humour, playfulness
	Integrity	Integrity, honesty, authenticity
	Kindness	Kindness, generosity, nurturance, caring, altruism, altruistic-love, niceness, humanity
	Leadership	Leadership
	Love	Love, attachment
	Love of learning	Love-of-learning, learning-motivation
	Open-mindedness	Open-mindedness, judgement, critical-thinking
	Persistence	Persistence, perseverance, industriousness
	Perspective	Wisdom
Prudence	Prudence, conscientiousness	
Self-regulation	Self-regulation, self-control	
Social intelligence	Social-intelligence, emotional-intelligence, personal-intelligence	
Spirituality	Spirituality, religiousness, faith, purpose & meaning, transcendence, meaning-in-life, life-meaning, sense-of-meaning	
<i>Moral motivation</i>	Vitality	Vitality, zest, enthusiasm, vigour, energy
	Moral emotions	Moral-emotion, empathy, sympathy, compassion
	Moral identity	Moral-identity, moral-self
<i>Vocational identity</i>	Moral reasoning	Moral-reasoning, moral-judgement
	General	Vocational-identity, occupational-identity, career-identity
	Commitment	Career-decidedness, career-commitment, vocational-commitment, occupational-commitment, career-decision & self-efficacy
	Exploration	Vocational-exploration, career-exploration, occupational-exploration, career/vocational/occupational & exploratory-behaviour
Reconsideration	Career-flexibility, career-indecisiveness, career-indecision, vocational-indecision, occupational-indecision, career-uncertainty	

the main publication about character strength classification (Peterson & Seligman, 2004), we considered as search terms all the name variants of each strength and its most commonly used measures. As a result, studies that use either the VIA-IS character strength questionnaire or other appropriate measures of character strengths were considered in this review. For moral motivation and vocational identity, we included the terms suggested by the latest literature reviews on each topic (Darnell et al., 2019; Porfeli et al., 2013).

Screening and selection

The screening and selection process was carried out in two stages. First, the sources obtained from the systematic search were screened using the Rayyan QCRI web application (Ouzzani et al., 2016). After removing duplicates, titles and abstracts were examined according to the eligibility criteria mentioned above. One researcher screened, and the other two verified the screening for accuracy. Disagreements were discussed and resolved during team meetings. Sources that met the inclusion criteria went to the second stage, the full-text eligibility examination. In this phase, we

retrieved full-text documents and re-examined the fulfilment of the inclusion criteria. As in the previous stage, one researcher assessed the full-texts and the other two verified the assessment for accuracy. The same strategy was applied for the data charting process described next.

Data charting

Data from the full-text included sources were charted using a data charting table designed for this study. The items to be charted were selected according to the review questions. For all sources, we extracted data on citation details, source type (e.g., empirical study, literature review or theoretical article), main objective, character strengths or moral motivation constructs investigated, vocational identity processes examined, and the relevant findings or the authors' conclusion. For empirical studies, we also retrieve data about the methodological design, population characteristics (e.g., number, sex, age group), and the measurement instruments employed. In the case of quantitative studies, we additionally charted the frequency of reported significant correlations between the character strengths or moral motivation and the vocational identity variables.

Synthesis of results

We grouped the final studies included according to both the character strength or moral motivation construct, and the vocational identity process. Studies which included more than one character strength or moral motivation construct were assigned to multiple groups. Similarly, studies that examined more than one vocational identity process were classified more than once.

For quantitative studies reporting correlations, we counted the frequency of significant simple bivariate correlations, multivariate regression coefficients, or structural equation modelling regression path coefficients between the variables of interest. We considered a correlation to be significant when the *p*-value was less than 0.05. If more than one scale was used to measure the same strength or moral motivation construct in a study, at least one of them might have reported a significant correlation to be accounted for. In longitudinal studies, we only counted the correlations between T1 and T2. If a study reported both correlations for the entire sample and for men and women separately, we only counted the significant correlations for the entire sample.

Results

The search in the electronic databases produced the following results: Scopus: 664 results; Web of Science: 667 results. After removing duplicates, 926 titles and abstracts were screened, and 194 citations were retrieved in full-text. Finally, 136 documents were included in this review: 123 quantitative, 8 qualitative, and 5 theoretical or review articles. Figure 1 presents the flow diagram of the selection process. A summary of each of the included sources is presented in Appendix 2: the quantitative studies are shown in Table S-1, the qualitative in Table S-2, and the theoretical or review articles in Table S-3.

Most investigated character and vocational constructs

The number of sources of evidence addressing the relationships between each of the character strengths and moral motivation constructs, with respect to vocational identity processes is presented in Fig. 2. Only 15 of the 24 character strengths have been studied in association with any of the vocational identity processes. The most investigated strengths were prudence (included in 38 of the 136 sources), curiosity (included in 28 of the 136 sources), love (included in 28 of the 136 sources) and hope (included in 27 of the 136 sources). For these strengths, at least four studies have examined their association with some of the vocational identity processes. The next two strengths were social intelligence (included in 18 of the 136 sources), and spirituality (included in 15 of the 136 sources). In the case of these strengths, relationships with career commitment and reconsideration processes were studied, but not with career exploration. The last nine strengths were included in six or fewer studies each. Most of these strengths were studied together with the vocational commitment process. Regarding moral motivation, only one construct has been studied in the current literature. This is the case of the moral emotion of empathy, whose association with vocational commitment has been explored in two studies (Leffel et al., 2018; Nesje, 2016).

Concerning vocational identity, there were differences in the number of studies that have addressed each of its processes. The most investigated process was vocational commitment, which was included in 101 of 136 studies. The next process was reconsideration, present in 39 of the 136 studies. Lastly, the exploration process was included in 26 of the 136 studies.

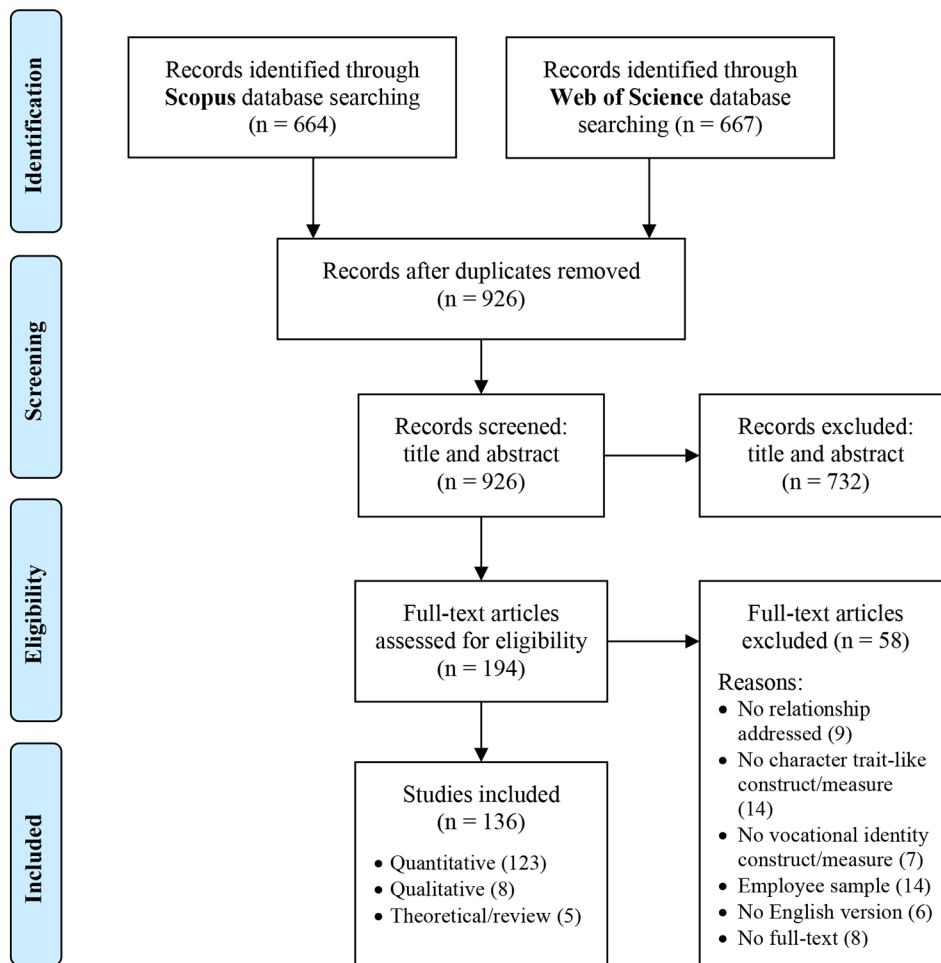


Fig. 1 Flow diagram of the selection of sources of evidence, based on the PRISMA statement (Tricco et al., 2018)

Evolution of the literature

The 136 documents included in this review were published between 1980 and October 2020. The majority (71.3%) have emerged in the last decade. The first strengths to be studied were love (attachment) and hope. These strengths were included in the only 5 sources published between 1980 and 2000. In the decade from 2001 to 2010, together with love and hope, the strengths of prudence and curiosity were investigated in several papers. Also, the first studies including social intelligence, spirituality, self-regulation, love of learning, kindness, and leadership were found in this period. In total, 34 documents were published during this decade. Since 2011, more studies have examined the relationships between the aforementioned strengths and vocational identity processes. Also, the strengths of creativity, gratitude, honesty, perseverance and perspective were studied together with a vocational identity process during these years. Between 2011 and October 2020, a total of 97 documents were published.

Study characteristics

Of the 136 included sources, 131 were empirical research articles (quantitative and qualitative) and 5 were theoretical studies. Regarding the empirical articles, 79.4% were conducted with young adult students and 20.6% with teenagers. Almost all of these studies included both male and female participants. Five studies included female participants only.

Regarding the methodology of empirical articles, 123 studies followed a quantitative approach and eight were qualitative. Of the quantitative studies, 101 had a cross-sectional design, 18 were longitudinal, three were experimental, and one pre-experimental. Almost all of these studies used self-report questionnaires to assess both character strengths or moral motivation and vocational identity processes. The only two exceptions were a study which included the Orlofsky Intimacy Status Interview (1976) as an assessment of the strength of love (Kacerguis & Adams, 1980), and another that used the stability of medical speciality choice as an indicator of career commitment (Woolf et al., 2015).

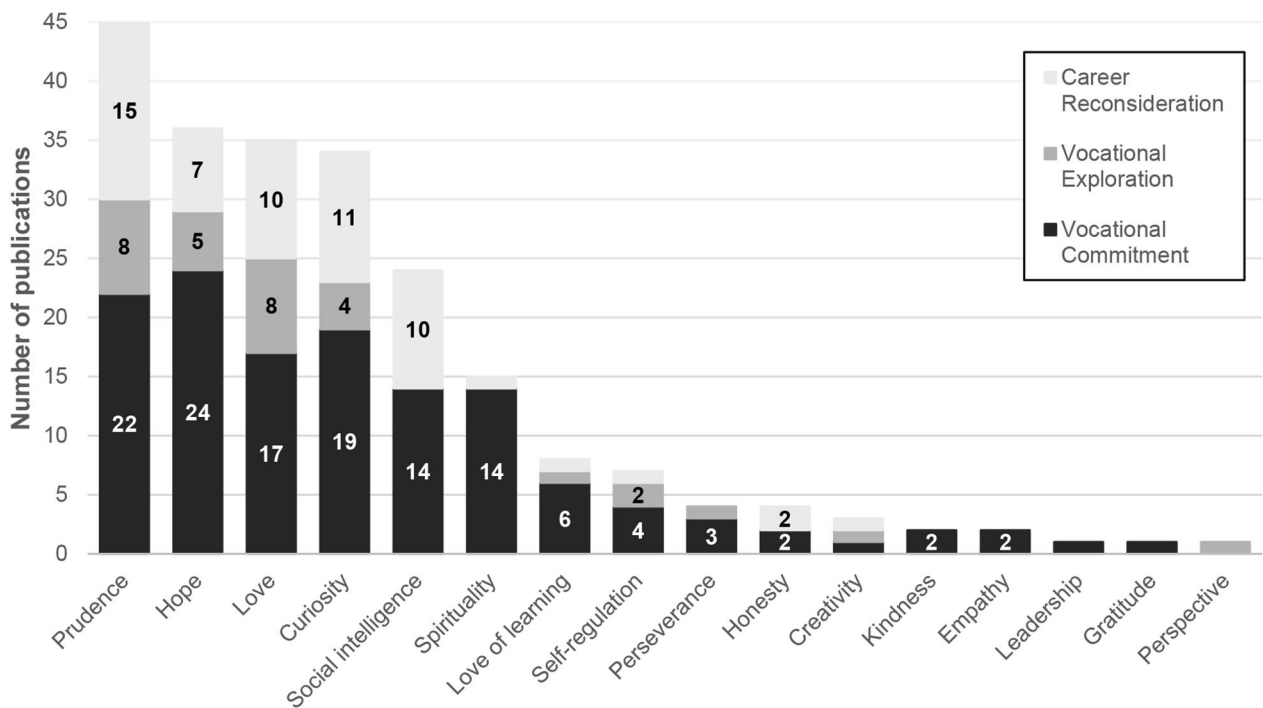


Fig. 2 Stack bar diagram with the number of sources of evidence including character strengths and moral motivation (bars) and vocational identity processes (segments within each bar) (n = 136)

Apropos the eight qualitative studies, six used either semi-structured or in-depth interviews to gather data. The other two studies used content analysis on students prompts or written assignments (Albritton et al., 2020; James et al., 2020).

In this review, five studies were classified as theoretical sources. Among these, there were three reviews of the literature on the association between vocational attributes and the strengths of social or emotional intelligence (Di Fabio & Saklofske, 2018), love or attachment (Wright & Perrone, 2008), and spirituality (Duffy, 2006); one meta-analysis about the Five-Factor Model of personality -whose factors of conscientiousness and openness can be considered more general measures of the strengths of prudence and curiosity- and career decision-making difficulties (Martincin & Stead, 2015); and finally, one essay on the role of perspective or wisdom in the vocational development of young people (Deane-Drummond, 2017).

Patterns of associations between character and vocational identity

From the quantitative studies, we retrieved data on the frequency of significant correlations between character strengths or moral motivation and vocational identity processes. A summary of these findings, including a list of the most commonly employed measures, is presented in

Table 2. Among the four most studied strengths, prudence and hope followed a similar pattern of reported correlations with vocational identity. For these strengths, there were mostly positive correlations with both commitment and exploration processes, and negative associations with the reconsideration facet. The strengths of curiosity and love presented more mixed results. Eight of 19 studies that examined the association between curiosity and vocational commitment did not report significant associations. In the same way, seven of nine studies that explored the relationship between curiosity and reconsideration did not report statistically significant findings. Concerning the strength of love, five of 14 studies did not find significant relationships with vocational commitment. Also, of the nine studies that reported significant associations between love and reconsideration, three presented positive and six negative correlations. After a closer inspection of the character strength measures employed in these nine articles, we observed that the nine findings were describing the same relationship direction. The three studies that reported positive associations employed measures of anxious attachment while the other six studies reporting negative association used secure attachment measures. Lastly, the remaining character strengths and the moral emotion of empathy followed a general pattern of positive associations with commitment and exploration, and negative with reconsideration.

Table 2 Frequency of significant correlations between character strengths or moral motivation and vocational identity process variables in quantitative studies

Character strength or moral motivation construct (n)	Vocational identity						Most frequent character strength or moral motivation measure [%]			
	Commitment			Exploration				Reconsideration		
	PC	NC	NR	PC	NC	NR			PC	NC
Prudence (38)	21	-	1	5	-	3	-	12	1	Conscientiousness sub-scale, NEO-FFI (Costa & McCrae, 1992) [24.3%]
Curiosity (27)	11	-	8	3	-	1	-	2	7	Openness sub-scale, NEO-FFI (Costa & McCrae, 1992) [33.3%]
Love (25)	9	-	5	2	1	3	3	6	1	Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987) [48%]
Hope (25)	17	1	3	4	-	1	-	6	1	Hope Scale (Snyder et al., 1991) [40%]
Social intelligence (17)	12	-	1	-	-	-	-	9	-	Emotional Intelligence Scale (Wong & Law, 2002) [35.3%]
Spirituality (14)	12	-	1	-	-	-	-	1	-	Meaning in Life Questionnaire (Steger et al., 2006) [64.3%]
Love of learning (6)	6	-	-	1	-	-	-	1	-	Self-directed Learning Scale (Lounsbury & Gibson, 2006) [50%]
Self-regulation (4)	4	-	-	2	-	-	-	1	-	Self-regulation Questionnaire (Neal & Carey, 2005)
Honesty (3)	2	-	-	-	-	-	-	1	-	Authenticity Scale (Wood et al., 2008) [66.6%]
Perseverance (2)	1	-	-	1	-	-	-	-	-	Short Grit Scale (Duckworth & Quinn, 2009) [50%]
Creativity (2)	1	-	-	1	-	-	-	1	-	Thinking Styles Inventory-Revised (Sternberg et al., 2003) [50%]
Moral empathy (2)	2	-	-	-	-	-	-	-	-	Interpersonal Reactivity Index (Davis, 1983) [50%]
Kindness (1)	1	-	-	-	-	-	-	-	-	Interpersonal Generosity Scale (Smith, 2009)
Leadership (1)	1	-	-	-	-	-	-	-	-	Leadership sub-scale, Expanded Skills Confidence Inventory (Betz et al., 2003)
Gratitude (1)	-	-	1	-	-	-	-	-	-	Gratitude Questionnaire (McCullough et al., 2002)

Note: PC = significant positive correlation, NC = significant negative correlation, NR = No significant association. Correlations were considered significant at the $p < .05$ level. The most frequently used measures of vocational identity processes were: for commitment, the Career Decision Self-Efficacy Scale-Short Form (Betz et al., 1996) [52.7%]; for exploration, the Career Exploration Survey (Stumpf et al., 1983) [45.8%]; and for reconsideration, the Career Decision Scale (Osipow, 1987) [32.4%]

Discussion

This scoping review aimed to map the existent peer-reviewed literature on the relationships between character strengths and moral motivation, with respect to vocational identity processes in adolescents and young adult students. We identified 136 sources, including empirical studies, theoretical articles and literature reviews published between 1980 and October 2020. Our findings revealed that four strengths -prudence, curiosity, hope and love- were the most studied in association with a vocational identity process in the literature we examined. In contrast, there was scant research focusing on the relationship between moral motivation and vocational identity. These results corroborate the relevance of character strengths in vocational development. In particular, they extend the knowledge in this area by providing a list of the character traits most relevant to vocational psychology researchers. Regarding the moral motivation dimension of character, its contribution to vocational development remains an open question to future empirical research.

The first specific research question in this review was about which character traits have been related to vocational identity in the examined literature. Among the 24 character strengths, only half were studied together with a vocational identity process. In particular, the strengths of prudence, hope, curiosity and love were the most examined by research in this area. This finding is interpreted as revealing what aspects of character are considered as the most relevant for vocational development according to current research. Among the top-four investigated strengths, there was one related to personal effort and decision-making (prudence), two regarding some intellectual functions that can be applied to the career-decision process (curiosity and hope), and the last one which referred to social relationships (love). An interpretation of the relevance of each strength for the vocational development of adolescents and young adults is presented next.

Concerning the strength of prudence -mostly measured with conscientiousness subscales-, its relevance has been underscored in past studies (Rottinghaus & Miller, 2013). According to that research, adolescents and young adults who evaluate themselves as orderly, responsible and dependable tend to show improved educational, career and organizational outcomes. This positive contribution has been explained due to the tendency to embrace attention to details and achievement striving that characterize persons high in conscientiousness (Rottinghaus & Miller, 2013). About the strengths of hope and curiosity, they are thought to enhance career decisions by providing a future-time perspective, and an informed understanding of career alternatives. Past research on career adaptability has given support

to the relevance of these two strengths in career development (Savickas, 2002; Savickas & Porfeli, 2012). As stated in that research, becoming interested in the vocational future (hope) and exploring many future career alternatives (curiosity) are two key self-regulatory strategies that lead to positive career adaptation results (Rudolph et al., 2017). Lastly, the presence of love among the most studied strengths is thought to represent the importance of counting on social support during career decision periods. Since the majority of these studies have employed attachment scales, the role of family and friends is emphasised. The importance of family support for vocational development has been highlighted in a past literature review on career preparedness attitudes in adolescence (Marciniak et al., 2020).

An interesting point regarding some of the most studied character strengths in this review is their emotional facet. Recent studies in vocational psychology have highlighted the beneficial role of positive emotions in vocational development (Dik et al., 2015, 2019; Robertson, 2018). Positive affect has shown to be related to vocational self-efficacy (Rottinghaus et al., 2009). Also, emotional dispositions have been linked to each of the 24 character strengths (Güsewell & Ruch, 2012). Taking into consideration this literature, it is possible to hypothesize that the emotional aspects of some strengths can have a leading role in accounting for positive vocational outcomes. In particular, we are thinking of the strengths of hope and love, that are considered as cognitive-emotional (Snyder et al., 1991) or affectional dispositional (Armsden & Greenberg, 1987) personality traits by relevant psychological literature. Moreover, the interest in acknowledging the contribution of emotions and character strengths to vocational development has promoted recent mediation and moderation studies. There is evidence for the mediation role of positive emotions in the relationships between hope and work performance (Valero et al., 2015). In addition, positive emotions have been found to moderate the association between social support or interpersonal behaviour -an indicators of love- and career outcomes (Park et al., 2018, 2021; Vignoli et al., 2020). All in all, the presence of hope and love among the most studied character strengths in this review can be taken as a departure point for encouraging more research on the positive role of emotions in vocational development.

Together with character strengths, this review also mapped the moral motivation constructs that were studied alongside vocational identity. Only two studies that included the moral emotion of empathy were found in the literature. In both cases, empathy showed positive relationships with vocational identity. However, neither the cognitive (e.g., moral reasoning) nor the attitudinal (e.g., moral identity) aspects of moral motivation have been studied together with vocational identity. These results revealed a gap in the

literature regarding the contribution of moral motivation to vocational development. Some authors have suggested that the progression in moral development has some concomitant effects on the way individuals practise their professions (Arthur & Earl, 2020; Bebeau & Thoma, 2013; Carr, 2014). For instance, in an in-depth study with dental professionals, adults nominated as moral exemplars have also proved to be highly successful and exceptionally competent in their professional practice (Rule & Bebeau, 2005). Although these studies suggest that moral motivation can influence professional practice, it is still unknown how moral motivation can contribute to the vocational development of adolescents and young adults. Future research is needed on this topic.

With regard to the second research question, this review examined the distribution of the literature on the relationship between character and vocational identity over time. It was found that the majority of sources of evidence were published in the last ten years. This finding seems to be in line with the emerging interest in psychology in the scientific study of character and virtue (Fowers et al., 2021). Such interest started with the work of positive psychologists more than one decade ago (Peterson & Seligman, 2004). Since that time, some vocational psychologists have become interested in studying the compatibility between positive psychology constructs -including character strengths- and career theory and practice (Dik et al., 2019; Robertson, 2018; Savickas, 2003). The literature in the present review provides support for the link between character and vocational development. Such literature shows how different character traits have been studied in association with vocational identity processes.

The third research question was about the characteristics of the included studies. There was a predominant amount of quantitative and cross-sectional research. Additionally, more studies were conducted with samples of young adult students than with samples of adolescents. Although this last finding can be attributed to the ease of accessing undergraduate samples, it can also reflect the importance of character for vocational development at that period. Recent initiatives to promote character in university settings have suggested that the inclusion of a vocational component seems to be adequate for satisfying the developmental needs of emerging adults (Brooks et al., 2019; Lamb et al., 2021). Young adults are giving shape to their identity through the decisions they take at this age regarding education, work and love. To thrive in their identity formation -including its vocational facet-, they will require certain strengths (e.g., perseverance, social intelligence, creativity and problem-solving skills) to face the difficulties that appear in the work and love domains. In addition, a moral motivation component is thought to be necessary to integrate the professional

expectations of young adults with a “commitment to service” or a “sense of a vocation”.

Lastly, the fourth research question in this review was about the association patterns between character and vocational identity in quantitative research. Among the top-four studied character traits, prudence and hope showed the most consistent pattern of associations with vocational identity. This finding suggests the high relevance of these character traits for promoting vocational development in adolescents and young adults. By successfully resisting impulses to satisfy short-term goals (prudence) and having an orientation to the future (hope), young individuals are thought to be best prepared for exploring career alternatives, making career choices, and dealing with the uncertainties and rapid changes in the career context. For the other two most studied character traits, curiosity and love, studies reported more mixed results, with research reporting both significant associations and no association. This finding is interpreted as partly due to the characteristics of the employed measures. In the case of curiosity, this strength was commonly measured with openness subscales from different Big Five personality inventories. Past research has suggested that openness is the broadest and most ambiguous factor from the Big Five model (John & Srivastava, 1999). It is believed that the different conceptualizations of this factor in the measurement instruments can lead to differences in the results across studies. Similar considerations can be extended to the character strength of love. To assess this strength, attachment subscales were employed, including parental attachment, romantic relationship attachment and attachment to friends.

There are some limitations to the present scoping review that need to be mentioned. First, the aggregation of studies into separate character strength or vocational identity categories could mask the diversity of methodological approaches within each class. In some cases, similar but distinct conceptualizations or measures were employed for the same character strength (e.g., hope, with studies using trait-hope, future-time perspective, or optimism scales). In other cases, the research works included used more general measures of specific strengths, capturing more aspects than those originally stated in the theory (e.g., prudence and curiosity, which were measured in most studies using conscientiousness and openness scales from the Big Five personality model). In all cases, the construction of categories in this review have followed the original theory of character strengths (Peterson & Seligman, 2004), together with the most recent research within this field (McGrath et al., 2020). We acknowledge the risk of committing a case of jingle fallacy, i.e., combining results from similar scales that are measuring distinct but correlated constructs (see Marsh et al., 2019). However, it was beyond the exploratory scope of

this review to conduct a deep analysis of such a possibility. All in all, we believe that the diversity of methodological perspectives should be taken into account by future research on this topic.

Other limitations of this scoping review are related to its methodological design. On the one hand, only two databases of peer-reviewed literature, Scopus and Web of Science, were examined. Sources of evidence not indexed by these two databases were automatically excluded from the present review. We believe that the selected databases provided us with access to a significant body of the highest quality literature in the field. Other sources of evidence, not included in this review, are thought to increase but possibly not change the tendencies we found in the examined literature. However, future research that includes more and different databases, and also an examination of grey literature, e.g., theses, organizational reports, white papers and non-commercial publications, will be important to contrast and expand our findings. On the other hand, the data charting process was conducted with some simplifications. To extract the data from the selected sources (e.g., character strengths addressed, relevant results or author's conclusions, report of significant correlation coefficients, etc.), one reviewer performed the initial extraction and the other two assessed the process for accuracy. No calibration exercise was conducted for the data charting table. Doubts and discrepancies were solved during team meetings, but the decisions made by the first reviewer may, to a certain degree, have influenced the assessment of the other two. Whatever the case, the study objectives and the criteria for data extraction were shared by all the researchers and evaluated during the entire review process.

Future research may benefit from considering some of the results of the present scoping review. First, a systematic review or meta-analysis of the examined literature does not seem to be viable at present. All the studies we reviewed employed separate measures of each character strength or moral construct instead of global assessments as does the VIA-IS questionnaire. Given the diversity of measures utilized, and in some cases the limited number of studies, we recommend researchers focus on specific strengths and their contribution to the development of the vocational identity processes. Second, more research is required for addressing the association between moral motivation and vocational development in adolescents and young adults. Moral motivation has been examined in individuals who are already in the workplace (Arthur & Earl, 2020; Bebeau & Thoma, 2013). However, the role of moral motivation in the pre-career stage is a gap in the current literature. It is believed that moral motivation could be an important construct for promoting the development of vocational identities that will be oriented toward prosocial goals. Third, a promising area

of research seems to be the association between prudence and vocational identity. This character trait -measured with conscientiousness subscales- was the most consistently related to vocational identity processes. By developing prudence, it is thought that adolescents and young adults will be more prepared to make career decisions with proper knowledge of their abilities, interests, and envisioning work as a social service. We consider the emerging construct of *phronesis* or practical wisdom (Kristjánsson et al., 2021) as an interesting model of prudence that can be used in future vocational psychology research.

Conclusions

The literature included in this review revealed that more than half of the 24 character strengths and one moral motivation construct have been studied together with a vocational identity process. The most studied strengths -i.e., prudence, hope, love, and curiosity- showed resemblance with the competencies and skills commonly addressed by career researchers and counsellors. These results are thought to underscore the beneficial role of possessing character traits in vocational identity development. This study unveils which positive personality traits can be considered key ingredients for promoting vocational development according to current research. In this line, the findings of this review provide an important contribution to the ongoing dialogue between positive psychology and vocational psychology (Dik et al., 2019; Niemiec, 2020; Owens et al., 2019; Robertson, 2018; Savickas, 2003; Villacís et al., 2021). Future research in this new intersecting subfield is hoped to take guidance from the current review.

Regarding practical applications, vocational counsellors can consider the list of the most studied strengths as a starting point for designing character-inspired vocational interventions (a set of profitable examples of this approach can be found at Sanderson 2017). Such interventions are expected to prevent career decision-making difficulties and enhance career exploration and commitment by promoting the acquisition of character strengths. Vocational counselling is thought to constantly require the application of techniques for increasing knowledge about vocational interests (Martínez-Vicente et al., 2015; Martínez-Vicente & Valls-Fernández, 2006), and overcoming internal or external barriers that prevent making a decision or persevering on a professional path (Gati, 2013; Martincin & Stead, 2015). Nonetheless, we think that the possession of character strengths -especially prudence, hope, curiosity, and love- is paramount to a suitable and more satisfactory vocational development. Character strengths are thought to be personality resources that, at the proper time, would favour

the development of a vocational identity that harmonizes one's talents and abilities with the characteristics of today's changing work environment. Likewise, character educators are called to continue working on developing vocationally-oriented programs to promote character in adolescents and young people. In these programs, the pre-career stage can be used as a concrete context to motivate the practice of character strengths (an example of such type of initiatives is presented in Brooks et al., 2019; see also Lamb et al., 2021).

A gap identified in the current review was the scant literature about the contribution of moral motivation to vocational identity development. Moral motivation is thought to promote a socially-oriented vision of the profession (Blond et al., 2015; Carr, 2014). Future research is encouraged to extend the knowledge on this topic. Such research will shed more light on the question of how to promote the construction of socially-oriented vocational identities. After all, the intention of helping young people to develop not only their skills but also their whole character was a firm conviction in the origins of the first career guidance programs (cf. Savickas & Baker, 2005).

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12144-022-03427-x>.

Funding Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature. This work was supported by the Ministry of Science and Education of Spain, under the project PGC2018-094672-B-I00; the Social European Fund, under the project I+D AL18-SEJ-DO31-A-FEDER; the Program of Financial Aid of the "Asociación de Amigos" of the University of Navarra; and the Character, Education and Citizenship Research Group (GIECC) of the University of Navarra.

Data Availability The datasets generated and analysed during the current study are available from the corresponding author on request.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Adler, A. (2016). Teaching Well-Being increases Academic Performance: Evidence from Bhutan, Mexico, and Peru. In *Publicly Accessible Penn Dissertations*. University of Pennsylvania
- Albritton, K., Cureton, J. L., Byrd, J. A., & Storlie, C. A. (2020). Exploring Perceptions of the Path to Work/Life Success Among Middle School Students of Color. *Journal of Career Development, 47*(4), 440–453. <https://doi.org/10.1177/0894845319832667>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology: Theory and Practice, 8*(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16*(5), 427–454. <https://doi.org/10.1007/BF02202939>
- Arthur, J., & Earl, S. (2020). *Character in the Professions: How Virtue Informs Practice Research Report*. University of Birmingham
- Bebeau, M. J., & Thoma, S. J. (2013). Moral Motivation in Different Professions. In K. Heinrichs, F. Oser, & T. Lovat (Eds.), *Handbook of Moral Motivation: Theories, Models, Applications* (pp. 49–67). SensePublishers. https://doi.org/10.1007/978-94-6209-275-4_26
- Blond, P., Antonacopoulou, E., & Pabst, A. (2015). *Professions We Trust: Fostering virtuous practitioners in teaching, law and medicine*. ResPublica Trust and The Jubille Centre for Character and Virtues
- Brooks, E., Brant, J., & Lamb, M. (2019). How can universities cultivate leaders of character? Insights from a leadership and character development program at the University of Oxford. *International Journal of Ethics Education, 4*(2), 167–182. <https://doi.org/10.1007/s40889-019-00075-x>
- Carr, D. (2014). Professionalism, Profession and Professional Conduct: Towards a Basic Logical and Ethical Geography. In S. Billett, C. Harteis, & H. Gruber (Eds.), *International Handbook of Research in Professional and Practice-based Learning* (pp. 5–27). Springer Netherlands. https://doi.org/10.1007/978-94-017-8902-8_1
- Carr, D. (2018). *Cultivating Moral Character and Virtue in Professional Practice*. Taylor & Francis
- Chávez, R. (2016). Psychosocial Development Factors Associated with Occupational and Vocational Identity Between Infancy and Adolescence. *Adolescent Research Review, 1*(4), 307–327. <https://doi.org/10.1007/s40894-016-0027-y>
- Curren, R., & Ryan, R. M. (2020). Moral self-determination: The nature, existence, and formation of moral motivation. *Journal of Moral Education, 49*(3), 295–315. <https://doi.org/10.1080/03057240.2020.1793744>
- Darnell, C., Gulliford, L., Kristjánsson, K., & Paris, P. (2019). Phronesis and the Knowledge-Action Gap in Moral Psychology and Moral Education: A New Synthesis? *Human Development, 62*(3), 101–129. <https://doi.org/10.1159/000496136>
- Deane-Drummond, C. (2017). The art and science of vocation: Wisdom and conscience as companions on a way. In D. S. Cunningham (Ed.), *Vocation across the Academy: A New Vocabulary for Higher Education* (pp. 156–177). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190607104.003.0008>
- Di Fabio, A., & Saklofske, D. H. (2018). Emotional Intelligence and Youth Career Readiness. In K. V. Keefer, J. D. A. Parker, & D. H. Saklofske (Eds.), *Emotional Intelligence in Education: Integrating Research with Practice* (pp. 353–375). Springer International Publishing. https://doi.org/10.1007/978-3-319-90633-1_13
- Dik, B. J., Duffy, R. D., Allan, B. A., O'Donnell, M. B., Shim, Y., & Steger, M. F. (2015). Purpose and Meaning in Career Development Applications. *The Counseling Psychologist, 43*(4), 558–585. <https://doi.org/10.1177/0011000014546872>
- Dik, B. J., O'Connor, W. F., Shimizu, A. B., & Duffy, R. D. (2019). Personal Growth and Well-Being at Work: Contributions of Vocational Psychology. *Journal of Career Development, 46*(1), 31–47. <https://doi.org/10.1177/0894845317730642>

- Duffy, R. D. (2006). Spirituality, religion, and career development: Current status and future directions. *Career Development Quarterly*, 55(1), 52–63. <https://doi.org/10.1002/j.2161-0045.2006.tb00004.x>
- Erikson, E. (1963). *Childhood and Society*. W.W. Norton & Co
- Erikson, E. (1980). *Identity and the Life Cycle*. W.W. Norton & Company
- Erikson, E. (1994). *Identity: Youth and Crisis*. W.W. Norton & Co
- Fowers, B. J., Carroll, J. S., Leonhardt, N. D., & Cokelet, B. (2021). The Emerging Science of Virtue. *Perspectives on Psychological Science*, 16(1), 118–147. <https://doi.org/10.1177/1745691620924473>
- Fusco, L., Sica, L. S., Boiano, A., Esposito, S., & Aleni Sestito, L. (2019). Future orientation, resilience and vocational identity in southern Italian adolescents. *International Journal for Educational and Vocational Guidance*, 19(1), 63–83. <https://doi.org/10.1007/s10775-018-9369-2>
- Gati, I. (2013). Advances in Career Decision Making. *Handbook of Vocational Psychology. Theory, Research, and Practice*, 183–215
- Green, Z. A. (2020). The mediating effect of well-being between generalized self-efficacy and vocational identity development. *International Journal for Educational and Vocational Guidance*, 20(2), 215–241. <https://doi.org/10.1007/s10775-019-09401-7>
- Güeswell, A., & Ruch, W. (2012). Are only Emotional Strengths Emotional? Character Strengths and Disposition to Positive Emotions. *Applied Psychology: Health and Well-Being*, 4(2), 218–239. <https://doi.org/10.1111/j.1758-0854.2012.01070.x>
- Han, H. (2019). The VIA inventory of strengths, positive youth development, and moral education. *The Journal of Positive Psychology*, 14(1), 32–40. <https://doi.org/10.1080/17439760.2018.1528378>
- Hardy, S. A. (2006). Identity, Reasoning, and Emotion: An Empirical Comparison of Three Sources of Moral Motivation. *Motivation and Emotion*, 30(3), 205–213. <https://doi.org/10.1007/s11031-006-9034-9>
- Heinrichs, K., Oser, F. K., & Lovat, T. (2013). *Handbook of Moral Motivation: Theories, Models, Applications*. Brill
- Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511805851>
- James, S., Mallman, M., & Midford, S. (2020). University students, career uncertainty, and the culture of authenticity. *Journal of Youth Studies*, 1–15. <https://doi.org/10.1080/13676261.2020.1742300>
- John, O., & Srivastava, S. (1999). The Big Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In L. Pervin, & O. John (Eds.), *Handbook of personality: Theory and Research* (2nd ed., pp. 102–138). The Guilford Press
- Jubilee Centre for Character and Virtues, & Oxford Character Project (2020). *Character Education in Universities A Framework for Flourishing*. <https://oxfordcharacter.org/assets/images/general-uploads/Character-Education-in-Universities.pdf>
- Kacerguis, M. A., & Adams, G. R. (1980). Erikson stage resolution: The relationship between identity and intimacy. *Journal of Youth and Adolescence*, 9(2), 117–126. <https://doi.org/10.1007/BF02087930>
- Kingsford, J., Hawes, D. J., & de Rosnay, M. (2018). The moral self and moral identity: Developmental questions and conceptual challenges. *British Journal of Developmental Psychology*, 36(4), 652–666. <https://doi.org/10.1111/bjdp.12260>
- Kristjánsson, K. (2013). *Virtues and Vices in Positive Psychology: A Philosophical Critique*. Cambridge University Press
- Kristjánsson, K., Fowers, B., Darnell, C., & Pollard, D. (2021). Phronesis (Practical Wisdom) as a Type of Contextual Integrative Thinking. *Review of General Psychology*, 108926802110230. <https://doi.org/10.1177/10892680211023063>
- Kroger, J., & Marcia, J. (2011). The Identity Statuses: Origins, Meanings, and Interpretations. In S. Schwartz, K. Luyckx, & V. Vignoles (Eds.), *Handbook of Identity Theory and Research* (pp. 31–53). Springer. https://doi.org/10.1007/978-1-4419-7988-9_2
- Lamb, M., Brant, J., & Brooks, E. (2021). How is virtue cultivated? Seven strategies for Postgraduate Character Development. *Journal of Character Education*, 17(1)
- Lavy, S. (2020). A Review of Character Strengths Interventions in Twenty-First-Century Schools: their Importance and How they can be Fostered. *Applied Research in Quality of Life*, 15(2), 573–596. <https://doi.org/10.1007/s11482-018-9700-6>
- Lee, Y., Kim, Y., Im, S., Lee, E., & Yang, E. (2020). Longitudinal Associations Between Vocational Identity Process and Career Goals. *Journal of Career Development*, 1–16. <https://doi.org/10.1177/0894845320955237>
- Leffel, G. M., Mueller, O., Ham, R. A., Karches, S. A., Curlin, K. E., F. A., & Yoon, J. D. (2018). Project on the Good Physician: Further Evidence for the Validity of a Moral Intuitionist Model of Virtuous Caring. *Teaching and Learning in Medicine*, 30(3), 303–316. <https://doi.org/10.1080/10401334.2017.1414608>
- Marciniak, J., Johnston, C. S., Steiner, R. S., & Hirschi, A. (2020). Career Preparedness Among Adolescents: A Review of Key Components and Directions for Future Research. *Journal of Career Development*, 1–23. <https://doi.org/10.1177/0894845320943951>
- Marsh, H. W., Parker, R., Dicke, J., & Arens, T. (2019). The murky distinction between self? concept and self? efficacy: beware of lurking jingle?jangle fallacies. *Journal of Educational Psychology*, 111(2), 351–353. <https://doi.org/10.1037/edu0000281>
- Martincin, K. M., & Stead, G. B. (2015). Five-Factor Model and Difficulties in Career Decision Making: A Meta-Analysis. *Journal of Career Assessment*, 23(1), 3–19. <https://doi.org/10.1177/1069072714523081>
- Martínez-Vicente, J. M., García Martínez, I., & Segura García, M. A. (2015). Características de los intereses inventariados y expresados en educación secundaria. *Bordón Revista de Pedagogía*, 67(4), 107–123. <https://doi.org/10.13042/Bordon.2015.67403>
- Martínez-Vicente, J. M., & Valls-Fernández, F. (2006). La elección vocacional y la planificación de la carrera. Adaptación española del Self-Directed Search (SDS-R) de Holland. *Psicothema*, 18(1), 117–122
- McGrath, R. E., Hall-Simmonds, A., & Goldberg, L. R. (2020). Are Measures of Character and Personality Distinct? Evidence From Observed-Score and True-Score Analyses. *Assessment*, 27(1), 117–135. <https://doi.org/10.1177/1073191117738047>
- McGrath, R. E., & Wallace, N. (2021). Cross-Validation of the VIA Inventory of Strengths-Revised and its Short Forms. *Journal of Personality Assessment*, 103(1), 120–131. <https://doi.org/10.1080/000223891.2019.1705465>
- Miglianico, M., Dubreuil, P., Miquelon, P., Bakker, A. B., & Martin-Krumm, C. (2020). Strength Use in the Workplace: A Literature Review. *Journal of Happiness Studies*, 21(2), 737–764. <https://doi.org/10.1007/s10902-019-00095-w>
- Miller, C. B. (2019). Some philosophical concerns about how the VIA classifies character traits and the VIA-IS measures them. *The Journal of Positive Psychology*, 14(1), 6–19. <https://doi.org/10.1080/17439760.2018.1528377>
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 1–7. <https://doi.org/10.1186/s12874-018-0611-x>
- Naval, C., González-Torres, M., & Bernal, A. (2015). Character Education. International Perspectives. *Pedagogia e Vita Rivista Di Problemi Pedagogici Educativi e Didattici*, 73, 155–184
- Negru-Subtirica, O., & Pop, E. I. (2018). Reciprocal Associations between Educational Identity and Vocational Identity in

- Adolescence: A Three-wave Longitudinal Investigation. *Journal of Youth and Adolescence*, 47(4), 703–716. <https://doi.org/10.1007/s10964-017-0789-y>
- Negru-Subtirica, O., Pop, E. I., & Crocetti, E. (2018). Good omens? The intricate relations between educational and vocational identity in adolescence. *European Journal of Developmental Psychology*, 15(1), 83–98. <https://doi.org/10.1080/17405629.2017.1313160>
- Nesje, K. (2016). Personality and professional commitment of students in nursing, social work, and teaching: A comparative survey. *International Journal of Nursing Studies*, 53, 173–181. <https://doi.org/10.1016/j.ijnurstu.2015.08.001>
- Niemiec, R. M. (2020). Six Functions of Character Strengths for Thriving at Times of Adversity and Opportunity: a Theoretical Perspective. *Applied Research in Quality of Life*, 15(2), 551–572. <https://doi.org/10.1007/s11482-018-9692-2>
- Orlofsky, J. L. (1976). Intimacy status: Relationship to interpersonal perception. *Journal of Youth and Adolescence*, 5(1), 73–88. <https://doi.org/10.1007/BF01537085>
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), 1–10. <https://doi.org/10.1186/s13643-016-0384-4>
- Owens, R. L., Flores, L. Y., Kopperson, C., & Allan, B. A. (2019). Infusing Positive Psychological Interventions Into Career Counseling for Diverse Populations. *Counseling Psychologist*, 47(2), 291–314. <https://doi.org/10.1177/0011000019861608>
- Park, I. J., Hai, S., Akkermans, J., & Verbruggen, M. (2021). Positive Affect and Career Decision-Making: The Moderating Role of Interpersonal Spin. *Career Development Quarterly*, 69(1), 49–62. <https://doi.org/10.1002/cdq.12248>
- Park, I. J., Kim, M., Kwon, S., & Lee, H. G. (2018). The relationships of self-esteem, future time perspective, positive affect, social support, and career decision: A longitudinal multilevel study. *Frontiers in Psychology*, 9(APR), 1–14. <https://doi.org/10.3389/fpsyg.2018.00514>
- Peterson, C., & Seligman, M. (2004). *Character strengths and virtues: A handbook and classification*. American Psychological Association & Oxford University Press
- Porfeli, E. J., Lee, B., & Vondracek, F. W. (2013). Identity development and careers in adolescents and emerging adults: Content, process, and structure. In W. B. Walsh, M. L. Savickas, & P. Hartung (Eds.), *Handbook of Vocational Psychology: Theory, Research, and Practice* (4th ed., pp. 133–153). Routledge
- Prentice, M., Jayawickreme, E., & Fleeson, W. (2020). An experience sampling study of the momentary dynamics of moral, autonomous, competent, and related need satisfactions, moral enactments, and psychological thriving. *Motivation and Emotion*, 44(2), 244–256. <https://doi.org/10.1007/s11031-020-09829-3>
- Robertson, P. J. (2018). Positive psychology and career development. *British Journal of Guidance and Counselling*, 46(2), 241–254. <https://doi.org/10.1080/03069885.2017.1318433>
- Rottinghaus, P. J., Jenkins, N., & Jantzer, A. M. (2009). Relation of depression and affectivity to career decision status and self-efficacy in college students. *Journal of Career Assessment*, 17(3), 271–285. <https://doi.org/10.1177/1069072708330463>
- Rottinghaus, P. J., & Miller, A. D. (2013). Convergence of Personality Frameworks Within Vocational Psychology. In M. L. Savickas, & W. B. Walsh (Eds.), *Handbook of Vocational Psychology* (4th ed., pp. 105–131). Routledge
- Rudolph, C. W., Lavigne, K. N., Katz, I. M., & Zacher, H. (2017). Linking dimensions of career adaptability to adaptation results: A meta-analysis. *Journal of Vocational Behavior*, 102, 151–173. <https://doi.org/10.1016/j.jvb.2017.06.003>
- Rule, J. T., & Bebeau, M. J. (2005). *Dentists who care: Inspiring stories of professional commitment*. Quintessence Publishing
- Sanderson, K. (2017). *ScholarlyCommons Career Matters: Leveraging Positive Psychology to Guide Us to Good and Right Work*. University of Pennsylvania
- Savickas, M. L. (2002). Career construction A Developmental Theory of Vocational Behavior. In A. Brown (Ed.), *Career choice and development* (pp. 149–205). Jossey-Bass
- Savickas, M. L. (2003). Toward a taxonomy of human strengths: Career counseling's contribution to positive psychology. In W. B. Walsh (Ed.), *Counseling Psychology and Optimal Human Functioning* (pp. 229–250). Taylor & Francis. <https://doi.org/10.4324/9781410609205>
- Savickas, M. L., & Baker, D. B. (2005). The History of Vocational Psychology: Antecedents, Origin and Early Development. In M. L. Savickas, & W. B. Walsh (Eds.), *Handbook of Vocational Psychology: Theory, Research, and Practice* (3rd ed., pp. 15–50). Lawrence Erlbaum Associates
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Seligman, M. (2019). Positive Psychology: A Personal History. *Annual Review of Clinical Psychology*, 15(1), 1–23. <https://doi.org/10.1146/annurev-clinpsy-050718-095653>
- Skorikov, V. B., & Vondracek, F. W. (2011). Occupational Identity. In S. Schwartz, K. Luyckx, & V. Vignoles (Eds.), *Handbook of Identity Theory and Research* (pp. 693–714). Springer
- Snarey, J., & Samuelson, P. (2014). Lawrence Kohlberg's Revolutionary Ideas Moral Education in the Cognitive-Developmental Tradition. In L. Nucci, D. Narváez, & T. Krettenauer (Eds.), *Handbook of Moral and Character Education* (2nd ed., pp. 78–103). Routledge. <https://doi.org/10.4324/9780203114896.ch5>
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570–585. <https://doi.org/10.1037//0022-3514.60.4.570>
- Thoma, S. J., & Bebeau, M. J. (2013). Moral Motivation and the Four Component Model. In K. Heinrichs, F. Oser, & T. Lovat (Eds.), *Handbook of Moral Motivation: Theories, Models, Applications* (pp. 49–67). SensePublishers. https://doi.org/10.1007/978-94-6209-275-4_4
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garrity, C., ... Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Valero, D., Hirschi, A., & Strauss, K. (2015). Hope in Adolescent Careers: Mediating Effects of Work Motivation on Career Outcomes in Swiss Apprentices. *Journal of Career Development*, 42(5), 381–395. <https://doi.org/10.1177/0894845314566866>
- Vignoli, E., Nils, F., Parmentier, M., Mallet, P., & Rimé, B. (2020). The emotions aroused by a vocational transition in adolescents: why, when and how are they socially shared with significant others? *International Journal for Educational and Vocational Guidance*, 20(3), 567–589. <https://doi.org/10.1007/s10775-019-09417-z>
- Villacís, J. L., de la Fuente, J., & Naval, C. (2021). Good Character at College: The Combined Role of Second-Order Character Strength Factors and Phronesis Motivation in Undergraduate Academic Outcomes. *International Journal of Environmental Research and Public Health*, 18(16), 8263. <https://doi.org/10.3390/ijerph18168263>
- Wagner, L., Gander, F., Proyer, R. T., & Ruch, W. (2020). Character Strengths and PERMA: Investigating the Relationships of Character Strengths with a Multidimensional Framework of

- Well-Being. *Applied Research in Quality of Life*, 15(2), 307–328. <https://doi.org/10.1007/s11482-018-9695-z>
- Wong, Z. Y., & Kaur, D. (2018). The role of vocational identity development and motivational beliefs in undergraduates' student engagement. *Counselling Psychology Quarterly*, 31(3), 294–316. <https://doi.org/10.1080/09515070.2017.1314249>
- Woolf, K., Elton, C., & Newport, M. (2015). The specialty choices of graduates from Brighton and Sussex Medical School: A longitudinal cohort study. *BMC Medical Education*, 15(1), 1–11. <https://doi.org/10.1186/s12909-015-0328-z>
- Wright, J. C., Warren, M. T., & Snow, N. E. (2021). *Understanding Virtue: Theory and Measurement*. Oxford University Press. <https://doi.org/10.1093/oso/9780190655136.001.0001>
- Wright, S. L., & Perrone, K. M. (2008). The Impact of Attachment on Career-Related Variables. *Journal of Career Development*, 35(2), 87–106. <https://doi.org/10.1177/0894845308325643>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.