

RESEARCH

Open Access



'What do you mean by ethical compass?' Bachelor students' ideas about being a moral professional

Lieke H. Van Stekelenburg^{1,2*} , Chris Smerecnik², Wouter Sanderse³ and Doret J. De Ruyter³

*Correspondence:
l.vanstekelenburg@fontys.nl
² Human Resource
Management
and Psychology, Fontys
University of Applied
Sciences, Emmasingel 28,
5611 AZ Eindhoven, The
Netherlands
Full list of author information
is available at the end of the
article

Abstract

This article aims to explore the moral ideas and experiences that students at Dutch universities of applied sciences (UAS) have of being a professional with an 'ethical compass.' Semi-structured interviews were held with 36 fourth-year Bachelor students divided over four institutions and three different programmes: Initial Teacher Education, Business Services and Information and Communication Technology. Findings show that students say they strive to be (come) moral professionals, but that they have difficulties recognising and articulating the moral aspects of their professional roles. They seem to lack a moral vocabulary and the moral knowledge to verbalise their aspirations and to provide arguments to explicate or legitimise their moral behaviour. While most students were critical of the support they received from their universities, they indicated that various other role models and (work) experiences did have a strong and positive influence on their moral development. In this article, we reflect on the findings in relation to international empirical research on students' moral development and highlight the characteristics of UAS students.

Keywords: Higher education, University of applied sciences, Moral development, Moral professionalism, Ethical compass

Introduction

Recently, there has been a renewed interest in and discussion about the role of higher education in stimulating students' moral development (De Ruyter and Schinkel 2017; Sullivan and Rosin 2008). This interest has emerged during a time when higher education has become more competitive, international, and has attracted larger numbers of students (De Wit 2017; Lynch 2015; De Ruyter and Schinkel 2017). These developments raise the question whether higher education institutes are still in a position to realise and to fulfil their (legal) duty to stimulate the moral development of future professionals (Judson and Taylor 2014; Kromydas 2017; De Ruyter and Schinkel 2017).

Those who answer this question affirmatively have explored how higher education institutes can accomplish their moral task and can guide students in their development towards moral agents (Collier et al. 2018; Evans et al. 2009; Mayhew et al. 2016). In order

to better stimulate students' moral development, it is important to know their moral ideas and experiences to understand the gaps in their formation.

This article reports on an explorative empirical study among Dutch students at universities of applied sciences (UAS) about whether and, if so, how they see themselves as a moral professional with an ethical compass. The reason for focusing on the latter metaphor is that Dutch UAS have set themselves the explicit task to equip students with a moral compass that can guide students' thoughts and actions (Vereniging Hogescholen 2015; Ministry of Education 2015, p. 6). The 'ethical compass' has become a buzz word in educational theory and practice. To our knowledge no empirical studies have attempted to clarify this concept. Therefore, an empirical clarification is valuable in order to build new knowledge and theory and to give content to the UAS moral aims (Christen et al. 2014). One goal of this study is to empirically investigate students' ethical compass to understand the gaps in their moral development.

Therefore, this article presents the results of 36 semi-structured interviews with fourth-year BA students from four Dutch UAS and three different programs: Initial Teacher Education (ITE), Business Services (BS), and Information and Communication Technology (ICT). The study adds to research into students' experiences and understandings of being a responsible professional (Fitzmaurice 2013; Solbrenke 2008; Solbrenke and Karseth 2006; Wilson et al. 2013) and contributes to previous findings that professional responsibilities are renegotiated in the transition from education to work (Solbrenke 2008), that novices are critically influenced by their work environments (Fitzmaurice 2013), and that internships provide access to the values and norms that define the moral order of the respective professions (Solbrenke and Jensen 2006) and which appear to have a significant influence on the construction of students' professional identities (Fitzmaurice 2013).

This study addresses two research questions: (1) to what extent and in what ways do students regard themselves as a responsible professional with an ethical compass? and (2) how do students think their ethical compass has been formed? These questions are based on the terminology of the Dutch UAS strategic agenda, which states the goal of helping students develop into responsible professionals with an ethical compass. We consider this to be synonymous with developing moral professionals.

In this article, we use 'ethical compass' to include both 'morality' understood narrowly as deontic considerations concerning rules and obligations (Gert and Gert 2017), and ethics, understood more broadly as aspirational considerations about ideals, well-being, happiness and flourishing (De Ruyter and Steutel 2013; Kultgen 1988). First, we guide the reader through the conceptual landscape of the ethical compass and give an overview of existing empirical research on students' moral development. This is followed by a description of the research method and the results of the data analysis. Finally, we reflect on the findings in relation to international empirical research on students' moral development, highlight the characteristics of UAS students and answer the research questions described above.¹

¹ UAS is a collective term for higher education institutes that can be found in various countries, such as the so-called 'polytechnics', the 'Fachhochschule' represented in Germany, Austria and Switzerland, the 'Haute École' in France, and the 'Scuola Universitaria Professionale' in Italy (www.uasnet.eu d.d.9/8/2019).

Theoretical background

Most scholars agree that professionals must be moral (Brint 1994; Freidson 2001; Kultgen 1988; May 1996; Oakley and Cocking 2001). Professionals characteristically do not pursue financial gain or fame but aim to do good with their work. They are characterised by a personal mission related to their work (Gardner et al. 2001; Freidson 2001; Kole and De Ruyter 2009; Kultgen 1988; Oakley and Cocking 2001) and are expected to be aware of their (shared) responsibilities, and how their work affects others (May 1996). Moreover, because of these responsibilities, they do not choose the path of least resistance when confronted with conflict (Gardner et al. 2001). Even though we may assume that professionals have good intentions, their good work may be hindered by institutional conditions, by the economic market situation of the organisations they work for, and the expectations of society (Freidson 2001; Brint 1994).

In this light, and fuelled by malpractices of professionals that grabbed the headlines and led to scandals and crises, academics have explored the idea of the ethical or moral compass in various professional disciplines such as law (Foley et al. 2012; Rothenberg 2009), accountancy (Sunder 2010), health care (Peer and Schlabach 2010) and medical specialists (Bercovitch and Long 2009; Webster 2013). Furthermore, the metaphor is frequently mentioned in passing in articles on the moral development of professionals (see, for example, Ferguson and Louder 2018; Gibbs et al. 2007; Gill 2012) or in relation to the curriculum of higher education institutes (Natale and Libertella 2016).

Our previous study of the different types (and names) of elaborated ethical compasses showed that there is no consensus in the academic literature regarding the *content*, *form* or *use* of the concept (Van Stekelenburg et al. 2020, submitted for publication). Some derive the content of the ethical compass from a philosophical theory (Costello and Donnellan 2008; Harris 2010; Marques 2017; Stephany 2012), for example, Levinas's metaphysics or 'the end justifies the means' approach defended by Machiavelli. Others propose a value like freedom (Pettit 2014), or a (group of) virtue(s) like moral courage (Gierczyk et al. 2017; Lachman 2009; Nakken 2011; Visser and Van Zyl 2016). Some scholars understand the form of the ethical compass as a moral identity (Bell 2011; Daniels et al. 2011; Moore and Gino 2013; Schultz 2011), while others see it as a tool or framework for managing moral challenges and problems (Bowden and Green 2014; Brunello 2014; Thompson et al. 2010), or as an environment that enhances a moral (corporate) identity (Donnellan 2013; Sullivan 2009; Wilcox and Ebbs 1992). Our own definition is in line with interpretations of the ethical compass that focus on the virtuous character and moral identity of professionals. We understand the ethical compass of professionals as (a) the intrinsic *motivation* of professionals to *act* morally (b) particularly when they are confronted with an *ethical dilemma* (c) according to *moral standards and specifically the standards of their profession (ideals and norms)* (Van Stekelenburg et al. 2020, submitted for publication).

There is to our knowledge no empirical research on professionals' ethical compasses as such, so we will discuss a broader body of empirical research about students' professional moral development. Specifically, we highlight three existing perspectives that are relevant to our research. First, we examine studies focusing on how higher education students and novice workers understand the state of their profession and related moral responsibilities (Arthur et al. 2009; Fishman et al. 2004; Fitzmaurice 2013; Solbrekke and

Jensen 2006; Solbrekke and Karseth 2006; Solbrekke 2008; Wilson et al. 2013). These studies show that students in higher education have considerably different (and limited) understandings of their moral professional responsibilities and behaviour. For example, students mainly describe their professional responsibilities as (following) the formal standards and rules defined in professional codes, despite a 'moral purposefulness' in their thinking (Fitzmaurice 2013, p. 620) and an awareness of moral responsibilities in their speaking (Solbrekke and Karseth 2006). They restrict their moral responsibilities to their specific occupation without considering the wider societal context (Solbrekke 2008; Solbrekke and Karseth 2006).

Second, scholars have investigated students' moral development (during higher education). An empirical approach, strongly influenced by Kohlberg's (1981) work on cognitive development, has been to measure the level of moral reasoning in higher education students (Auvinen et al. 2004; Coleman and Wilkins 2004; Craig and Oja 2013; Jagger 2011; Myyry et al. 2013; Thoma et al. 2008). These studies showed that students' moral judgment can develop significantly during their studies provided that they are actively involved in learning environments that promote students' thinking, critical reasoning skills (Auvinen et al. 2004; Coleman and Wilkins 2004; Craig and Oja 2013; Myyry 2003; Myyry et al. 2013) and ethical sensitivity (Jagger 2011). After all, young adults often reason out of personal interest but are not always able to recognise ethical dilemmas and the moral characteristics of situations, which may hinder their ability to make a moral judgment (Thoma et al. 2008). Another approach is to identify and measure character strengths (e.g., love, hope, curiosity and gratitude) across the lifespan using the Values In Action (VIA) classification (Ruch et al. 2010) to understand which are the primary character strengths (that are also called 'signature strengths') that enable moral conduct (Park and Peterson 2006, p. 904).

Third, empirical studies have focused on how students become moral professionals. For example, VIA research has focused on how student teachers (Arthur et al. 2015) and medical students (Arthur et al. 2015) perceive their character and how this plays a role in professional practice. Sanderse and Cooke (2019) found that most (primary and secondary) British teachers at school thought that ITE had not prepared them well for becoming a moral teacher. These teachers relied more on their own moral compass than on what they had learned in teacher training, which was mainly focused on subject-specific training. Research has shown that becoming a moral professional requires that students have room to experiment with new roles, images and aspects of themselves (Bowen 2018; Ronfeldt and Grossman 2008), are able to practice these roles and images in professional life (Reid et al. 2008), and have the opportunity to reflect on new experiences (Hatem and Halpin 2019; Jackson 2017). Students are then able to develop moral character (Arthur et al. 2009) and build a moral (professional) identity (Bowen 2018; Hatem and Halpin 2019; Jackson 2017; Krettenauer and Mosleh 2013; Reid et al. 2008; Ronfeldt and Grossman 2008). Role models have turned out to be decisive in providing potential moral professional identities (Byszewski et al. 2012; Han et al. 2017; Ibarra 1999). They create and confirm a viable self-concept (Gibson 2003) and have a strong influence on the choice of a profession and career (Bosma et al. 2012; Vinnicombe et al. 2006). Furthermore, research has shown that it is important to develop students' ideals. Such ideals reflect values and help to set goals and to achieve them in a meaningful way

(Poom-Valickis and Löfström 2019). Aligning students' internal ideals (moral identity) and external ideals (perception of professional values) reduces emotional and cognitive dissonance, resulting in less inner conflicts (Thompson et al. 2010). Therefore, educational institutions should not only help students to articulate and refine their personal and professional ideals (Beauchamp and Thomas 2010; Poom-Valickis and Löfström 2019), but also to develop their own educational, moral and religious ideals (if present) and to interweave the person and the profession in their education programmes (De Ruyter et al. 2003). As different types of higher education seem to produce a variation in moral judgements (Maeda et al. 2009), higher education institutions can make a difference, for example by creating workplaces and learning environments in which students can discuss and evaluate the dilemmas of professional responsibility in relation to the core values of the profession (Dahlgren et al. 2014; Karseth and Solbrekke 2006; Myyry 2003; Sockett and LePage 2002).

Thus, there is a body of empirical research within higher education about students' understandings of being a responsible professional, their moral development and the influences on becoming a moral professional. However, we are particularly interested in the concept of the ethical compass, how (UAS Bachelor) students perceive their own ethical compass and the formation of this guide. Therefore, this study invited UAS students to share their associations, feelings, thoughts and actions related to the notion of the ethical compass. This resulted in authentic stories in students' own vocabulary about their moral ideas and experiences, and the role models and ideals they adopted in their education, internship and personal lives.

Method

Respondents

Our findings are based on 36 semi-structured interviews with 24 males and 12 females, all fourth-year Bachelor students at UAS with an average age of 23. Students gained considerable work experience during their Bachelor programmes in which internships were systematically woven into the curriculum. They were random selected in equal numbers across three different programmes: Initial Teacher Education ($n = 12$), Business Services ($n = 12$), and Information and Communication Technology ($n = 12$). Where random selection did not succeed, purposive sampling was used to complete the research group. Students were chosen from four Dutch UAS, which were selected according to the highest enrolment rates in 2016 and are situated in the cities of Amsterdam, Rotterdam, Eindhoven, Arnhem and Nijmegen. Informed consent was sought in writing and anonymity was guaranteed.

Interviews

The first author, a senior teacher from a Dutch UAS, conducted the interviews at the students' own institutions between September 2017 and February 2018. The semi-structured interviews lasted around 60 min, were audio-recorded, transcribed verbatim and were conducted and evaluated in sets of three until saturation was reached. As we had anticipated that students would find it difficult to formulate their moral ideas and experiences, the interviews were based on a concrete interview protocol (Appendix 1). The interviews addressed three topics: students' perceptions of being a responsible

professional with an ethical compass; students' ideas on how their ethical compasses have been formed; and students' experiences with ethical dilemmas during their internships. Given the richness of the acquired data and in order to present these data in a meaningful way, we divided the results over two articles, which is common practice in qualitative research (Levitt et al. 2018). This article presents the analysis of the students' responses to the first two topics, where the second topic is divided into two part-topics, namely (a) their ideas about how their ethical compass has been formed, and (b) students' experiences at their UAS institutes in relation to what was both most and least useful in their professional education.

First, all participants were asked to rate themselves on a scale of 1 (not at all) to 10 (excellent) with regard to being a responsible professional with an ethical compass. Second, follow-up questions invited students to say more about the ethical compass in their own terms, and how they thought their compass has been formed. To further explore and deepen their ideas and experiences, we asked them which role models inspired them, which ideals they had in their own lives, and which plans and actions they wanted to pursue. Considering the complexity and level of abstraction of an ethical compass, we expected that students might have difficulty in verbalising their ethical compass. Therefore, students were asked halfway through the interview to select and reflect on one of three questions: What should I do? How should I live? Who do I want to be? Because they can be attracted to and challenged by different questions (Appendix 2). As these questions were solely used to elicit and elucidate students' perceptions of their ethical compass, the answers were not coded separately. Finally, the moral self-scale was repeated at the end to check whether students' perceptions of being a responsible professional with an ethical compass had changed during the interview.

Data analysis

Data were analysed using the Qualitative Analysis Guide of Leuven (QUAGOL) described by Dierckx de Casterlé et al. (2011), a method inspired by the Grounded Theory approach (Glaser and Strauss 2017). The first author summarised every interview in a brief abstract which provided an understanding of the respondent's experiences and a general narrative view of the essence of participants' stories. Next, the researcher coded the interviews in an open way, drew up a list of the preliminary codes, filtered the most important data and clustered these codes in categories. To increase interrater reliability, an interdisciplinary research team—two philosophers of education with experience in qualitative research and an experienced field researcher—joined the researcher in iterative dialogue on the findings. Drafting concepts to categories was performed using paper and pen, no software was used. Each step in the coding process was monitored by the research team using a random sample comparison of the coding with a focus on the content, meaning and characteristics of the narratives. Since the analysis was performed as an interdisciplinary team process, evaluation sessions were added after every six interviews and after every new step in the coding process. After each member of the research team independently coded a random subset of interviews, any inconsistencies were discussed until consensus was reached. This facilitated constant comparison by digging deeper and constantly moving within-case and across-case analysis to grasp the complexities of the research data. The evaluations led, for example, to a distinct category

'UAS experiences' as students spontaneously started to share what they valued most in their vocational training and UAS context. The extraction of essential phenomena by the research team led to the storyline and conceptual framework from which essential findings could be described (Miles et al. 2014).

Results

Students' ideas about the ethical compass

Most students turned out to have difficulties explaining their views on the notion of an ethical compass. Two students (ITE27, ICT5) indicated that, prior to the interview, they had searched the internet for the meaning of the metaphor because they had no idea what it meant. Some students spontaneously associated the ethical compass with a sort of 'gut feeling' or 'intuition' that changes depending on the situation.

It also turned out that the term *ethics* (and *ethical*) was personal for most students, as indicated by a student:

"Yes, ethical is of course a very flexible concept, there is no standard for it: what is ethics or what is ethically responsible and what is not? That is very personal..."
(BS28)

When invited to describe their *personal* ethical compass, in all three professional disciplines respondents mentioned having values, referred to a rule (of life) or a choice to do right or wrong. Although a majority of students claimed that navigating on values such as respect, honesty and kindness was most important to them, they had difficulties explaining how these values or rules were explicitly reflected in their behaviour. As an ITE student said:

"Uh, yeah, what's important to me.. that's how I treat other people, too. And of course that differs per situation [...] I may deviate from my course in order to, uh, yes, then... I don't really know how to put that into words." (ITE36)

In order to be a moral professional, the majority of students in all three professional disciplines indicated that they navigate on their 'gut feeling' and try to align their (difficult to articulate) internalised belief and value framework with external sources and standards for professional conduct (see Table 1). Most BS and ICT students sought support in external laws, rules, or professional codes transmitted by their professional domain, as indicated by one student:

"Uh, of course, say if you have a gut feeling, as you usually do with issues like where you wonder whether something is allowed – then of course you can go and find out: is this actually even legal?" (ICT13)

Due to the lack of formalised professional codes of conduct or laws, ITE students mainly referred to unwritten moral duties and to school protocols that provide structured guidelines for collaboration and communication (e.g., in relation to parents, colleagues and other stakeholders).

Nevertheless, most students saw themselves as a moral professional with a sense of right and wrong. When asked at the start of the interview to rate themselves on a scale of 1 (not at all) to 10 (excellent) with regard to being a moral professional, the average

Table 1 Examples of students' (external) moral guides**Students align their (implicit) internalised belief and value framework with:**

Laws

e.g., the Financial Supervision Act: *"That sets out all the standards you need to meet, and the guidelines. So, that, to me, is basically the training bible for anyone wanting to become a financial consultant."* (BS19)

Rules

e.g., rules of life: *"Treat everyone the way you want to be treated."* (ICT5)

e.g., online rules: *"Don't do things in the digital world that you wouldn't do in the real world; breaking in, sending child pornography."* (ICT4)

Unwritten moral duties

e.g., the duty to report: *"That it's the teachers' responsibility too to report instances where they suspect something. The problem is, how do you distinguish between what you should and shouldn't report?"* (ITE18)

Protocols

e.g., school protocol: *"A lot of primary schools do have protocols [...] but those deal mostly with people's and children's personal details for example and, indeed, not so much with how to handle certain situations."* (ITE17)

An oath or professional code

e.g., a non-disclosure agreement: *"What's it called again? Right, a non-disclosure agreement, you're simply not allowed to share information with people outside your work; sensitive information [...] that's strictly prohibited."* (ICT6)

was 7.5. Two students rated themselves with a 10 and scaled back to an 8 (BS10) and a 5 (ITE16) at the end of the interview, when they realised that they did not always act as the kind of professional they wanted to be. Two students rated themselves with a 5 (ICT22, ITE26), arguing that ethics had not received sufficient attention in their professional training in order to qualify as a moral professional. In all three professional disciplines, the majority of students explained that they had acquired a body of general (rather than moral) professional knowledge and skills during their training, although their internships made them aware that they still had to learn to *apply* this knowledge and these skills in the real world of work. Furthermore, most UAS students realised that daily practice is often at odds with theory. They indicated that they could only make their knowledge fruitful by using technical skills (e.g., communication skills, critical thinking skills) rather than moral skills.

In short, most students found it difficult to reflect on the ethical compass even though they recognised its relevance for their life and work. All students had the drive to be a moral professional, but most lacked a moral vocabulary and the moral knowledge to explain or legitimise their moral behaviour. Students' moral professional conduct mainly relied on what is morally required or prohibited, as laid down in external laws, protocols and professional codes rather than on their virtuous character and moral identity.

Students' ideas about the formation of their ethical compass

There was hardly any variation in the way students outlined how their ethical compasses had been formed. All students in this study first emphasised that (grand) parents, family members and later school, sports and peers play critical roles in gradually building their value framework and attitudes. For example, one student (ICT14) gave examples of how his parents intentionally aimed to promote his moral development by offering books by Homer and Dante. Others explained that they had unconsciously incorporated the observed behaviour of their parents and that they began thinking about their own moral standards at approximately the age of 18. Around that time they evaluated their attitudes

towards life which sometimes led to a revision or sometimes rejection of the standards they had acquired. As one BS student explained:

"I wasn't exactly an endearing kid. I was a difficult teenager. Smoked weed sometimes, things like that. [...] I think it wasn't until I was 18 that I really started to realise what being good means. And that I started acting extra nice to people just to cancel out the way I'd misbehaved in the past, or, well, clean the slate for myself." (BS11)

One-fourth of the respondents explained that their moral awareness had been triggered by negative experiences from the past. They indicated that (one of) their parents had avoided their parental responsibilities and that they were now suffering the adverse effects, while others described how the death or sickness of a parent, experience with depression, being bullied at school or parental divorce had affected them. One ITE student expressed it this way:

"So when things no longer gel, when they stop being automatic and start to come apart, then you end up in a kind of hole and you start to think about that, about how that affects you." (ITE35)

Thus, the changed conceptions of themselves in situations where things stopped being self-evident appeared to be influential for increasing (moral) awareness. As a result, life questions arose and students began to think about what they consider valuable in life and what responsibilities they have towards themselves and others, also in a professional context. As one ITE student illustrated:

"I have a boy in my class who also lost his father when he was three, so he didn't know him at all, or hardly. I told him that if he misses such a father role, that he can talk to me about what he misses, that we can have a conversation about it together." (ITE08)

Students' ideals and professional role models

When asked what ideals students aim for and whether their ideals help them to make choices in life and work, some students said that they indeed hold on to ideals which lead them, for example, to become a vegetarian (BS10, ICT14, ICT15), or to opt for a job in a sustainable company (BS28, ICT15, ICT23). The majority of BS students strived for general ideals such as a meaningful family life and a satisfactory and well-paying job. About half of the group of ICT students wanted to have an impact on society and to become known for something they had made. Four students (ITE08, ITE17, ITE26, ICT13) described general ideals such as 'world peace' and 'happiness'.

Eight students explicitly indicated that they had no ideals (ITE09, ITE27, ITE35, BS19, BS20, ICT4, ICT6, ICT22), even though some of them did voluntary work and wanted to contribute socially. Apparently, they were not conscious of their ideals and commitments. In general, articulating plans and actions to pursue turned out to be difficult for the majority of respondents who experienced the future as 'still open' and 'far away'.

That students have ideals that were not explicitly articulated might be related to their developmental stage. From the three cards presented to them, two-thirds of the

students chose the question *Who do I want to be?* as the most pressing one in their lives. This suggests that the image of who they want to be has not yet crystallised.

A minority of the students had discovered ways to reduce stress and find a balance in life and practiced yoga (ITE07) or prayed and used the Bible (BS19, BS20) as a moral guide. Others engaged in reading or listening to podcasts (BS10, BS28, ICT5, ICT13, ICT14, ICT23, ICT33) One student (BS10) explained that he had 60,000 thoughts that haunted him during the day, and he used writing to organise his experiences and get a grip on his life.

When asked whether they had an inspiring role model in their personal or professional lives that helped them to articulate their (professional) ideals, in all three disciplines, three quarters of the respondents indicated that they did have a role model. Two BS students explained that they did not want to have a role model because they strived for an authentic live and did not want to be influenced by others. In general, parents were mentioned as role models because of their perseverance and their wisdom, or because of their hard and good work. Mentors were mentioned as standards of excellence who encouraged students' ideal professional self. Students highlighted their mentors' vision and expertise and their specific and impressive ideal character traits: their courage, honesty, enthusiasm or sense of humour. Unlike most ICT students who had influential and famous role models who they admired for their creativity and impact on society (e.g., Alan Turing, Elon Musk, Bill Gates or musician Bob Dylan), only four BS students (BS28, BS11, BS29, BS10) cited examples of successful entrepreneurs such as Fabienne Chapot (BS29) and Ricardo Semler (BS28). All but one ITE student (ITE27) found their role models in their own social circle, as explained by this student:

"Uh, my swim coach was really an example to me because he listened very well and made me work very hard [...] so I was always very proud and in the end I became a trainer myself." (ITE16)

Additionally, half of the group of ITE students had an image of what an ideal teacher should be, which was sometimes inspired by the teacher they actually had.

"Yes, the teacher I want to be, is the teachers I can remember. The teacher you could always go to when something was wrong. The teacher who knows everything [...] the teacher you feel safe and comfortable with." (ITE07)

Students' Experiences at Universities of Applied Sciences

During the interview, students were asked how their education had contributed to their moral professional development. Most students indicated that they valued the transmission of theoretical knowledge and the opportunity to develop their professional skills. Furthermore, it appeared that most students wanted to develop a personal vision of their professional role and a stronger (professional) identity, as described by one ITE student:

"I'm really still trying to figure out who I am and what I want to stand for and [...] contribute. And of course, you develop certain opinions about that [...] but I find it really hard to put my own mark on it." (ITE07)

Although most students in all three fields found it difficult to explicitly relate what they had learnt at their institutions to their moral professional development, most students could illustrate their needs or what they valued most in their vocational training and UAS context. This can be clustered in three main categories: (1) a stimulating institutional learning environment, (2) interconnectedness and social interaction; (3) various (real-world work) experiences in a diversity of contexts.

First, we found that a stimulating institutional learning environment that expresses attention and involvement is crucial for students' moral professional development. One-third of the students explained that they had built positive learning experiences through the constructive written and oral feedback they received on the work they delivered. Were ICT and BS students valued feedback and support from their teachers and fellow students, face-to-face intervision sessions at the UAS institutions in which reflection on personal and professional experiences were facilitated, were highly valued by ITE students.

Overall, students appreciated a good relationship with their teachers with whom they could share their success stories as well as their uncertainties, struggles and vulnerabilities without being judged. Most students valued approachable and enthusiastic teachers who are experts in their field and who are able to connect theory with professional practice. In addition, students appreciated an open communication with short lines and teachers who carefully prepared their sessions and (PowerPoint) presentations with clear and consistent information. This made them feel that they were being taken seriously and that teachers were involved in their learning and development process. Three students (ITE34, ITE36, BS11) had the impression that their teachers were too busy and that students were simply a 'number' and not their priority, resulting in unanswered emails and misusing students' responsibilities as an excuse to evade their own. The presence of these role models (and anti-mentors) in their UAS contexts, allowed students to further develop a moral attitude towards their own responsibilities. Most students preferred an open curriculum in which frameworks are provided, but in which they can also have a say in how the education is organised. They desired to have flexibility in their curriculum and room to make their own choices. As indicated by an ITE student:

"Um, yes, I like being able to be autonomous, that I do get goals that I have to achieve, for example, but that I can then decide for myself how I'm going to work towards them, then I sometimes come up with the most extraordinary ideas."
(ITE18)

Second, most students indicated that interconnectedness and social interaction with fellow-students and teachers is crucial to their moral growth. Dialogue, (in)formal conversations and discussing (contrasting) personal and professional opinions and beliefs were found to be encouraging for most students in all three professional disciplines. They argued that they could expand their own worldview and action repertoire through social interactions. Students highly valued situations of active engagement, in which they were challenged to meet others who are (sufficiently) different from their own way of life and have diverse opinions. As illustrated by one student:

"My teachers always say: go and talk to people, because then you learn the most. And that's true, when you talk to people, you're just getting a lot more information"

about how someone experiences something.” (ICT15)

Most students found discussing cases to be the best method to learn from a variety of opinions. Most students could not remember any ethical education they had received. Six students (ITE08, ITE27, BS20, ICT5, ICT13, ICT33) enthusiastically described the moral cases they had discussed, while others indicated that they did have an ethics (related) course, but were not able to relate the meaning of ethics to their professional role, indicating that mandatory ethics-related courses were not always effective in enhancing ethical awareness, knowledge, and reasoning. As explained by one ITE student:

“We did have classes on it, but I also felt like they were kind of vague sometimes, so I wouldn’t actually understand, like, okay, so what are you actually talking about.” (ITE18)

In general, students noted a lack of explicit attention for ethics. This made them realise, during the interview, that they were not always able to recognise moral issues and make moral decisions. Students explained that the form and content of interaction and moral guidance often depended on the individual commitment or interests of teachers. Consequently, students received the implicit message that morality belongs to the private domain and does not require attention in professional practices.

Three students (BS21, BS30, ICT23) noted that a one-sided focus on their profession limited their moral professional development. For example, BS students found that UAS were too focused on understanding market economies and on what the economy and the business community demand, concluding that UAS apparently believe that the question of what makes money is more important than what is of value. Some ICT students (ICT22, ICT23, ICT24, ICT31, ICT32) found that their education was too focused on the technical aspects of their profession and less on developing their social-emotional or moral skills.

All students indicated that, in addition to theoretical knowledge, they had learned most from applying knowledge to various situations and (muddling through) diverse contexts. Students argued that internships (abroad) and real-world societal projects expanded their knowledge, skills and creativity as they had to deal with practical problems, ethical dilemmas and new roles. Therefore, these work-experiences were also an opportunity to call into question what it is to be a professional in a certain field and to learn how (and when) to use their ethical compass. While bridging theory and practice, students were confronted with their (in)capabilities as well as their personal talents and interests. Most students indicated that by overcoming their fears, crossing boundaries and stepping out of their personal comfort zone, they expanded their self-knowledge. In these circumstances, most students valued concrete support from their teachers to adapt to challenges and to gain control.

Discussion and conclusion

This is the first empirical study to investigate how (UAS) Bachelor students describe and experience being a professional, explicitly in terms of having an ethical compass. In this study we built upon existing empirical studies about students’ understandings of being a responsible professional, their moral development and the influences on becoming a

moral professional. Although extensive research we took the 'ethical compass' explicitly as the leading concept to investigate students' experiences and ideas. As we highlighted earlier, this is important, because the 'ethical compass' has become a buzz word in educational theory and practice. For example, Dutch UAS explicitly aim at educating students to become a responsible professional with an ethical compass (Vereniging Hogescholen 2015; Ministry of Education, Culture and Science 2015, p. 6).

We found that most students from three professional disciplines (ITE, BS and ICT) and four Dutch UAS associated the ethical compass with a sort of 'gut feeling' or 'intuition' that changes depending on the situation. Although most students saw themselves as moral professionals, they lacked the moral knowledge and vocabulary to explain or legitimise their moral behaviour. Students also had very similar views on the ways in which their ethical compass had been formed. However, ICT students were more focused on role models outside their own social circle and had more outspoken ideals than ITE and BS students. Possibly, ICT students are inspired by the impact of technological developments on individual lives and society and strive to contribute to these changes. Some ICT students felt that their universities paid too little attention to their social-emotional development while ITE students wanted to learn to think and argue more critically. Overall, we got the impression that all students were eager to learn and wanted to *be* good and *do* good. After the interview most students indicated that they were positively surprised by the insights they had gained by talking about their moral (professional) identity, personal values, ideals and role models, and that they wanted to deepen and expand their insights in the near future.

In general, the educational climate was felt to be more stimulating if students had leeway in their programmes and could make their own choices. Contrary to what we expected, we did not find any important differences among the four UAS institutes. One possible explanation is that the regional context and size of institutes have less impact on the moral formation of students than, for example, the students' religious affiliation (which the four UAS did not have). Another explanation could be that the four UAS base their education on a national framework of qualification, which in turn is based on the overarching Qualifications Framework of the European Higher Education Area (QF-EHEA). This implies that they share a social-political context which in turn relates to the formal and informal curriculum and students' moral development (Maeda et al. 2009). Below, we juxtapose our findings with the academic literature.

First, our study showed that most UAS students regard themselves as a professional guided by an ethical compass, despite their difficulties to relate the ethical compass metaphor to their professional role and their struggle with the content and meaning of the term *ethics*. Students described the metaphor as having values, while others referred to a rule (of life), or a choice to do right or wrong. Interpretations of the ethical compass that circulate in the academic literature did not appear in their answers (Van Stekelenburg et al. 2020, submitted for publication). Although empirical research has shown that moral judgment can develop during students' educational training and internships (Auvinen et al. 2004; Craig and Oja 2013; Myyry 2003; Myyry et al. 2013), most fourth-year UAS students navigated on their 'gut feelings'. Similarly, Fishman et al. (2004) found that younger workers have little guidance when faced with conflicts. While struggling, they were reluctant to pass judgment on others and believed that they ought to be given

latitude to do what they *feel* is right. In our study, students indicated that, during their internships, they tried to align their feelings with external sources (e.g., rules, protocols and codes of conduct-if available) in order to get a grip on their (moral) responsibilities. This is in line with the findings of Solbrekke (2008) and Wilson et al. (2013, p. 1237), who found that students' conceptions of professional responsibility were mainly "externally determined" and seen as the ability to live up to standards and formal rules of conduct. UAS students turned out to fall back on external sources because their value and belief frameworks proved to be mainly implicit and tacit and therefore insufficiently useful in their internships.

Compared to other empirical studies that focus mainly on MA students in university contexts, this study focused on Bachelor students in universities of applied science. Solbrekke and Karseth (2006, p. 107) found that Master students mainly highlight "critical thinking" (e.g., "consider and weigh alternatives, deal with dilemmas with insight and good will"), rather than "critical action" (e.g., "taking part in moral activities beyond personal interests and daily tasks") as a professional competence. Solbrekke and Karseth's (2006) and Wilson et al. (2013) argue that MA students mainly see their neutral, objective, knowledgeable and research-based abilities as representing good work and conduct. In contrast, we found that UAS students' primary focus is to be *practical* and engaged professionals who acquire the knowledge that enables them to form autonomous judgments.

Second, in relation to students' ideas on the formation of their ethical compasses, all students indicated that they found support in role models, who were mainly found within their own social circles. This is in line with the observations by Arthur et al. (2009) and Fishman et al. (2004), who report that their respondents found their role models in a supportive environment wherein parents were decisive. Attainable role models turned out to be the most guiding in students' moral formation (Han et al. 2017). Furthermore, UAS students indicated that being exposed to professional role models (found in their UAS institutes and internships) taught them how to make choices under changing circumstances and to take responsibility for customers, pupils and the workplace. These professional role models fuelled students' desire to articulate their own (professional) identities, to increase self-knowledge and make meaning of their experiences through reflection, examining experiences and on-going discussion (Byszewski et al. 2012; Gibson 2003; Ibarra 1999). Moreover, role models stimulated the aspirations of some UAS students to set high goals (Poom-Valickis and L fstr m 2019) or provided them with images of an ideal (professional) self which they could pass on to, for example, their own pupils (De Ruyter et al. 2003).

Third, with regard to the students' experiences at their UAS institutions in relation to what was both most and least useful in their vocational education, they believed that a stimulating institutional learning environment is a prerequisite for their growth. This also appeared to be a motivating factor for professional development in other research (Fishman et al. 2004; Solbrekke 2008). Social interaction, participation (in professional practice), discussions, role playing and reflection in different contexts and small action sets were highly valued by UAS students. Indeed, empirical research showed that these seem to have a stimulating effect on, for example, the development of reflective competence (Solbrekke 2008); the coordination of social-cognitive conflicts (Myyry et al. 2013);

and the critical evaluation of professional practice (Fitzmaurice 2013; Nyström 2009; Solbrekke and Jensen 2006).

Internships and real-world experiences turned out to be crucial for UAS students to relate their identity to their professional role. Research on the relationship between moral behaviour and internship has concluded that internships are valuable because they enable individual personal growth in addition to the acquisition of theoretical knowledge; they demand the students' active engagement in ethical problem-solving (Craig and Oja 2013) and give access to the values, norms and distinctions that define the moral order of the respective professions (Sanderse and Cooke 2019; Solbrekke and Jensen 2006). Fitzmaurice (2013) found that it is precisely these values, virtues and beliefs of the individual that have a significant influence on identity construction, and that it is important to focus on values and practices when constructing professional identity. Indeed, the moral development of students seems to be the outcome of an interplay of social value systems but above all of the moral knowledge and skills of their teachers, mentors and supervisors and their will (during internships) to transmit these (Dahlgren et al. 2014; Karseth and Solbrekke 2006; Myrøy 2003).

This research represents a significant contribution to the understanding of how UAS can prepare their students to become responsible professionals with an ethical compass. We found that the widely used ethical compass metaphor in various professional domains (e.g., in education, accountancy, business, law and health care) does not automatically appeal to students. However, talking about the ethical compass did contribute to increasing their awareness of its formation, the content and the importance of using this guide. Moreover, it stimulated their reflection on (certain aspects of) their (moral) identity. This is important because our study revealed a gap in UAS students' moral (self) knowledge, vocabulary and moral judgment, which makes it difficult for them to recognise and deal with ethical issues and to place professional values above other competing values in their judgment. Therefore, we argue that it is opportune for the UAS to pay *explicit* attention to ethics (education) and the ethical aspects of the profession within the vocational training of students, so that moral awareness can grow and students can learn to understand and clarify ethical frameworks, assumptions, motivations and reasoning in relation to their personal identity, and to integrate these with their professional identity. Scholars have made valuable proposals on how ethics can be part of the university curriculum (De Ruyter and Schinkel 2017; Warnick and Silverman 2011). For example, De Ruyter and Schinkel (2017) argue that ethics should not be an academic exercise focused on presenting ethical theories, through which students can only develop meta-ethical views. Rather, students should be invited to reflect on their own ethical principles, on professional ethics and citizenship, and on how they want to live a good life. Moreover, the UAS institutions should increase the (moral) awareness of their teachers regarding their (implicit) influence on the identity construction of students. In our research we found that access to the values, norms and distinctions that define the moral order of the respective professions does not receive equal attention throughout and within the three professional disciplines and UAS institutions, and depends on the individual commitment or interests of teachers. This confirms the conclusion by Sockett and LePage (2002, p. 170) that 'most practicing teachers are totally unprepared by

teacher education for moral complexity.' However, as professional role models, teachers can challenge students to develop their awareness of the moral dimensions of the respective profession, and help them to increase self-knowledge, articulate ideals and thereby strengthen students' moral growth.

Before describing significant new avenues for future research, some limitations of this study need to be acknowledged. First, the random selection process at all institutes only partially succeeded, resulting in the application of purposive sampling in order to complete the group of respondents. Inevitably, this created a self-selection bias, possibly attracting respondents who were committed to the research topic. Second, all but one respondent have a Dutch cultural background, so it is unclear to what extent the present findings would have been different if there had been a more diverse student population.

Our research opens new avenues for further exploration of the applied science education field. The present study gives rise to investigate the ethics education students receive in their Bachelor programmes and the environmental context in which students are trained. A study into the so-called 'hidden curriculum' and UAS institutes' larger social contexts that contribute to students' professional development would be valuable to understand the gaps in their moral formation. For example, a study into the ethical compass of UAS teachers, staff and management would be valuable as they turned out to be important role models through which students develop their ethical compass.

Supplementary information

Supplementary information accompanies this paper at <https://doi.org/10.1186/s40461-020-00097-6>.

Additional file 1. Categories, sub-categories and key codes respondents.

Acknowledgements

Not applicable.

Authors' contributions

LvS conducted the interviews and summarised every interview in a brief abstract which provided an understanding of the respondent's experiences and a general narrative view of the essence of participants' stories. Next, LvS coded the interviews in an open way, drew up a list of the preliminary codes, filtered the most important data and clustered these codes in categories. LvS was a major contributor in writing the manuscript. CS guided the first author in the evaluation sessions, after every six interviews and after every new step in the coding process, to facilitate constant comparison by digging deeper and constantly moving within-case and across-case analysis to grasp the complexities of the research data. To increase interrater reliability, CS, WS and DdR joined LvS in iterative dialogue on the findings and monitored data analysis using a random sample comparison of the coding with a focus on the content, meaning and characteristics of the narratives. The extraction of essential phenomena by LvS, CS, WS and DdR led to the storyline and conceptual framework from which essential findings could be described. WS and DdR guided the first author in writing a theoretical framework and a discussion section by monthly discussion sessions. All authors read and approved the final manuscript.

Funding

This work was supported by the Dutch Research Council (NWO), an initiative of the Dutch Ministry of Education, Culture and Science [Grant Number 023.006.014] and the Fontys University of Applied Science, Human Resource Management/ Applied Psychology, Eindhoven, The Netherlands.

Availability of data and materials

The datasets (audio-recorded and transcribed interviews, informed consent letters and pen and paper coding material) used and analysed during the current study are available from the corresponding author on reasonable request. We added an overview of the categories and subcategories used describing the results section (Additional file 1).

Competing interests

We (the authors) declare that we have no competing interests. This research has been approved by the ethical committee of research of Fontys University of Applied Science under file number [FCEO19-05]. The respondents are coded with a number and referring to the different professional domains, like: ICT = Information and Communication Technology, BS = Business Services, and ITE = Initial Teacher Education.

Author details

¹ VU University Amsterdam, Van der Boechorststraat 7, 1081 BT Amsterdam, The Netherlands. ² Human Resource Management and Psychology, Fontys University of Applied Sciences, Emmasingel 28, 5611 AZ Eindhoven, The Netherlands. ³ University of Humanistic Studies, Kromme Nieuwegracht 29, 3512 HD Utrecht, The Netherlands.

Appendix**Appendix 1: Interview protocol**

Central Question: *Which moral ideas and experiences do students have of being a responsible professional with an 'ethical compass'?*

Name:

Age:

Code:

UAS and Bachelor's programme:

Date:

1. To what extent do you consider yourself to be a responsible professional with an ethical compass? Rating on a scale from 1 (not at all) to 10 (excellent). Explain.
 2. Can you describe how your ethical compass was formed?
Do you have role models who inspire(d) you?
Which ideals do you aim for? Which plans and actions do you want to pursue?
 3. Can you describe an ethical dilemma you encountered in your internship?
How did you cope with this dilemma: what were your feelings, thoughts, actions?
 4. Which 'compass cards' do you associate with being a responsible professional with an ethical compass?
Explain. (Appendix 2)
- Probe: repeat the moral self-scale
-

Appendix 2: Words used to elicit students' associations

(a) Select and reflect on one of the questions: *What should I do? How should I live? Who do I want to be?*

(b) Which cards do you associate with being a responsible professional?

booking results
balancing profit and loss
increasing general welfare
being useful
being effective
compliance with a professional code
having duties
compliance with rules and standards
taking an oath/promise
being a member of a community
practicing virtues
having a professional attitude
being practically wise
caring for the self
striving for values
being authentic
being autonomous
using rational arguments
happiness
pursuing ideals
character
having a calling
having role models
developing identity

The words refer to action and consequences (e.g., booking results), rules (compliance with a professional code), character (e.g., practising virtues), self-care (e.g., being autonomous) and contains general concepts (e.g., happiness)

Received: 24 February 2020 Accepted: 9 October 2020

Published online: 16 October 2020

References

- Arthur J, Wilson K, Godfrey R, Gray B, Newton N (2009) Graduates of character-values and character: higher education and graduate employment. Retrieved from <https://core.ac.uk/download/pdf/19156.pdf>
- Arthur J, Kristjánsson K, Cooke S, Brown E, Carr D (2015) The good teacher: Understanding virtues in practice. http://epapers.bham.ac.uk/1970/1/The_Good_Teacher_Understanding_Virtues_in_Practice.pdf
- Arthur J, Kristjánsson K, Thomas H, Kotzee B, Ignatowicz A, Qiu T (2015) Virtuous medical practice. http://epapers.bham.ac.uk/1952/2/Virtuous_Medical_Practice.Pdf
- Auvinen J, Suominen T, Leino-Kilpi H, Helkama K (2004) The development of moral judgment during nursing education in Finland. *Nurse Educ Today* 24(7):538–546
- Beauchamp C, Thomas L (2010) Reflecting on an ideal: student teachers envision a future identity. *Reflective Practice* 11(5):631–643
- Bell CA (2011) The moral compass: Women's experiences of excellent midwives. Dissertation, University of Brighton, Brighton
- Bercovitch L, Long TP (2009) Ethics education for dermatology residents. *Clin Dermatol* 27(4):405–410
- Bosma N, Hessels J, Schutjens V, Van Praag M, Verheul I (2012) Entrepreneurship and role models. *J Econ Psychol* 33(2):410–424
- Bowden A, Green P (2014) A moral compass framework for resolution of wicked problems in doctoral education and supervision. *Qual Assur Educ* 22(4):355–369
- Bowen T (2018) Becoming professional: examining how WIL students learn to construct and perform their professional identities. *Stud High Educ* 43(7):1148–1159
- Brint S (1994) *In an age of experts*. Princeton University Press, Princeton
- Brunello AR (2014) A moral compass and modern propaganda? Charting ethical and political discourse. *Review of History and Political Science* 2(2):169–197
- Byszewski A, Hendelman W, McGuinty C, Moineau G (2012) Wanted: role models-medical students' perceptions of professionalism. *BMC Med Educ* 12(1):115
- Christen ME, van Schaik CE, Fischer JE, Huppenbauer ME, Tanner CE (eds) (2014) *Empirically informed ethics: morality between facts and norms*. Springer International Publishing, Switzerland
- Coleman R, Wilkins L (2004) The moral development of journalists: a comparison with other professions and a model for predicting high quality ethical reasoning. *J Mass Commun Q* 81(3):511–527
- Collier GM, Wilson J, Tomlinson P (eds) (2018) *Values and moral development in higher education*, vol 4. Routledge, London
- Costello GJ, Donnellan B (2008) Seeking the *Face* of Innovation with the Ethical Compass of Emmanuel Lévinas. In: León G, Bernardos AM, Casar JR, Kautz K, DeGross JI (eds) *Open IT-based innovation: moving towards cooperative IT transfer and knowledge diffusion*. TDIT 2008. IFIP – The International Federation for Information Processing, vol 287. Springer, Boston. https://doi.org/10.1007/978-0-387-87503-3_6
- Craig PJ, Oja SN (2013) Moral judgement changes among undergraduates in a capstone internship experience. *J Moral Educ* 42(1):43–70
- Dahlgren MA, Solbrenke TD, Karseth B, Nyström S (2014) From University to professional practice: Students as journey-men between cultures of education and work. *International Handbook of Research in Professional and Practice-based Learning*. Springer, Dordrecht, pp 461–484
- Daniels D, Diddams M, van Duzer J (2011) A magnetic pull on the internal compass: the moderating effect of response to culture on the relationship between moral identity and ethical sensitivity. *J Relig Bus Ethics* 2(2):3
- De Ruyter D, Schinkel A (2017) Ethics education at the university: from teaching an ethics module to education for the good life. *Bordón. Revista de pedagogía* 69(4):125–138
- De Ruyter DJ, Steutel JW (2013) The promotion of moral ideals in schools; what the state may or may not demand. *J Moral Edu* 42(2):177–192
- De Ruyter DJ, Conroy JC, Lappin M, McKinney S (2003) From heaven to earth: a comparison of ideals of ITE students. *Br J Relig Educ* 25(4):292–307
- De Wit H (2017) *Global: Internationalization of Higher Education: Nine Misconceptions: International Higher Education, Summer 2011*. Understanding higher education internationalization, 64th edn. SensePublishers, Rotterdam, pp 9–12
- Dierckx de Casterlé B, Gastmans C, Bryon E, Denier Y (2011) Quagol: a guide for qualitative data analysis. *Int J Nurs Stud* 49:360–371
- Donnellan JJ Jr (2013) A moral compass for management decision making: a healthcare CEO's reflections. *Front Health Serv Manag* 30(1):14–26
- Evans NJ, Forney DS, Guido FM, Patton LD, Renn KA (2009) *Student development in college: Theory, research, and practice*. John Wiley and Sons, Hoboken
- Ferguson R, Louder J (2018) Making the case for the establishment of Ethics Centres on Community College Campuses. *N Dir Commun Coll* 183:95–104

- Fishman W, Solomon B, Greenspan D, Gardner H (2004) Making good. How young people cope with moral dilemmas at work. Harvard University Press, London
- Fitzmaurice M (2013) Constructing professional identity as a new academic: a moral endeavor. *Stud High Educ* 38(4):613–622
- Foley T, Rowe M, Holmes V, Tang S (2012) Teaching professionalism in legal clinic-what new practitioners say is important. *Int J Clin Legal Educ* 17:5
- Freidson E (2001) Professionalism: the third logic. The University of Chicago Press, Chicago, On the practice of knowledge
- Gardner H, Csikszentmihalyi M, Damon W (2001) Good Work: When excellence and ethics meet. Basic Books, New York
- Gert B, Gert J "The Definition of Morality" The Stanford Encyclopedia of Philosophy (2017) EN Zalta (ed), <https://plato.stanford.edu/archives/fall2017/entries/morality-definition>. Accessed 18 March 2019
- Gibbs P, Costley C, Armsby P, Trakakis A (2007) Developing the ethics of worker-researchers through phronesis. *Teach High Educ* 12(3):365–375
- Gibson DE (2003) Developing the professional self-concept: role model construals in early, middle, and late career stages. *Organ Sci* 14(5):591–610
- Gierczyk M, Fullard M, Dobosz D (2017) Aggression from a gender perspective and the development of a moral compass. *J Gender Power* 8(20):9–26
- Gill L (2012) Systemic action research for ethics students: curbing unethical business behaviour by addressing core values in next generation corporates. *Syst Pract Action Res* 25(5):371–391
- Glaser BG, Strauss AL (2017) Discovery of grounded theory: strategies for qualitative research. Routledge, London
- Han H, Kim J, Jeong C, Cohen GL (2017) Attainable and relevant moral exemplars are more effective than extraordinary exemplars in promoting voluntary service engagement. *Front Psychol* 8:1–14. <https://doi.org/10.3389/fpsyg.2017.00283>
- Harris P (2010) Machiavelli and the global compass: ends and means in ethics and leadership. *J Bus Ethics* 93(1):131–138
- Hatem DS, Halpin T (2019) Becoming doctors: examining student narratives to understand the process of professional identity formation within a learning community. *J Med Educ Curric Dev* 6:1–7. <https://doi.org/10.1177/23821220519834546>
- Ibarra H (1999) Provisional selves: experimenting with image and identity in professional adaptation. *Adm Sci Q* 44(4):764–791
- Jackson D (2017) Developing pre-professional identity in undergraduates through work- integrated learning. *High Educ* 74(5):833–853
- Jagger S (2011) Ethical sensitivity: a foundation for moral judgment. *Journal of Business Ethics Education* 8(1):13–30
- Judson KM, Taylor SA (2014) Moving from marketization to marketing of higher education: the co-creation of value in higher education. *Higher Educ Stud*. 4(1):51–67
- Karseth B, Solbrenke TD (2006) Characteristics of graduate professional education: expectations and experiences in psychology and law. *London Rev Educ* 4(2):149–167
- Kole JJ, de Ruyster DJ (2009) Nothing less than excellence: ideals of professional identity. *Ethics Soc Welf* 3(2):131–144
- Krettenauer T, Mosleh M (2013) Remembering your (im) moral past: autobiographical reasoning and moral identity development. *Identity* 13(2):140–158
- Kromydas T (2017) Rethinking higher education and its relationship with social inequalities: past knowledge, present state and future potential. *Palgrave Commun* 3(1):1–12
- Kultgen J (1988) Ethics and professionalism. University of Pennsylvania Press, Philadelphia
- Lachman VD (ed) (2009) Ethical challenges in health care: developing your moral compass. Springer Publishing Company, New York
- Levitt HM, Bamberg M, Creswell JW, Frost DM, Josselson R, Suárez-Orozco C (2018) Journal article reporting standards for qualitative primary, qualitative meta- analytic, and mixed methods research in psychology: the APA Publications and Communications Board task force report. *Am Psychol* 73(1):26–46
- Lynch K (2015) Control by numbers: new managerialism and ranking in higher education. *Crit Stud Educ* 56(2):190–207
- Maeda Y, Thoma SJ, Bebeau MJ (2009) Understanding the relationship between moral judgment development and individual characteristics: the role of educational contexts. *J Educ Psychol* 101(1):233
- Marques J (2017) A mindful moral compass for twenty-first century leadership: the noble of eightfold path. *J Values-Based Leadersh* 10(1):1–19
- May L (1996) The socially responsive self: Social theory and professional ethics. University of Chicago Press, Chicago
- Mayhew MJ, Rockenbach AN, Bowman NA, Seifert TA, Wolniak GC (2016) How college affects students: 21st century evidence that higher education works. John Wiley and Sons, Hoboken
- Miles MB, Huberman AM, Saldaña J (2014) Qualitative data analysis. A methods sourcebook. Sage, Los Angeles
- Ministry of Education, Culture and Science (2015) De Waarde(n) van Weten. <https://www.rijksoverheid.nl/documenten/beleidsnota-s/2015/07/07/de-waarde-n-van-weten-strategische-agenda-hoger-onderwijs-en-onderzoek-2015-2025>. Accessed 22 May 2018
- Moore C, Gino F (2013) Ethically adrift: how others pull our moral compass from true north, and how we can fix it. *Res Org Behav* 33:53–77
- Myyry L (2003) Components of morality: A professional ethics perspective on moral motivation, moral sensitivity, moral reasoning and related constructs among university students. Dissertation, University of Helsinki, Helsinki
- Myyry L, Juujärvi S, Pessa K (2013) Change in values and moral reasoning during higher education. *Eur J Dev Psychol* 10(2):269–284
- Nakken C (2011) Finding your moral compass: Transformative principles to guide you in recovery and life. Hazelden Publishing, Minnesota
- Natale SM, Libertella AF (2016) Higher education and wealth equity: calibrating the moral compass empathy, ethics, and the trained will. *J Acad Ethics* 14(1):35–47
- Nyström S (2009) The dynamics of professional identity formation: graduates' transitions from higher education to working life. *Vocat Learn* 2(1):1–18
- Oakley J, Cocking D (2001) Virtue ethics and professional roles. Cambridge University Press, New York

- Park N, Peterson C (2006) Moral competence and character strengths among adolescents: the development and validation of the Values in Action Inventory of Strengths for Youth. *J Adolesc* 29(6):891–909
- Peer KS, Schlabach GA (2010) Uncovering the moral compass: an integrated ethics education approach transcending the curriculum. *Teach Ethics* 11(1):55–73
- Pettit P (2014) *Just freedom: a moral compass for a complex world*. Norton and Company, New York
- Poom-Valickis K, Löfström E (2019) "Pupils should have respect for you, although I have no idea how to achieve this?": the ideals and experiences shaping a teacher's professional identity. *Educ Stud* 45(2):145–162
- Reid A, Dahlgren LO, Petocz P, Dahlgren MA (2008) Identity and engagement for professional formation. *Stud High Educ* 33(6):729–742
- Ronfeldt M, Grossman P (2008) Becoming a professional: experimenting with possible selves in professional preparation. *Teach Educ Q* 35(3):41–60
- Rothenberg KH (2009) Recalibration the moral compass: expanding thinking like a lawyer into thinking like a leader. *Univ Toledo Law Rev* 40:411–420
- Ruch W, Proyer RT, Harzer C, Park N, Peterson C, Seligman ME (2010) Values in action inventory of strengths (VIA-IS). *J Individ Diff* 31(3):138–149
- Sanderse W, Cooke S (2019) Being Prepared to Become a Moral Teacher: UK Teachers' Experiences of Initial Teacher Education. *Scand J Educ Res*. <https://doi.org/10.1080/00313831.2019.1664628>
- Schultz CA (2011) The leadership challenge: Developing an ethical compass. Southern Regional Council on Educational Administration 2011 Yearbook: Leading in the Decade, 31–36
- Socket H, LePage P (2002) The missing language of the classroom. *Teach Educ* 18(2):159–171
- Solbrekke TD (2008) Professional responsibility as legitimate compromises: from communities of education to communities of work. *Stud High Educ* 33(4):485–500
- Solbrekke TD, Jensen K (2006) Learning the moral order of professions: the contrasting approaches of nursing and clinical psychology. *Learn Health Soc Care* 5(4):181–193
- Solbrekke TD, Karseth B (2006) Professional responsibility: an issue for higher education? *High Educ* 52:95–119
- Stephany K (2012) The ethic of care: our moral compass. The ethic of care: a moral compass for Canadian nursing practice. Bentham Science Publishers, Sharjah, pp 3–19
- Sullivan J (2009) The moral compass of companies: Business ethics and corporate FF governance as anti-corruption tools. Global Corporate Governance Forum
- Sullivan W, Rosin M (2008) A new agenda for higher education: shaping a life of the mind for practice. Jossey-Bass
- Sunder S (2010) "True and fair" as the moral compass of financial reporting. Research on Professional Responsibility and Ethics in Accounting 3-11. Emerald Group Publishing Limited, Bingley
- Thoma SJ, Bebeau M, Bolland A (2008) The role of moral judgment in context-specific professional decision making Getting Involved: Global citizenship development and sources of moral values. Sense Publishers, Rotterdam, pp 147–160
- Thompson BM, Teal CR, Rogers JC, Paterniti DA, Haidet P (2010) Ideals, activities, dissonance, and processing: a conceptual model to guide educators' efforts to stimulate student reflection. *Acad Med* 85(5):902–908
- Van Stekelenburg L, De Ruyter D, Sanderse W (2020) Equipping students with an 'ethical compass': What does it mean and what does it imply? (submitted for publication)
- Vereniging Hogescholen #hbo2025: Wendbaar en Weerbaar (2015) <http://www.vereniginghogescholen.nl>. Accessed 22 May 2018
- Vinnicombe S, Singh V, James K (2006) Constructing a professional identity: how young female managers use role models. *Women Manag Rev* 21(1):67–81
- Visser JM, Van Zyl C IV (2016) Legal ethics, rules of conduct and the moral compass— Considerations from a law student's perspective. *Potchefstroom Electr Law J* 19(1):1–18
- Warnick BR, Silverman SK (2011) A framework for professional ethics courses in teacher education. *J Teach Educ* 62(3):273–285
- Webster S (2013) How to teach reflective ethical practice in postgraduate gastroenterology: the SLICE framework. *Frontline Gastroenterol* 4(2):143–146
- Wilcox JR, Ebbs SL (1992) The leadership compass: Value and ethics in higher education (ASHE-ERIC Higher Education Report No. 1). <http://files.eric.ed.gov/fulltext/ED347955.pdf>
- Wilson A, Åkerlind G, Walsh B, Stevens B, Turner B, Shield A (2013) Making 'professionalism' meaningful to students in higher education. *Stud High Educ* 38(8):1222–1238

Publisher's Note

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