Does education influence students' moral orientation? A survey of business students at a Swedish University

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University training influences students' moral orientation through selection, including the self-selection by the student's entry and exit, and through education, i.e., they are influenced by what they are taught and by the people they interact with. By applying a cross-sectional design, including first, second and third year students, we surveyed the moral orientation of 296 Swedish university students enrolled in different business programs, one being a program of accounting and auditing. We found a university effect, most strongly in selection, but also a slight education effect, whereby students in the accounting and auditing program increased significantly more in idealism compared to the other business students. We believe this indicates that the university contributes to developing the moral standards of students.

Introduction

As a matter of professionalism, auditors are supposed to have a specific moral orientation, including the duty to serve the public interest (Jackling et al., 2007). However, studies tend to show that accountants have a lower level of moral reasoning than individuals with a similar level of education (Brandon et al., 2007; Scofield et al., 2004), for example, attorneys (Radtke, 2008). One study of Portuguese chartered accountants concluded that ethical standards appeared to decrease with increasing age and experience (Marques & Azevedo-Pereira, 2009). While the auditor develops in professionalism within the audit industry and the audit firm, the educational system, especially the university and business school, prepares the student for the professional auditing task, which could include moral training (Armstrong et al., 2003; Jackling et al., 2007).

Considering the intermezzos in the business community, with Enron in USA, Parmalat in Italy and the events giving birth to the Banking Royal Commission in Australia, moral standards among business actors could be of vital importance for both the business community and for its legitimacy in society. Universities could be an agent of moral standards development.

Studies indicate that university students' moral orientation varies; for example, accounting students consider themselves to have higher ethical standards than other students (Alleyne et al., 2013). This claim finds support from a Hispanic sample (Landry et al., 2004) but is contradicted by a study from Barbados (Alleyne & Persaud, 2012). However, even if we have mixed findings concerning the moral attitudes of students, we do not know the origin of these attitudes. Do the students arrive to the university with specific moral attitudes and keep them, or does the university influence the moral orientation?

The aim of this paper is to investigate whether the university contributes to the development of students as moral agents, that is, to investigate whether and how the university plays a role in influencing the morality of the students.

Theory of moral orientation among business students

The university process

This study develops a model of university influence on moral orientation which states that a university influences students' moral orientation, through selection of and by students, and through education. We suggest that two processes occur in the university that develop students. The selection process changes the group of students, while the educational process changes the individuals within the group.

The selection process is performed by both the student and the university. The student selects the program and courses on entering the university and continues to choose courses throughout the program, or decides to leave the program by exiting. Thus, entry, continuation, and exit are selection decisions made by the student. The university selects students by imposing admission requirements, and by limiting the available places for specific programs (Camara & Kimmel, 2015). Later, it determines whether students may continue in a program or not, depending on whether they pass examinations.

Students are influenced during their university education both by the teaching they receive, and through interaction with others, such as students, teachers and practitioners. Through these processes, both knowledge and values are transferred, and in this way, students are socialised (Huss & Patterson, 1993).

The moral orientation of a group of students at a university is therefore an outcome of the individual students being influenced by university processes of selection and education.

Moral orientation of business students

Moral action has been modelled in different ways (e.g., Hannah et al., 2011; Rest, 1979), but in a simple model it can be stated that moral action is guided by moral reasoning and moderated by moral sensitivity. In moral reasoning, individuals relate their moral orientation to the situation at hand. Kohlberg (1973), based on the developmental psychology of Piaget, developed an influential categorisation of a ladder of moral reasoning. We focus, however, not on the moral reasoning, but on the moral orientation of the individual. While hypocrisy and the capacity to perform moral reasoning and to be sensitive to moral issues influence the causality between moral orientation and moral action, moral orientation still constitutes an influential factor explaining actual moral behaviour (cf. Armstrong et al., 2003).

Moral orientation of an individual can be described in various ways (Casali, 2011). One way is to use two dimensions, idealism and relativism (Forsyth, 1980, 1992), where idealism refers to the extent to which an individual considers the welfare of others, and

relativism is the extent to which an individual rejects a universal morality. With these definitions, the dimensions are independent of each other and do not constitute opposite ends on a continuum but create a two-dimensional moral space. The dimensions correlate with other parts of the model of moral action, however; for example, Valentine and Bateman (2011) found that idealism is correlated with the capacity to recognise moral issues, and relativism is correlated with reduced moral intention.

Studies using survey or experimental methods indicate that business students have egoistic values (Wood et al., 1988), presumably indicating a low level of idealism, and that they have more egoistic values than students of other subjects (Beekun et al., 2017). It is not clear whether this egoistic orientation is due to the university selection process of student self-selection, by which more egoistically oriented individuals enter business programs, or if it is due to the educational process of the university, where students are presumed to be influenced to internalise the norms of the human agent in many economic theories, that is, an agent who acts according to egoistic values, and even with guile (Williamson, 1985). Additionally, it is not clear if the results are influenced by the empirical method of surveying students. It is conceivable that students fulfil external expectations of business students by expressing the ideology of egoism in situations of experiment and survey in the classroom, while acting in accordance with another ideology outside of the classroom.

Hypotheses of moral orientation

Accounting is a specialisation of business studies that is mainly directed toward professional employment in audit firms, with most students intending to become professional auditors (cf. Meuwissen, 1998). Since the auditor's main function is to produce trust in financial statements for stakeholders (Beattie et al., 1999), auditors would be expected to score high on service to society (Douglas et al., 2001), that is, to have a high score on idealism. On the other hand, since they have to apply a set of principles through the International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA), and if relativism is interpreted as willingness to relativise moral rules, then the auditors and accountants could be expected to show low levels of relativism, that is, to be close to deontological reasoning, where a rule has to be implemented, regardless of the consequences (cf. Landry et al., 2004). These being the norms of the profession, we propose that the university processes will influence students of accounting to have high idealism and low relativism.

Accounting students could be compared with finance students. Finance is another specialisation of business studies that directs students toward the finance industry, including stock market activities and banking, and students expect to provide services to investors or to act as investors on the stock market themselves. The program is heavily quantitative and theoretical, characterised by methodological individualism with egoism as an underlying assumption, with a focus on maximising shareholder value (Hall & Williams, 2001). The students can be expected to act for the benefit of the investor, disregarding other stakeholders, thus scoring low on idealism. They can also be expected to pay attention to situations, consequences, and specific needs in order to maximise profit, which will foster a situational moral orientation; that is, they will score high on

relativism, potentially reduced by the professional duties of today's financial profession (i.e., the Code of Ethics and Standards of Professional Conduct). Thus, we propose that the university processes will encourage finance students to carry the moral orientation of low idealism and high relativism.

Putting these expectations together, we can formulate two overall hypotheses of the difference in moral orientation between accounting students and finance students:

- $H1_I$ Accounting students will have higher levels of idealism than finance students.
- $H1_R$ Accounting students will have lower levels of relativism than finance students.

Students are subject to the university processes of selection and education. When they arrive at the university, they may already have a specific moral set-up that has guided them in their subject choice, implying that the different subjects attract students with specific moral orientations. Thus, on entering the university we could expect student self-selection following our overall hypotheses:

- $H2_I$ At entrance, accounting students will have higher levels of idealism than finance students.
- $H2_R$ At entrance, accounting students will have lower levels of relativism than finance students.

Selection takes place while students are in the program. It may be self-selection, as students leave the program having decided it is not for them, or it may be selection by the university, if students are unable to complete course requirements (e.g. by passing examinations). The self-selection would, if influenced by moral orientation, imply that students during the program execution will have a distinct difference of moral orientation.

However, students will be influenced by education both through what they are taught and through their interactions with teachers and practitioners. We assume that the education transmits the values stated above in the different subject orientations. It can be intentionally and explicit transmitted through, for example specific ethics courses, or implicit and unintentionally, where values are transmitted through course literature or teachers' values. We propose that the educational effect will imply that the differences between the students will increase over time since they will be exposed to these explicit or implicit influences during the education. Thus, we expect that, due to educational effect:

- $H3_I$ During program completion, accounting students will increase in idealism compared to finance students.
- $H3_R$ During program completion, accounting students will decrease in relativism compared to finance students.

To summarise, we expect to find a difference of moral orientation between accounting students and finance students (H_1), which will begin as a selection effect on entering the

university (H_2), and will continue to increase as an effect of education during the program execution (H_3).

Material and methods

Design and setting

A cross-sectional design was chosen for this study. Data were collected by means of a survey. A questionnaire has proven to be an effective data collection method from larger samples, as previous studies show (Broberg et al., 2013; Umans et al., 2016).

The study was undertaken at one university in southern Sweden and involved the 421 students enrolled in a three-year bachelor program in business, which is the time span of a bachelor program in Sweden. The sample includes first, second and third year students at the beginning of the academic year. The advantage of the selected university is that it has a business program offering three tracks that are specialised in the traditional areas of business education: *Accounting and Auditing* (AA), *Banking and Finance* (BF), and *International Business and Marketing* (IBM). Students can apply directly to any of these three specialisation tracks, or they can apply to the *Optional* track, selecting their specialisation at the end of the first year. The first year of the program is not differentiated, but includes basic courses in business administration involving all students in the business program. At the beginning of year 2, students enter one of the three specialisations, and those that had taken the Optional track have made their selection and are now in one of the three specialisations. Students in the Optional track are free to select, thus it constitutes only self-selection by the student. Year 3 continues the specialisation and ends with a bachelor thesis. When ethics is taught explicitly, students' moral orientation appears to be influenced (Yap, 2014). At this university, ethics is not taught as a specific subject, which implies that any moral influence is *en passant*, i.e., unintended and implicit in the subject teaching.

Using a student sample from a single university could be criticised as being of limited generalisability (Rebele & Pierre, 2015). However, using a sample from one university, where one university department produces one university program, a business program, controls much variance. The inclusion of students from three different business subjects introduces an important degree of variance, thus creating a restricted but comparative sample.

Our model did not include hypotheses of moral orientation of International Business and Marketing students as we did not find clear arguments for directorial hypotheses concerning them. However, we included them in the analyses since they can constitute a control group and they add observations, which increases the statistical power.

Data collection

Data were collected in November 2017, which is close to the beginning of the academic year. This implies that first year students would not have been significantly influenced by

the educational process and would comprise a sample of mainly selected students. Second year students would have been exposed to the educational process for one year, but without any specialisation. Third year students would have been exposed to one year of specialisation. We were not able to find a method for tracking the students who left the program after the third year that could secure a high response rate, implying that we do not have the end result students of the university process, those that have finalised the third year.

Students were approached in seven lectures to make it possible to survey all students in the business programs (one class contained all first year students and the other six classes contained a specialisation for each year). The students were informed about the study by their lecturer 15 minutes before the end of class. It was stressed that participation was voluntary, but only a few students did not fill in the survey. It is possible that the voluntary element in the survey was reduced by social pressure to avoid sticking out by leaving the classroom without doing the survey. On the other hand, students not wishing to do the survey could have handed in a blank form and thus avoided sticking out as non-respondents. The advantage of collecting the data this way is that we probably reduced the response bias one gets when individuals have the opportunity to refuse to respond, since participating or not participating in a survey about ethical standards is a decision that could reflect a certain moral orientation (Scofield et al., 2004).

Of a total of 421 eligible, registered students, 326 (76.8%) participated in the survey, and due to non-responses on different questions, the final sample consisted of 296 observations (70.3%). We found small variations in dropout between the different programs and years, but not with significant differences. The survey filled one double-sided A4 sheet of paper. The study was conducted applying the principles for research given in the Helsinki Declaration (World Medical Association, 2013) and we have adhered to and considered the ethical, legal, and regulatory norms and standards for research involving human subjects in Sweden and internationally. Approval was obtained from the respective specialisation program co-ordinators and from the Dean of the Faculty. Before the surveys were distributed, the students were informed about the purpose of the study and were assured that participation was voluntary, anonymous and could be discontinued at any time. Further, the first author's contact information was provided to all participants.

There is a risk that students might give responses based not on an individual's moral orientation but rather on what was considered by the individual to be socially appropriate (Sheehan & Schmidt, 2015). This risk was partly reduced through the anonymity of the survey. Since our model predicts that the moral orientation will change over time, a longitudinal study following each student's development during the three years of study might be preferred. One major reason why we did not use this method was that it demanded recording of individuals' moral orientation over a certain time period. This is ethically dubious since it puts individual integrity at risk. It could also decrease the response rate dramatically and create a response bias of significant magnitude. The price paid for not having a longitudinal method is that we get a lot of variance since it is not the same individual that appear over the years, which we cannot control for and therefore we expect to get a low adjusted R^2.

Operationalisation of dependent, independent, and control variables

Dependent variable

Moral orientation
The dependent variable was operationalised by using an adapted version from Forsyth's (1980) *Ethics Position Questionnaire* (EPQ). The instrument has been criticised for offering only two dimensions (Casali, 2011). It consists of two scales, one measuring *idealism*, the other measuring *relativism*, with 10 questions each. Since the instrument is in English, a forward-and-back translation with monolingual test (Maneesriwongul & Dixon, 2004) was performed. First, a professional language teacher translated the questionnaire into Swedish. Thereafter, a bilingual expert translated the Swedish version back into English to ensure that there were no deviances from the original version (Schmidt, 2012). A third party validated both versions and discussed with the authors how to reduce some of the complexities created by the differences between the languages and outdated expressions of the English version, to make the instrument easier to comprehend, since many students in the sample are from first and second-generation Swedish families. The changes made were then discussed with the professional language editor again and finally tested on four students, which resulted in additional minor adjustments. The original instrument offered nine answer categories, which were reduced to a seven-point Likert scale in the Swedish version, ranging from 1 = strongly disagree to 7 = strongly agree. The instrument has been shown to have good validity in many previous studies, with alpha values above 0.8 for both idealism and relativism (Douglas et al., 2001; Forsyth et al., 1988), but some studies have reported validity problems (Fernando & Chowdhury, 2010; Marta et al., 2008). Our adapted version can be found in Appendix 1.

Independent variables

Specialisation track
Each student belonged to one of three specialisations, *SpecAA*, *SpecIBM*, or *SpecB&F*, except in the first year, where a fourth track called Optional, *SpecOP*, exists. After year 1, those in the Optional group must select one of the three specialisations.

Year 1, 2, 3
This measures whether the participants were first year, second year, or third year students. The information was collected through the classes we visited. The variables are dichotomous; the specific year was coded 1.

Control variables

Age
Kohlberg (1973) created six categories of moral reasoning, which partly predicted that higher levels of moral reasoning are correlated with age. Bass et al. (1998) found age to be correlated negatively with relativism and positively with idealism. Yet, other studies have

found different correlations (Marques & Azevedo-Pereira, 2009). The variable is continuous and measured by age (in years) as reported by the participants.

Gender
Gender is both a genetic factor, as developed in evolutionary psychology (Nicholson & White, 2006) and a social factor (Sweeney et al., 2010), which has been shown to be correlated with ethical standards. Females could be expected to have higher levels of idealism (Ishida, 2006), partly because of female tendency to respond in a more socially desirable way (Bernardi, 2006). Other studies have shown mixed results (Marques & Azevedo-Pereira, 2009), which could be due to selection bias (Abdolmohammadi et al., 2003), where females with male moral orientation are selected by the educational system or by themselves. The variable is dichotomous; men were coded 0, and women were coded 1.

Children
Living with children, regardless of whether they are biological offspring or adopted or step-children, could focus the moral orientation toward the family, thereby reducing idealism and increasing relativism. The variable is dichotomous; living with children was coded 1, other living conditions were coded 0.

Health
Well-being has been found to be positively correlated with idealism, but only slightly negatively related to relativism (Giacalone et al., 2016). We measured well-being through a single-item question by asking the participants, "Overall, how would you rate your general health?" The question was adapted from the Stanford Chronic Disease Self-Management Study (Lorig, 1996) and Bopp et al. (2012) and used a five-point Likert scale ranging from 1 = very poor to 5 = excellent.

Mother tongue
This variable was used as a proxy for culture. One becomes familiar with one's culture and society during the primary socialisation by which the child learns the society's attitudes, values, norms, and taboos as well as social and cultural elements, that is, the process of internalisation of the society's culture. The variable is dichotomous: Swedish = 1, other = 0.

Partner
Living with a person could influence one's moral orientation (Beekun et al., 2017; Hernandez & McGee, 2012). The variable is dichotomous: living with a partner = 1, otherwise = 0.

Results

A description of the sample can be found in Table 1.

Table 1: Description of the sample (N=296)

		Gender	
Students (N=296)		Male (n=129)	Female (n=167)
Age (mean, SD)		22.6, 3.4	22.6, 4.5
Class 1 (n, %)		56 (45.5%)	67 (54.5%)
Class 2 (n, %)		49 (51.0%	47 (49.0%)
Class 3 (n, %)		24 (31.2%)	53 (68.8%)
Country of birth*	Sweden	113 (44.0%)	144 (56.0%)
	Other	15 (40.5%)	22 (59.5%)
Relation status*	Single	77 (52%)	71 (48%)
	In relation	26 (32.9%)	53 (67.1%)
	Living together	24 (35.8%)	43 (64.2%)
Program	B&B	37 (53.6%)	32 (46.4%)
	IBM	34 (51.5%)	32 (48.5%)
	A&A	44 (33.8%)	86 (66.2%)
	Optional	14 (45.2%)	17 (54.8%)
Mother born in Sweden**		91 (46.2%)	106 (53.8%)
Mother born elsewhere**		38 (38.8%)	60 (61.2%)
Father born in Sweden*		93 (45.6%)	111 (54.4%)
Father born elsewhere*		35 (38.9%)	55 (61.1%)

**2 missing values; **1 missing value*

The dependent variables, *idealism* and *relativism*, needed to be constructed from the data obtained from the 20 survey questions. An initial factor analysis (available from the corresponding author) using Harman's single factor test (Podsakoff et al., 2003) was done to find indications of common method bias. A factor analysis creating one factor showed variance of 22%, indicating absence of common method bias. Additionally, using eigenvalue >1 as criterion when creating factors, we received six factors, with factors assuming 23%, 14%, 7%, 6%, 6%, and 4% of variance, in total 60% of variance. Thus, we have no reason to assume the presence of a common method bias.

What we have are indications of validity problems, especially with the measurement of relativism, since relativism responses created three factors. This problem of observations is seldom addressed or reported, but Marta et al. (2008) reported that they had created six items for their idealism, with Cronbach's alpha of 0.89, and four items for their relativism, with alpha of 0.76; Fernando and Chowdhury (2010) reported similar problems. The alpha test on our variables indicated this problem for relativism, since including all 10 questions created an alpha of 0.678. The highest alpha was reached when excluding one question, alpha = 0.682. Excluding one question from the set of idealism questions gave an alpha of idealism of 0.857. The nine questions on each moral orientation were summed and divided by nine, creating two dependent variables varying between 1 and 7. A test of normality shows that relativism is normally distributed, while idealism is skewed toward higher values. Table 2 shows that relativism has a mean of 4.68 and standard deviation of 0.83, and idealism has a higher mean of 5.56 and a slightly higher standard deviation of 1.08. Important to note is that they do not correlate with each other (Pearson correlation

= -0.021), which makes us confident that they are not two extremes on a scale, but represent two different dimensions of moral orientation.

Table 2: Descriptive statistics and correlation matrix (N=296)
(use 'zoom in' function in PDF viewer to facilitate reading)

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Idealism	5.563	1.079	1													
2. Relativism	4.679	.8318	.004	1												
3. Age	22.56	4.027	-.016	-.078	1											
4. Gender	.564	.4967	.336**	-.124*	-.069	1										
5. Children	.054	.2265	-.062	.001	.323**	.029	1									
6. Health	4.247	.7295	-.014	.101†	.030	-.020	.040	1								
7. First lang.	.7568	.4300	-.131*	-.067	.209**	-.038	-.073	-.009	1							
8. Partner	.226	.4191	.006	-.066	.314**	.085	.263**	.108†	.194**	1						
9. SpecAA	.439	.4971	.157**	-.031	.069	.174**	.150**	.004	-.038	.074	1					
10. SpecIBM	.2230	.4169	.015	.013	-.039	-.086	-.056	-.127*	.096	-.057	-.474**	1				
11: SpecB&F	.2331	.4235	-.157**	.056	.020	-.112†	-.096†	.093	-.041	-.012	-.488**	-.295**	1			
12. SpecOP	.1047	.3067	-.059	-.045	-.087	-.011	-.033	.038	-.012	-.027	-.303**	-.183**	-.189**	1		
13. Year 1	.416	.4936	-.215**	.028	-.191**	-.033	.011	.066	-.017	-.030	-.207**	.059	-.108†	.406**	1	
14. Year 2	.324	.4689	.105†	-.077	-.103†	-.104†	-.038	-.144*	-.011	-.047	.056	.097†	.011	-.237**	-.584**	1
15. Year 3	.260	.4394	.130*	.051	.325**	.148*	.029	.080	.031	.084	.174**	-.170**	.110†	-.203**	-.500**	-.411**

Note: **p < 01; *p < .05; †p < .10, Spearman's rho

Inspecting the descriptive statistics in Table 2, we see that 56.4% of the sample consists of women; the average age is 22.56 years; the general well-being, Health, is high (4.2 on a five-point scale); 5.4% of individuals are living with children; and 22.6% are living with a partner.

The independent variables show a dominance of the AA program, consisting of 43.9% of the respondents, while the two other programs each have about 23% of the respondents. Note that the fourth program is the Optional program, which consists of first year students who will select one of the other three programs at the end of year 1.

The years show a decreasing proportion, from 41.6% in the first year, to 32.4% in the second year, and 26.0% in the last year. Since students very seldom transfer into second and third year from other schools, this decrease shows the selection over the years, where students are leaving by their own choice or because they have obtained such low results that they cannot continue in the program.

Inspecting the correlations in Table 2, we find that the control variable gender shows that women (=1) score significantly lower on relativism and higher on idealism, which agrees with expectations (Ishida, 2006). We find that the AA program has higher idealism, and the BF program has a lower index value. Thus, we find indications of program differences, as expected by *H1*. Year 1 students, that is, those entering the university, have significantly lower idealism. Year 2 students have a weak significant positive correlation and Year 3 students have a significant positive correlation with idealism. This could be due to a university effect, be it selection or education, where students increase overall in idealism. But it could also be caused by time since other studies have found that age is correlated with moral orientation. No correlation can be found with relativism.

Table 3: Full models of moral orientation

Variables	Model 1 Idealism (N=296)			Model 2 Relativism (N=296)		
	Std.B	Std.E	VIF	Std.B	Std.E	VIF
Gender	.328***	.118	1.071	-.134*	.100	1.071
Age	-.025	.016	1.371	-.079	.014	1.371
Children	-.087	.286	1.313	.056	.244	1.313
Health	.060	.080	1.057	.080	.068	1.057
Mother tongue	-.132*	.137	1.084	-.048	.177	1.084
Partner	-.029	.147	1.188	-.059	.125	1.188
SpecIBM	-.001	.154	1.280	.037	.131	1.280
SpecB&F	-.189***	.149	1.235	.030	.126	1.235
SpecOP	-.006	.215	1.357	-.042	.183	1.357
Year 1	-.190**	.158	1.895	-.048	.134	1.895
Year 2	.034	.158	1.703	-.121	.134	1.703
Constant	5.489***	.570		4.957	.485	
Adj. R^2	.188			.011		
F-value	7.222***			1.297		
□ Adj. R^2	.071			.012		
□ F-value	5.160***			.741		

Note: *** p < .001; ** p < .01; * p < .05;

In Table 3 we present the overall hierarchical regression analyses, including all 296 respondents. Model 1 of idealism is significant, with an adjusted R^2 of 0.188, with a significant contribution of our independent variables. The control variables show that women score significantly higher on idealism than men, and those with Swedish as their mother tongue have a lower index value. The programs, where AA is the reference variable, show that the BF program is negatively correlated, thus indicating that students of BF have lower idealism than students of the AA program, thus supporting *H1*. The years, where year 3 is the reference variable, show that the entry students of Year 1 have significantly lower idealism than the third year students.

Model 2 of relativism is not significant. The only variable that appears to have any kind of correlation is gender, indicating what we found in the Spearman correlation, that women have lower levels of relativism.

We present hierarchical regressions based on subsamples in Tables 4 and 5, where we focus on the different programs and the years. We present only the significant models in the text, while presenting the non-significant models in Appendix 2. In Table 4 we separate the specific programs in order to identify differences between the years of study.

BF students show no significant difference in idealism (Model 5) between the first, second, and third year students. This can be interpreted as there being no university effect. The relativism model (Model 8) is not significant.

Table 4: Significant models of moral orientation due to specialisation

Variables	Model 3 (n=131) SpecAA Idealism			Model 4 (n=66) Spec IBM Idealism			Model 5 (n=69) Spec B&F Idealism		
	Std.B	Std.E	VIF	Std.B	Std.E	VIF	Std.B	Std.E	VIF
Gender	.281***	.160	1.058	.334**	.264	1.068	.344**	.296	1.191
Age	-.030	.016	1.328	-.042	.065	1.426	-.027	.069	1.689
Children	-.066	.297	1.362	-.071	.849	1.297	-.162	1.424	1.583
Health	-.068	.108	1.106	.090	.173	1.077	.151	.206	1.264
Mother t.	-.131	.174	1.087	-.136	.367	1.145	-.072	.327	1.167
Partner	.024	.182	1.181	.217	.375	1.283	-.166	.370	1.272
Year 1	-.270**	.187	1.378	-.162	.441	2.968	-.066	.368	1.610
Year 2	-.044	.185	1.451	.109	.452	3.024	.113	.362	1.587
Constant	6.304***	.657		5.428**	1.701		4.235*	2.000	
Adj. R^2	.122			.119			.199		
F-value	.3.268**			2.102*			3.112**		
□ Adj. R^2	.061			.065			.023		
□ F-value	4.528*			2.404			.971		

Note: *** p < .001; ** p < .01; * p < .05; Mother t. = Mother tongue

IBM students have similar correlations in idealism (Model 4), with gender being significant, and the years not being significant, thus showing no university effect. The relativism model (Model 7) is not significant.

The AA students show a significant year effect on idealism (Model 3), where the first year students show a negative correlation with the third year students. The second year students do not show a significant difference from those in third year, which indicates that the major difference occurs between year 1 and year 2, thus being more of a selection effect than an effect of education in the specialisation. The relativism model (Model 6) is not significant.

We can summarise that we find indications of a difference of moral orientation among the AA students from year 1 to year 3, which could be interpreted as a university effect. Since the specialisation in subjects is introduced in year 2, the second year students surveyed had only been exposed to their specialisation for two months when the survey was conducted. The differences found are therefore due more to selection and less to education.

In Table 5 we separate the different years in order to be able to focus on the different programs. Year 1 (i.e. the first year students) shows women scoring higher on idealism (Model 9) while there is no significant difference between the programs. This indicates that when students enrol they do not show a significant difference in idealism. The model of relativism (Model 12) is not significant. This can be interpreted as absence of a selection effect when entering the university.

Table 5: Significant models of moral orientation due to year of study

Variables	Model 9 Year1 (n=124) Idealism			Model 10 Year2 (n=96) Idealism			Model 11 Year3 (n=77) Idealism			Model 13 Year2 (n=96) Relativism		
	Std.B	Std.E	VIF	Std.B	Std.E	VIF	Std.B	Std.E	VIF	Std.B	Std.E	VIF
Gender	.300***	.194	1.045	.351***	.182	1.113	.317**	.257	1.090	-.308**	.159	1.113
Age	-.090	.029	1.395	.000	.031	1.239	.007	.028	1.344	-.200	.027	1.239
Children	.042	.488	1.423	-.275**	.474	1.202	-.148	.580	1.572	-.041	.414	1.202
Health	-.008	.131	1.051	.173	.115	1.034	.011	.192	1.095	.062	.100	1.034
Mother t.	-.100	.226	1.078	-.103	.215	1.161	-.272*	.319	1.343	-.056	.188	1.161
Partner	-.131	.252	1.178	.137	.236	1.185	-.028	.290	1.317	.131	.206	1.185
SpecIBM	-.009	.263	1.459	.047	.211	1.200	-.080	.394	1.111	.106**	.194	1.200
SpecB&F	-,107	.288	1.360	-.192	.222	1.201	-.306*	.273	1.226	.111	.184	1.201
SpecOP	.010	.256	1.378									
Constant	5.883***	.923		4.741***	.860		5.982***	1.168		5.597***	.750	
Adj. R^2	.094			.253			.157			.101		
F-value	2.410*			5.012***			2.775**			2.328*		
Δ Adj. R^2	.011			.044			.076			.014		
Δ F-value	.519			2.809			3.447*			.756		

Note: *** p < .001; ** p < .01; * p < .05; Mother t. = Mother tongue

Year 2 shows in the idealism model (Model 10) that gender is, as expected, positive, but here we find that those with children have significantly lower index values and the well-being variable (health) has a weak significant positive correlation. Close to significant is BF, thus indicating that the difference found between BF and AA is already emerging at year 2. Since specialisation of the program starts at year 2, this can be interpreted as more of a selection effect than an effect of the specialisation in education of the different subjects. In year 2 we have the only model of relativism (Model 13) that is significant. Here, we find that it is not our independent variable of program that is important, but rather that the significance is driven by females being less relativistic and, with weak significance, older students appear to be less relativistic.

Year 3 (Model 11) shows that females score higher, and those with Swedish as their mother tongue score lower on idealism. But BF students now show a strong significantly lower index on idealism than those of the reference variable, AA. While we cannot separate selection from education, the third year students have had their first year of specialisation, which could indicate that part of the stronger correlation is due to education, be it a teaching or a socialisation effect. The model of relativism (Model 14) is not significant.

As shown in Table 6, the average value of idealism for AA students in year 1 was 5.08, and for BF students was 5.02. In year 3 the AA students scored 5.99 and the BF students scored 5.3. Using the average, we find that the students arrive with a rather similar emphasis on idealism, but then AA students increase much more on the scale compared to the BF students, yet BF students also increase slightly.

Thus, we find that the difference in idealism between BF students and AA students increases over the years, which can be interpreted as a selection effect and a slight education effect, be it through teaching or socialisation.

Table 6: Students' scores on idealism and relativism

	Idealism					Relativism			
	BF	IBM	AA	VIP		BF	IBM	AA	VIP
Class 1	5.02	5.32	5.08	5.41	Class 1	4.68	4.63	4.86	4.6
Class 2	5.28	5.83	5.9		Class 2	4.75	4.72	4.45	
Class 3	5.3	5.74	5.99		Class 3	4.84	5.03	4.64	

Finally, it should be added that we observed the education and country of origin for both of the students' parents in order to control as much as possible for the students' primary socialisation. The parents' education was classified into six categories and then into one category, separating those with university experience and those lacking this experience. The country of origin was classified into cultural categories based on the dominant religion in each country. These variables did not show any significance in any regression. However, they reduced degrees of freedom, and due to non-responses and some codification problems, this reduced the sample from 296 to 262. We included respondents' and parents' culture by using the Hofstede's cultural variables (Hofstede Insights, 2019) and the *Corruption Perception Index* (Transparency International, 2018). In very few models did they add to the variance explained, and they never changed the signs or significance of the independent variables. Thus, our conclusions on the independent variables appear robust for the control of different measurements of cultural variables.

One observation from this analytical exercise could, however, be mentioned. Fathers' culture, observed through religion, Hofstede's categories and corruption levels never reached significance. Mothers' culture, in particular *masculinity*, *uncertainty avoidance* and *corruption* dimensions, was on a few occasions significantly correlated with the respondent's idealism. The conclusion could therefore be that the very weak significant correlation of different cultural variables observing primary socialisation indicate that moral orientation is not strongly established through primary socialisation, especially not on the father's side.

Discussion

Summary

We developed a model of university influence on moral orientation, focusing on two processes, selection and education, in the context of a business program containing different specialisations. We have found that students appear to enter the university having a rather similar moral orientation. We then found students exiting, especially from year 1 to year 2. At this juncture, the students in the Optional program had to select their specialisation, presumably by then being better informed about the differences in the programs, which makes it possible to speculate about a selection effect. We found a difference between BF and AA in the second year. Given that there is no program specialisation during the first year, that there were substantial exits, and that the Optional group made their program selection, our interpretation is that this is mainly a selection effect. We found a more distinct difference for the third year students, who had

completed the first year of specialisation. This could be interpreted as a selection effect, but here we cannot rule out the possibility of an education effect as well.

It appears that there is a university effect, where the AA program over the years selects individuals of specific moral orientation, and to a slighter degree influences individuals through education to assume a more idealistic moral orientation. The other programs do not show this development, perhaps because the students are already attuned to the implicit moral orientations of the programs, or because the AA program has a stronger moral component in their education, both in teaching and in socialisation, which is signalled and influences the self-selection of students to enter AA from the Optional program in year 2, or to exit.

It has been found that accounting students have higher ethical standards (Alleyne et al., 2013; Landry et al., 2004), but also that they have lower standards (Alleyne & Persaud, 2012). Our study supports both claims, since we found that accounting students have higher level of idealism, but not relativism. Our study adds to these results by showing that the development of these differences partly can be attributed to a university effect, consisting of both selection and education.

Limitations and future research

The study is not without limitations. Our models show low levels of adjusted R^2. It was expected due to the method chosen, as indicated above. But it appears to be a rather common outcome. Marques and Azevedo-Pereira (2009) reached adjusted R^2 of 0.023 in the idealism model and 0.034 in their relativism model, where only the variable of age showed a positive significant relationship. Davis et al. (2001), in their critical evaluation of the instrument, received between 0.04 and 0.14 as R^2, and with significant correlations mainly on idealism and not on relativism.

While idealism found significant models and correlations, relativism almost never reached significance. Why is that? Relativism has a normal distribution, yet no variable correlated with relativism. One explanation could be that the instrument asks for overall moral statements in a lecture room. Flory et al. (1992), with reference to Hartshorne and May from 1928, claimed that ethical behaviour could be predicted more by the actual situation than by the individual's characteristics. The actual situation is the lecture room, and perhaps relativism, since it relates to different situations, is harder to grasp in the specific situation of a lecture room.

Another explanation could be derived from the fact that the factor analysis indicated that we could find three factors of relativism. Thus, the critique found in Casali (2011), indicates that we need a more detailed conception of moral orientation than a two-dimensional one.

Finally, one could ask whether moral orientation itself is relativistic in the sense that an individual can have different moral orientations that are exposed and implemented under different situations. Most studies are performed using surveys or experiments, which are

specific human situations that could influence the choice of the individual's moral orientation. If this is the case, then those with higher levels of relativism will respond with higher variance than those with low relativism.

Another response pattern that could influence our results is the individual's tendency to report in a socially desired way. Through using anonymous surveys where the other students cannot see how another student respond, we reduced actions performed in order to get appreciation of others, but we cannot be sure we eliminated the effect totally. Studies have found that especially females respond in a socially accepted way (Bernardi, 2006). The higher score we had on female's idealism could be influenced by social desirability. However, we believe that we have two indications in support of a low social desirability bias. Most of the respondents belong to an individualistic culture, which have been shown to have less of social bias. We performed additional analyses where we added those cultural variables of individualism and uncertainty avoidance that have been claimed to control partly for the bias, yet our independent variables did not change.

Studies, such as the one by Ahmed et al. (2003), have found differences in moral behaviour due to culture (Hernandez & McGee, 2012) and between business students from different countries. Since we use data from one university in one country, our findings could be culturally bounded. It should be noted, however, that we performed analyses with country of origin for parents (where 67% claimed to have a Swedish mother and 69% claimed to have a Swedish father), which could include cultural variance, but they were not significant.

We found more university effect in the AA track, which is the track that has a clearer direction towards a profession than the other two tracks. This indicates that the university not only gives knowledge, but also values, in programs directed to professional tasks. Future studies could test if this university effect on moral orientation is present in other areas of professional training, such as law and medicine.

In future research, it could be preferable to use a more advanced instrument, such as Kohlberg's (1973) more advanced classification, although it is a costly method, both for the researchers and the respondents. A longitudinal approach, following each student during the three years, would have made it possible to exploit the model presented in this paper in detail since then it would be possible to distinguish clearly between selection and education. However, as indicated above, this approach is burdened with ethical problems of personal integrity and the risk of a low response rate. A comparative study, including more universities, preferably from other countries, would make it possible to reduce the influence of ethnicity influencing moral orientation.

Finally, the low R^2 could be given two different interpretations. One interpretation is that student's moral orientation could be more influenced by the media society of today, where social and popular media influence their moral orientation. But there could also be a more positive interpretation to the low R^2. It could be that the students, through university education, come closer to the call of the *Enlightenment*, as proposed by Immanuel Kant, to dare to use their minds. Maybe our students have the capacity to break out of conventions

and even out of primary and secondary socialisation and to create their own moral frameworks, which are not predictable, since it is their independent minds that create the morality. If we, as university researchers, fail to explain our students' moral orientation, it could be because we have succeeded as university teachers in liberating the students' minds and making each student capable of breaking the chains of family, traditions, and society, releasing the *Vernunft* — Reason — and creating an independent, individual moral orientation. If we educate for independent judgment, following the direction of the Enlightenment, the goal of a university would not be directed toward increasing the mean of any moral orientation in the student population, but to increase the standard deviation. We therefore suggest that the business faculty should make themselves aware if they support a specific moral orientation in their teaching, and then decide whether that is in accordance to their academic standards, or if they should follow the light of the Enlightenment by strengthening students' individual ability to reflect on moral standards.

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Appendix 1: Ethics Position Questionnaire (EPQ)

Adapted version of Forsyth's EPQ (1980) used in this study
(back translation from Swedish to English)

Please consider each question and mark each question:
1 - Disagree totally; 7 - Agree totally

1. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
2. There are no ethical principles that are so important that they should be a part of any code of ethics.
3. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
4. Moral behaviours are actions that closely match ideals of the most "perfect" action.
5. One should never psychologically or physically harm another person.
6. Risks to another should never be tolerated, irrespective of how small the risks might be.
7. What is ethical varies from one situation and society to another.
8. A person should make certain that their actions never intentionally harm another even to a small degree.
9. Different types of morality cannot be compared as to "rightness".
10. Moral standards are simply personal rules that indicate how a person should behave, and are not be applied in making judgments of others.
11. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
12. If an action could harm an innocent other, then it should not be done.
13. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
14. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.
15. The dignity and welfare of the people should be the most important concern in any society.
16. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.
17. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
18. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
19. It is never necessary to sacrifice the welfare of others.
20. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.

Appendix 2: Non-significant models of moral orientation

2a: Due to specialisation

Variables	Model 6 (n=130) SpecAA Relativism			Model 7 (n=66) Spec IMF Relativism			Model 8 (n=69) Spec B&F Relativism		
	Std.B	Std.E	VIF	Std.B	Std.E	VIF	Std.B	Std. E	VIF
Gender	-.010	.164	1.061	-263*	.192	1.068	-.342**	.219	1.191
Age	-.118	.017	1.328	.080	.048	1.426	-.370*	.051	1.689
Children	.139	.303	1.362	-.048	.618	1.297	.142	1.053	1.583
Health	-.021	.110	1.106	.193	.126	1.077	.104	.152	1.264
Mother tongue	-.017	.179	1.088	-.185	.267	1.145	.003	.242	1.167
Partner	-.122	.186	.184	.028	.273	1.283	-.133	.274	1.272
Year 1	.081	.192	1.374	-.220	.321	2.968	-.261	.272	1.610
Year 2	-.142	.189	1.146	-.187	.329	3.024	-.202	.267	1.587
Constant	5.302***	.674		4.141***	1.239		7.591***	1.479	
Adj. R^2	.010			.038			.073		
F-value	1.116			1.322			1.670		
□ Adj. R^2	.036			.016			.073		
□ F-value	.036			.554			1.655		

Note: *** p < .001; ** p < .01; * p < .05

2b: Due to year of study

Variables	Model 12 (n=123) Year1 Relativism			Model 14 (n=77) Year3 Relativism		
	Std.B	Std.E	VIF	Std.B	Std.E	VIF
Gender	-.040	.167	1.043	-.056	.204	1.090
Age	-.013	.025	1.395	-.060	.022	1.344
Children	.078	.419	1.425	.111	.460	1.572
Health	.180	.112	1.050	-.157	.152	1.095
Mother tongue	-.089	.195	1.080	.029	.253	1.343
Partner	-.081	.216	1.178	-.157	.230	1.317
SpecIMF	-.056	.227	1.469	.133	.312	1.111
SpecB&F	-.064	.248	1.369	.122	.216	1.226
SpecOP	-.114	.221	1.391			
Constant	4.151***	.793		5.818***	.926	
Adj. R^2	-.012			-.009		
F-value	.844			.911		
□ Adj. R^2	.010			.022		
□ F-value	.382			.826		

Note: *** p < .001; ** p < .01; * p < .05

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