

This is the original submitted version of the book chapter published as: Petersen, M., Keller, M., Weibler, J., & Hariskos, W. (2021). **Business education: Do values make a difference?** In R. Viale, U. Filotto, B. Alemanni, & S. Mousavi (Eds.), *Financial education and risk literacy* (pp. 96–111). Edward Elgar Publishing. https://doi.org/10.4337/9781789908855.00013

The following copyright notice is a publisher requirement:

This is a draft chapter. The final version is available in *Financial education and risk literacy* edited by R. Viale, U. Filotto, B. Alemanni, & S. Mousavi, published in 2021, Edward Elgar Publishing Ltd. https://doi.org/10.4337/9781789908855
The material cannot be used for any other purpose without further permission of the publisher, and is for private use only.

Provided by:

Max Planck Institute for Human Development Library and Research Information <u>library@mpib-berlin.mpg.de</u>

Business Education: Do Values Make a Difference?

Malte Petersen^{1,2}, Monika Keller¹, Jürgen Weibler² & Wasilios Hariskos¹

¹Max Planck Institute for Human Development Center for Adaptive Behavior and Cognition Lentzeallee 94, 1419 Berlin Germany

²FernUniversität in Hagen (University of Hagen)
Faculty of Business Administration and Economics
Chair of Business Administration, Leadership and Organization
58084 Hagen
Germany

Abstract

Prior research has identified a pronounced self-orientation in students of business and

economics. This article examines if such effects can be alleviated by a focus on prosocial

values in business education. Based on a cross-sectional design, we test prosocial behavior

and values of students in the first and last semester of a traditional business administration

program and make a comparison to students from an ethically oriented management school

and a social work program. Prosocial behavior is measured in a dictator game. Students of

business administration show less prosocial behavior than students in the other two groups.

This effect already obtains for business students at the beginning and even stronger at the end

of studies. Values are measured with the Schwartz Value Survey, the Inglehart Index, and a

scale for preferences for distributive justice principles. Students in the three disciplines

strongly differ in prosocial values but largely no difference obtains between students in the

first and last semester of the same discipline. We conclude that self-oriented behavior cannot

be attributed to the transmission of self-oriented values within business education.

Keywords: prosocial behavior; values; socialization; business education

2

Introduction

Various studies have focused on the question if students in economics or business administration (henceforth economic disciplines) are different from those with other educational backgrounds. This particular research interest is motivated by the presumption that an education in an environment with a strong focus on self-interest and competitive norms could exert an effect on individual values and behavior (e.g., 1–4).

It has indeed been found that students of economic disciplines, as opposed to students of other fields, show less prosocial behavior: They invest less in the common resource in the public goods dilemma (5), offer and reject less in ultimatum games (1), are less likely to share in dictator games (6) or to cooperate in a prisoners' dilemma (7). Furthermore, male economics students have been found to contribute less in the voluntary solidarity game (8). In addition to this experimental evidence, several field studies suggest that these findings also hold in natural environments. For example, it has been shown that economics professors are less likely to donate to charitable causes (9), an effect that has also been found for business administration students (10). Furthermore, it has repeatedly been shown that students of business administration are more likely to cheat in exams than other students (11,12). We could only identify one study where economists were actually noted for particular prosocial behavior, as they were more likely than other students to return a lost envelope containing money (13). All in all it is thus well documented that students with a background in business administration or economics show on average less prosocial behavior than comparable peers.

Similarly, it has also been found that values in the domain of business studies or economics differ from those held by the general public: Economists are more conservative (4,14) and students of economics, as opposed to other students, are more likely to judge price increases in times of high demand as fair (15,16). Moreover, economists tend to hold more favorable views about market-oriented practices such as liberalized foreign trade and downsizing (17) or self-oriented behavior in general (6). Gandal et al. as well as Racko

(18,19) have examined comprehensive sets of values as measured by the seminal Schwartz Value Survey (20). Here, students from business studies and economics, in comparison with students from other disciplines, showed stronger orientations toward the self-oriented values of achievement, hedonism, and power, while attributing less importance to values in the prosocially oriented self-transcendence sector.

In a response to the above findings, various scholars have studied if the self-orientation effects of an education in business administration or economics can be alleviated by a complementary ethics education (21). Weber has shown that possible effects of singular ethics classes can be short living and quickly decay after the end of the particular class (22). Wynd and Mager even doubt that singular classes could have any real effect at all (23). On the contrary, later studies indicate that the introduction of ethics classes can indeed result in an increased display of prosocial behavior and values of business students (e.g., 24-26). With that said, it is still unknown if a higher education program in business administration that incorporates a strong ethical stance, and where school leaders embrace prosocial values, can actually make a difference and alleviate the socialization effects that obtain during a traditional education in business administration or economics. In this regard, the renowned Association to Advance Collegiate Business Schools (AACBS) aptly points out that: "students cannot be expected to internalize the importance of ethics and values unless business schools demonstrate such commitment within their own organizations. This means that business school deans need to think of themselves as ethical leaders who communicate regularly about ethics and values; who model ethical conduct; and who hold community members—faculty, staff, and students—accountable for their actions. Academic policies and systems should clearly be an integral, living part of the school's culture, and not simply a stack of documents in the file drawer" (27).

To address this issue, we designed a study that compares the prosocial behavior and values of students in three different educational programs that transmit different degrees of

economic knowledge and prosocial values or more broadly speaking ethical orientations: 1) a traditional business administration program without any particular emphasis on ethics; 2) an international management program where ethics are an integral part of the curriculum, and the school's mission statement embraces social responsibility as a core goal such as called for by the AACBS (27); and 3) an education program in the domain of social work where students are taught how to deal with needy clients and thus stimulated to develop a professional prosocial motivation (28). For all three programs, we study both first- and last-term students.

Based on the existing empirical evidence and the proposition of the AACBS that a properly implemented education in ethics and values should make a difference in the prosocial behavior of business administration students, we advance the two hypotheses H1 and H2.

H1: Business administration students show less prosocial behavior than their peers from the social work program. This difference (a) already exists at the beginning of studies (self-selection), and (b) is weaker in the international management program with its strong ethical orientation. The difference between students of business administration and social work (c) grows stronger toward the end of the education cycle (socialization), and (d) is weaker in the international management program.

H1 and its part (c) are based on findings in the economic experiments and the field studies cited above. Part (a) of H1 is based on a number of studies reporting effects of self-oriented students self-selecting into studies of business administration or economics (1,2,10,15,18). Part (c) of H1 is based on studies documenting an effect of self-oriented socialization within the field of business administration or economics (4,9,29–31). Part (b) and (d) of H1 are based on the proposition of the AACBS cited above.

H2: Business administration students hold values that are less prosocial than those of their peers from the social work program. This difference (a) already exists at the beginning of studies (self-selection), and (b) is weaker in the international management program with its strong ethical orientation. The difference between students of business administration and social work (c) grows stronger toward the end of the education cycle (socialization), and (d) is weaker in the international management program.

Part (a) of H2 is based on a study of Gandal et al. who found evidence for a selection of individuals with self-oriented values into economics (18). Part (b) of H2 is based on a study of Racko who attributes observed differences in values to the specific socialization within business schools (19). Part (b) and (d) of H2 are based the proposition of the AACBS cited above.

Materials and methods

Design

In order to study the above hypotheses, we used a cross-sectional 3×2 design that tested subjects from three educational programs with different intensities of economic training at two different levels of study progress for differences in values and prosocial behavior.

- The first group consisted of students from a traditional business administration program without any particular emphasis on ethical questions (henceforth, business students).
- The second group consisted of students from an international management program that puts a particular focus on the management of nonprofit organizations. Students in this program receive an ongoing and extensive schooling in ethics and social dimensions of business management, and the school's mission statement embraces social responsibility as a core goal (henceforth, international management students).
- Finally, the third group consisted of students from a social work program that centrally focuses on issues of social care. Students in this program receive courses on the financial management of social care, however, the work with disadvantaged and needy members of the society is at the heart of the curriculum (henceforth, social work students).

Within all three programs, two cross-sectional groups were tested, one group directly when entering university (henceforth, start group) and one group who had received a minimum of two years training in their respective discipline and were in the last term before their BA (henceforth, end group). Thus, the design resulted in a 3 x 2 matrix with 6 different groups. As dependent variables, values were measured by means of three different value scales (*Schwartz Value Survey, Inglehardt Index, Schmidt Preferences for Distributive Justice*). Prosocial behavior was measured by means of a dictator game. A detailed description of these

measures is available in the Measures section. The study has been approved by the research ethics committee of the Max Planck Institute for Human Development.

Participants

The study comprised 277 participants with a mean age of 23.7 years (SD = 4.4). Thereof, 182 were female, 91 male, and 4 did not indicate any gender. Students in the business administration group were recruited from the regular business administration bachelor programs of two universities located in Berlin, Germany. Students in the international management group were recruited from the intercultural management and communication bachelor program of a private international university in the south of Germany. Students in the social work group were recruited from the social work bachelor program of a school for social work located in Berlin, Germany. Students within the start groups were tested during the orientation weeks of the respective bachelor programs before actual courses started. The students thus did not have any specific classes prior to participating in the study. Students in the end group were tested during the regular semester and were required to have completed at least 2 years of studies in order to be able to participate in the study. The details for participants in each of the six groups are displayed in Table 1. Due to the disproportionate distribution of gender between the different cells, we routinely tested for gender effects, however, we did not find any systematic variation of variables related to gender.

Table 1. Distribution of Participants in the Six Different Experimental Groups

		Business		International management		Social work	
		Start	End	Start	End	Start	End
	Total	60	55	32	22	47	61
N	Female	30	30	21	14	36	51
	Male	30	25	11	7	11	7

Age	Mean	21.3	25.1	20.1	22.7	24.3	26.7
(years)	D	3.2	1.9	1.7	2.0	5.1	5.3

Note. The total number of participants exceeds the sum of female and male participants due to three participants not having indicated any gender.

Procedure

For the start groups, the study was advertised in introductory sessions and for the end groups within regular courses. Apart from this distinction, the procedure was identical for all six groups. Those students who were willing to participate received an informative letter with a unique participant ID, a link to an online questionnaire, and the participation deadline. Upon request, students could also obtain a printed version of the questionnaire and return it to an appointed office at their university. The questionnaire started with the dictator game choice and then proceeded with the value measurements. After the study had been completed, each participant received a payment that was based on the choices that were made in the dictator game. The payment in sealed envelopes could be collected from a university office by means of the unique IDs without requiring participants to leave their name. As the office staff was not involved in the study in any form, the procedure was double-blind and fully ensured the anonymity of individual choices.

Measures

Dictator Game

A dictator game (32) was used to measure prosocial behavior in terms of voluntary sharing. In the turn of this game, the participants received an endowment of 10 euros (1 EUR ~ 1.30 USD at the time of the study). Their task was to divide this endowment between themselves and an anonymous receiving player who did not dispose of any funds. The participants could make any choice between giving all or nothing of the endowment to the other player. The sum donated was taken as an indicator for the intensity of prosocial motivations for sharing behavior.

S

The Schwartz Value Survey was used to obtain a measure of the participants' general values. Schwartz's value theory (20) differentiates ten value types (hedonism, stimulation, security, self-direction, universalism, benevolence, conformity, tradition, achievement) that can be ordered along a circular continuum on a two-dimensional coordinate system of higher order bipolar value dimensions. The y-axis represents the continuum selftranscendence versus self-enhancement (henceforth, universalism) and reflects an individual's attitudes toward individual versus collective progress. A focus on collective progress is a strong indicator of prosociality. The x-axis represents the continuum openness to change versus conservation (henceforth, traditionalism) and refers to an individual's attitudes toward societal change versus stability. It does not have a specific relation to prosociality and serves as a control. The average scale reliability for the 10 value types ranges between .55 and .71 (Cronbach's Alpha).

In the present study, we measured the Schwartz values with a shortened version of the original questionnaire, the so-called 14-Bipol-Value-Questionnaire (33). In this version, participants have to make forced choices between 14 pairs of opposing principles rather than give separate ratings for each individual principle. Within each pair, the preference for either of the two poles is elicited on a 5-point Likert-type scale with a neutral midpoint, as is demonstrated in the following sample item:

"Which of the two following principles is more important to you?"

honesty: very important—important—equal—important—very important: success

Compared to the original questionnaire, the 14-Bipol version has the advantage of a reduced number of items and thus greatly economizes survey time.

Inglehart Index

The Inglehart Index was used to obtain a measure of the participants' materialistic versus postmaterialistic orientations. Inglehart (34,35) originally developed the index as a measure of the materialistic orientations of societies and assumed that, with growing prosperity, societies as a whole would progress from materialistic to postmaterialistic orientations. The index can also be used to measure the development of materialistic orientations of individuals if the assumption of unidirectional development is let aside (36). The index is based on an exclusive rank order of four items (maintaining order in the nation, giving people more say in important government decisions, fighting rising prices, protecting freedom of speech). Depending on the chosen ranking, a person can be classified as either being a pure materialist, a mixed-type materialist, a mixed-type postmaterialist, or a pure postmaterialist. In this respect, the classification indicates if a person puts greater emphasis on the pursuit of materialistic as opposed to socially oriented goals within the society as a whole and therefore values the possibility of materialistic gains higher than equality.

Principles of Distributive Justice

The questionnaire for principles of distributive justice (37,38) was used to assess participants' attitudes toward different justice principles. While a striving for justice may be a common human concern, attitudes toward the question of how justice can be achieved strongly vary between different societies, social groups, and individuals (39). In this respect, moral philosophy and psychology commonly differentiate equality, equity, need, and chance as four competing principles for achieving justice in distributive conflicts. A person's preference for any of the four principles thus reflects if that person primarily focuses on the collective as a whole, reflected in giving everyone an equal share (equality); on individual merit and performance, reflected in giving everyone what he/she earned his/herself (equity or achievement); on outstanding needs of individuals, reflected in giving to those who are in

particular need for the questionable resource (need); or on refraining from any personal consideration, reflected in a distribution based on chance (chance). Particularly equality and equity can be seen as adverse principles that are similar to Schwartz's distinction between the prosocial self-transcendence and self-oriented self-enhancement pole (20).

The questionnaire of Schmitt et al. (37) is based on the assumption that people do not necessarily have a universal preference for any of the four justice principles, but that the preference for a given principle depends on the respective situation. This means that a person can have different justice preferences in a family setting as compared to a work setting. Schmitt et al. (37) differentiate four life domains (job and work, material well-being, human relations, living and neighborhood), each represented by three or four prototypical situations. For each of the resulting 13 situations, participants are presented with four solutions based on need, equality, performance, and chance as a distributive principle, as demonstrated in the following sample item from the life domain material well-being:

Considering the distribution of retirement payments, I think it would be just if ...

- everyone received the same pension (equality).
- the pension would be distributed according to contributions to the pension fund (equity).
- the pensions would be distributed according to individual need (need).
- eventual surpluses would be distributed randomly (chance).

Each solution is rated on a 7-point Likert-type scale, ranging from *very unjust* to *very just*, with a neutral midpoint. Participants, therefore, are not forced to rank order the principles for each situation, but instead give an independent rating for 52 individual items. Items belonging to the same distributive principle are aggregated and the resulting mean score represents the

average attitude toward a particular distributive principle across different situations and life domains.

RESULTS AND DISCUSSION

Selection and Socialization Effects in Prosocial Behavior

Fig 1 provides an analysis of the voluntary donations in the dictator game.

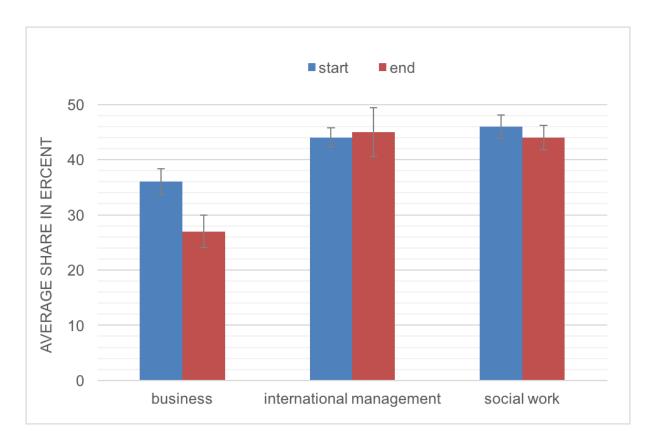


Fig 1. Mean shares offered in the dictator game by field of study and semester

We find strong evidence supporting the self-selection hypothesis H1(a), stating that at the beginning of studies business administration students ($M_{BA\;FIRST}=3.58$, SD=1.83) show less prosocial behavior than their peers in the social work program ($M_{SW\;FIRST}=4.6$, SD=1.45). The difference in donations of 1.02 Euros between the two groups is highly significant with a medium size of effect (T=-3.193, p=0.002, d=0.6). The result supports the finding of the majority of existing studies on the behavior of business administration or economics students in dictator games (6) and other paradigms (1,5,7)

Likewise, we find support for hypothesis H1(b), stating that self-selection is weaker in international management students. Students in international management show considerably more prosocial behavior than students in business administration when they start their specific study ($M_{IM\ FIRST} = 4.38$, SD = 1.04). Here the difference in donations between the two groups amounts to 0.80 Euros (T = -2.649, p = 0.01, d = 0.54). The level of prosocial behavior of students in international management students thus is similar to the behavior of students in social work.

We also find evidence supporting the socialization hypothesis H1(c), stating that differences between students of business administration at the end of the education cycle ($M_{BA\ LAST} = 2.71$, SD = 2.14) and their peers from the social work program at the end of the education cycle ($M_{SW\ LAST} = 4.4$, SD = 1.66) are larger than at the beginning of studies. At the end of the education cycle the difference between the two groups amounts to 1.69 Euros, which in considerably larger than in the beginning. This result is entirely driven by students of business administration giving significantly less at the end as compared to the beginning of the education cycle ($M_{BA\ FIRST} - M_{BA\ LAST} = 0.87$, T = 2.34, p = 0.02, d = 0.44). In contrast, no such difference can be observed for the social work students. Note that previous research provided ambiguous results, with some authors reporting selection (1,2,15) and others reporting socialization effects (4,9,29,31). In this respect, our study provides support for both views: People who are more self-oriented are more likely to select into the field of business studies, and then these studies render students even more self-oriented.

Concerning hypothesis H1(d), the verdict is not entirely clear. In line with our initial assumption, international management students who have received a profound ethics curriculum do not seem to be affected by self-oriented socialization during their studies (M_{IM} $_{FIRST} = 4.4$, SD = 1.04; M_{IM} $_{LAST} = 4.5$, SD = 2.06). However, international management students are already less selfish than business administration students when they select into the specific study program (M_{IM} $_{FIRST} = 4.4$, SD = 1.04; M_{BA} $_{FIRST} = 3.58$, SD = 1.83). It can,

therefore, not be directly concluded if the less selfish behavior of last-semester students of international management can be attributed to the ethics curriculum or to the fact that students who are already more prosocial at the beginning of studies are generally less prone to the influence of self-oriented ideas within business education.

Selection and Socialization Effects in Values

Fig 2 provides an analysis of value-dimensions for the Schwartz Value Survey, Fig 3 for the Inglehart Index and Fig 4 for the different principles of distributive justice.

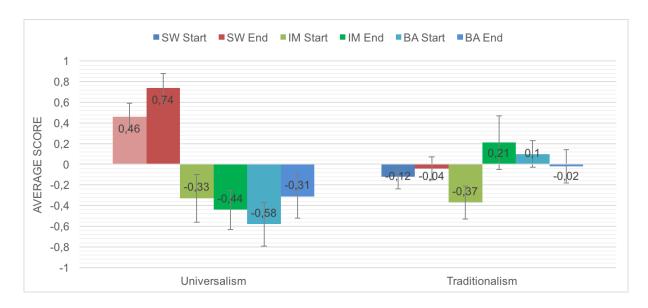


Fig 2. Mean scores in Schwartz's value dimensions by field of study and semester

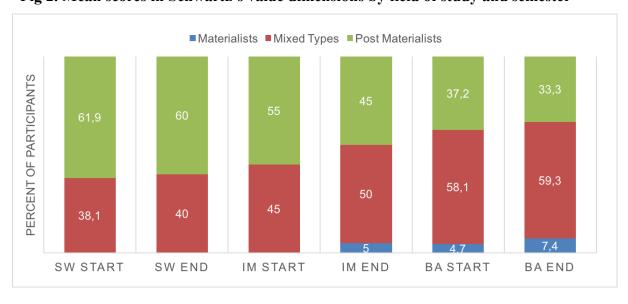


Fig 3. Distribution of Inglehart types by field of study and semester

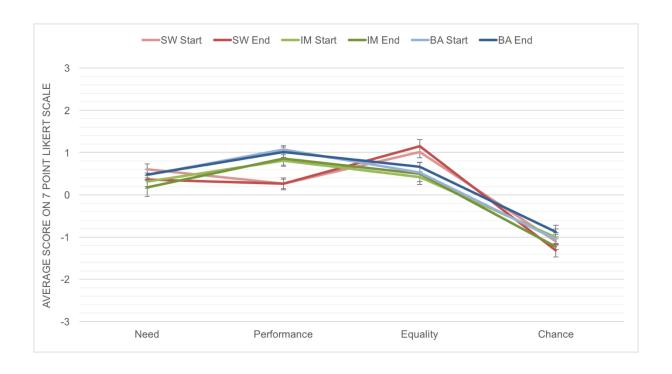


Fig 4. Evaluation of justice principles by field of study and semester.

In sum the results for the three value measures provide clear support for hypothesis H2(a), stating that at the beginning of studies business students hold values that are less prosocial than those of their peers from the social work program (self-selection effect). (1) In the *Universalism Dimension* of Schwartz's Value Survey, which generally summarizes prosocial values, scores of first year students in business administration are strongly negative ($M_{BA\ FIRST}$ =-0.58, SD=1.37) while scores of students in the social work program are strongly positive ($M_{SW\ FIRST}$ = 0.46, SD = 0.86). The resulting difference between the two groups is significant with a very large effect size (T = -4.23, p < 0.001, d = 0.9). (2) The same holds true for the distribution of *Inglehart Types*. Here the proportion of prosocially oriented post materialists (PM) for first year students of business administration (PM = 37.2%) is clearly lower as for first year students in the social work program (PM = 61.9%). Again, a significant difference (χ 2 = 6.346, p = 0.042). (3) Concerning the principles of distributive justice first year students in business administration value distributions according to the principle of performance ($M_{BA\ FIRST}$ = 5.07, SD = 0.57) clearly higher than distributions according to the

prosocial principle of equality ($M_{BA\ FIRST}=4.53$, SD=0.79). The opposite is true for students in the social work program who value distributions according to the principle of performance ($M_{SW\ FIRST}=4.26$, SD=0.71) clearly lower than distributions according to the principle of equality ($M_{SW\ FIRST}=5.02$, SD=0.86). Both, the difference in performance and in equality rating are significant with a medium and a large effect size (Performance: $M_{BA\ FIRST}-M_{SW\ FIRST}=0.82$, T=5.84, p<0.001, d=1.26; Equality: $M_{BA\ FIRST}-M_{SW\ FIRST}=0.48$, T=-2.69, p=0.009, d=0.59). No differences obtain regarding need and chance.

No support in contrast is found for hypothesis H2(b), stating that self-selection effects are weaker in international management students. We did not find any significant difference between students at the beginning of business administration and at the beginning of international management studies for any of the value measures. This means that students who start their studies in business administration and international management are largely comparable with respect to prosocial value orientations.

Also no support is found for hypothesis H2(c) stating that value differences between students in the business administration and social work program grow toward the end of studies (socialization effect): We did not find any significant changes in value measures between students at the beginning and the end of business administration studies nor between students at the beginning and the end of the social work program.

Finally, there is no support for hypothesis H2(d), stating that socialization effects are weaker in international management as compared to business administration. As it was already the case for business administration and social work students there are also no significant changes in value measures between students at the beginning and the end of international management studies.

The results of our study replicate the findings of two previous studies that have examined general value sets of business administration students (18,19) and found that business administration students favor self-enhancement clearly higher than self-

transcendence. In our study, this result is further supported by two other indicators, where business administration students achieve the highest scores on materialistic orientation (35,34) and particularly low scores for equality preferences (38). Additionally, similar to the study of Gandal et al. (18), value measures only differed between students in different fields of study, but not between first- and last-semester students of the same discipline. This indicates that sets of personal values are already stable at the point where students enter college and differences in prosocial behavior cannot be attributed to value changes due to a socialization within a specific discipline.

Conclusion

Our results show that, in comparison to students from the international management or social work track, business administration students show a pronounced tendency for self-oriented behavior. This behavior already exists at the beginning of studies and becomes even more pronounced toward the end of studies. The ethics education task force of the Association to Advance Collegiate Schools of Business has clearly stated that "almost all business people, regardless of their levels in the organization, face issues of potential harm and fairness on a regular basis; and preparing students for ethical decision-making should be a key component of the preparation of ethical business leaders" (27). In short, questions of ethical conduct should be a key element of any business education.

But can we expect that a more ethically oriented education could actually make a difference? Our findings show that this is not self-evident: Differences in prosocial behavior between classical business administration students and students of the ethically oriented international management track exist from the begin on. And prosocial values already appear to be more or less stable at this point in time. Ethical curricula therefore predominantly attract those students who already possess a prosocial orientation. As long as the choice of ethical curricula is voluntary or limited to specific schools, ethical programs will very likely not

reach those students who are in particular need of lessons for ethical conduct. An effectual ethical education could thus only have a chance if it were introduced as a mandatory and extensive program alongside regular business education.

Against this background we expect that a stronger ethical focus in traditional business education could have a twofold benefit: First, it might help to make this field more attractive to individuals who are rather prosocially oriented and could therefore help to balance early self-selection effects. Second, it might provide self-oriented individuals with a broader perspective that actively showcases the benefits of prosocial conduct. Just as in the best sense of liberal theory, a competition between different economic worldviews and explanatory models might very well help to achieve the best possible outcome in business education and in the general welfare of society.

- 1. Carter JR, Irons MD. Are Economists Different, and If So, Why? J Econ Perspect [Internet]. 1991 May [cited 2017 Sep 28];5(2):171–7. Available from: http://pubs.aeaweb.org/doi/10.1257/jep.5.2.171
- Frey BS, Meier S. Selfish and Indoctrinated Economists? Eur J Law Econ [Internet].
 Kluwer Academic Publishers; 2005 Apr [cited 2017 Sep 28];19(2):165–71. Available from: http://link.springer.com/10.1007/s10657-005-5425-8
- 3. James T, Soroka L, Benjafield JG. Are economists rational, or just different? Soc Behav Pers [Internet]. 2001;29(4):359–64. Available from: http://dx.doi.org/10.2224/sbp.2001.29.4.359%5Cnfile:///C:/Users/Annika/Documents/Citavi 4/Projects/Corrupt Economists/CitaviFiles/James, Soroka et al 2001 - ARE ECONOMISTS RATIONAL.pdf TS - CrossRef
- Stigler GJ. The Politics of Political Economists. Q J Econ [Internet]. 1959;73(4):522–32. Available from:
 http://qje.oxfordjournals.org/lookup/doi/10.2307/1884301%0Ahttp://qje.oxfordjournals.org/content/73/4/522.short
- 5. Marwell G, Ames RE. Economists free ride, does anyone else? J Public Econ. 1981;15(3):295–310.
- 6. Wang L, Malhotra D, Murnighan JK. Economics education and greed. Acad Manag Learn Educ. 2011;10(4):643–60.
- 7. Frank RH, Gilovich TD, Regan DT. Do Economists Make Bad Citizens? J Econ Perspect [Internet]. 1996 Feb [cited 2017 Sep 28];10(1):187–92. Available from: http://pubs.aeaweb.org/doi/10.1257/jep.10.1.187
- 8. Selten R, Ockenfels A. An experimental solidarity game. J Econ Behav Organ [Internet]. 1998;34(4):517–39. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0167268197001078
- 9. Frank RH, Gilovich T, Regan DT. Does Studying Economics Inhibit Cooperation? J

- Econ Perspect [Internet]. 1993 May [cited 2017 Sep 28];7(2):159–71. Available from: http://pubs.aeaweb.org/doi/10.1257/jep.7.2.159
- 10. Frey BS, Meier S. Are Political Economists Selfish and Indoctrinated? Evidence from a Natural Experiment. Econ Inq [Internet]. 2003 Jul [cited 2017 Sep 28];41(3):448–62. Available from: http://doi.wiley.com/10.1093/ei/cbg020
- Baird JS. Current trends in college cheating. Psychol Sch [Internet]. Wiley Subscription Services, Inc., A Wiley Company; 1980 Oct 1 [cited 2017 Sep 27];17(4):515–22. Available from: http://doi.wiley.com/10.1002/1520-6807%28198010%2917%3A4%3C515%3A%3AAID-PITS2310170417%3E3.0.CO%3B2-3
- McCabe DL, Butterfield KD, Treviño LK. Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action [Internet]. Vol. 5, Academy of Management Learning and Education. Academy of Management; 2006 [cited 2017 Sep 28]. p. 294–305. Available from: http://amle.aom.org/cgi/doi/10.5465/AMLE.2006.22697018
- 13. Yezer AM, Goldfarb RS, Poppen PJ. Does studying economics discourage cooperation? Watch what we do, not what we say or how we play. J Econ Perspect. 1996;10(1):177–86.
- Hamilton RF, Hargens LL. The Politics of the Professors: Self-Identifications, 1969-1984. Soc Forces [Internet]. Oxford University Press; 1993 Mar 1 [cited 2017 Sep 28];71(3):603–27. Available from: https://academic.oup.com/sf/article-lookup/doi/10.1093/sf/71.3.603
- 15. Frey BS, Pommerehne WW, Gygi B. Economics Indoctrination or Selection? Some
 Empirical Results. J Econ Educ [Internet]. 1993 Jun 10 [cited 2017 Sep 28];24(3):271–81. Available from:
 - http://www.tandfonline.com/doi/abs/10.1080/00220485.1993.10844799

- 16. Kahneman D, Knetsch JL, Thaler RH. Fairness and the Assumptions of Economics. J Bus [Internet]. The University of Chicago Press; 1986 [cited 2017 Sep 28];59(4):S285–300. Available from: http://www.jstor.org/stable/2352761
- 17. Caplan B. Systematically Biased Beliefs about Economics: Robust Evidence of Judgemental Anomalies from the Survey of Americans and Economists on the Economy. Source Econ J [Internet]. 2002 [cited 2017 Sep 27];112(479):433–58. Available from: http://www.jstor.org/stable/798426
- 18. Gandal N, Roccas S, Sagiv L, Wrzesniewski A. Personal value priorities of economists. Hum Relations [Internet]. Sage PublicationsSage CA: Thousand Oaks, CA; 2005 Oct 22 [cited 2017 Sep 28];58(10):1227–52. Available from: http://journals.sagepub.com/doi/10.1177/0018726705058911
- 19. Racko G. On the normative consequences of economic rationality: A case study of a Swedish economics school in Latvia. Eur Sociol Rev. 2011 Aug;27(6):772–89.
- 20. Schwartz SH. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Adv Exp Soc Psychol. 1992;25(C):1–65.
- 21. Ritter BA. Can business ethics be trained? A study of the ethical decision-making process in business students. J Bus Ethics. 2006;68(2):153–64.
- 22. Weber J. Measuring the impact of teaching ethics to future managers: A review, assessment, and recommendations. J Bus Ethics. 1990;9(3):183–90.
- 23. Wynd WR, Mager J. The Business and Society course: Does it change student attitudes? J Bus Ethics. 1989;8(6):487–91.
- 24. Glenn JR. Can a Business and Society course affect the ethical judgment of future managers? J Bus Ethics [Internet]. Kluwer Academic Publishers; 1992 Mar [cited 2017 Sep 28];11(3):217–23. Available from: http://link.springer.com/10.1007/BF00871969
- 25. Marnburg E. Educational impacts on academic business practitioner's moral reasoning and behaviour: effects of short courses in ethics or philosophy. Bus Ethics A Eur Rev

- [Internet]. Blackwell Publishing; 2003 Oct 1 [cited 2017 Sep 28];12(4):403–13. Available from: http://doi.wiley.com/10.1111/1467-8608.00341
- 26. McDonald GM. A case example: Integrating ethics into the academic business curriculum [Internet]. Vol. 54, Journal of Business Ethics. Kluwer Academic Publishers; 2004 [cited 2017 Sep 28]. p. 371–84. Available from: http://link.springer.com/10.1007/s10551-004-1826-9
- 27. Phillips SM. Ethics Education in Business Schools: Report of the Ethics Education

 Task Force to AACSB International's Board of Directors [Internet]. Tampa, FL; 2004.

 Available from: http://www.aacsb.edu/~/media/AACSB/Publications/researchreports/ethics-education.ashx
- 28. Jacobsen KJ, Eika KH, Helland L, Lind JT, Nyborg K. Are nurses more altruistic than real estate brokers? J Econ Psychol. 2011;32(5):818–31.
- 29. Haucap J, Just T. Not guilty? Another look at the nature and nurture of economics students. Eur J Law Econ [Internet]. Springer US; 2010 Apr 20 [cited 2017 Sep 28];29(2):239–54. Available from: http://link.springer.com/10.1007/s10657-009-9119-5
- 30. Haucap J, Müller A. Why are Economists so Different? Nature, Nurture and Gender Effects in a Simple Trust Game [Internet]. 2014 [cited 2017 Sep 28]. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482246
- 31. McGregor SLT. Home economics in higher education: Pre-professional socialization. Int J Consum Stud [Internet]. Blackwell Publishing Ltd; 2011 Sep 1 [cited 2017 Sep 28];35(5):560–8. Available from: http://doi.wiley.com/10.1111/j.1470-6431.2011.01025.x
- 32. Forsythe R, Horowitz JL, Savin NE, Sefton M. Fairness in Simple Bargaining Experiments. Games Econ Behav [Internet]. Academic Press Inc.; 1994 May [cited 2017 Sep 28];6(3):347–69. Available from:

- http://linkinghub.elsevier.com/retrieve/pii/S0899825684710219
- 33. Witte EH, editor. Strack, M. Genneric, C. Hopf, N. In: Sozialpsychologie und Werte Beiträge des 23 Hamburger Symposiums zur Methodologie der Sozialpsychologie. Lengerich: Pabst; 2008. p. 90–130.
- 34. Inglehart R. The Silent Revolution in Europe: Intergenerational Change in Post-Industrial Societies. Am Polit Sci Rev [Internet]. 1971 [cited 2017 Sep 28];65(4):991–1017. Available from: http://www.jstor.org/stable/1953494
- 35. Inglehart R. Post-Materialism in an Environment of Insecurity. Am Polit Sci Rev [Internet]. Cambridge University Press; 1981 Dec 1 [cited 2017 Sep 28];75(4):880–900. Available from: http://www.journals.cambridge.org/abstract S000305540018116X
- 36. Kasser T, Ahuvia A. Materialistic values and well-being in business students. Eur J Soc Psychol [Internet]. John Wiley & Sons, Ltd.; 2002 Jan 1 [cited 2017 Sep 28];32(1):137–46. Available from: http://doi.wiley.com/10.1002/ejsp.85
- 37. Schmitt M, Maes J, Schmal A. Gerechtigkeit als innerdeutsches Problem:
 Einstellungen zu Verteilungsprinzipien, Ungerechtigkeitssensibilität und Glaube an eine gerechte Welt als Kovariate [Internet]. Trier: University of Trier; 1995. Available from:
 - http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Gerechtigkeit+als+in nerdeutsches+Problem:+Einstellungen+zu+Verteilungsprinzipien,+Ungerech-tigkeitssensibilität+und+Glaube+an+eine+gerechte+Welt+als+Kovariate#2%5Cnhttp://en.scientificcommons.or
- 38. Schmitt M, Maes J, Schmal A. Gerechtigkeit als innerdeutsches Problem: Analyse der Meßeigenschaften von Meßinstrumenten für Einstellungen zu Verteilungsprinzipien, Ungerechtigkeitssensibilität und Glaube an eine gerechte Welt. Trier: University of Trier; 1997.

39. Deutsch M. Equity, Equality, and Need: What Determines Which Value Will Be Used as the Basis of Distributive Justice? J Soc Issues [Internet]. Blackwell Publishing Ltd; 1975 Jul 1 [cited 2017 Sep 28];31(3):137–49. Available from: http://doi.wiley.com/10.1111/j.1540-4560.1975.tb01000.x