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What economics education is missing: the real world

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Abstract

Purpose – The global financial crisis led to increasing distrust in economic research and the economics profession, in the process of which the current state of economics and economic education in particular were heavily criticized. Against this background, the purpose of this paper is to conduct a study with undergraduate students of economics in order to capture their view of economic education.

Design/methodology/approach – The paper is based on the documentary method, a qualitative empirical method, which combines maximum openness with regard to the collection of empirical material coupled with maximum rigor in analysis.

Findings – The empirical findings show that students enter economics curricula with epistemic, practical or moral/political motivations for understanding and dealing with real-world problems but end up remarkably disappointed after going through the mathematical and methods-orientated introductory courses. The findings further indicate that students develop strategies to cope with their disappointment – all of them relating to their original motivation. The theoretical contextualization of the empirical findings is based on the psychological concept of cognitive dissonance.

Social implications – A socially and politically responsible economic education, however, should provide students guidance in understanding current and prospective economic challenges, thereby enabling them to become informed and engaged citizens. Therefore, it is essential that the students' criticism of the current state of economic education be taken seriously and BA programs reformed accordingly.

Originality/value – The originality of this paper lies in the application of a qualitative methodology and explicit focus on the student perspective on economics education. The study provides empirical evidence for a lack of real-world orientation in economics education.

Keywords Cognitive dissonance, Global financial crisis, Documentary method, Economic education, Qualitative social research, Real-world orientation

Paper type Research paper

1. A crisis of economics after the global financial crisis (GFC)?

The GFC led to a growing distrust in economic research and the economics profession. The criticism advanced against the current state of economics was manifold. Modern economics was, first, accused of being unable to understand and explain a wide range of real-world phenomena due to its strong focus on methodological rigor and monist paradigmatic structure (Beker, 2010; Colander *et al.*, 2009). Second, recent studies have also formulated a critique of "economic imperialism" (Mäki, 2009), i.e. of economics as largely ignoring the theoretical and empirical findings from other social sciences (Fourcade *et al.*, 2015). Third, there is further concern regarding the far-reaching political and societal impact of economics as a discipline and of economists as individual actors (Christensen, 2017; Dellepiane-Avellaneda, 2015), particularly since the GFC economists continue to hold core positions in policy advice and public economic debates (Green and Hay, 2014).

There is a long-lasting debate on the social and political impact of economics and its consequences for the economics discipline particularly in the field of social economics. For instance, prominent economists such as Boulding (1969) stressed the character of economics

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as a moral science. Hence, Boulding (1966, p. 13) states: "I became an economist because I thought there was an intellectual task ahead, of desperate importance for the welfare and even the survival of mankind."

Fourth and finally, the outbreak of the GFC resulted in a new movement of critical students and researchers claiming a more pluralistic economic education, thereby focusing on a plurality of theories and methods as well as on interdisciplinary approaches. Students claim that studying economics in modern economics curricula fosters egoistic and purely economic attitudes. These fail, moreover, to prepare students to deal with real economic problems. Hence, the ISIPE (2014) concludes that "[…] students should understand the broader social impacts and moral implications of economic decisions." A further critique against the current state of economics developed from the perspective of economics students is presented in the book "The Econocracy" (Earle *et al.*, 2016). The authors conclude that even after the crisis "the people who are entrusted to run our economy are in almost no way taught to think about it critically" (p. 51).

During the last few years, several authors have conducted studies with economics students and found that they tend to behave more rationally and egoistically compared to students of other disciplines (Bauman and Rose, 2011; Frey and Meier, 2005; Rubinstein, 2006). However, it is controversial whether the empirical evidence can be interpreted as an effect of self-selection or indoctrination. In other words, the question is whether economics studies induce students to behave more in accordance with the *homo oeconomicus* model promoted by standard economic textbooks. This paper aims to contribute to this debate by presenting an interview-based assessment of undergraduate students of economics from five universities in Germany and Austria. Our research is mainly focused on the students' general study experiences, their original motivation and whether, or to what extent, their study of economics has shaped their perception of economic phenomena. Hence, we aim to contribute to the debate about improvements in economic education in the twenty-first century as well as the debate on pluralism in economics. In doing so, we particularly pay attention to the perspective of undergraduate students. We found that students are confronted by a major dichotomy between their real-world economic orientations on the one hand and the way economics is taught in introductory economics courses on the other.

The remainder of the paper is structured as follows: Section 2 introduces our methodological approach. In Section 3, we illustrate some empirical findings from our study and discuss their consequences in Section 4. Section 5 provides a short summary of our main results as well as some concluding remarks including possible policy options for curricular change.

2. Methodological approach

Our investigation was primarily interested in the basic concepts and orientations students of economics themselves use when they talk about their studies. This entailed three different methodological consequences: first, not seeking to "test" an *ex ante* hypothesis, we structured the terms of the methodological design (e.g. questionnaires) accordingly, and contrarily required a method that, second, allowed students to express themselves as freely as possible and assured, third, that during the examination phase the empirical material would not be biased by our own perceptions. Against this background we needed to combine maximum openness with regard to collecting empirical material with maximum rigor in analysis.

Although quite uncommon within standard or even heterodox economic research (Lenger and Kruse, 2017), the field of qualitative empirical social research methods provided a rich source for adequate tools[1]. To collect student narrations of their daily study experiences, we chose the method of group discussions (Bohnsack, 2010), an open interview form where the interviewer emphasizes the field of interest (in our case: the study of economics) only at the beginning and subsequently endeavors to foster a self-reliant, casual group discussion atmosphere. The transliterated material was analyzed according to the documentary method

(Bohnsack, 2014), aimed at reconstructing the fundamental concepts and orientations of participants in social contexts used by students to produce relevant contexts. As a consequence, documentary research is not interested in apparently "objective facts," but in "the processes of the accomplishment or construction of 'world' and 'reality,' that is the 'How' " (Bohnsack, 2014, p. 218) of meaningful sociality. These processes, it is assumed, mainly rely on implicit and habitualized knowledge which is essentially social in character and possibly never articulated by the actors themselves. Explicating this implicit knowledge is the main task for scholars, who "do not presume or presuppose that they know more than the actors in the field, but rather that the actors themselves *do not really know exactly what they know all about*" (Bohnsack, 2014, p. 224, emphasis by the author). Originating in Karl Mannheim's sociology of knowledge, the documentary method is applied in a variety of fields, prominently in educational research (Bohnsack *et al.*, 2010). As true for most qualitative research methods, the main quality criteria of the documentary methodology is not to engender quantitative representativeness but robustness of reconstructed orientations which allow generalizations (Przyborski and Wohlrab-Sahr, 2010, p. 29 ff.).

In total, 16 groups comprising more than 50 economics students (bachelors' degree, second to sixth semester) were interviewed at five different universities ranking among the 20 largest economics faculties in German-speaking countries: Vienna (AT), Mannheim (DE), Cologne (DE), Frankfurt a.M. (DE) and Linz (AT). In accordance with the documentary research process, we ultimately aimed at reconstructing "basic orientations" backed by at least three different cases (i.e. groups). Surprisingly, we found a striking homogeneity across different groups, cities and countries. Most of the basic orientations, among them the one addressed in this paper, were found in all of the groups analyzed[2]. This meta-finding can possibly be linked to the magnitude of standardization in economics education (Graupe, 2012). From the various orientations established, the following will concentrate on only one.

3. Empirical results

On the empirical basis provided by the group discussions and their assessment as described in chapter 2, the following common orientation – among others – was reconstructed: students feel that there is a significant gap between their study experience of economics and the real world "out there" which they must bridge in some way. Hence, the relationship between the study of economics and the real world remains fundamentally opaque: neither does the economics curriculum explain its connection to the outside world, nor can reality bridge the gap to curriculum. Caught between these two poles, the student herself feels the need to resolve the situation by developing bridging strategies. The material shows three different kinds of dissociations and bridging strategies respectively: the epistemic, the practical and the moral/political. The following introduces each case, whereby two groups are referred to for each one.

3.1 Epistemic gap

The group "Mannheim Orange Juice" (MOJ) consists of six male representatives, each members of the local economic department's student council, who are in their fourth semester of study (BSc) at the prestigious University of Mannheim[3]. Two of them (Am and Dm) are also active in the local pluralist economics initiative. Most importantly, they all share an epistemic study motivation: to know and understand better. Due to their committee engagement, they are comfortable discussing and arguing their study experiences. Accordingly, the discussion soon shifts into a controversial debate away from formal aspects concerning the curriculum to neuralgic observations. The passage "Questioning Assumptions,"[4] shows discussants criticizing lecturers for generally failing to introduce implicit assumptions in the study content, e.g. their formal models. They especially problematize not addressing the normativity of model specifications. Hence, Em concludes that, after studying economics for four semesters, he has come to realize that "the subject of economics isn't very close to reality" (MOJ QA, l. 220 f.). He refers to the mathematical focus of the study program as well its examination procedures which distinctively encourage high levels of abstraction, whereby much reference to reality is lost. Am agrees: "I felt like we were just doing pages and pages of remodeling. We weren't given any economic intuition" (MOJ QA, l. 427 f.). "Economic intuition" refers to how abstract models can be contextualized by rational and reality-linked reasoning. The foundation for sense-making foundation is lost when students are primarily asked to process mathematical reformulations and calculations during exams: "[Am:] during an exam somehow only remodeling was being tested, but in the first two tasks, what was behind the model was, like, […] we didn't comment on that, it was just all about remodeling" (MOJ QA, l. 488 ff.). On the contrary, exclusively processing mathematical calculations does not shed light on the foundations and relationships of models in relation to reality and/or scientific reasoning about reality. At the end of the passage, the discussants suggest the criteria of "empirical evidence" (MOJ QA, l. 511) as positive counterbalance, which is validated by two more speakers.

The groups' critique on the one hand arises from their experience with a highly abstract study content which fails to establish a link to reality. On the other hand, the discussants criticize being taught without appropriate contextualization. As a result, the economic education they are receiving not only fails to help them understand reality, but also fails to help them understand what they are being taught on a fundamental level. Faced with these epistemic shortcomings of their study program, the group immediately begins to discuss possible bridging strategies.

Bm, for example, who during the discussions tends to relativize Am's provocative positions, counters the diagnosis of an all too abstract economics curriculum with the explanation that "abstraction from reality is worthwhile in order to understand fundamental relationships and further be able to work with that or to be sensitized or at least in order to gain that style of thought, which can be applied practically" (MOJ QA, l. 255 f.). Bm hopes that with the study content's degree of abstraction will enable him to gain a broader perspective for deeper lying relationships. He underlines this statement with three additional advantages of abstraction. In response, Em adds a temporal dimension in that practical applicability of the study content will be possible "*later sometime*" (MOJ QA, l. 258). In consequence, the discussants endeavor to close the epistemic gap by conceptualizing a *future* ability in which what they learn will be understood once basic concepts and ideas have been mastered[5]. This hope allows Bm and Em to maintain a passively heuristic strategy of "wait and see." The epistemic character of the gap and its resolution is characterized by Bm's argumentation that it represents a "specific style of *thought*" which will later mark and distinguish economics graduates from other professionals in the job market.

A second bridging strategy developed within the group is equally based on an epistemic dissociation but differs sharply in its heuristic consequences: Am and Dm choose to become involved in a local initiative for pluralism in economics study programs at the University of Mannheim. In order to bridge the lamented gap, they take an active role in an attempt to modify the curriculum according to their needs and motivations, which consequently serve as legitimization for altering economics. It is not they who need to change. In contrast to the first bridging strategy, theirs is a present orientated: resolving the gap is a matter of today rather than tomorrow.

The second group to indicate an epistemic gap in their studies is "Cologne Courtyard" (CC), consisting of two male students enrolled in the BSc economics program at the University of Cologne. Bm, aged 20, is in his third semester of study, whereas Am, aged 25, is in his sixth semester besides working in a call center part time. The discussion reveals that although their motivation for studying are completely different, both are coping with a similar problem, i.e. the curriculum is not teaching them what they want to learn. Their different motivation and the corresponding disappointment reflect the epistemic gap in Bm's case and the practical gap in Am's case.

In the first hour the students discuss different modules in the introductory courses of their curriculum. While talking about the various obligatory modules in the business administration, Bm becomes increasingly angry about the fact that these are misplaced in the curricula for future economists. He repeatedly emphasizes his interest in "typical" economics modules, in particular macroeconomics, which he plans to specialize in advanced semesters. His motivation for studying economics was based on a genuine interest understanding real economic processes: "what holds the economy together on a higher level? That was a really important factor in my decision […] besides the 'being better than you' kinda thing [laughing]" (CC MM, l. 12 ff.). Apart from feeling superior to his former classmates, Bm is keen to learn about real-world economic relationships on a macroeconomic level. Again, it is the will to learn and know something about economic phenomena that motivates Bm. This epistemic motivation becomes severely contested by business administration-related and, as he points out, method-orientated modules lacking apparent economic content.

In order to overcome this lack of intellectual stimulation, Bm opts for a strategy of hope projected onto the future. Contrary to Mannheim's Bm, his hope is not directed toward a certain future epistemic payoff where he is able to "think like an economist," but rather toward the curriculum's purported structural change in the higher semesters. After a severe and narrow initiation phase of third to fourth semesters, the curriculum will later offer more variety and opportunities to choose, e.g. internships or foreign exchange programs. With this prospect, Bm is able to subject himself to the required learning and repetition of depressing contents in the early semesters. Similar to the bridging strategy "thinking like an economist" and its related trust in economic thinking evinced in the Mannheim material, this bridging strategy can be described as "trust in curriculum structures."

3.2 Practical gap

In comparison, Bm's group mate Am enrolled for totally different reasons and, after becoming disappointed by these studies, experiences what we call a "practical gap." In the passage "Micro vs Macro" both once again address their motivations to study economics. Am summarizes his position as such:

> Am: Yes, I just thought sometime, one day you'll need a job. And in order to be able to decide flexibly and earn good money you need a good education. That's why you need a Masters' degree and to have Masters you need a Bachelors, so what Bachelor suits you? Which one helps you the most to enter business life in the end? Obviously, something economical, and anyway it's all mathematics and I'm good in mathematics [ta da!] (CC MM, l. 32 f.)

So he opted for the economics study due to his wish to have a well-paid job someday and due to formal requirements. During the course of his study experience he came to realize that the specific study program contents did not interest him at all. He seems to be unable to establish a connection between what he is studying and his original motivation, i.e. a job qualification. What he does know is that a diploma is needed to enter the labor market. This is expressed in the following passage, which also illustrates the fundamental difference in motivation between himself and Bm:

> Am: […] from the beginning to this moment I just have this one fundamental drive: to get a bachelor's degree – and not keep the content in mind very well
>
> Bm: Mhm, but [4 sec. pause] I […]
>
> Am: Hm?
>
> Bm: Yes, I did it because it interests me.
>
> Am: Actually, that is probably more motivating. (CC MM, l. 62 ff.)

Faced with the dilemma of not being interested in his program of study, but having to finish it anyway, Am opts for a strategy of studying efficiently. Accordingly, his curricular decisions are based on achieving the highest gain with minimum efforts. In his own words, he chooses courses which offer "a lot of points, it is very efficient" (CC MC, l. 527). During large parts of the conversation, Am does not refer to a single specific content of his economics curriculum. What he really cares about is calculating the time and effort needed to fulfill the formal requirements of his study program.

A similar strategy is found in the group "Frankfurt Big Four" (FBF), made up of two women and a man aged 21–26 years. All of them are in their fifth semester of the BSc economics program at the University of Frankfurt. All of the members have professional work experience and are highly motivated and expect to work at one of the four internationally most important consulting companies ("Big Four"). Correspondingly, their central motivation to study can be described as finding a well-paid job. As a result, decisions concerning their academic studies are made toward establishing beneficial advantages for themselves in the labor market.

Early on the conversation, the passage "purpose of studying" is introduced by a discussion on the lack of relationship between study contents and a future job. Am states that the things he learned in his studies would not serve in a future job, which he illustrates by personal experiences in and relations with professional contexts. What makes the course of study specifically useless is the degree of abstraction represented by "ludicrous models" (FBF PS, l. 1 ff.) which have nothing to do with the real world. Bf and Cf validate this claim. The latter concludes with the pointed judgment that the theories learned are "not applicable" (FBF PS, l. 18) anyway. This is the moment where the group identifies a gap between theoretically abstract study contents and the reality of future job requirements, where practical requirements consisting of specific abilities and knowledge are not being met by the economics study program. Therefore, Am suggests that the workplace itself would ultimately provide the best study program. Due to its practical uselessness, the economics program actually impedes the development of necessary abilities. Nevertheless, a diploma is still required to apply for relevant jobs: "[Bf:] uh-huh, one only needs the diploma in that sense. Yes" (FBF PS, l. 50 f.). By reducing the existential nature of the study program to merely formal significance, the content of that program becomes irrelevant. The three participants are not oriented toward understanding the curricular content but attaining the necessary prerequisites for successful entry into the labor market.

Negotiating the contradiction between the formal necessity of a diploma and the uselessness of the content it represents, the three discussants opt for a pragmatic solution: e.g. Am tries to complete "as many internships as possible during summer vacation" (FBF PS, l. 30 f.). He reports with enthusiasm how from early on he was able to achieve a certain level of excellence despite continuously reducing his study efforts. In the time he saved he was able to take on more jobs on the side, once even managing three at the same time. He subsequently shares the optimizing strategies he applied to further minimize his study efforts: Am describes how video broadcasts of lectures or participation in self-organized study groups with highly engaged fellows play a crucial role.

To overcome the gap between what a bachelor's degree in economics offers and the requirements of a future job, the members of this group opt for a performative strategy. They do not try to change the curriculum itself to suit their needs, nor do they alter their original orientation, e.g. by adapting it to the course design. Ultimately, they arrange their everyday life in a way that supports their final purpose (getting a rewarding job) by integrating practical experiences outside the university and reducing obligations while seeking job orientated offers within the university. This includes participating in events organized by the local career center which include encounters with potential employers[6]. The participants establish an autodidactic routine in which a required mode of job performance is learned and acquired for future context.

3.3 Moral/political gap

The group "Vienna Meadow" (VM) consists of two male students and one female economics student in their fourth to sixth semester of their bachelor study program. They know each other very well and share a common critical attitude toward the current political and economic conditions in western capitalist countries. All three of them are active in either political and cultural-political initiatives or the local student council at the University of Vienna. Consequently, they are studying economics to acquire a better understanding of how the economy or the "system we live in" (VM PR, l. 9) works.

The group claims that the study of economics indirectly as well as directly serves an ideological purpose, namely, to promote a politico-economic understanding in line with the "ruling system" of the society, particularly in the introductory courses. The group in turn interprets the current state of economics and its educational programs as merely the result of politico-economic power balances. The participants report that their lecturers criticize them for being politically motivated when they question the ideological bias of certain economic models and theories. Moreover, most professors in their study program follow a positivist approach which demands academic research to be free of value judgments, which are considered un-scientific. Cf and Am report one such negative experience with a professor: "You cannot write it like that […] you need a model […] That's not scientific at all, you're making politics, not economics" (VM PR, l. 41-53). The three discussants draw the general conclusion that a critical attitude toward the current economic and political system in general and the discipline of economics in particular must come "from outside." As a consequence, the status quo can only be changed by becoming active, either by joining political initiatives or critical student movements.

In the passage "exams and mathematics" in particular, Cf becomes very emotional when talking about the moral challenges in her economics studies. She mentions the obligatory management courses as an example, where wage levels are exclusively understood and taught as a result of optimization processes in which maximum worker motivation is achieved through a minimum of costs, assuming full rationality on the part of both workers and employers. "Damn, and this is how you're supposed to do it – and you think, fuck, do we really live in a world where we assume people act *fully* rationally?" (VM EM, 567-574).

A similar moral and political gap is also addressed in the "Cologne Biscuits" (CB) discussion. The group consists of one female and one male student in the first two semesters of their economics degree at the University of Cologne. Both have a relatively wealthy family background and share the moral conviction of social responsibility due to their privileged social status. Both are also engaged in charitable institutions and share an active social commitment.

Against their social and moral background, the group describes how difficult it is for economics students to connect their self-image and life goal with the public image and typical job description of an economist. They also claim that while economics and economists have a social and moral responsibility, no reflection on such a responsibility is evident in their courses. On the contrary, they report that many assumptions and incentives in economics introductory courses enhance selfish and competitive behavior in many ways. Both discussants are therefore worried about the jobs available to economists. For instance Bm states: "I looked at the chances for getting a job after my degree and it seems to me many involve a lot of immoral activity" (CB FS, 125-127). In a similar vein Af even states that because her economics studies challenge her moral integrity she is afraid that she will violate the moral claims of herself and of her social environment: "I don't really know – I could live with being a waiter to earn my living and do other things in my spare time, but I can't imagine to work for a consulting company like McKinsey and uncaringly rip someone off. That's really not my idea of a good life. Even if I was very good in stock-trade I simply would feel bad, I guess" (CB FS, l. 103-109).

To summarize, both groups report a moral and political gap between their self-image and their personal idea regarding the social, political and moral responsibilities of economics and economists as taught in introductory courses. This gap is at least twofold: first, the students chose to study economics to comprehensively understand how the economic system functions. Second, their decision was carried by the idealistic motivation and moral obligation to improve the current political and social situation. Their goal, therefore, was to fulfill their perceived social responsibility as economists. Yet, in the first semesters of their study program they are being confronted with a concept of economics that strongly contradicts their idealized perception. Moreover, they feel that their course of study is training them to argue and think according to strict economic efficiency criteria and to ignore approaches to social phenomena beyond the economic.

This disassociation from moral and political dimensions evinced by their program of study triggered two types of coping strategies. The first strategy is best described as "moral outsourcing." Since the students perceive their economics studies to be immoral or a-political, the moral integrity or social responsibility students hoped to obtain cannot be realized. As a result, they are forced to consciously create two separate spheres of activity, one inside and one outside the university, where social engagement according to their perceived moral/political responsibility is only possible in the latter. The second strategy seeks to actively initiate and deliberately carry out critical reflection of economic theory and practice within the discipline of economics itself. In doing so, criticism of the "capitalist system" and its politico-economic power imbalances is combined with a fundamental critique of standard economic education, thereby underlining its ideological character. To do so, students become involved in critical student initiatives or the pluralism in economics movement.

4. Discussion

First, it should be pointed out that the above empirical inquiry clearly confirms the claim that students "enter the classroom with a wide range of backgrounds and with many preconceptions about how the world works" (Samuelson and Nordhaus, 2010, p. xx). The study shows that they bring with them preconceptions on how a bachelor's degree in economics should support them in knowing, doing and/or being. These preconceptions of what an economics curriculum will look like become severely contested in their first four semesters of study. Hence, the experience and recognition of disassociation between the study of economics and real-world phenomena actually originates in the fundamental difference between an (inexperienced) concept of the study of economics and the (experienced) reality of the study program. For the student of economics, this difference becomes a serious biographical problem on a daily basis. Using the psychological concept of cognitive dissonance (Festinger, 1957), we now propose a theoretical framework which allows and promotes an interdisciplinary reflection of our empirical findings.

Since its introduction to psychological discourse by Festinger, cognitive dissonance has become a prominent concept of psychology, particularly within social psychology. It has further proven fruitful for other social sciences, e.g. the fields of sociology, anthropology and political science. Through the work of Hirschman (1965) and Akerlof and Dickens (1982), cognitive dissonance has become a widely referred concept in economics (Schlicht, 1984). Recently, Kessler (2010) used the concept of cognitive dissonance to describe responses to and explanations of the GFC by a group of influential market fundamental economist (described as "believers in laissez faire"). We now seek to apply cognitive dissonance theory to describe the economics discipline itself, i.e. its education programs[7]. In its original formulation, cognitive dissonance refers to a conflict between divergent "knowledge, opinion, or belief about the environment, about oneself, or about one's behavior" that a person recognizes within herself (Festinger, 1957, p. 3)[8]. Furthermore, "cognitive dissonance can be seen as an antecedent condition which leads to activity orientated toward dissonance reduction just as hunger leads to activity oriented toward hunger reduction" (Festinger, 1957). By referring to the phenomenon of hunger, Festinger underlines the existential need for what the literature terms "cognitive consistency," a balanced self-image or state of mind, where fundamental knowledge, opinions and beliefs fit together.

As our empirical results indicate, the "belief about the environment," which here refers to the bachelor program in economics, becomes strongly contested within the first two years of study. The concept of a fruitful relation between the course content and real-world orientation in particular dissolves itself, which not only entails a major loss of motivation for the student, whether epistemically, practically or moral/politically, but – and more importantly – the cognitive dissonance between her conception and real experience also signifies a problem of self-image and sense-making: "Why do I spend so much time on an occupation that actually doesn't serve its original purpose?." By having chosen the economics curriculum in the first place and continually choosing to follow its necessities and obligations over the course of time, the student increasingly identifies herself with the subject and its reality. This identification is vastly performative in character, yet is not necessarily based on conscious reflection: "dissonance is greatest and clearest when it involves not just any two cognitions but, rather, a cognition about the self and a piece of our behavior that violates that self-concept" (Aronson, 1992, p. 305)[9]. Since their study experience and corresponding performances are affectively, if not consciously dissonant with their original motivations and conceptions, students face a dilemma of existential inconsistency. They continuously tend to perform what has been termed a "counter-motivational act" (especially within the "forced compliance paradigm") (Girandola, 1997, p. 595). Or to put it more simply: the disappointing gap between economics and reality is also reflected in a psychic disassociation (i.e. "cognitive dissonance") within the student herself. Aronson's (1969, 1992) cognitive dissonance theory and similar work published in the 1980s (Steele, 1988; Higgins, 1987) emphasize the importance of a coherent self as the driving force behind dissonance resolution. Following this tradition, our research bears numerous interfacing points with the economics of identity (Davis, 2011; Akerlof and Kranton, 2010) and especially with the issue of conflicts and identity (Sen, 2007).

Aronson (1992, p. 305) mentions three different motivations and actions which may cause cognitive dissonance:

> […] most individuals strive for three things: (1.) To preserve a consistent, stable, predictable sense of self. (2.) To preserve a competent sense of self. (3.) To preserve a morally good sense of self. Or, in shorthand terms, what leads me to perform dissonance-reducing behavior is my having done something that (a) astonishes me, (b) makes me feel stupid, or (c) makes me feel guilty.

In our case, students experiencing epistemic or practical disassociation in their program of study can be subsumed in the second case: they strive for (idealistic or practical) sense of competence, which they are not granted. As a result, they feel stupid or betrayed considering their own counter-motivational actions. Students experiencing the moral gap clearly fall within the third category; they feel guilty for choosing their particular course of study.

In order to reestablish cognitive consistency, students gradually opt for different bridging strategies. In order to reduce cognitive dissonance Festinger suggests "that individuals may change behavioral cognitive elements, environmental cognitive elements or add new cognitive elements to reduce dissonance" (Metin and Metin Camgoz, 2011, p. 132). The following outlines some of the bridging strategies found and an enumeration of possible solutions to dissonance dilemmas:

- Practical gap/all of the strategies: since our search for potential discussants in the field exclusively focused on enrolled economics BA students, we missed those students who opted to leave their studies due to experiences of dissonance. Hence, we were not able to evaluate the phenomenon described as "self-selection" in the corresponding literature (e.g. Frey and Meier, 2005)[10]. That cognitive dissonance is being addressed performatively can be seen in the strategies bridging the practical gap. As a pragmatic solution, desired abilities lacking in the curriculum are being sought in other contexts, i.e. students acquire the ability they need somewhere else. Hence, in actively seeking to fulfill their original motivation and self-image, there is a gradual shift from dissonant and obligatory performance to consonant performance. Students opt for a change in behavior by continuously reducing dissonant performance, which entails remaining enrolled in the study program in order to finally achieve the motivation- and self-image-consistent goal of a graduation.

- Epistemic gap/engaged strategy: another performative solution evolving from the dissonant study experience involves an engaged strategy exhibited by discussants of pluralist student groups. In order finally get to know reality-orientated theories and methods, they engage in concrete activities supporting their goal and original motivations. Cognitive dissonance is reduced through a change in behavior, which while in this case does not immediately eliminate the sources of dissonance (i.e. by quitting the study program) but rather seeks to transform these sources themselves according to their original reasons for choosing the economics curriculum.
- Moral gap/moral outsourcing: another performative solution to develop from the dissonant study experience is a strategy we denote as "moral outsourcing." Many students perceive their education as either immoral or as a-moral. Regarding the former, students feel that the study of economics – e.g. through the emphasis on egotistic behavior – promotes activity that contravenes the students' own moral and social claims, or the respective claims of their social environment. In the latter case students report that moral and political questions simply are not addressed at all. In both cases, the participation in the study program causes cognitive dissonance, as each does not match with their moral/political demands and self-image. In order to reestablish consistency they cognitively uprate already established moral behavior (change the order of cognitions) or choose to encourage new consistent engagement (change in behavior), for instance by actively engaging in social and charitable initiatives. In both cases, the reference point for their moral actions lies outside their studies. The moral and political dissonance induced by their study of economics culminates in an active coping strategy marked by intensified political activism to directly eliminate sources of dissonance. Students who adopt this strategy try to reformulate their criticism against the current state of economics education in political terms. A possible alternative strategy could involve students adapting their sense of morality accordingly so that a contradiction to the study content no longer exists, signifying successful indoctrination. Rabin (1994) for instance discusses such a behavioral adaption as a typical example of a performative effect of cognitive dissonance[11].
- Epistemic gap/thinking like an economist: one prominent branch within cognitive dissonance research is called the "effort-justification paradigm" (Harmon-Jones and Mills, 1999, p. 7 f.). Early experiments (Aronson and Mills, 1959) showed that the experience of tough (i.e. dissonant) initiation rituals to social groups lead to an enhanced identification with the group compared to those with mild initiation rituals. Hence, when new positive cognitions are projected as the outcome of a dissonant process, the respective effort becomes justifiable. As recent economics textbook analysis has shown (Graupe, 2017), a tough and "troublesome" learning experience, especially during the first semesters, is not only anticipated but also explicitly formulated in combination with positive/rewarding cognitions: "As you work through your modules you will find that it is not always easy to think like an economist and that there will be times when you are confused, find some of the ideas and concepts being presented to you running contrary to common sense (i.e. they are counter

intuitive). […] Don't worry about this – what you are experiencing is perfectly normal and a part of the learning journey" (Mankiw and Taylor, 2014, p. 17). In this manner, the study programs' lack of epistemic qualification toward real-world problems becomes tolerable through the prospect of new cognitions as a final outcome: the future reward, i.e. the ability to "think like an economist," outweighs the dissonant aspects experienced in the first semesters. This strategy in effect implies that it is normal and necessary to live through a dissonant phase in order to finally being able to think differently. Daily participation in the programs' obligations thus becomes consistent with the students' original motivation. Depending on the manner in which students are led to the acquisition of new cognitions offered by the program (through its didactical material, lecturers, etc.), this process may also be subsumed under the virulent "indoctrination hypothesis" (Frey and Meier, 2005; Rubinstein, 2006).

Based on the empirical findings discussed in Section 3 and their theoretical contextualization above, we conclude with an outline of possible policy implications.

5. Conclusion

In summarization, the main conclusion to be drawn from our research is that, in its current form, the study of economics causes dissonances for many students. The concept of economics which originally motivated the interviewed students to enroll differs substantially from their real experience while studying. In order to avoid such disappointment and frustration, one possible solution would be to simply point out (in study manuals, advertising material, corresponding websites and official study objectives) that seeking an economics bachelor's degree initially involves a course of study that is completely abstract from economic reality.

However, as recent research in the field of social economics or economic sociology, e.g. in the performativity studies of economics, has impressively shown, economics and economic knowledge have a huge political and social impact. Against this background it seems to be a plausible claim that fruitful economic education should enable prospective economists to understand real-world economic phenomena and to act accordingly. Moreover only a small minority of economics students become academic economists (Colander, 2009), where abstract modeling is a core requirement. Nevertheless, as the debate on the GFC has shown, not only do economics graduates leaving academia to work and live "in reality" need to be able to mindfully cope with that reality, academic economics particularly need to provide concepts and strategies that foster an understanding rather than an undermining of reality. Responsible economics education should therefore become concerned about students' dissonances and the consequences from the unrealistic assumptions it engenders as well.

In order to establish a social responsible and more reality-oriented economics curriculum we would like to make three important suggestions based on what we found motivated students in our study. First, students should learn about economics' and the economy's political and social embeddedness as claimed by prominent social economics scholars. This requires a pluralism of economic theories and methods as well as courses in economic history and the philosophy of science. Second, economic education should empower students to act responsibly in the context of real-world economic phenomena and thus enable students to develop their own perspectives and approaches to economic processes. Third, a central concern of economics education based on the humanist educational ideal should be to promote the moral and political development of its students, i.e. help them to become thoughtful and engaged citizens.

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Notes

1. In applying qualitative empirical social research methods to academic economic education we follow the pioneering work of Richardson (2004).
2. Other basic orientations we found in the group discussions include the priority of study structures ("Bologna reform") over study contents, the formative impact of mathematical methods and the differentiation between a heavily standardized and externally framed introductory study phase and a more self-determined phase after the first four semesters.
3. The group discussions were randomly labeled. Group members are named by A, B, C, etc., and interviewers by X, Y, Z, adding an indication for their sex (m = male, f = female).
4. According to discussion analysis methodology a passage is the "least interpretable unit" of a transliterated interview, typically containing between 5 and 15 min of transliterated interview. The authors provide the original transliterated interviews in German on request.
5. Italics in interview citations mean that the speakers themselves highlight the spoken words verbally.
6. During additional field research, we came to observe that the lecture building at Campus Westend in Frankfurt is frequently being used as some kind of fair hall, where national and international corporations present themselves.
7. Here we follow Chabrak and Craig (2013) in their application of cognitive dissonance theory to students studying economic subjects (in this case: accounting).
8. The subject of a cognition can be manifold: "A person can have cognitions about behaviors, perceptions, attitudes, beliefs, and feelings" (Harmon-Jones and Mills, 1999, p. 5).
9. In fact, some of the interviews had the character of self-revelations for students themselves, being asked to speak two hours about experiences formerly not articulated verbally. The documentary method focusses exactly on these moments of "fresh" verbalizing about up-to-then self-evident knowledge or habits.
10. Frey *et al.* use the term referring to the moment of choosing a specific course of studies. We here emphasize on "self-selection" as ongoing process throughout the professionalization as economist.
11. Our material does contain evidence for this kind of shifting morality, though only on an implicit and not verbalized level. Its elaboration would require in-depth analysis which could not be realized in preparation for this paper.

References

Akerlof, G.A. and Dickens, W.T. (1982), "The economic consequences of cognitive dissonance", *The American Economic Review*, Vol. 72 No. 3, pp. 307-319.

Akerlof, G.A. and Kranton, R.E. (2010), *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being*, Princeton University Press, Princeton, NJ.

Aronson, E. (1969), "The theory of cognitive dissonance: a current perspective", *Advances in Experimental Social Psychology*, Vol. 4, pp. 1-34.

Aronson, E. (1992), "The return of the repressed: dissonance theory makes a comeback", *Psychological Inquiry*, Vol. 3 No. 4, pp. 303-311.

Aronson, E. and Mills, J. (1959), "The effect of severity of initiation on liking for a group", *The Journal of Abnormal and Social Psychology*, Vol. 59 No. 2, pp. 177-181.

Bauman, Y. and Rose, E. (2011), "Selection or indoctrination. Why do economics students donate less than the rest?", *Journal of Economic Behavior & Organization*, Vol. 79 No. 3, pp. 318-327.

Beker, V. (2010), "On the economic crisis and the crisis of economics", *Real-World Economics Review*, No. 56, pp. 72-94.

Bohnsack, R. (2010), "Documentary method and group discussions", in Bohnsack, R., Pfaff, N. and Weller, W. (Eds), *Qualitative Analysis and Documentary Method in International Educational Research*, Barbara Budrich, Opladen and Farmington Hills, MI, pp. 99-124.

Bohnsack, R. (2014), "Documentary method", in Flick, U. (Ed.), *The Sage Handbook of Qualitative Data Analysis*, Sage, Los Angeles, CA, pp. 217-233.

Bohnsack, R., Pfaff, N. and Weller, W. (Eds) (2010), *Qualitative Analysis and Documentary Method in International Educational Research*, Barbara Budrich, Opladen and Farmington Hills, MI.

Boulding, K.E. (1966), "The economics of knowledge and the knowledge of economics", *American Economic Review*, Vol. 56 Nos 1-2, pp. 1-13.

Boulding, K.E. (1969), "Economics as a moral science", *American Economic Review*, Vol. 59 No. 1, pp. 1-12.

Chabrak, N. and Craig, R. (2013), "Student imaginings, cognitive dissonance and critical thinking", *Critical Perspectives on Accounting*, Vol. 24 No. 2, pp. 91-104.

Christensen, J. (2017), *The Power of Economists Within the State*, Stanford University Press, Stanford, CA.

Colander, D., Goldberg, M., Haas, A., Juselius, K., Kirman, A., Lux, T. and Sloth, B. (2009), "The financial crisis and the systemic failure of the economics profession", *Critical Review*, Vol. 21 Nos 2-3, pp. 249-267.

Colander, D.C. (2009), *The Making of an Economist, Redux*, Princeton University Press, Princeton, NJ.

Davis, J.B. (2011), *Individuals and Identity in Economics*, Cambridge University Press, Cambridge and New York, NY.

Dellepiane-Avellaneda, S. (2015), "The political power of economic ideas. The case of 'expansionary fiscal contractions' ", *The British Journal of Politics and International Relations*, Vol. 17 No. 3, pp. 391-418.

Earle, J., Moran, C. and Ward-Perkins, Z. (2016), *The Econocracy. The Perils of Leaving Economics to the Experts*, Manchester University Press, Manchester.

Festinger, L. (1957), *A Theory of Cognitive Dissonance*, Stanford University Press, Stanford, CA.

Fourcade, M., Ollion, E. and Algan, Y. (2015), "The superiority of economists", *Journal of Economic Perspectives*, Vol. 29 No. 1, pp. 89-114.

Frey, B.S. and Meier, S. (2005), "Selfish and indoctrinated economists?", *European Journal of Law and Economics*, Vol. 19 No. 2, pp. 165-171.

Girandola, F. (1997), "Double forced compliance and cognitive dissonance theory", *The Journal of Social Psychology*, Vol. 137 No. 5, pp. 594-605.

Graupe, S. (2012), "The power of ideas: the teaching of economics and its image of man", *Journal of Social Science Education*, Vol. 11 No. 2, pp. 60-85.

Graupe, S. (2017), "Beeinflussung und manipulation in der ökonomischen bildung – Hintergründe und Beispiele", Forschungsinstitut für gesellschaftliche Weiterentwicklung (FGW-Studie Neues ökonomisches Denken, 5), Düsseldorf.

Green, J. and Hay, C. (2014), "Towards a new political economy of the crisis. Getting what went wrong right", *New Political Economy*, Vol. 20 No. 3, pp. 331-341.

Harmon-Jones, E. and Mills, J. (1999), "An introduction to cognitive dissonance theory and an overview of current perspectives on the theory", in Harmon-Jones, E. and Mills, J. (Eds), *Cognitive Dissonance: Progress on a Pivotal Theory in Social Psychology*, American Psychological Association, Washington, DC, pp. 3-21.

Higgins, T. (1987), "Self-discrepancy: a theory relating self and affect", *Psychological Review*, Vol. 94 No. 3, pp. 319-340.

Hirschman, A.O. (1965), "Obstacles to development: a classification and a Quasi-Vanishing Act", *Economic Development and Cultural Change*, Vol. 13 No. 4, Part 1, pp. 385-393.

ISIPE (2014), "An international student call for pluralism in economics", International Student Initiative for Pluralism in Economics, available at: www.isipe.net/open-letter/ (accessed April 26, 2017).

Kessler, A. (2010), "Cognitive dissonance, the global financial crisis and the discipline of economics", *Real World Economics Review*, No. 54, pp. 2-18.

Lenger, A. and Kruse, J. (2017), "Qualitative Forschungsmethoden in der deutschen Volkswirtschaftslehre", in Maeße, J., Pahl, H. and Sparsam, J (Eds), *Die Innenwelt der Ökonomie*, Springer Fachmedien, Wiesbaden, pp. 107-134.

Mäki, U. (2009), "Economics imperialism. Concept and constraints", *Philosophy of the Social Sciences*, Vol. 39 No. 3, pp. 351-380.

Mankiw, G. and Taylor, M.P. (2014), *Economics*, 3rd ed., Cengage Learning, Andover, MN.

Metin, I. and Metin-Camgoz, S. (2011), "The advances in the history of cognitive dissonance theory", *International Journal of Humanities and Social Science*, Vol. 1 No. 6, pp. 131-136.

Przyborski, A. and Wohlrab-Sahr, M. (2010), *Qualitative Sozialforschung: ein Arbeitsbuch*, 3rd ed., Oldenbourg, München.

Rabin, M. (1994), "Cognitive dissonance and social change", *Journal of Economic Behavior & Organization*, Vol. 23 No. 2, pp. 177-194.

Richardson, P.W. (2004), "Reading and writing from textbooks in higher education: a case study from economics", *Studies in Higher Education*, Vol. 29 No. 4, pp. 505-521.

Rubinstein, A. (2006), "A sceptic's comment on the study of economics", *The Economic Journal*, Vol. 116 No. 510, pp. C1-C9.

Samuelson, P.A. and Nordhaus, W.D. (2010), *Economics*, 19th ed., McGraw-Hill Irwin, Boston, MA.

Schlicht, E. (1984), "Cognitive dissonance in economics", in Dörner, D., Todt, H. and für Socialpolitik, V. (Eds), *Normengeleitetes Verhalten in den Sozialwissenschaften* (Schriften des Vereins für Socialpolitik, Gesellschaft für Wirtschafts- und Sozialwissenschaften, 141), Duncker & Humblot, Berlin, pp. 61-81.

Sen, A. (2007), *Identity and Violence: The Illusion of Destiny*, Penguin, London.

Steele, C.M. (1988), "The psychology of self-affirmation: sustaining the integrity of the self", *Advances in Experimental Social Psychology*, Vol. 21, pp. 261-302.

Appendix

List of abbreviations for the group discussions

(1) MOJ (Mannheim Orange juice)
- QA = passage "Questioning Assumptions"

(2) CC (Cologne Courtyard)
- MM = passage "Micro vs Macro"
- LB = passage "learning behavior"
- MC = passage "motivation and curriculum"

(3) FBF (Frankfurt Big Four)
- PS = passage "purpose of studying"
- LB = passage "learning behavior"

(4) CB (Cologne Biscuits)
   - FS = passage "financing of study"

(5) VM (Vienna Meadow)
   - EM = passage "exams and mathematics"
   - PR = passage "politics and reality"

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