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Leaving the mainstream behind? Uncovering subjective understandings of economics instructors' roles

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1. Introduction

> "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it."
>
> [(Planck, 1949)]

In the wake of the economic crisis, a number of student organizations and researchers came together to highlight the lack of pluralism and heterodox approaches in economics curricula (see e.g. Söderbaum, 2005; IREE, 2009; PCES, 2014). The notion of multiple crises thus extends beyond the widely cited social, economic and ecological spheres (Haberl et al., 2011; Brand et al., 2013; Scoones et al., 2015) to a crisis in education. On a broader level, the relevance of economics as a discipline is being questioned, particularly in the dimension of policy-design (Stockhammer and Yilmaz, 2015). Those supporting the student pluralism movement posit that economics as currently taught represents rather narrow scope and content. This narrowness is reflected, for example, in the economics curricula "characterized by increasing mathematization, and the jettisoning of history of economic thought and economic methodology courses" (Negru, 2010: 6). As Morgan puts it, "the overwhelming emphasis on mathematical training, skills and forms of expression" hinders the students' abilities to deal with "real economies" (2015: 19). This also marks the beginning of the journey to which we invite the readers: in this paper, we explore the pluralism debates and the question of potential changes in the discipline of economics and its teaching. We emphasize the importance of the institutional setting of the problem at stake throughout the study. The changes demanded by the pluralist voices are seen here as complex processes that require not only the engagement of student initiatives, but equal willingness and participation of researchers and instructors, as well as whole-institution thinking. All these pieces of the "economic puzzle" are inevitable for opening up the discipline of economics. As argued below, such openness is needed for full flourishing of heterodox schools of thought, including ecological economics.

From an organizational studies perspective, social sciences tend to be less dominated by a specific paradigm than natural sciences. Yet economics, in its current state, seems to be an exception to this rule (Tsoukas and Knudsen, 2005). Economics can be classified as a very hierarchical type of reputational organization (Tsoukas and Knudsen, 2005). Therefore, its core, built on abstract theorizing within the optimization paradigm, is perceived as a more prestigious area of academic activity than other research in "peripheral sub-fields". In spite of such conceptual restrictions of economic theory as currently practiced, the belief that economics is *the* most scientific social science is still quite common (Colander, 2005; Fourcade et al., 2014). Within the discipline, the stronghold of the core is institutionally embedded through e.g. journals, conferences and associations, quality assessment of research, university departments, and textbooks (Lavoie, 2015), strongly conditioning the openness for changes, or lack thereof.

The above-mentioned core stands for the mainstream of the discipline, while the peripheral sub-fields are inhabited by heterodox traditions. These sub-fields, representing alternative approaches to economic analysis, are often perceived by its core as "different, misguided or inferior" (Stockhammer and Yilmaz, 2015) to the *proper* approach to economic investigations, while those practicing them are in turn often perceived as "not quite economists" (Morgan, 2015: 525). The heterodox traditions represent a variety of, often contested, discourses. Ideally, each of them attempts to be internally consistent and coherent (for a thorough discussion on these matters and related issues

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particularly in ecological economics, see Spash, 2013). Regarding the mainstream, or the currently dominant orthodoxy, we follow Dobusch and Kapeller (2012) in seeing it as built on neoclassical economics at heart, with a varied commitment and interpretations of its central tenets. Such approaches co-habit what has been referred to as "the edge of the mainstream" (Colander et al., 2004) or "mainstream heterodoxy" (Davis, 2008b). Stockhammer and Yilmaz (2015) discuss two broader variations here, namely: stricter neoclassical or Walrasian ones (e.g. the Real Business Cycle theory), and New Keynesian approaches. Despite the discrepancies and divergent views that these two broader variations bring, their mainstream nature is firmly exhibited in methodological individualism with its optimizing behavior of rational and selfish individuals. Interesting discussions on the dynamics between the neoclassical core and its variations are held by e.g. Kapeller (2013). Through his elaboration on Albert's critique of Model-Platonism, Kapeller (2013) points out how the claims of the narrow scope and content of mainstream economics are often unjustly challenged with e.g. the emergence of research areas like experimental economics supposedly enriching the economics realm (Colander et al., 2004), yet located within the mainstream edge.

These questions of ontological and epistemological nature become highly important in our further discussions of pluralism and its metarole for and beyond the discipline of economics. Monistic economic discourse is built on and conveys limited ideas. As explained later on (see Section 2.2), ideas shape reality. This is especially relevant for social sciences, where reality-creating is visible in e.g. the influence of economists on forming and shaping policy making and institutional designs through their advice based on theoretical and empirical considerations (Ferraro et al., 2005; Schmidt and Thatcher, 2014). The underlying assumption in what we consider the mainstream is that "consumption and production can be analyzed a-historically and without reference to social or environmental context" (Gowdy, 2007:29). In economic thought, the beginning of the 20th century makes the emergence of Walrasian (or neoclassical, as above) economics. Its modelling framework was largely inspired by Newtonian physics and mathematical models based on the first law of thermodynamics in closed systems: "[c]onventional neoclassical economic has at its core the presumption that economic decision making is a matter of cold logic, namely, the application of a constrained optimization rule" (Foster and Metcalfe, 2012:421). As such, environmental concerns specifically are integrated in mainstream economics through cost optimizing models such as externalities and carbon trading.

With regards to what has been said so far, the story of environmental and ecological economics is interesting to look into. As Spash and Ryan (2012) explain, the latter emerged in the context of increasing disappointment with the former. Environmental economics, built on mainstream premises (see e.g. Hanley and Spash, 1993), has not been successful in incorporating genuine care for the environment in its research. Nor has it come close in terms of outreach of environmental sensitivity and serious integration of socio-ecological issues into the economic agenda. The achievements of ecological economics in these regards have also been criticized. Spash (2013), for example, focuses on philosophy of science and points to internal inconsistencies of ecological economics as part of the problem. While embracing the importance of coherence of a school of thought, and emphasizing the urgency of bringing the socio-ecological dimension fully and firmly into economic analyses, we go a step further to say that this is not enough. Currently, economic discourse "concentrates upon how to (…) generally conduct human affairs as divorced from physical reality and context" (Spash and Ryan, 2012: 1096). We need a different understanding of economics to no longer be able to ignore the links between e.g. growth and environmental destruction. In building such an understanding, pluralism pleas aim to untie the mainstream straightjacket. They aspire to enlarge the confined economic space, where e.g. a theory is legitimate if it demonstrates mathematical proof and refers to (dis)-equilibrium (Morgan, 2015). They recognize that in a world of complexity and uncertainty, what is needed is "a general scheme of things that will enable us to understand how things go wrong, so that we are better equipped to cope with error and failure when they occur" (Ravetz, 2006:279). The opening up of economic discourse lies, in our understanding, within the interest of the heterodox subperipheries on their way to gaining more relevance, and, in case of schools of thought such as ecological economics, in bringing about actual change in conceptualizing economic activities in a holistic way that stops putting socio-ecological questions on the side-lines.

The students engaged in the pluralism movement at the moment, though a minority, are vocal and in the center of attention. In this paper, the instructors are given a chance to speak, as the ones who guide the new generation of economists and policy-makers. With this group in our focus, we aim to unravel the role of instructors in co-constructing the change within the discipline of economics and its teaching. An empirical field study was conducted with lecturers in introductory economics courses at the Vienna University of Economics and Business (WU Vienna) where they place themselves within the pluralism debates via a Q-study. The voices of the instructors are captured in the narratives resulting from the study. Along with individual peculiarities, through these narratives the actors behind them reinforce certain (economics-inherent) ideas and norms. These, consequently, shape reality – a relationship that becomes our focal area of interest and is reflected upon from the point of view of discursive institutionalism (see e.g. Schmidt, 2008, 2011), stressing in particular the role of ideas and discourse in institutional change.

The following section introduces the current pluralism debate, highlighting the relation between the discipline of economics and the "outside world", the institutional embedding of the problem and institutional change. Section 3 gives an overview of the research design and presents the Q study in greater detail. Importantly, with the employment of a small-n method, the study aims to contribute conceptually, rather than operationalize or generalize. This aim also reflects our sensitivity to the characteristics of the specific institutional circumstances of the study, as emphasized in Section 2. Section 4 presents the factors identified in the Q study in a form of narrative descriptions. The paper closes with a discussion delving more into detail on potential opening for change and three focal areas emerging from the study: 1) complexity, 2) context-sensitivity and historical embedding, and 3) responsibility. The conclusion lists study limitations and possible future research pathways.

2. Voices of Change

2.1. Current Pluralism Debate

In his insights on the dismal science of economics, Marglin (2008) takes the reader back to the times of the Great Depression and explains how this particular crisis created an environment open for challenging what was at that time primarily market-friendly discipline of economics. This wave of more critical economists brought along a wave of students attracted by critical endeavors into significant questions, e.g. on capitalism and inequality, or the dogma of efficiency. Nevertheless, "economics has since reverted to its market-friendly form with a vengeance" (Marglin, 2008: ix), focusing mainly on fostering mathematical abilities of students and putting larger questions aside. This monistic character of the discipline of economics, dominated by the neoclassical mainstream, has been challenged ever since. The discipline itself is characterized by plurality, yet with monistic transmission and hegemony of a particular school of thought (and its variations), speaking of pluralism in economics is rather naïve and farfetched (Dow, 2008; Bigo and Negru, 2008; Denis, 2013). Garnett et al. (2010) differentiate between two waves of challenging the mainstream: the first "rebellion" in the 1970s and 80s of representatives of a variety of heterodox schools of thought with limited interest in each other's traditions; and the second

more recent wave with attempts of more integration or cooperation between different schools along the lines of post-Kuhnian tradition.

The second wave coincides with loud calls for pluralism expressed by students that have intensified since 2008 (see e.g. IREE, 2009; ISIPE, 2014; PCES, 2014). Often misinterpreted as asking solely for the inclusion of heterodox schools of thought into economic curricula (Freeman, 2009), those calls argue that methods, theories and approaches of the economic mainstream have led to a situation where a narrow framework and a strongly monistic economic perspective severely constrain the questions asked (see e.g. JPE, 2008; Negru, 2010; Mearman, 2014). Student criticism of the status quo of economics pedagogy has grown to such an extent that in early 2014, the *International Student Initiative for Pluralism in Economics* (ISIPE, 2014) was founded as an umbrella initiative unifying their arguments. By 2015, 65 student groups in 30 countries, all part of ISIPE, demanded the return of the real world to economic curricula (ISIPE, 2014). In brief, following the postulates of ISIPE and others (see e.g. PCES, 2014), this means a demand for broadening the perspectives on and the use of both different theoretical frameworks and methods (i.e. theoretical and methodological pluralism). This also means an increased recognition of historical embeddedness and context specificity of economic phenomena, and inclusion of social, political and philosophical issues in teaching, enabling a better look at the social and moral implications of economics (i.e. interdisciplinary pluralism). The focus of mainstream economics on mathematical methods and its strong abstraction from reality is also attacked, with the discipline as currently practiced missing self-criticism. Further, students feel that current teaching does not equip them with critical knowledge to work on solutions for the problems society and the economy do and will face in the 21st century. All in all, the pluralist groups call for what Keen refers to as "the intellectual revolution that economics desperately needs" (Keen, 2011: xii), or, to use Lavoie's words, steer away from "the pathological state of the profession" (2015:18). On a more general level, the student movement can also be embedded in "the broader struggle against unfettered capitalism in the post-crisis period" (Stockhammer and Yilmaz, 2015:2).

In outlining potential pathways of change in economics education, Denis (2013) (see also his Editorial to IREE, 2009) refers to two types of pluralism: permissive and assertive. The former can be seen as "weak" pluralism, simply allowing or granting permission for a variety of schools of thought to exist and a variety of modes of teaching to be applied. Permissive pluralism is rather teacher-centered, as "it permits teaching which fits with the inclinations of the teacher" (IREE, 2009:11), along with introduction of courses in economic methodology or history of economic thought. As Lavoie (2015) rightly points out, though, even this minimalist approach might not be possible to realize, since many departments simply miss instructors competent within those areas. Permissive pluralism is limited to pluralism at the aggregate level, as in tolerating the possibilities of one or another approach to be taught. The permissive approach is seen as sufficient by those who claim that exposing students to too many views may lead to a situation in which they cannot endorse any particular approach fully (Vromen, 2007). The latter, assertive pluralism, necessarily includes and builds on this tolerant approach, but takes a step further to emphasize actual engagement of different schools of thought with each other. Assertive pluralism, then, is regarded as student-centered, where the students are familiarized with competing paradigms, and skills indispensable for dealing with this plurality are developed. In other words, in an assertive approach "pluralism cannot be reduced to synthesis or inclusion, but has to (be) based on systematic deployment of controversy as means of understanding and educating" (IREE, 2009:12). Lavoie (2015) adds that comprehending controversies across different paradigms is also needed, creating a further demand for understanding the essence of other approaches within the same field that are often remote from each other.

It is of utmost importance to link the two spheres, i.e. research and teaching, as changing economics pedagogy necessarily depends on practicing pluralism not only within economics curricula, but also in economics profession (Negru, 2010; Lavoie, 2015), both often stuck in institutional constraints reinforcing the monistic status quo (see Section 2.2 below). Boiled down to the basics, teaching and research are most often carried out by the same individuals (Lavoie, 2015). The consensus among the students is, however, much more developed, while the research front struggles with "the problem (…) that pluralism is understood in very different way by mainstream and heterodox economists" (Lavoie, 2015:25). From the mainstream point of view, heterodox approaches are often defined in alternative rather than oppositional terms (Lee, 2011). Pluralism itself, while becoming the key word within economic discourse among heterodox traditions, is criticized for the lack of common conceptual foundations (Dobusch and Kapeller, 2012). Tolerance for new approaches within the mainstream is on the increase (e.g. through game theory, experimental economics, environmental economics), while the general mainstream intolerance of heterodoxy remains firm and strong (Davis, 2008a). Therefore, the variety within the mainstream is used to justify the claim that there is enough pluralism in both economic classrooms and departments, and those who insist on reforms are not up-to-date on the developments within the mainstream (Lavoie, 2015). The heterodox realm seems somewhat more open, possibly due to its inferior position within the discipline, as reflected e.g. in Dobusch and Kapeller's (2012) contribution. Embedded in mainstream-heterodoxy dynamics, the authors see the pluralism narrative as expressing the need for a framework that allows for "pluralism in research praxis independent of paradigmatic background" (Dobusch and Kapeller, 2012: 1036). Such framework would unify not only representatives of heterodox schools of thought, but all those who are dissatisfied with the dominance of a particular approach both on the institutional and conceptual levels.

With the intensifications of the recent pluralism debates, the ground for change might seem more and more fertile. However, as shown on the example of the UK economic landscape, post-2008 "attempts at reform have so far sought to preserve the intellectual dominance of mainstream economics in both academic and educational spheres (Stockhammer and Yilmaz, 2015: 6). Endeavors such as the infamous CORE (Curriculum Open-access Resources in Economics) project makes the case. Here, mainstream premises are seasoned with a pinch of economic history and a dash of recent data, thus leading to a more engaging and fresh but nevertheless still mainstream flavor (Stockhammer and Yilmaz, 2015). Similarly, in his review of the reformulated benchmarks for economics by the Quality Assurance Agency for Higher Education (QAA) in the UK, Morgan (2015) explores the benchmark alterations only to show that "the process has been conducted from within the narrowness of method and theory rather than (being) oriented on the narrowness of the method and theory" (Morgan, 2015: 534). To take a few examples, the revised benchmarks still strike with a positivist, objective underpinning, barely welcome broadening the scope of economic theories being taught, and persist in glorifying mathematical and statistical analysis and modelling for the sake of modelling. Taken holistically, the visions of widespread pluralism in the discipline of economics where we "let a hundred flowers bloom" (Chang, 2014: 109) are demanding. In exploring the evolution of economic discourse, its institutional nature and setting need not to be overlooked, as discussed further in the following section.

2.2. Social Sciences, Reality, and Economic Discourse

Notably, the recent voices critical of the condition of (teaching) economics have been raised within the context of multiple crises, with economic and financial crises heavily exposing the limitations of what can be considered the dominant paradigm in the discipline of economics (see e.g. PCES, 2014; Negru, 2010). The relevance of the debate initiated by the pluralism movement, in other words, refers strongly to the interactive nature between a given scientific discourse and reality. The considerations of ideas (whether knowingly or not) shaping worldviews,

beliefs and attitudes bring us to the question of paradigms and paradigmatic change (see e.g. Kuhn, 1970).

Within pluralism debates, Dobusch and Kapeller (2012) delve into the question and suggest seeing paradigm as a more descriptive term with social implications, rather than a term of epistemological connotations and logical implications only. Building on e.g. Berger and Luckmann (1966) and Gouldner (1970), Dobusch and Kapeller (2012) define a paradigm as social embedding of scientists and their perceptions in a particular occupational philosophy, therefore conjoining the work of Kuhn with sociology of knowledge. A scientific paradigm, then, stands for a theoretical perspective built on a range of presuppositions, inevitably connected to common "styles of thought". Seeing the pluralism debate as a call for paradigmatic change, the authors suggest a "pluralist (meta-) paradigm" that could synthesize the diversity of approaches to economics. They opt for incremental (instead of revolutionary) change towards interested pluralism – based on ecumenical pluralist principles, constructive engagement between different approaches to economics, seeing these as sources of potential contribution rather than disconnected entities that must be tolerated but are not engage with each other. This high ontological awareness outlays prerequisites for evaluating and understanding various ontological foundations, feeding directly back into Spash's (2013) contributions, and further emphasizing the role of pluralism for the discipline of economics as a whole.

Zooming in to the sphere of environment and ecology, students of economics are confronted with it mostly in terms of environmental and resource economics with a focus on neoclassical microeconomics. As van den Bergh points out, this can be "exemplified by the theories of monetary valuation (Johnansson, 1989) and environmental policy (Baumol and Oates, 1988 in van den Bergh, 2007: 524)". Specifically, a narrow understanding of economics has very real policy implications. In the environmental realm, this can, for example, be illustrated through projects such as *The Economics of Ecosystems and Biodiversity* (TEEB) assigning monetary values to natural resources, self-described as "an approach that can help decision makers recognize, demonstrate and, where appropriate, capture the values of ecosystems and biodiversity" (TEEB, 2010: 3). The aim of assigning monetary indicators to ecosystems and biodiversity is to develop more efficient methods of use of these systems (TEEB, 2010: 11). However, as has been argued by ecological economists, the "economic valuation of biodiversity is based on an instrumental perspective on the value of biodiversity" (Nunes and van den Bergh, 2001: 207). Especially Spash has written extensively of the fallacies of Cost-Benefit Analysis (CBA) and its neoclassical applications (Hanley and Spash, 1993; Spash, 2011, 2015), focusing on "experts producing objectivity via monetary numbers" (Spash and Vatn, 2006: 380). Mainstream policy analysis is based on the notion that "the data and observations that form the input of its analytic techniques are non-problematical" and that policy analysis provides "objective, certain knowledge" (Hajer and Wagenaar, 2003:16). Politically ambivalent questions are such resolved by objective science, muting any objections.

Following our introductory remarks, these ontological and epistemological questions are reflected on the institutional dimension (in e.g. conferences, academic journals), as well as methodological (through e.g. strong limitations in terms of preferred methods), and evaluative (i.e. academic standard) dimensions. In his recent contribution to the 2015 INET[1] Annual Conference, Lavoie (2015) discusses this institutional "lock-in" of economic discourse in practice. Disappointed with what the pluralism movement has managed to achieve by now in terms of tangible change, he points to specific institutional mechanisms that help sustain the mainstream's resilience. His list of usual suspects is exhaustive, including textbooks, funding schemes, and the very shortage of (wo)man power of heterodox economists resulting from the omnipresence of the mainstream in economics education beyond the commonly criticized undergraduate level. He quotes bibliometric studies showing how marketization of science provides tools for institutional strengthening of the status quo. This tool comes in use when heterodox authors reinforce the position of mainstream colleagues through positioning their work *against* them, therefore boosting their citation metrics (e.g. Kapeller, 2010a, 2010b; Glötzl and Aigner, 2015). This "favor" is rarely re-paid, since ignorance of heterodox contributions is common among the mainstream authors.

These institutional constraints come in different shapes and sizes, as "every department, faculty, university or country finds itself in a different situation and hence there is no universal solution" (Lavoie, 2015: 18). As such, we narrow the focus down to our home institution and the instructors based at currently the biggest Department of Economics in the German-speaking world, located at the WU Vienna It consists of nine sub-divisions covering different thematic areas in economics.[2] In spite of its strong focus on economic policy, the Department has slowly been shifting its research focus towards empirical economics and econometrics. The organization and holding of all economics classes on both undergraduate and graduate programs lies within the responsibility of this particular unit. The main content restrictions affect introductory courses such as micro- and macroeconomics, while at the graduate level the instructors are free in terms of course design and thematic areas. This drive towards unification of undergraduate courses has led to a strong focus on mainstream economics over the last years, particularly for students not specializing in economics per se. Through this process, instructors are expected to teach strongly neoclassical content, regardless of their research practices. Possibilities for modifying the content are limited due to a range of additional factors such as simple lack of time within the course span, and the need to prepare the students for a pre-designed exam.

In exploring potential change and transformation in our local context, we focus particularly on the instructors of macroeconomics, microeconomics, and fiscal policy at the undergraduate level provided by the Department of Economics. In the analysis, we draw on political science in its institutionalist conceptualizations of ideas and discourse, and one of the most recent approaches to institutional change: discursive institutionalism, as outlined in the following sections.

2.3. Discursive Institutionalism – Ideas and Discourse for Institutional Change

Regarding ideas and discourse, as well as discursive institutionalism (DI), we follow the explanations and line of argumentation of Vivien Schmidt (e.g. 2008, 2011). Ideas, to begin with, exist at three levels of generality:

- Policies (specific policies or policy solutions posited by policy makers);
- Programs, i.e. the underlying assumptions and organizing principles underpin policies, and defining their issues, goals, and methods to be used;
- Philosophies, i.e. even deeper underlying assumptions that, contrary to the policies and programs, are contested mainly in face of a crisis.

As for the content, ideas are cognitive ("what is and what to do") or normative ("what is good or bad about what is in light of what one ought to do") (Schmidt, 2008:307). The persistence of certain ideas in becoming policies, programs, and philosophies is surrounded by question marks (Schmidt, 2008). Academics, for example, play one of the key roles in providing expertise that allows for validation of specific policies. For programs and philosophies, Kuhn's (1970) approach

[1] Institute for New Economic Thinking, https://ineteconomics.org/.

[2] Including Institutes for: Labor Economics; Public Sector Economics; Macroeconomics; Institutional and Heterodox Economics; Economic Policy and Industrial Economics; Analytical Economics; Quantitative Economics; International Economics and Development; International Economics.

concentrates on philosophy of science as the area of highest importance for success and fail. Delving more into this interaction, Schmidt (2008) adds that:

> "In science, programmatic success is judged by scientists alone; in society, [it] is judged not only by social scientists but also by citizens. (…) Moreover, whereas ideational change in science results from internal processes, when the Kuhnian paradigm expires because it has exhausted its explanatory potential, ideational change in social science and society results also from external processes and events that create a receptive environment for new ideas" (2008: 308).

Consequently, Schmidt (2008) enriches Kuhnian paradigmatic change and points to theories of institutional change as more appropriate for the realm of social science. The third level, philosophies, has been the focus of Bourdieu (1994), Foucault (2000), and Gramsci (1971), as Schmidt points out (2008), conjoining ideas with power and domination.

Continuing, discourse, "a more versatile and overarching concept than ideas" (Schmidt, 2008:309), is an interactive process that conveys ideas. Discourse "is not just ideas or "text" (what is said) but also context (where, when, how, and why it is said). [It] refers not only to structure (what is said, or where and how) but also to agency (who said what to whom)" (Schmidt, 2008:305). Discourse conveys ideas of all three levels and two types, and finds its expression in various forms, e.g. narratives, frames, stories, images. It also finds its expression in scientific arguments "generating stories about the causes of current problems, what needs to be done to remedy them, and how they fit with the underlying values of the society" (Schmidt, 2008:309), which is of particular relevance for the discipline of economics and its currently monistic nature It can be either coordinative (i.e. among policy actors) or communicative (between political actors and the public). Tracing the failure and success of discursive processes includes looking into their ways, their audiences, and contexts.

Centered on the role of ideas and discourse, and setting these within institutions, discursive institutionalism (DI) sees institutional change as inherently dynamic (Schmidt, 2008). It defines institutions simultaneously as structures and constructs internal to agents. Institutions change or persist because of two abilities of agents: "background ideational abilities" (i.e. sense-making in reference to the ideational rules or "rationality" of a given setting), and "foreground discursive abilities" (or the logic of communication, which enables change through deliberation and debate about the rules) within a given meaning context. Interests in DI are subjective ideas, neither objective nor material. Norms are dynamic constructs, rather than static, and necessarily intersubjective.

In the study, we aim to build a better understanding of the perceptions on pluralism and teaching economics present among a body of instructors. The voices of these instructors are expressed via a Q study, exploring the ideas and norms characteristic of the emergent narratives. With the DI considerations in the background, we take a first peek into the economic discourse in our own institutional "backyard" and aim to explore how the instructors relate to the pluralist pleas, the ideas posited, and the most salient criticism of the mainstream, thereby investigating their openness for change in teaching practices.

3. Q Study – Research Design

In what follows, the individual steps of design and implementation of Q are discussed.

3.1. Q Methodology

The process of unravelling the perceptions of instructors of undergraduate economics courses on pluralism and teaching is facilitated via an empirical field study with the use of Q methodology. Rooted in social psychology, it was created by William Stephenson in the 1930s (Stephenson, 1953). Interested primarily in holistic investigations and disappointed with the shortcomings of by-variable (or R methodological) factor analysis in those terms, Stephenson spent years on developing an inverted by-person (or Q methodological) factor analysis technique, along with data collection procedure where such technique could be successfully applied (see e.g. Stephenson, 1936a, 1936b; for a brief overview, see Watts and Stenner, 2012:7-12). Contrary to the often-used R methodology, Q applies the inverted by-person perspective to a sample or population of items scaled relatively by a collection of individuals. This unique technique can be used to explore differences between opinions on contested topics on a small group of participants. Stephenson's oeuvre, Q, is a mixed method representing a qualitative but statistical approach focused on uncovering ways of understanding(s) of individuals' behavior, and "the social and environmental worlds in which they live" (Barry and Proops, 1999:337). Q has the potential to reveal viewpoints and understandings of a given group, building holistic results with strong qualitative detail (Watts and Stenner, 2012:4). Used primarily in psychology, Q has been gradually spreading into different disciplines and research areas, e.g. political sciences (Brown, 1980; Dryzek and Berejikian, 1993), as well as questions of environmental policy research (see e.g. Barry and Proops, 1999; Addams and Proops, 2000; Webler et al., 2009; Lansing, 2013; Albizua and Zografos, 2014; Cairns and Stirling, 2014; Stevenson, 2015), human geography (Robbins and Krueger, 2000; Eden et al., 2005; Brannstrom, 2011), communication science (Stephen, 1985), and more.

Q is a "'small n' methodology" (Cairns and Stirling, 2014:27), usually including between 20 and 40 purposively selected participants. As such, it is an intensive rather than extensive research tool "not intended to obtain results that can be extrapolated to the larger population. (…) The point is not to be able to say that *x* percent of the population thinks *y*" (Swedeen, 2006:199). Therefore, limited in terms of operational or generalizable contributions, Q adds to conceptual development within a given field of study.

The task of the participants is to rank a set of statements representing the discourse on a given topic relative to one another and fit these in a (usually) fixed- or forced-choice distribution (Watts and Stenner, 2012). In an attempt to capture whole configurations of viewpoints, the process of factor rendering starts with establishing intercorrelations between the Q sorts, looking into the level of agreement and discrepancy. The final interpretation of the factors, then, attempts to describe the key characteristics of individual factors corresponding to perceptions of groups that rank-ordered the Q set in heterogeneous ways (Watts and Stenner, 2012). In other words, clusters of similarly performed sorts emerge. In brief, Q includes three stages (Cairns and Stirling, 2014):

1. Creating the concourse, i.e. selecting statements that seize the diversity within the discourse on a given topic, and narrowing the concourse down to a representative sub-set, i.e. the Q sample or Q set;
2. Selecting the participants who go through the sorting procedure;
3. Running a statistical factor analysis and interpretation procedure complemented with the input from post-sort interviews.

In what follows, we go through these stages in greater detail within the context of our study.

3.1.1. Narrowing Down - Concourse to Q Set

The concourse representing the discourse on pluralism and teaching economics was constructed via two preceding broader steps, i.e. focus group and Qualitative Content Analysis (QCA). The focus group was conducted with six members of the pluralism student group in Vienna[3] - part of the international network – with the aim of determining their views on the current state of the economic curricula, what changes are needed and what roles teaching and teachers play (see Appendix A for

[3] www.plurale-oekonomik.at.

details) The meeting was recorded, transcribed, and coded for emergent themes. These were then used as the basis for the QCA. At this stage, we analyzed 42 documents in total (see Appendix B for list). As for the selection of the relevant documents, the first batch was suggested by the focus group participants, and complemented by snowballing based on the initial readings. Importantly, these documents were chosen from a range of sources to adequately portray the ongoing discourse around pluralism in economics with a focus on teaching. As such, literature came not only from academic sources (journal articles and book chapters) but also from popular discourse on the topic (e.g. newspaper articles, blog articles as well as political statements).

The coding was organized in three main categories: (1) critique of mainstream economics, (2) teaching economics, (3) pluralism as an alternative. In total, there were 25 sub-codes (see Appendix C for details). Coding was conducted with MaxQDA, chosen because it supports group work. The documents were distributed evenly among group members and coded individually. To ensure that codes were used in a coherent manner, each code was supplemented by a detailed memo. To facilitate this joint understanding further, one paper was coded by all researchers involved in the project and subsequently discussed. The individually coded texts were then analyzed jointly to extract statements for the Q study concourse.

Having such a structured coding system made the process of selecting the statements that would constitute the final Q set significantly smoother, along with the participation of all the co-authors in the coding process, assuring stronger triangulation. The statements constituting the final Q set were narrowed down to 47, keeping in line both with the recommendations of the optimal Q sample size between 20 and 60 statements (Webler et al., 2009), or 40 and 80 statements (Watts and Stenner, 2012). In order to test the comprehensive wording and thematic balance of the statements and assure the quality of the Q set, a pilot was carried out with 5 individuals from the WU Vienna (both researchers/instructors and students) who were not taking part in the study. The refined final version of the Q set can be found further on in Table 4.

3.1.2. How to Q: The P-set Sorting the Q-set

With the rationale of reaching the viewpoints of experts on a given topic (Watts and Stenner, 2012: 175), i.e. in our case those directly involved in teaching, participants (or the P-set) of the study were purposefully selected among instructors of undergraduate courses in economics (specifically macroeconomics, microeconomics, and fiscal policy). We included instructors employed by the previously described Department of Economics as internal or external lecturers at the WU Vienna, our home institution. The study was conducted with 24 individuals (16 male, 8 female), representing a rather diverse group (see Appendix D). In sum, the age ranges from 26 to 53 years old, with the majority in their mid-thirties; teaching experience spans from 1 to 25 years; educational background is predominantly economics (17 participants), with additional degrees in 7 cases e.g. development studies, mathematics, political science. Regarding institutional affiliation, 17 participants work at a university and research institute setting, while the remaining 7 find their core employment at public agencies, e.g. Austrian National Bank or the Chamber of Labor (see Table 1).

The participants were tasked with sorting the statements from the Q set into a grid scaled from +5 (what they most agree with) to −5 (what they least agree with), the range of the distribution being in accordance with Brown's (1980) suggestions for Q sets numbering 40–60 items. In line with common practice in Q studies, the shape of the grid was pyramid-like, therefore triggering a forced distribution into each individual category on the scale (see Fig. 1).

The sorting procedure took place in face-to-face meetings, and was followed by post-sort interviews on specific choices and the statements in broader terms, consequently enriching the quality of the data (Watts and Stenner, 2012). In response to the inability of five participants to conduct the sorting in such a setting, a self-sorting package was prepared with the use of FlashQ software (http://www.hackert.biz/flashq/demo/). Such a combination of techniques of conducting the sorts has been practiced among Q researchers (see e.g. Gruber, 2011; Cairns and Stirling, 2014), and is not problematic in terms of distorting the validity of the study (see e.g. Hogan, 2010).

Table 1
Sectors with which participants were associated (for details see Appendix A).

Sector	Number of participants
University	16
Applied research	2
Public institution	4
Banking sector	2

3.1.3. Behind the Scenes: Statistical Analysis

For the analysis of the Q sorts, a free purpose-built Q software PQMethod[4] was used. The analytical procedure began with correlating all the sorts to each other, resulting in a correlation matrix that stands for a measure of the relationship between any two Q sorts in terms of their (dis)similarity. Next, the generated correlation matrix underwent QCENT, or centroid factor, analysis grouping Q sorts that allocated the statements in a similar manner. Finally, varimax rotation was performed maximizing the explained variance (Swedeen, 2006; Watts and Stenner, 2012), corresponding to our aim of identifying the strongest commonalities and overlaps in subjective understandings of instructors on pluralism and (potentially changing) teaching economics. From the five factors initially extracted, only four were kept for interpretation. Their level of correlation can be seen in Table 2.

In considering which factors to keep, the rotated solutions were scrutinized for having a minimum of two individual Q sorts significantly correlated with them (Brown, 1980), i.e. closely approximating the viewpoint expressed by a given factor. Here, a statistically significant loading at the $p < 0.01$ level is calculated according to the following relation: $2.58 / \sqrt{n}$, where n stands for the number of items in the Q set (Brown, 1980). In our case that meant $2.58 / \sqrt{47} = 0.37633$, and was subsequently increased to 0.40 following Watts and Stenner's (2012) suggestions for possible sharpening of the value of significant loading. The four final factors also meet the criterion of Eigenvalues (EVs) exceeding 1 (see e.g. McKeown and Thomas, 1988; Watts and Stenner, 2012), and account for 44% of study variance. Table 3 presents the degree to which each participant's sort correlated with each factor. Factor Z-scores can be found in Appendix E.

A weighted averaging of all the individual significantly-loaded (or defining) Q sorts allows for creating factor estimates and, further, factor arrays (see Table 4) that can be seen as an idealized sorting pattern consistent with our 11-point (+5 to −5) distribution. Behind each factor array stands a group of defining Q sorts which have a significant loading on that factor only. A Q sort can also be neutral (without any significant loading) or confounded (with significant loadings on more than one factor), and excluded from factor-array creation.[5] Consequently, the "boarders" between each factor are rather blurry, and interpretations are not immutable (Davies and Hodge, 2012). The factor arrays served as the starting point of factor interpretations, which were conducted jointly by the co-authors with the use of the crib sheet (Watts and Stenner, 2012) - a coherent analytical tool for delivering sound and holistic results. The post-sort interviews of the relevant Q sorts were included in the interpretative process.

The constructed narrative descriptions from our take on the interpretative task of each factor are presented in the following section.

[4] Available as a free download at www.lrz-muenchen.de/~schmolck/qmethod/.

[5] But, following Armatas et al. (2014:450) "confounded Q-sorts can still be explained in terms of the resulting factor arrays onto which they significantly load. Those Q-sorts that are null are considered to be idiosyncratic viewpoints, which are not explained by any of the resulting factor arrays and do not contribute to the interpretation of the factor arrays".

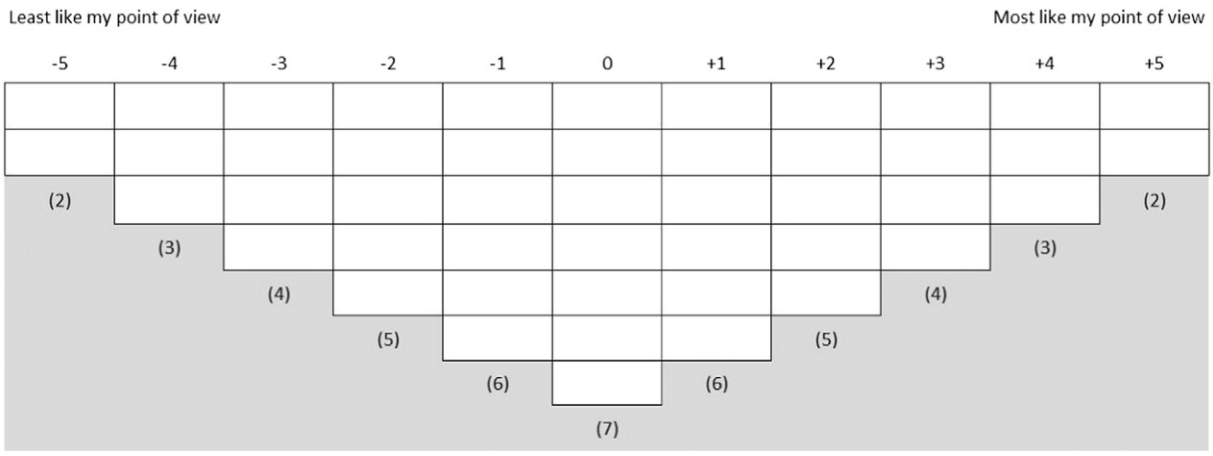

Fig. 1. The distribution shape for sorting the Q set.

4. Results Section

The interpretations were conducted based on the PQ method statistical analysis. Factor interpretation included loops of feedback between the co-authors. The comments from interviews and further consultations with the participants are included in the final narratives. The names assigned were developed with the aim of reflecting the overall character or dominant nature of each factor. That means, for example, that Factor 1 expresses a rather shy or careful view on pluralism, threading carefully on the matters of change, with limited openness, hence the name "Moderate Pluralists". In total, sorts from 17 participants were captured in factor arrays, 3 were confounded, and 4 showed no significant loading. The individual statements from the Q set (see Table 4) relevant for the respective story lines are numbered in brackets.

4.1. Moderate Pluralists (Factor 1)

This is the strongest factor with seven participants' sorts loading significantly. These are predominantly voices with university affiliation (5), with a minority from public agencies. Factor 1 explains 16% of the study variance and has an EV of 4.6.

For moderate pluralists, complexity is a key part of economic analyses (16). Despite this engagement with complexity, moderate pluralists recognize that in analyzing reality, abstraction via models is helpful. As abstraction is the point behind models, criticizing them for being simplistic brings us back to criticizing their main aim (17, 19, 18, 20, 22). Though often simplistic, models do influence reality via policy, so the responsibility for the impacts of research and policy-making and the impossibility of objective observation must be accepted among economists (8, 9). Any analysis or understanding of economic phenomena is highly context-dependent (38). In teaching, the appreciation of complexity and context-dependence means that different schools of thought can tell different stories, all of which may enrich our overall understanding (33, 34). Both teaching and research should be built on contestation (44), since disciplinary monoculture inhibits the development of critical thinking skills (11). Historical context needs to be taught because this allows students to properly reflect on a given theory (16). It follows that pluralist teaching is beneficial and does not cause confusion (26, 27). In general, the teaching situation is not necessarily seen as problematic and designed mainly for students wanting to go into academia (1, 39, 40, 47). Real progress towards pluralism in teaching requires a more diverse research environment, which needs to be ensured by universities as institutions (25, 36). The audience of economists is as diverse as reality is (15).

4.2. Responsible Pluralists (Factor 2)

Three participants' sorts loaded significantly on this factor, two with a university affiliation and one from a public agency. Factor 2 explains 8% of the study variance and has an EV of 4.0.

Table 2
Correlation between factors.

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1	1.000	0.473	0.205	0.452
Factor 2		1.000	−0.305	0.659
Factor 3			1.000	−0.305
Factor 4				1.000

Table 3
Degree to which each participant's sort correlated with each factor.

ID	Participants (by professional sector)	Degree of correlation of Q sorts with each factor			
		1	2	3	4
Participants whose sorts correlate with just one factor					
19	University	0.5595*	−0.3775	0.1688	−0.0069
21	Public institution	0.6186*	0.1058	−0.0089	0.1812
57	Applied research	0.5741*	0.1015	0.0364	0.2596
58	Applied research	0.6156*	−0.1328	0.2031	−0.2862
63	University	0.7805*	0.1367	0.0483	0.0258
72	University	0.5248*	−0.0486	0.2099	0.0925
82	University	0.5387*	0.0639	0.0181	0.3230
7	University	0.2324	0.6197*	0.1568	0.2617
15	Public institution	0.2811	0.5816*	−0.1193	0.2099
77	University	−0.0257	0.4998*	−0.0499	0.0352
41	Public institution	0.1660	−0.1782	0.5062*	0.0451
43	University	−0.0423	−0.2505	0.5949*	−0.1404
60	University	0.2170	−0.3554	0.6847*	−0.1143
61	University	0.2363	−0.2045	0.5898*	−0.3765
80	University	0.1068	0.0922	0.6448*	−0.1066
62	Public institution	0.2616	0.3132	−0.2478	0.6576*
13	Public institution	0.1176	0.1462	−0.3721	0.4087*
Participants whose sorts correlated with more than one factor					
45	University	0.1915	0.3993*	−0.2371	0.5893*
48	University	0.4584*	0.1974	0.2982	0.5896*
70	University	0.7748*	0.4291*	−0.0661	0.0020

* Indicates that a sort correlates significantly with the factor at the $p < 0.01$ level.

Table 4
Statements in the final Q set, and the idealized sorting pattern (from −5 to +5) for each factor. Statement 1, for example, was ranked at −2 in Factor 1, +1 in Factor 2, −3 in Factor 3, and 0 in Factor 4.

Statement	Idealized sort pattern			
	1	2	3	4
1. The discipline is inevitably and intrinsically plural, and our transmission of it to the next generation is rather singular.	−2	1	−3	0
2. The monopoly of the neoclassical paradigm at departments of economics has a considerable impact on the understanding of economics among major actors in society.	−2	1	−1	0
3. The study of ethics, politics and history are almost completely absent from the syllabus.	−1	0	3	−1
4. Economists do not simply depict a reality out there, they al also make it happen by disseminating their advice and tools.	0	0	1	**−3**
5. Mainstream economics has become too removed from the real world.	−1	−2	**−5**	**2**
6. Economics performs a central ideological role in policy-making.	0	0	−1	1
7. Economics, as currently practiced, plays a crucial role in shaping human-environment relations in a detrimental way.	−1	−1	−2	0
8. The responsibility for the wider social and political consequences of economic activity should be accepted.	3	4	1	1
9. Economists can stand outside society and observe it objectively.	**−5**	−5	**−2**	−5
10. Economics education fails to adequately train students to have skills that are vital to succeed in the working world.	−3	−3	−3	−3
11. This disciplinary monoculture results in a society with little ability to critically question the foundations, assumptions and practices of the economic status quo.	0	**0**	−3	−2
12. The crisis has also laid bare the latent inadequacies of economic models with unique stationary equilibria and rational expectations.	1	2	**−4**	1
13. Thinking in terms of rationality and statistics limits the scope of economic inquiry.	−1	−1	−3	−2
14. The individualist economic model assumes the kind of rationality that no one possesses.	**−1**	1	0	3
15. Economists see other economists as their primary audience, rather than the public or policy makers.	**−4**	−1	0	2
16. Complexity in economic analysis adds to the richness of description, but it also prevents the analyst from seeing what is essential.	**−3**	−4	**3**	−4
17. Neoclassical models fail to capture a complex reality.	**−2**	3	**−5**	2
18. Neoclassical models are too simplistic to be employed in policy-making.	**2**	−3	**5**	−3
19. Models help structure economic reality.	5	−2	5	−1
20. The use of advanced mathematical techniques has become the goal in itself, to be pursued independent of the insights it provides.	−3	−2	−1	**3**
21. In the mainstream of economics, quantitative methods and algebraic formalization have supreme status whilst qualitative approaches are deemed inferior.	**0**	3	4	1
22. Economic arguments that have not been expressed in a form of mathematical models tend to remain invisible.	−1	0	1	−1
23. Mathematical formalism puts all arguments on an equal footing, allowing direct comparison, and a straightforward check on consistency.	**0**	−4	**3**	−4
24. The syllabuses tend to concentrate on the delivery of mainstream material and difficult critical questions are postponed.	0	**1**	−1	−1
25. The university must ensure that the academic environment within the Economics Department is open and representative of the diversity of economics.	3	5	**−2**	**0**
26. A pluralist approach carries the danger of teachers and their students abandoning economics out of frustration born of confusion and uncertainty.	−5	−3	**2**	−4
27. Encouraging pluralism brings the risk of talking about everything and nothing.	−4	−5	**4**	−5
28. The validity of economics should be judged based on its efficacy in improving human welfare.	2	**5**	0	3
29. There is a need to teach a different kind of economics and teach it differently.	2	3	**−4**	**0**
30. Economics is a fundamentally political subject, not a value-free science.	1	0	**−4**	**4**
31. To be constructive one must consider alternatives, and not just an alternative.	1	−1	1	1
32. Social reality is multi-faceted and thus requires a variety of perspectives if it is to be adequately described and explained.	**1**	4	**−2**	4
33. Each school of thought has strengths and weaknesses, and together they can make our understanding of the economic reality richer.	**4**	2	**0**	2
34. It is important to recognize that there are distinctive ways of conceptualizing and explaining the economy.	**4**	1	2	1
35. The economy should be understood as a complex, living, and continuously evolving social network of human relationships, not a machine.	**3**	1	2	**5**
36. Progress towards pluralism in undergraduate education requires parallel shifts from monism towards pluralism in postgraduate education and in research.	**2**	0	1	−2
37. The philosophy of science ought to be a central part of core economics modules.	0	−2	0	**4**
38. Economic theory is not universally applicable and depends on institutional, historical and social context.	4	4	**0**	5
39. In the majority of classrooms, it is implied that neoclassical economics is universally accepted as the state of the art.	**−3**	−1	0	−1
40. Currently, teaching and examination aims at demonstrating the ability to reproduce a prescribed theory.	−2	3	2	−2
41. Teaching economics should begin with economic phenomena and then give students a toolkit to evaluate how well different perspectives can explain them.	2	2	2	2
42. History of economic thought and economic history are essential for students to be able to evaluate the quality of economic theory.	3	2	1	3
43. The focus on multiple choice and short answer forms of examination leaves economics students with a lack of skills in problem solving and written communication.	**1**	−1	**4**	−2
44. Contestation is a vital part of academic practice and education.	**5**	**−4**	3	0
45. The responsibility for determining economics teaching needs to be returned to those that actually do it, rather than left in the hands of textbook publishers and teaching experts.	−2	−2	−1	−3
46. For students to have a chance to study different types of economics, instructors of economics have to broaden their competence.	1	2	−1	0
47. Economics degrees are currently designed for the fraction of students who go on to become academic economists not the ones who go on to professional work.	−4	−3	−2	−1

Bold numbers indicate distinguishing statements for a given factor, i.e. those that a particular factor ranks in a significantly different way to all the other factors ($p < 0.05$). **Bold underscore** indicates significance at $p < 0.01$.

For Responsible Pluralists, the first step towards pluralism comes from the university as an institution responsible for ensuring academic diversity through e.g. hiring (25). However, the need of broadening the competences of instructors themselves is also recognized (46), thus emphasizing the individual level. They have strong sense of responsibility for their work and see a clear mission behind it, namely: improving human welfare (8, 9, 28). This mission has not been fulfilled properly (12). There is a general call for change in both the "what and how" of teaching economics (29, 40), turning away from the predominant monoculture (24) towards the currently lacking practice of contestation (44). These changes should be on both theoretical and methodological levels. Pluralism of theories is not confusing; rather, learning a variety of perspectives is inevitable in building a reflexive understanding of multifaceted social reality (1, 16, 27, 32). In regards to method, they reject the indiscriminate belief in the power of mathematical formalism to put everything on an equal footing (23), and objectify to the treatment of qualitative approaches as inferior (21). They suggest a cautious approach to modelling, particularly as an influence on policy making (17, 18, 19). There is no universality in investigations of economic

phenomena – such investigations are always context-dependent (38).

4.3. Mainstreamers (Factor 3)

Five participants' sorts loaded significantly on this factor, four of university background and one from a public agency. Factor 3 explains 11% of the study variance and has an EV of 1.1.

> In broader terms, mainstream economics has not lost touch with reality (5). Reality is complex (35), yet comparison and transparency of results are important, and the way of dealing with this complexity is based on stark abstraction. Therefore, abstraction via models is most helpful (19). Regarding neoclassical models in particular, they might be simplistic for policy making (18), yet they do provide useful insights in explaining complex reality (17). If your models have an influence on reality and also structure it, economists cannot observe society "from without" (4, 9). However, economists are not responsible for the wider social and political consequences of their advice (8), and the political implications and the impact that economists have is limited (6, 7, 30). In general, then, there is awareness of different perspectives (31, 34). Regardless, formalism, quantitative methods, and thinking in terms of rationality and statistics take a central role (13, 16, 21, 23). Against such background, pluralism brings the risk of frustration, confusion, and talking about everything and nothing (26, 27, 32). History and context-sensitivity is not of high relevance, economic theory has to offer comparability (38, 42). When it comes to teaching, there is criticism of the "how" (29, 40, 43), with a moderate call for change in teaching methods In general though, there is no need for increasing the diversity of input at universities (25).

4.4. Applied Pluralists (Factor 4)

Q sorts from two participants load significantly on this factor, both with a public agency affiliation. Factor 1 explains 9% of the study variance and has an EV of 1.0.

> Reality is complex; therefore, context-sensitivity is always there, contrary to universality (35, 38). Dealing with this complexity is directly related to our underlying assumptions (30), hence the need for stronger incorporation of philosophy of science and history of economic thought in the curricula (37, 42). Mainstream economics has become too removed from the real world (5). To better understand this complex nature of reality a range of perspectives is required; bringing various theoretical perspectives to the table enables that rather than causes confusion (32, 27, 16). Pluralism in its methodological sense is also needed, and putting mathematical formalism and assumptions of economic rationality on the pedestal must end (23, 20, 14). The "how" of teaching is criticized (40, 43). These voices are also emphasizing the unquestioned link between the discipline of economics and policy-making (4, 15).

5. Discussion and Conclusion

5.1. Complexity & Co

The four factors, herein referred to as the *Moderate Pluralists*, *Responsible Pluralists*, *Mainstreamers*, and *Applied Pluralists*, can be perceived as actors in the change process under investigation in our study. As ideas are the substance of discourse, the actors with their narratives add to the discursive landscape on pluralism and teaching economics. Starting from the content of ideas, the individual approaches brought by the four actors are reflected on both cognitive and normative levels. They cover aspects of "what is and what to do", and conjoin these with normative claims of "what one ought to do" and "what is good or bad to do". Through strengthening some ideas and norms, while weakening others, they influence this particular reality in a number of ways. In what follows, we discuss three areas that seem particularly relevant in showing discrepancies and overlaps between individual narratives on the cognitive and normative levels: 1) complexity, 2) context-sensitivity and historical embedding, and 3) responsibility.

The question of complexity refers directly to the nature of the economy and economic phenomena. Each group of actors perceives the economy in evolutionary rather than mechanistic terms, thereby acknowledging complexity as an inherent characteristic of the concept. This aspect implies that economic processes are ontologically characterized as evolutionary change. Acknowledging the inherently open, and therefore complex, nature of the economy also means acknowledging the links and interactions of the economy and the environment, which can be seen as promising in the context of change towards pluralism. However, the importance of this acknowledgment and the consequences it has for economic inquiries and teaching differs among the four groups. For both *Moderate Pluralists* and *Mainstreamers* abstraction is necessary to deal with complexity. The latter group strengthens their argumentation here with the need for comparability and transparency of results which can only be achieved through stark abstraction (as well as methodological formalism in broader terms). The former still sees value in abstraction as a tool for dealing with complexity, more than the other two pluralist groups. Both the *Applied* and *Responsible Pluralists* take a firm stand on the matter and marry complexity with a call for more pluralist teaching in both theoretical and methodological sense, while the *Moderates* tilt more towards theoretical pluralism. Moving away from a narrow, mainstream understanding of economics to an evolutionary one also means that it is necessary to open up economics teaching to recognizing the economy as an open system, warranting a number of explanatory approaches. This is mostly propagated by the last group: it is the *Applied Pluralists* for whom complexity ends up among the basic pillars of approaching economics, resulting in a clear call for interdisciplinarity in pluralism.

Complexity is inevitably related to context sensitivity, historical embedding, and the question of universality of economic arguments – as second group of areas worth looking at with cognitive and normative ideas in the background. Essentially, economic and social scientific analyses need to be reframed radically to account for this. Textbook economic analysis sees human action as atomized. In the socio-political sphere, this is directly related to mainstream economic analysis reproducing environmentally and socially harmful institutional dynamics and modes of governance. For our pluralist voices, economic phenomena are by default context- and history-sensitive (referring to interdisciplinary pluralism), and thereby impossible to be understood as universal. As such, understanding these phenomena requires a research environment characterized by diversity, and a teaching environment that fosters critique, contestation and reflexivity through building an array of schools of economic thought into the curricula, aligning with the student pleas Complementing both research and teaching milieus with methodological pluralism is emphasized clearly by the *Responsible* and *Applied Pluralists*, with a less open stance of the *Moderates*. Quite to the contrary, the *Mainstreamers*, as mentioned above, stay firm within the quantitative expression of economic arguments, formalism, statistics, and rationality as the key methodological guideposts. They recognize the need for awareness of the variety brought by different schools of economic thought, yet this is where they stop – restructuring the curricula towards stronger inclusion of this variety is seen as potentially leading to confusion and frustration of students – a quite common argument against pluralist teaching. The question of incorporating philosophy of science into economics teaching illustrates the extreme views taken on underlying assumptions regarding perceiving the sphere of economics. The argument can go two ways – either philosophy of science is a prerequisite for any pluralist undertaking as it

provides the ontological basis for all explanatory approaches, or it simply adds to the confusion that pluralism is claimed to cause for some students. The *Applied Pluralists* are the only ones to see incorporating philosophy of science into teaching as a fundamental requirement; the *Mainstreamers* disagree, while the *Moderate* and *Responsible* voices leave it without a comment.

A third area of interest regarding ideas posited by the four groups emerges around the questions of responsibility, i.e. a) responsibility *of* economists in general, and b) responsibility *for* (changing) the status quo. While the first refers specifically to teaching economics, the second is broader and connected with views on policy making. Regarding the status quo, the *Responsible Pluralists* see it in a most comprehensive way as situated both within universities' hands (through e.g. hiring and publication strategies), as well as individual economics instructors' hands (through e.g. broadening competences). To the contrary, the *Mainstreamers* deny responsibility on both levels, perhaps due to their general questioning of the need for broader change of the teaching status quo. The *Moderates* limit themselves to "blaming" university structures, while the *Applied Pluralists* disregard these questions to focus on responsibility in its second meaning. Here, they are the ones to take the lead in emphasizing the strong link between the discipline of economics and policy, pointing to the limitations of monocultural practices in policy making. As the participants behind this reading have a public institution affiliation, this link might be more pertinent to them. The *Moderates* recognize this responsibility towards policy-making, yet admitting to the limitations seems sufficient to them, without necessarily seeing more pluralistic economic practices as helpful in overcoming these limitations. The third pluralist group, the *Responsible Pluralists*, is most vocal in expressing a strong feeling of responsibility for their work in a sense of having a mission of improving human welfare (also via sensitive policy making). Such an understanding of responsibility is seen as crucial for a clear incorporation of both social and ecological issues into economic analyses. These wider social and political consequences of the discipline of economics are rejected by the *Mainstreamers*, who again come back to strict limitations when it comes to economics-policy interaction do not engage in this discussion.

5.2. Ideas and Discourse for Change

Cognitive and normative ideas captured in the four narratives are particularly relevant on the level of programs through defining central issues in economics and the ways of dealing with these. As explored in our study, the actors in focus play one of the key roles in providing expertise that allows for validation of economic policies. They legitimate specific problem-solving paths for ideas, and add to their long-term dominance. Discourse-wise, on the coordinative level, academics and researchers through their suggestions get involved in creation and justification of particular policies (a relation that might in fact be questioned by at least one of the groups in the study). Through taking on teaching responsibilities, these same actors gain influence in the communicative discourse by shaping the views of students. Particular ideas are reinforced among the student body as brought by instructors perceived as experts in a given field.

With regard to institutional change, the formal institutional context plays a crucial role in the matter in question, e.g. changing teaching practices. As shown in our discussions of pluralism debates in Section 2, current discourse in both teaching and researching economics is closest to the *Mainstreamers*' narrative, where teaching practices are already seen as pluralist enough. However, the fact that three out of four identified narratives are closer to pluralist mindsets in their approaches and understandings of economic matter is rather uplifting in light of the debates on changing the status quo, at least in the setting investigated in the study. Pluralism in its theoretical, methodological, and interdisciplinary understanding is welcome and supported by all three pluralist groups, yet to a different extent. The *Applied* and *Responsible Pluralists* are most comprehensive in their approaches, and the *Moderates* show a more limited openness to change, possibly placing them somewhere in between the pluralist discourse and the very edge of the mainstream edge In many aspects, one might say that *Moderate Pluralists* are in favor of permissive pluralism, which is shared also to some extent by the *Mainstreamers*. Assertive pluralism, with Lavoie's (2015) educational process emphasis, is welcomed particularly by the *Responsible* and *Applied Pluralists*. These two groups also support stronger diversity among those who participate in academic discussions. Moreover, the more comprehensive approach present among the pluralist factors carries the traits of interested pluralism outlined by Dobusch and Kapeller (2012) through taking economic processes as the center of analytical attention and showing high awareness of complexity of social reality.

Seen from a discursive institutionalism perspective, institutional change within a given meaning context depends largely on two abilities of agents – background and foreground ideational abilities (see Section 2.3). Despite the more or less subtle differences among the pluralist narratives in the data, one might say that both the background ideational abilities (sense-making of the rules) and foreground discursive abilities (communication enabling deliberation of the rules), inevitable in institutional change processes, are strongly present among our groups. In a broader sense, the evolution of the concept of pluralism in economic discourse – its very presence and recent dynamic development – can be seen as foreground abilities in the making, where we are dealing with deliberate questioning of the existing rules within the discipline of economics.

On a broader scale, the growing number of e.g. conferences and academic journals devoted to pluralist content exemplify the increasing activity in terms of foreground abilities. These discussions seem to have quite a visible impact already. The recent criticism of key mainstream-based neoliberal policies (removing capital controls and austerity) by Jonathan Ostry, Deputy Research Director at the IMF, clearly shows that the hegemony is breaking. Economic analysis needs to be reframed radically to be "more consistent with the systemic interdependence of economic activity on natural resources and waste-assimilation processes" (Foxon et al., 2013:189) and for a better understanding for processes of change in different realms.

This study stands for an exploration of the discursive variety among a group of instructors of introductory courses in economics. On a more superficial level, we can see that all of the groups agree on the need for stronger incorporation of different methods of teaching. Going more into detail, our claim of "discursive readiness" for change processes regarding a more pluralist research milieu and teaching economics among the groups and their narratives can be seen as a first step that marks openness for incremental change. However, in a formal institutional setting such as universities the question of change is more complicated, as discussed extensively by Lavoie (2015). Therefore, we see studies like the one presented here as beneficial in terms of investigating the local micro-environment and potentially pushing the pluralism debates further through preparing the grounds for a more inclusive multi-stakeholder dialogue within a specific research institution. This goes in line with Stockhammer and Yilmaz's (2015) claim that in creating actual change "[p]utting pressure on university managements through broader social alliances will increase the possibility of success significantly" (2015:8). Importantly, as a single case study employing Q method, the results are suggestive rather than generalizable, aiming at enriching the understanding of the investigated concept (Swedeen, 2006). The results of our endeavor leave us with a positive outlook for the future institution-level dialogue on pluralism. We encourage further studies with the use of heuristic tools such as Qs, enabling analyses of contextualized discourse in ongoing transitions and change processes. Taking into consideration the local specificities of institutional lock-in, we add to the calls for a more intense pluralism debate on the institutional level, both in practical and research terms.

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Appendix A. Focus Group Preparation

- What is the main problem in teaching economics at the moment?
- What is missing?
- What are potential solutions, how can gaps be filled?
- What is the status quo of the change process? Is it mainly discursive and in the literature? Are the changes happening in curricula?
- What is the role of the students and teachers respectively in the change process?
- Question of employability? How well does a degree in economics prepare you for the working world?

How would you imagine a perfect version of (pluralist) teaching?
Where is the problem? (use terms below to probe if conversation does not flow)

- Institutional constraints
- Textbooks and other material constraints
- Unwillingness to engage by lecturers
- Unwillingness to engage by students
- De-politicization of economics of a subject and value-free orientation

Follow up question: Where can change come from?
Role of teachers

- Personal experience, e.g. someone really inspirational or someone really awful – why?

Appendix B. Qualitative Content Analysis

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Appendix C. List of Subcodes

The codes are based on emergent themes from the student focus group. Any codes marked with an asterisk* were added during the qualitative content analysis for a holistic picture.

C.1. Category One: Critique of Mainstream Economics

Structurally/institutionally limiting
Mainstream/orthodox imperialism
Method-based
Blindingly simple
Mathematically sophisticated
Arrogant to other disciplines
Rational choice paradigm
Dissonance with reality
Monistic/one-sided

C.2. Category Two: Teaching Economics

Teacher's profile
Employability (non-academic)
Providing critical skills
Historical embeddedness
Broader focus
Incentive structure
Multiplicity of theories
Research and teaching inseparable
Philosophy of science integral

C.3. Category Three: Pluralism as an Alternative

Criticism of pluralism*
No ultimate truth
Ideological variability
Value-based
Reflective
Interdisciplinarity
Methodology matters

Appendix D. Participant List

No	Professional self-description and discipline	Affiliation	Teaching experience in years
7	Project assistant; economics	University	4
12	External lecturer; economics	Banking sector	2
13	External lecturer; economics, development studies	Public institution	4
15	External lecturer; economics	Public institution	11
16	Lecturer; economics	University	3
19	Senior lecturer; commerce, IBA	University	17
21	External lecturer; economics	Public institution	25
38	Researcher; economics	University	7
41	External lecturer; economics	Banking sector	6
43	Researcher; economics, mathematics, informatics	University	5
45	Researcher; economics	University	3
48	Researcher; economics, gender studies	University	10
57	Researcher; economics, political science	Applied research	1
58	Researcher; economics	Applied research	5
60	Professor; economics	University	15
61	Professor; economics	University	6
62	External lecturer; economics	Public institution	5
63	Researcher; economics	University	–
70	Researcher; economics	University	1
72	Researcher; economics	University	3
77	Researcher; economics	University	–
80	Researcher; economics	University	8
82	Researcher; economics, political science	University	2
84	Researcher; economics	University	3

Appendix E. Z-scores for each factor

Statement	Z-score			
	1	2	3	4
1. The discipline is inevitably and intrinsically plural, and our transmission of it to the next generation is rather singular.	−0.746	0.635	−1.002	0.047
2. The monopoly of the neoclassical paradigm at departments of economics has a considerable impact on the understanding of economics among major actors in society.	−0.917	0.359	−0.396	0.187
3. The study of ethics, politics and history are almost completely absent from the syllabus.	−0.614	0.264	0.819	−0.552
4. Economists do not simply depict a reality out there, they al also make it happen by disseminating their advice and tools.	0.337	0.303	0.352	−0.797
5. Mainstream economics has become too removed from the real world.	−0.506	−0.615	−1.850	0.750
6. Economics performs a central ideological role in policy-making.	−0.021	−0.044	−0.233	0.365
7. Economics, as currently practiced, plays a crucial role in shaping human-environment relations in a detrimental way.	−0.526	−0.327	−0.925	0.126
8. The responsibility for the wider social and political consequences of economic activity should be accepted.	1.222	1.201	0.267	0.599
9. Economists can stand outside society	−1.657	−1.593	−0.680	−2.291

(*continued*)

Statement	Z-score			
	1	2	3	4
and observe it objectively.				
10. Economics education fails to adequately train students to have skills that are vital to succeed in the working world.	−1.161	−1.254	−1.076	−0.693
11. This disciplinary monoculture results in a society with little ability to critically question the foundations, assumptions and practices of the economic status quo.	−0.485	0.125	−1.124	−0.668
12. The crisis has also laid bare the latent inadequacies of economic models with unique stationary equilibria and rational expectations.	0.359	0.707	−1.534	0.404
13. Thinking in terms of rationality and statistics limits the scope of economic inquiry.	−0.579	−0.159	−1.084	−0.613
14. The individualist economic model assumes the kind of rationality that no one possesses.	−0.508	0.492	0.112	0.873
15. Economists see other economists as their primary audience, rather than the public or policy makers.	−1.177	−0.247	0.019	0.657
16. Complexity in economic analysis adds to the richness of description, but it also prevents the analyst from seeing what is essential.	−0.921	−1.590	1.060	−1.670
17. Neoclassical models fail to capture a complex reality.	−0.735	1.156	−1.997	0.849
18. Neoclassical models are too simplistic to be employed in policy-making.	1.024	−1.018	2.471	−1.291
19. Models help structure economic reality.	1.757	−0.813	2.080	−0.381
20. The use of advanced mathematical techniques has become the goal in itself, to be pursued independent of the insights it provides.	−1.044	−0.637	−0.205	0.934
21. In the mainstream of economics, quantitative methods and algebraic formalization have supreme status whilst qualitative approaches are deemed inferior.	−0.032	0.914	1.527	0.624
22. Economic arguments that have not been expressed in a form of mathematical models tend to remain invisible.	−0.599	0.055	0.384	−0.231
23. Mathematical formalism puts all arguments on an equal footing, allowing direct comparison, and a straightforward check on consistency.	−0.282	−1.449	1.221	−1.931
24. The syllabuses tend to concentrate on the delivery of mainstream material and difficult critical questions are postponed.	−0.168	0.627	−0.378	−0.552
25. The university must ensure that the academic environment within the Economics Department is open and representative of the diversity of economics.	1.305	1.582	−0.741	−0.080
26. A pluralist approach carries the danger of teachers and their students abandoning economics out of frustration born of confusion and uncertainty.	−2.006	−1.204	0.640	−1.728
27. Encouraging pluralism brings the risk of talking about everything and nothing.	−1.467	−2.463	1.767	−2.027
28. The validity of economics should be judged based on its efficacy in improving human welfare.	0.644	1.903	0.112	1.011
29. There is a need to teach a different kind of economics and teach it differently.	0.842	0.895	−1.719	0.162
30. Economics is a fundamentally political subject, not a value-free science.	0.365	0.348	−1.361	1.428
31. To be constructive one must consider alternatives, and not just an alternative.	0.546	−0.106	0.255	0.264
32. Social reality is multi-faceted and thus requires a variety of perspectives if it is to be adequately described and explained.	0.503	1.199	−0.531	1.442
33. Each school of thought has strengths and weaknesses, and together they can make our understanding of the economic reality richer.	1.697	0.776	0.074	0.844
34. It is important to recognize that there are distinctive ways of conceptualizing and explaining the economy.	1.360	0.507	0.516	0.338
35. The economy should be understood as a complex, living, and continuously evolving social network of human relationships, not a machine.	1.290	0.434	0.465	2.028
36. Progress towards pluralism in undergraduate education requires parallel shifts from monism towards pluralism in postgraduate education and in research.	0.806	−0.022	0.260	−0.610
37. The philosophy of science ought to be a central part of core economics modules.	−0.295	−0.562	0.222	1.242
38. Economic theory is not universally applicable and depends on institutional, historical and social context.	1.537	1.242	−0.155	1.497
39. In the majority of classrooms, it is implied that neoclassical economics is universally accepted as the state of the art.	−1.098	−0.459	0.085	−0.099
40. Currently, teaching and examination aims at demonstrating the ability to reproduce a prescribed theory.	−0.742	0.898	0.495	−0.555
41. Teaching economics should begin with economic phenomena and then give students a toolkit to evaluate how well different perspectives can explain them.	0.662	0.808	0.503	0.643
42. History of economic thought and economic history are essential for students to be able to evaluate the quality of economic theory.	1.145	0.827	0.323	1.209
43. The focus on multiple choice and short answer forms of examination leaves economics students with a lack of skills in problem solving and written communication.	0.560	−0.468	1.395	−0.598
44. Contestation is a vital part of academic practice and education.	1.741	−1.593	0.745	0.204
45. The responsibility for determining economics teaching needs to be returned to those that actually do it, rather than left in the hands of textbook publishers and teaching experts.	−0.641	−0.654	−0.457	−1.151
46. For students to have a chance to study different types of economics, instructors of economics have to broaden their competence.	0.570	0.817	−0.187	−0.057
47. Economics degrees are currently designed for the fraction of students who go on to become academic economists not the ones who go on to professional work.	−1.343	−1.064	−0.535	−0.148

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