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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

28 hierarchical type of reputational organization (ibid). Therefore, its core, built on abstract theorizing
29 within the optimization paradigm, is perceived as a more prestigious area of academic activity than
30 other research in “peripheral sub-fields”. In spite of such conceptual restrictions of economic
31 theory as currently practiced, the belief that economics is *the* most scientific social science is still
32 quite common (Colander, 2005; Fourcade et.al, 2014). Within the discipline, the stronghold of the
33 core is institutionally embedded through e.g. journals, conferences and associations, quality
34 assessment of research, university departments, and textbooks (Lavoie, 2015), strongly
35 conditioning the openness for changes, or lack thereof.

36 The above-mentioned core stands for the mainstream of the discipline, while the peripheral
37 sub-fields are inhabited by heterodox traditions. These sub-fields, representing alternative
38 approaches to economic analysis, are often perceived by its core as “different, misguided or
39 inferior” (Stockhammer and Yilmaz, 2015) to the *proper* approach to economic investigations, while
40 those practicing them are in turn often perceived as “not quite economists” (Morgan, 2015: 525).
41 The heterodox traditions represent a variety of, often contested, discourses. Ideally, each of them
42 attempts to be internally consistent and coherent (for a thorough discussion on these matters and
43 related issues particularly in ecological economics, see Spash 2013). Regarding the mainstream, or
44 the currently dominant orthodoxy, we follow Dobusch and Kapeller (2012) in seeing it as built on
45 neoclassical economics at heart, with a varied commitment and interpretations of its central tenets.
46 Such approaches co-habit what has been referred to as “the edge of the mainstream” (Colander et
47 al. 2004) or “mainstream heterodoxy” (Davis 2008b). Stockhammer and Yilmaz (2015) discuss two
48 broader variations here, namely: stricter neoclassical or Walrasian ones (e.g. the Real Business Cycle
49 theory), and New Keynesian approaches. Despite the discrepancies and divergent views that these
50 two broader variations bring, their mainstream nature is firmly exhibited in methodological
51 individualism with its optimizing behavior of rational and selfish individuals. Interesting
52 discussions on the dynamics between the neoclassical core and its variations are held by e.g.
53 Kapeller (2013). Through his elaboration on Albert’s critique of Model-Platonism, Kapeller (2013)

54 points out how the claims of the narrow scope and content of mainstream economics are often
55 unjustly challenged with e.g. the emergence of research areas like experimental economics
56 supposedly enriching the economics realm (Colander et al. 2004), yet located within the mainstream
57 edge.

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

74 With regards to what has been said so far, the story of environmental and ecological economics
75 is interesting to look into. As Spash and Ryan (2012) explain, the latter emerged in the context of
76 increasing disappointment with the former. Environmental economics, built on mainstream
77 premises (see e.g. Hanley and Spash, 1993), has not been successful in incorporating genuine care
78 for the environment in its research. Nor has it come close in terms of outreach of environmental
79 sensitivity and serious integration of socio-ecological issues into the economic agenda. The

80 achievements of ecological economics in these regards have also been criticized. Spash (2013), for
81 example, focuses on philosophy of science and points to internal inconsistencies of ecological
82 economics as part of the problem. While embracing the importance of coherence of a school of
83 thought, and emphasizing the urgency of bringing the socio-ecological dimension fully and firmly
84 into economic analyses, we go a step further to say that this is not enough. Currently, economic
85 discourse “concentrates upon how to (...) generally conduct human affairs as divorced from
86 physical reality and context” (Spash and Ryan 2012: 1096). We need a different understanding of
87 economics to no longer be able to ignore the links between e.g. growth and environmental
88 destruction. In building such an understanding, pluralism pleas aim to untie the mainstream
89 straightjacket. They aspire to enlarge the confined economic space, where e.g. a theory is legitimate
90 if it demonstrates mathematical proof and refers to (dis)equilibrium (Morgan 2015). They recognize
91 that in a world of complexity and uncertainty, what is needed is “a general scheme of things that
92 will enable us to understand how things go wrong, so that we are better equipped to cope with
93 error and failure when they occur” (Ravetz, 2006:279). The opening up of economic discourse lies,
94 in our understanding, within the interest of the heterodox sub-peripheries on their way to gaining
95 more relevance, and, in case of schools of thought such as ecological economics, in bringing about
96 actual change in conceptualizing economic activities in a holistic way that stops putting socio-
97 ecological questions on the side-lines.

98 The students engaged in the pluralism movement at the moment, though a minority, are vocal
99 and in the center of attention. In this paper, the instructors are given a chance to speak, as the ones
100 who guide the new generation of economists and policy-makers. With this group in our focus, we
101 aim to unravel the role of instructors in co-constructing the change within the discipline of
102 economics and its teaching. An empirical field study was conducted with lecturers in introductory
103 economics courses at the Vienna University of Economics and Business (WU Vienna) where they
104 place themselves within the pluralism debates via a Q-study. The voices of the instructors are
105 captured in the narratives resulting from the study. Along with individual peculiarities, through

106 these narratives the actors behind them reinforce certain (economics-inherent) ideas and norms.
107 These, consequently, shape reality – a relationship that becomes our focal area of interest and is
108 reflected upon from the point of view of discursive institutionalism (see e.g. Schmidt, 2008 and
109 2011), stressing in particular the role of ideas and discourse in institutional change.

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

121 **2. Voices of change**

122 **2.1 Current pluralism debate**

123 In his insights on the dismal science of economics, Marglin (2008) takes the reader back to the
124 times of the Great Depression and explains how this particular crisis created an environment open
125 for challenging what was at that time primarily market-friendly discipline of economics. This wave
126 of more critical economists brought along a wave of students attracted by critical endeavors into
127 significant questions, e.g. on capitalism and inequality, or the dogma of efficiency. Nevertheless,
128 “economics has since reverted to its market-friendly form with a vengeance” (Marglin, 2008: ix),
129 focusing mainly on fostering mathematical abilities of students and putting larger questions aside.
130 This monistic character of the discipline of economics, dominated by the neoclassical mainstream,
131 has been challenged ever since. The discipline itself is characterized by plurality, yet with monistic

132 transmission and hegemony of a particular school of thought (and its variations), speaking of
133 pluralism in economics is rather naïve and farfetched (Dow, 2008; Bigo and Negru, 2008; Denis
134 2013). Garnett et al. (2010) differentiate between two waves of challenging the mainstream: the
135 first “rebellion” in the 1970s and 80s of representatives of a variety of heterodox schools of thought
136 with limited interest in each other’s traditions; and the second more recent wave with attempts of
137 more integration or cooperation between different schools along the lines of post-Kuhnian
138 tradition.

139 The second wave coincides with loud calls for pluralism expressed by students that have
140 intensified since 2008 (see e.g. IREE, 2009; ISIPE, 2014; PCES, 2014). Often misinterpreted as
141 asking solely for the inclusion of heterodox schools of thought into economic curricula (Freeman,
142 2009), those calls argue that methods, theories and approaches of the economic mainstream have
143 led to a situation where a narrow framework and a strongly monistic economic perspective severely
144 constrain the questions asked (see e.g. JPE, 2008; Negru, 2010; Mearman, 2014). Student criticism
145 of the status quo of economics pedagogy has grown to such an extent that in early 2014, the
146 *International Student Initiative for Pluralism in Economics* (ISIPE, 2014) was founded as an umbrella
147 initiative unifying their arguments. By 2015, 65 student groups in 30 countries, all part of ISIPE,
148 demanded the return of the real world to economic curricula (ISIPE, 2014). In brief, following the
149 postulates of ISIPE and others (see e.g. PCES, 2014), this means a demand for broadening the
150 perspectives on and the use of both different theoretical frameworks and methods (i.e. theoretical
151 and methodological pluralism). This also means an increased recognition of historical
152 embeddedness and context specificity of economic phenomena, and inclusion of social, political
153 and philosophical issues in teaching, enabling a better look at the social and moral implications of
154 economics (i.e. interdisciplinary pluralism). The focus of mainstream economics on mathematical
155 methods and its strong abstraction from reality is also attacked, with the discipline as currently
156 practiced missing self-criticism. Further, students feel that current teaching does not equip them
157 with critical knowledge to work on solutions for the problems society and the economy do and will

158 face in the 21st century. All in all, the pluralist groups call for what Keen refers to as “the intellectual
159 revolution that economics desperately needs” (2011: xii), or, to use Lavoie’s words, steer away from
160 “the pathological state of the profession” (2015:18). On a more general level, the student
161 movement can also be embedded in “the broader struggle against unfettered capitalism in the post-
162 crisis period” (Stockhammer and Yilmaz, 2015:2).

163 In outlining potential pathways of change in economics education, Denis (2013; see also his
164 Editorial to IREE, 2009) refers to two types of pluralism: permissive and assertive. The former can
165 be seen as “weak” pluralism, simply allowing or granting permission for a variety of schools of
166 thought to exist and a variety of modes of teaching to be applied. Permissive pluralism is rather
167 teacher-centered, as “it permits teaching which fits with the inclinations of the teacher” (IREE,
168 2009:11), along with introduction of courses in economic methodology or history of economic
169 thought. As Lavoie (2015) rightly points out, though, even this minimalist approach might not be
170 possible to realize, since many departments simply miss instructors competent within those areas.
171 Permissive pluralism is limited to pluralism at the aggregate level, as in tolerating the possibilities
172 of one or another approach to be taught. The permissive approach is seen as sufficient by those
173 who claim that exposing students to too many views may lead to a situation in which they cannot
174 endorse any particular approach fully (Vromen, 2007). The latter, assertive pluralism, necessarily
175 includes and builds on this tolerant approach, but takes a step further to emphasize actual
176 engagement of different schools of thought with each other. Assertive pluralism, then, is regarded
177 as student-centered, where the students are familiarized with competing paradigms, and skills
178 indispensable for dealing with this plurality are developed. In other words, in an assertive approach
179 “pluralism cannot be reduced to synthesis or inclusion, but has to (be) based on systematic
180 deployment of controversy as means of understanding and educating” (IREE 2009:12). Lavoie
181 (2015) adds that comprehending controversies across different paradigms is also needed, creating
182 a further demand for understanding the essence of other approaches within the same field that are
183 often remote from each other.

184 It is of utmost importance to link the two spheres, i.e. research and teaching, as changing
185 economics pedagogy necessarily depends on practicing pluralism not only within economics
186 curricula, but also in economics profession (Negru, 2010; Lavoie 2015), both often stuck in
187 institutional constraints reinforcing the monistic status quo (see Section 2.2 below). Boiled down
188 to the basics, teaching and research are most often carried out by the same individuals (Lavoie
189 2015). The consensus among the students is, however, much more developed, while the research
190 front struggles with “the problem (...) that pluralism is understood in very different way by
191 mainstream and heterodox economists” (Lavoie, 2015:25). From the mainstream point of view,
192 heterodox approaches are often defined in alternative rather than oppositional terms (Lee, 2011).
193 Pluralism itself, while becoming the key word within economic discourse among heterodox
194 traditions, is criticized for the lack of common conceptual foundations (Dobusch and Kapeller,
195 2012). Tolerance for new approaches within the mainstream is on the increase (e.g. through game
196 theory, experimental economics, environmental economics), while the general mainstream
197 intolerance of heterodoxy remains firm and strong (Davis, 2008a). Therefore, the variety within
198 the mainstream is used to justify the claim that there is enough pluralism in both economic
199 classrooms and departments, and those who insist on reforms are not up-to-date on the
200 developments within the mainstream (Lavoie 2015). The heterodox realm seems somewhat more
201 open, possibly due to its inferior position within the discipline, as reflected e.g. in Dobusch and
202 Kapeller’s (2012) contribution. Embedded in mainstream-heterodoxy dynamics, the authors see
203 the pluralism narrative as expressing the need for a framework that allows for “pluralism in research
204 praxis independent of paradigmatic background” (Dobusch and Kapeller, 2012: 1036). Such
205 framework would unify not only representatives of heterodox schools of thought, but all those
206 who are dissatisfied with the dominance of a particular approach both on the institutional and
207 conceptual levels.

208 With the intensifications of the recent pluralism debates, the ground for change might seem
209 more and more fertile. However, as shown on the example of the UK economic landscape, post-

210 2008 “attempts at reform have so far sought to preserve the intellectual dominance of mainstream
211 economics in both academic and educational spheres (Stockhammer and Yilmaz, 2015: 6).
212 Endeavors such as the infamous CORE (Curriculum Open-access Resources in Economics)
213 project makes the case. Here, mainstream premises are seasoned with a pinch of economic history
214 and a dash of recent data, thus leading to a more engaging and fresh but nevertheless still
215 mainstream flavor (Stockhammer and Yilmaz, 2015). Similarly, in his review of the reformulated
216 benchmarks for economics by the Quality Assurance Agency for Higher Education (QAA) in the
217 UK, Morgan (2015) explores the benchmark alterations only to show that “the process has been
218 conducted from within the narrowness of method and theory rather than (being) oriented on the
219 narrowness of the method and theory” (Morgan, 2015: 534). To take a few examples, the revised
220 benchmarks still strike with a positivist, objective underpinning, barely welcome broadening the
221 scope of economic theories being taught, and persist in glorifying mathematical and statistical
222 analysis and modelling for the sake of modelling. Taken holistically, the visions of widespread
223 pluralism in the discipline of economics where we “let a hundred flowers bloom” (Chang, 2014:
224 109) are demanding. In exploring the evolution of economic discourse, its institutional nature and
225 setting need not to be overlooked, as discussed further in the following section.

226 **2.2 Social sciences, reality, and economic discourse**

227 Notably, the recent voices critical of the condition of (teaching) economics have been raised
228 within the context of multiple crises, with economic and financial crises heavily exposing the
229 limitations of what can be considered the dominant paradigm in the discipline of economics (see
230 e.g. PCES, 2014; Negru, 2010). The relevance of the debate initiated by the pluralism movement,
231 in other words, refers strongly to the interactive nature between a given scientific discourse and
232 reality. The considerations of ideas (whether knowingly or not) shaping worldviews, beliefs and
233 attitudes bring us to the question of paradigms and paradigmatic change (see e.g. Kuhn 1970).

234 Within pluralism debates, Dobusch and Kapeller (2012) delve into the question and suggest
235 seeing paradigm as a more descriptive term with social implications, rather than a term of

236 epistemological connotations and logical implications only. Building on e.g. Berger and Luckmann
237 (1966) and Gouldner (1970), Dobusch and Kapeller (2012) define a paradigm as social embedding
238 of scientists and their perceptions in a particular occupational philosophy, therefore conjoining the
239 work of Kuhn with sociology of knowledge. A scientific paradigm, then, stands for a theoretical
240 perspective built on a range of presuppositions, inevitably connected to common “styles of
241 thought”. Seeing the pluralism debate as a call for paradigmatic change, the authors suggest a
242 “pluralist (meta-) paradigm” that could synthesize the diversity of approaches to economics. They
243 opt for incremental (instead of revolutionary) change towards interested pluralism – based on
244 ecumenical pluralist principles, constructive engagement between different approaches to
245 economics, seeing these as sources of potential contribution rather than disconnected entities that
246 must be tolerated but are not engage with each other. This high ontological awareness outlays
247 prerequisites for evaluating and understanding various ontological foundations, feeding directly
248 back into Spash’s (2013) contributions, and further emphasizing the role of pluralism for the
249 discipline of economics as a whole.

250 Zooming in to the sphere of environment and ecology, students of economics are confronted
251 with it mostly in terms of environmental and resource economics with a focus on neoclassical
252 microeconomics. As van den Bergh points out, this can be “exemplified by the theories of
253 monetary valuation (Johansson 1987) and environmental policy (Baumol and Oates 1988)” (2007:
254 524)”. Specifically, a narrow understanding of economics has very real policy implications. In the
255 environmental realm, this can, for example, be illustrated through projects such as *The Economics of*
256 *Ecosystems and Biodiversity* (TEEB) assigning monetary values to natural resources, self-described as
257 “an approach that can help decision makers recognize, demonstrate and, where appropriate,
258 capture the values of ecosystems and biodiversity” (TEEB, 2010: 3). The aim of assigning monetary
259 indicators to ecosystems and biodiversity is to develop more efficient methods of use of these
260 systems (TEEB, 2010: 11). However, as has been argued by ecological economists, the “economic
261 valuation of biodiversity is based on an instrumental perspective on the value of biodiversity”

262 (Nunes and van den Bergh., 2001: 207). Especially Spash has written extensively of the fallacies of
263 Cost-Benefit Analysis (CBA) and its neoclassical applications (Hanley & Spash, 1993; Spash, 2011;
264 Spash, 2015), focusing on “experts producing objectivity via monetary numbers” (Spash & Vatn,
265 2006: 380). Mainstream policy analysis is based on the notion that “the data and observations that
266 form the input of its analytic techniques are non-problematical” and that policy analysis provides
267 “objective, certain knowledge” (Hajer and Wagenaar 2003:16). Politically ambivalent questions are
268 such resolved by objective science, muting any objections.

269 Following our introductory remarks, these ontological and epistemological questions are
270 reflected on the institutional dimension (in e.g. conferences, academic journals), as well as
271 methodological (through e.g. strong limitations in terms of preferred methods), and evaluative (i.e.
272 academic standard) dimensions. In his recent contribution to the 2015 INET¹ Annual Conference,
273 Lavoie (2015) discusses this institutional “lock-in” of economic discourse in practice. Disappointed
274 with what the pluralism movement has managed to achieve by now in terms of tangible change, he
275 points to specific institutional mechanisms that help sustain the mainstream’s resilience. His list of
276 usual suspects is exhaustive, including textbooks, funding schemes, and the very shortage of
277 (wo)man power of heterodox economists resulting from the omnipresence of the mainstream in
278 economics education beyond the commonly criticized undergraduate level. He quotes bibliometric
279 studies showing how marketization of science provides tools for institutional strengthening of the
280 status quo. This tool comes in use when heterodox authors reinforce the position of mainstream
281 colleagues through positioning their work *against* them, therefore boosting their citation metrics
282 (e.g. Kapeller 2010a and b; Glötzl and Aigner 2015). This “favor” is rarely re-paid, since ignorance
283 of heterodox contributions is common among the mainstream authors.

284 These institutional constraints come in different shapes and sizes, as “every department,
285 faculty, university or country finds itself in a different situation and hence there is no universal

¹ Institute for New Economic Thinking, <https://ineteconomics.org/>

286 solution” (Lavoie, 2015: 18). As such, we narrow the focus down to our home institution and the
287 instructors based at currently the biggest Department of Economics in the German-speaking
288 world, located at the WU Vienna. It consists of nine sub-divisions covering different thematic areas
289 in economics². In spite of its strong focus on economic policy, the Department has slowly been
290 shifting its research focus towards empirical economics and econometrics. The organization and
291 holding of all economics classes on both undergraduate and graduate programs lies within the
292 responsibility of this particular unit. The main content restrictions affect introductory courses such
293 as micro- and macroeconomics, while at the graduate level the instructors are free in terms of
294 course design and thematic areas. This drive towards unification of undergraduate courses has led
295 to a strong focus on mainstream economics over the last years, particularly for students not
296 specializing in economics per se. Through this process, instructors are expected to teach strongly
297 neoclassical content, regardless of their research practices. Possibilities for modifying the content
298 are limited due to a range of additional factors such as simple lack of time within the course span,
299 and the need to prepare the students for a pre-designed exam.

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

305 **2.3 Discursive institutionalism – ideas and discourse for institutional change**

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

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.

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

314 As for the content, ideas are cognitive (“what is and what to do”) or normative (“what is good or
 315 bad about what is in light of what one ought to do”) (Schmidt, 2008:307). The persistence of certain
 316 ideas in becoming policies, programs, and philosophies is surrounded by question marks (Schmidt,
 317 2008). Academics, for example, play one of the key roles in providing expertise that allows for
 318 validation of specific policies. For programs and philosophies, Kuhn’s (1970) approach
 319 concentrates on philosophy of science as the area of highest importance for success and fail.
 320 Delving more into this interaction, Schmidt (2008) adds that:

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

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

332 Continuing, discourse, “a more versatile and overarching concept than ideas” (Schmidt,
 333 2008:309), is an interactive process that conveys ideas. Discourse “is not just ideas or “text” (what

334 is said) but also context (where, when, how, and why it is said). [It] refers not only to structure
335 (what is said, or where and how) but also to agency (who said what to whom)” (Schmidt, 2008:305).
336 Discourse conveys ideas of all three levels and two types, and finds its expression in various forms,
337 e.g. narratives, frames, stories, images. It also finds its expression in scientific arguments
338 “generating stories about the causes of current problems, what needs to be done to remedy them,
339 and how they fit with the underlying values of the society” (Schmidt, 2008:309), which is of
340 particular relevance for the discipline of economics and its currently monistic nature. It can be either
341 coordinative (i.e. among policy actors) or communicative (between political actors and the public).
342 Tracing the failure and success of discursive processes includes looking into their ways, their
343 audiences, and contexts.

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

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

360

361 **3 Q study – research design**

362

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

364

365 **3.1 Q methodology**

366 The process of unravelling the perceptions of instructors of undergraduate economics courses

367 on pluralism and teaching is facilitated via an empirical field study with the use of Q methodology.

368 Rooted in social psychology, it was created by William Stephenson in the 1930s (Stephenson, 1953).

369 Interested primarily in holistic investigations and disappointed with the shortcomings of by-

370 variable (or R methodological) factor analysis in those terms, Stephenson spent years on developing

371 an inverted by-person (or Q methodological) factor analysis technique, along with data collection

372 procedure where such technique could be successfully applied (see e.g. Stephenson 1936a, 1936b;

373 for a brief overview, see Watts and Stenner, 2012:7-12). Contrary to the often-used R methodology,

374 Q applies the inverted by-person perspective to a sample or population of items scaled relatively

375 by a collection of individuals. This unique technique can be used to explore differences between

376 opinions on contested topics on a small group of participants. Stephenson's oeuvre, Q, is a mixed

377 method representing a qualitative but statistical approach focused on uncovering ways of

378 understanding(s) of individuals' behavior, and "the social and environmental worlds in which they

379 live" (Barry and Proops, 1999:337). Q has the potential to reveal viewpoints and understandings

380 of a given group, building holistic results with strong qualitative detail (Watts and Stenner, 2012:4).

381 Used primarily in psychology, Q has been gradually spreading into different disciplines and research

382 areas, e.g. political sciences (Brown, 1980; Dryzek and Berejikian, 1993), as well as questions of

383 environmental policy research (see e.g. Barry and Proops, 1999; Addams and Proops, 2000, Webler

384 et al., 2009, Lansing, 2013; Albizua and Zografos, 2014; Cairns and Stirling, 2014; Stevenson, 2015),

385 human geography (Robbins and Krueger, 2000; Eden et al., 2005; Brannstrom, 2011),

386 communication science (Stephen, 1985), and more.

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

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

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

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

408 3.1.1 Narrowing down - concourse to Q set

409 The concourse representing the discourse on pluralism and teaching economics was
410 constructed via two preceding broader steps, i.e. focus group and Qualitative Content Analysis
411 (QCA). The focus group was conducted with six members of the pluralism student group in

412 Vienna³ - part of the international network – with the aim of determining their views on the current
413 state of the economic curricula, what changes are needed and what roles teaching and teachers play
414 (see Appendix A for details) The meeting was recorded, transcribed, and coded for emergent
415 themes. These were then used as the basis for the QCA. At this stage, we analyzed 42 documents
416 in total (see Appendix B for list). As for the selection of the relevant documents, the first batch
417 was suggested by the focus group participants, and complemented by snowballing based on the
418 initial readings. Importantly, these documents were chosen from a range of sources to adequately
419 portray the ongoing discourse around pluralism in economics with a focus on teaching. As such,
420 literature came not only from academic sources (journal articles and book chapters) but also from
421 popular discourse on the topic (e.g. newspaper articles, blog articles as well as political statements).

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

430 Having such a structured coding system made the process of selecting the statements that
431 would constitute the final Q set significantly smoother, along with the participation of all the co-
432 authors in the coding process, assuring stronger triangulation. The statements constituting the final
433 Q set were narrowed down to 47, keeping in line both with the recommendations of the optimal
434 Q sample size between 20 and 60 statements (Webler et al., 2009), or 40 and 80 statements (Watts
435 and Stenner, 2012). In order to test the comprehensive wording and thematic balance of the

³ www.plurale-oekonomik.at

436 statements and assure the quality of the Q set, a pilot was carried out with 5 individuals from the
 437 WU Vienna (both researchers/instructors and students) who were not taking part in the study. The
 438 refined final version of the Q set can be found further on in Table 4.

439 3.1.2 How to Q: the P-set sorting the Q-set

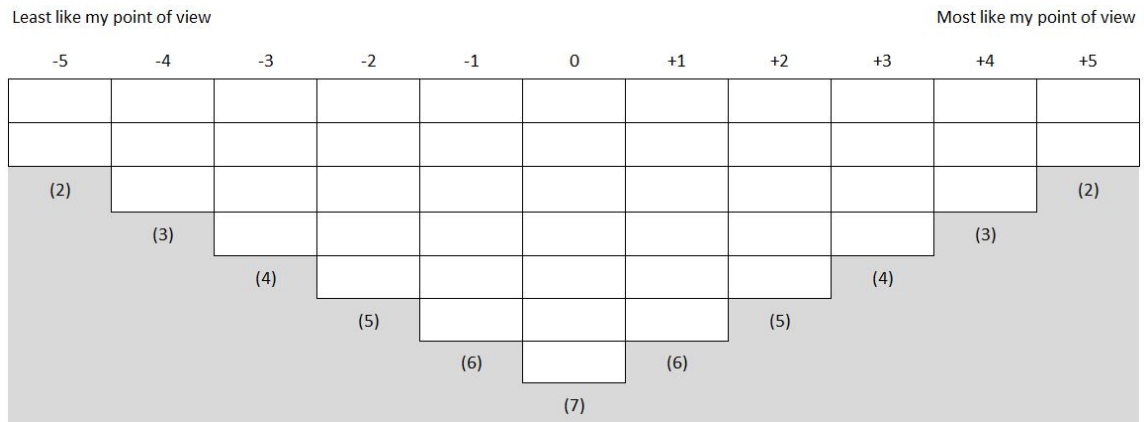
440 With the rationale of reaching the viewpoints of experts on a given topic (Watts and Stenner,
 441 2012: 175), i.e. in our case those directly involved in teaching, participants (or the P-set) of the
 442 study were purposefully selected among instructors of undergraduate courses in economics
 443 (specifically macroeconomics, microeconomics, and fiscal policy). We included instructors
 444 employed by the previously described Department of Economics as internal or external lecturers
 445 at the WU Vienna, our home institution. The study was conducted with 24 individuals (16 male, 8
 446 female), representing a rather diverse group (see Appendix D). In sum, the age ranges from 26 to
 447 53 years old, with the majority in their mid-thirties; teaching experience spans from 1 to 25 years;
 448 educational background is predominantly economics (17 participants), with additional degrees in 7
 449 cases e.g. development studies, mathematics, political science. Regarding institutional affiliation, 17
 450 participants work at a university and research institute setting, while the remaining 7 find their core
 451 employment at public agencies, e.g. Austrian National Bank or the Chamber of Labor (see Table
 452 1).

453 **Table 1: Sectors with which participants were associated (for details see Appendix D)**

454 **Here insert Table 1**

455 The participants were tasked with sorting the statements from the Q set into a grid scaled from
 456 +5 (what they most agree with) to -5 (what they least agree with), the range of the distribution
 457 being in accordance with Brown's (1980) suggestions for Q sets numbering 40-60 items. In line
 458 with common practice in Q studies, the shape of the grid was pyramid-like, therefore triggering a
 459 forced distribution into each individual category on the scale (see Figure 1).

460 **Figure 1: The distribution shape for sorting the Q set.**



461

462 The sorting procedure took place in face-to-face meetings, and was followed by post-sort
 463 interviews on specific choices and the statements in broader terms, consequently enriching the
 464 quality of the data (Watts and Stenner, 2012). In response to the inability of five participants to
 465 conduct the sorting in such a setting, a self-sorting package was prepared with the use of FlashQ
 466 software (<http://www.hackert.biz/flashq/demo/>). Such a combination of techniques of
 467 conducting the sorts has been practiced among Q researchers (see e.g. Gruber, 2011; Cairns and
 468 Stirling, 2014), and is not problematic in terms of distorting the validity of the study (see e.g. Hogan,
 469 2010).

470 3.1.3 Behind the scenes: statistical analysis

471 For the analysis of the Q sorts, a free purpose-built Q software PQMethod⁴ was used. The
 472 analytical procedure began with correlating all the sorts to each other, resulting in a correlation
 473 matrix that stands for a measure of the relationship between any two Q sorts in terms of their
 474 (dis)similarity. Next, the generated correlation matrix underwent QCENT, or centroid factor,
 475 analysis grouping Q sorts that allocated the statements in a similar manner. Finally, varimax rotation
 476 was performed maximizing the explained variance (Swedeen, 2006; Watts and Stenner, 2012),
 477 corresponding to our aim of identifying the strongest commonalities and overlaps in subjective
 478 understandings of instructors on pluralism and (potentially changing) teaching economics. From

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

479 the five factors initially extracted, only four were kept for interpretation. Their level of correlation
480 can be seen in Table 2.

481 **Table 2: Correlations between factors**

482 **Here insert Table 2**

483

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

494 **Table 3: Degree to which each participant's sort correlated with each factor**

495 **Here insert Table 3**

496

497 A weighted averaging of all the individual significantly-loaded (or defining) Q sorts allows for
498 creating factor estimates and, further, factor arrays (see Table 4) that can be seen as an idealized
499 sorting pattern consistent with our 11-point (+5 to -5) distribution. Behind each factor array stands
500 a group of defining Q sorts which have a significant loading on that factor only. A Q sort can also
501 be neutral (without any significant loading) or confounded (with significant loadings on more than

502 one factor), and excluded from factor-array creation⁵. Consequently, the “boarders” between each
 503 factor are rather blurry, and interpretations are not immutable (Davies and Hodge, 2012). The
 504 factor arrays served as the starting point of factor interpretations, which were conducted jointly by
 505 the co-authors with the use of the crib sheet (Watts and Stenner, 2012) - a coherent analytical tool
 506 for delivering sound and holistic results. The post-sort interviews of the relevant Q sorts were
 507 included in the interpretative process.

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

511 **Bold** numbers indicate distinguishing statements for a given factor, i.e. those that a particular factor
 512 ranks in a significantly different way to all the other factors ($p < .05$). **Bold Underscore** indicates
 513 significance at $p < .01$.

514 **Here insert Table 4**

515

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

518 4 Results section

519 The interpretations were conducted based on the PQ method statistical analysis. Factor
 520 interpretation included loops of feedback between the co-authors. The comments from interviews
 521 and further consultations with the participants are included in the final narratives. The names
 522 assigned were developed with the aim of reflecting the overall character or dominant nature of
 523 each factor. That means, for example, that Factor 1 expresses a rather shy or careful view on
 524 pluralism, threading carefully on the matters of change, with limited openness, hence the name

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”.

525 “Moderate Pluralists”. In total, sorts from 17 participants were captured in factor arrays, 3 were
526 confounded, and 4 showed no significant loading. The individual statements from the Q set (see
527 Table 4) relevant for the respective story lines are numbered in brackets.

528 **Moderate Pluralists (Factor 1)**

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

532 For moderate pluralists, complexity is a key part of economic analyses (16). Despite
533 this engagement with complexity, moderate pluralists recognize that in analyzing
534 reality, abstraction via models is helpful. As abstraction is the point behind models,
535 criticizing them for being simplistic brings us back to criticizing their main aim (17, 19,
536 18, 20, 22). Though often simplistic, models do influence reality via policy, so the
537 responsibility for the impacts of research and policy-making and the impossibility of
538 objective observation must be accepted among economists (8, 9). Any analysis or
539 understanding of economic phenomena is highly context-dependent (38). In teaching,
540 the appreciation of complexity and context-dependence means that different schools
541 of thought can tell different stories, all of which may enrich our overall understanding
542 (33, 34). Both teaching and research should be built on contestation (44), since
543 disciplinary monoculture inhibits the development of critical thinking skills (11).
544 Historical context needs to be taught because this allows students to properly reflect
545 on a given theory (16). It follows that pluralist teaching is beneficial and does not cause
546 confusion (26, 27). In general, the teaching situation is not necessarily seen as
547 problematic and designed mainly for students wanting to go into academia (1, 39, 40,
548 47). Real progress towards pluralism in teaching requires a more diverse research
549 environment, which needs to be ensured by universities as institutions (25, 36). The
550 audience of economists is as diverse as reality is (15).

551 Responsible pluralists (Factor 2)

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

554 For Responsible Pluralists, the first step towards pluralism comes from the university
555 as an institution responsible for ensuring academic diversity through e.g. hiring (25).
556 However, the need of broadening the competences of instructors themselves is also
557 recognized (46), thus emphasizing the individual level. They have strong sense of
558 responsibility for their work and see a clear mission behind it, namely: improving
559 human welfare (8, 9, 28). This mission has not been fulfilled properly (12). There is a
560 general call for change in both the "what and how" of teaching economics (29, 40),
561 turning away from the predominant monoculture (24) towards the currently lacking
562 practice of contestation (44). These changes should be on both theoretical and
563 methodological levels. Pluralism of theories is not confusing; rather, learning a variety
564 of perspectives is inevitable in building a reflexive understanding of multifaceted social
565 reality (1, 16, 27, 32). In regards to method, they reject the indiscriminate belief in the
566 power of mathematical formalism to put everything on an equal footing (23), and
567 objectify to the treatment of qualitative approaches as inferior (21). They suggest a
568 cautious approach to modelling, particularly as an influence on policy making (17, 18,
569 19). There is no universality in investigations of economic phenomena – such
570 investigations are always context-dependent (38).

571 Mainstreamers (Factor 3)

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

574 In broader terms, mainstream economics has not lost touch with reality (5). Reality is
575 complex (35), yet comparison and transparency of results are important, and the way

576 of dealing with this complexity is based on stark abstraction. Therefore, abstraction via
577 models is most helpful (19). Regarding neoclassical models in particular, they might be
578 simplistic for policy making (18), yet they do provide useful insights in explaining
579 complex reality (17). If your models have an influence on reality and also structure it,
580 economists cannot observe society “from without” (4, 9). However, economists are
581 not responsible for the wider social and political consequences of their advice (8), and
582 the political implications and the impact that economists have is limited (6, 7, 30). In
583 general, then, there is awareness of different perspectives (31, 34). Regardless,
584 formalism, quantitative methods, and thinking in terms of rationality and statistics take
585 a central role (13, 16, 21, 23). Against such background, pluralism brings the risk of
586 frustration, confusion, and talking about everything and nothing (26, 27, 32). History
587 and context-sensitivity is not of high relevance, economic theory has to offer
588 comparability (38, 42). When it comes to teaching, there is criticism of the “how” (29,
589 40, 43), with a moderate call for change in teaching methods. In general though, there
590 is no need for increasing the diversity of input at universities (25).

591 **Applied pluralists (Factor 4)**

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

594 Reality is complex; therefore, context-sensitivity is always there, contrary to
595 universality (35, 38). Dealing with this complexity is directly related to our underlying
596 assumptions (30), hence the need for stronger incorporation of philosophy of science
597 and history of economic thought in the curricula (37, 42). Mainstream economics has
598 become too removed from the real world (5). To better understand this complex
599 nature of reality a range of perspectives is required; bringing various theoretical
600 perspectives to the table enables that rather than causes confusion (32, 27, 16).
601 Pluralism in its methodological sense is also needed, and putting mathematical

602 formalism and assumptions of economic rationality on the pedestal must end (23, 20,
603 14). The “how” of teaching is criticized (40, 43). These voices are also emphasizing the
604 unquestioned link between the discipline of economics and policy-making (4, 15).

605 **5 Discussion and conclusion**

606 **5.1 Complexity & Co.**

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

618 The question of complexity refers directly to the nature of the economy and economic
619 phenomena. Each group of actors perceives the economy in evolutionary rather than mechanistic
620 terms, thereby acknowledging complexity as an inherent characteristic of the concept. This aspect
621 implies that economic processes are ontologically characterized as evolutionary change.
622 Acknowledging the inherently open, and therefore complex, nature of the economy also means
623 acknowledging the links and interactions of the economy and the environment, which can be seen
624 as promising in the context of change towards pluralism. However, the importance of this
625 acknowledgment and the consequences it has for economic inquiries and teaching differs among
626 the four groups. For both *Moderate Pluralists* and *Mainstreamers* abstraction is necessary to deal with
627 complexity. The latter group strengthens their argumentation here with the need for comparability

628 and transparency of results which can only be achieved through stark abstraction (as well as
629 methodological formalism in broader terms). The former still sees value in abstraction as a tool for
630 dealing with complexity, more than the other two pluralist groups. Both the *Applied* and *Responsible*
631 *Pluralists* take a firm stand on the matter and marry complexity with a call for more pluralist teaching
632 in both theoretical and methodological sense, while the *Moderates* tilt more towards theoretical
633 pluralism. Moving away from a narrow, mainstream understanding of economics to an evolutionary
634 one also means that it is necessary to open up economics teaching to recognizing the economy as
635 an open system, warranting a number of explanatory approaches. This is mostly propagated by the
636 last group: it is the *Applied Pluralists* for whom complexity ends up among the basic pillars of
637 approaching economics, resulting in a clear call for interdisciplinarity in pluralism.

638 Complexity is inevitably related to context sensitivity, historical embedding, and the
639 question of universality of economic arguments – as second group of areas worth looking at with
640 cognitive and normative ideas in the background. Essentially, economic and social scientific
641 analyses need to be reframed radically to account for this. Textbook economic analysis sees human
642 action as atomized. In the socio-political sphere, this is directly related to mainstream economic
643 analysis reproducing environmentally and socially harmful institutional dynamics and modes of
644 governance. For our pluralist voices, economic phenomena are by default context- and history-
645 sensitive (referring to interdisciplinary pluralism), and thereby impossible to be understood as
646 universal. As such, understanding these phenomena requires a research environment characterized
647 by diversity, and a teaching environment that fosters critique, contestation and reflexivity through
648 building an array of schools of economic thought into the curricula, aligning with the student pleas
649 Complementing both research and teaching milieus with methodological pluralism is emphasized
650 clearly by the *Responsible* and *Applied Pluralists*, with a less open stance of the *Moderates*. Quite to the
651 contrary, the *Mainstreamers*, as mentioned above, stay firm within the quantitative expression of
652 economic arguments, formalism, statistics, and rationality as the key methodological guideposts.
653 They recognize the need for awareness of the variety brought by different schools of economic

654 thought, yet this is where they stop – restructuring the curricula towards stronger inclusion of this
655 variety is seen as potentially leading to confusion and frustration of students – a quite common
656 argument against pluralist teaching. The question of incorporating philosophy of science into
657 economics teaching illustrates the extreme views taken on underlying assumptions regarding
658 perceiving the sphere of economics. The argument can go two ways – either philosophy of science
659 is a prerequisite for any pluralist undertaking as it provides the ontological basis for all explanatory
660 approaches, or it simply adds to the confusion that pluralism is claimed to cause for some students.
661 The *Applied Pluralists* are the only ones to see incorporating philosophy of science into teaching as
662 a fundamental requirement; the *Mainstreamers* disagree, while the *Moderate* and *Responsible* voices
663 leave it without a comment.

664 A third area of interest regarding ideas posited by the four groups emerges around the
665 questions of responsibility, i.e. a) responsibility *of* economists in general, and b) responsibility *for*
666 (changing) the status quo. While the first refers specifically to teaching economics, the second is
667 broader and connected with views on policy making. Regarding the status quo, the *Responsible*
668 *Pluralists* see it in a most comprehensive way as situated both within universities' hands (through
669 e.g. hiring and publication strategies), as well as individual economics instructors' hands (through
670 e.g. broadening competences). To the contrary, the *Mainstreamers* deny responsibility on both levels,
671 perhaps due to their general questioning of the need for broader change of the teaching status quo.
672 The *Moderates* limit themselves to “blaming” university structures, while the *Applied Pluralists*
673 disregard these questions to focus on responsibility in its second meaning. Here, they are the ones
674 to take the lead in emphasizing the strong link between the discipline of economics and policy,
675 pointing to the limitations of monocultural practices in policy making. As the participants behind
676 this reading have a public institution affiliation, this link might be more pertinent to them. The
677 *Moderates* recognize this responsibility towards policy-making, yet admitting to the limitations seems
678 sufficient to them, without necessarily seeing more pluralistic economic practices as helpful in
679 overcoming these limitations. The third pluralist group, the *Responsible Pluralists*, is most vocal in

680 expressing a strong feeling of responsibility for their work in a sense of having a mission of
681 improving human welfare (also via sensitive policy making). Such an understanding of
682 responsibility is seen as crucial for a clear incorporation of both social and ecological issues into
683 economic analyses. These wider social and political consequences of the discipline of economics
684 are rejected by the *Mainstreamers*, who again come back to strict limitations when it comes to
685 economics-policy interaction do not engage in this discussion.

686 5.2 Ideas and Discourse for Change

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

697 With regard to institutional change, the formal institutional context plays a crucial role in
698 the matter in question, e.g. changing teaching practices. As shown in our discussions of pluralism
699 debates in Section 2, current discourse in both teaching and researching economics is closest to the
700 *Mainstreamers'* narrative, where teaching practices are already seen as pluralist enough. However, the
701 fact that three out of four identified narratives are closer to pluralist mindsets in their approaches
702 and understandings of economic matter is rather uplifting in light of the debates on changing the
703 status quo, at least in the setting investigated in the study. Pluralism in its theoretical,
704 methodological, and interdisciplinary understanding is welcome and supported by all three pluralist
705 groups, yet to a different extent. The *Applied* and *Responsible Pluralists* are most comprehensive in

706 their approaches, and the *Moderates* show a more limited openness to change, possibly placing them
707 somewhere in between the pluralist discourse and the very edge of the mainstream edge. In many
708 aspects, one might say that *Moderate Pluralists* are in favor of permissive pluralism, which is shared
709 also to some extent by the *Mainstreamers*. Assertive pluralism, with Lavoie's (2015) educational
710 process emphasis, is welcomed particularly by the *Responsible* and *Applied Pluralists*. These two
711 groups also support stronger diversity among those who participate in academic discussions.
712 Moreover, the more comprehensive approach present among the pluralist factors carries the traits
713 of interested pluralism outlined by Dobusch and Kapeller (2012) through taking economic
714 processes as the center of analytical attention and showing high awareness of complexity of social
715 reality.

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

725 On a broader scale, the growing number of e.g. conferences and academic journals devoted
726 to pluralist content exemplify the increasing activity in terms of foreground abilities. These
727 discussions seem to have quite a visible impact already. The recent criticism of key mainstream-
728 based neoliberal policies (removing capital controls and austerity) by Jonathan Ostry, Deputy
729 Research Director at the IMF, clearly shows that the hegemony is breaking. Economic analysis
730 needs to be reframed radically to be “more consistent with the systemic interdependence of

731 economic activity on natural resources and waste-assimilation processes” (Foxon et al. 2013:189)
732 and for a better understanding for processes of change in different realms.

733 This study stands for an exploration of the discursive variety among a group of instructors
734 of introductory courses in economics. On a more superficial level, we can see that all of the groups
735 agree on the need for stronger incorporation of different methods of teaching. Going more into
736 detail, our claim of “discursive readiness” for change processes regarding a more pluralist research
737 milieu and teaching economics among the groups and their narratives can be seen as a first step
738 that marks openness for incremental change. However, in a formal institutional setting such as
739 universities the question of change is more complicated, as discussed extensively by Lavoie (2015).
740 Therefore, we see studies like the one presented here as beneficial in terms of investigating the
741 local micro-environment and potentially pushing the pluralism debates further through preparing
742 the grounds for a more inclusive multi-stakeholder dialogue within a specific research institution.
743 This goes in line with Stockhammer and Yilmaz’s (2015) claim that in creating actual change
744 “[p]utting pressure on university managements through broader social alliances will increase the
745 possibility of success significantly” (2015:8). Importantly, as a single case study employing Q
746 method, the results are suggestive rather than generalizable, aiming at enriching the understanding
747 of the investigated concept (Flyvbjerg 2001; Swedeen 2006). The results of our endeavor leave us
748 with a positive outlook for the future institution-level dialogue on pluralism. We encourage further
749 studies with the use of heuristic tools such as Qs, enabling analyses of contextualized discourse in
750 ongoing transitions and change processes. Taking into consideration the local specificities of
751 institutional lock-in, we add to the calls for a more intense pluralism debate on the institutional
752 level, both in practical and research terms.

753

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757

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965 **Appendix A**966 **Focus Group Preparation**

967

968 • What is the main problem in teaching economics at the moment?

969 • What is missing?

970 • What are potential solutions, how can gaps be filled?

971 • What is the status quo of the change process? Is it mainly discursive and in the literature?

972 Are the changes happening in curricula?

973 • What is the role of the students and teachers respectively in the change process?

974 • Question of employability? How well does a degree in economics prepare you for the

975 working world?

976

977 How would you imagine a perfect version of (pluralist) teaching?

978

979 Where is the problem? (use terms below to probe if conversation does not flow)

980 • Institutional constraints

981 • Textbooks and other material constraints

982 • Unwillingness to engage by lecturers

983 • Unwillingness to engage by students

984 • De-politicization of economics of a subject and value-free orientation

985 Follow up question: Where can change come from?

986

987 Role of teachers

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

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995 **Appendix B**996 **Qualitative Content Analysis**

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1095 **Appendix C**

1096 **List of subcodes**

1097 The codes are based on emergent themes from the student focus group. Any codes marked with
1098 an asterisk* were added during the qualitative content analysis for a holistic picture.

1099

1100 **Category one: Critique of Mainstream Economics**

1101 Structurally/institutionally limiting

1102 Mainstream/orthodox imperialism

1103 Method-based

1104 Blindingly simple

1105 Mathematically sophisticated

1106 Arrogant to other disciplines

1107 Rational choice paradigm

1108 Dissonance with reality

1109 Monistic/one-sided

1110

1111 **Category two: Teaching Economics**

1112 Teacher's profile

1113 Employability (non-academic)

1114 Providing critical skills

1115 Historical embeddedness

1116 Broader focus

1117 Incentive structure

1118 Multiplicity of theories

1119 Research and teaching inseparable

1120 Philosophy of science integral

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1122 **Category three: Pluralism as an alternative**

1123 Criticism of pluralism*

1124 No ultimate truth

1125 Ideological variability

1126 Value-based

- 1127 Reflective
- 1128 Interdisciplinarity
- 1129 Methodology matters

1130 **Appendix D**1131 **Participant list**

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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

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1136 **Appendix E**1137 **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 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 and observe it objectively.	-1.657	-1.593	-0.680	-2.291
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	-2.006	-1.204	0.640	-1.728

uncertainty.				
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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