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TODAY'S ECONOMICS: ONE, NO ONE AND ONE HUNDRED THOUSAND

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Today's economics: One, No One and One Hundred Thousand

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Abstract

The paper employs the sense and structure of a famous novel by the Italian writer Luigi Pirandello, *One, No One and One Hundred Thousand (Uno, nessuno e centomila)*, of 1926, to reflect upon the recent past, current status, and possible future appearance of economics. From an open/closed system perspective, the paper explores economics in relation to other social science disciplines in the epoch of economics imperialism ("One"), and then the potential identity crisis (similar to the one experienced by the novel's protagonist) occurring to economics during a prolonged phase of reverse imperialisms by other social sciences ("No one"). Finally, the article provides elements to imagine a possible future of pluralism ("One Hundred Thousand") for the discipline.

Keywords: Economics in relation to other disciplines; Economics imperialism; Reverse imperialisms; Mainstream pluralism

Introduction¹

If today's economics were a novel, it would perhaps be *One, No One and One Hundred Thousand (Uno, nessuno e centomila)* of 1926. Published by the Italian writer (Nobel prize in literature in 1934) Luigi Pirandello, the work proved highly influential on the development of postmodernism. Like protagonist Vitangelo Moscarda, economics seems somehow a victim of an identity crisis. Moscarda suddenly discovers that everyone he has ever met has constructed a different, imagined, and therefore an imaginary identity of Moscarda himself, and realizes that none of these is compatible with his self-understanding. Likewise, economics is now confronted with the fractured mirror of so-called "mainstream pluralism", that is, the co-

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presence of a variety of research programs in the mainstream of the discipline that significantly deviate from the neoclassical core, are pursued by different, often separate communities of researchers, and have their origins outside economics. The current state of fragmentation projects a distorted image of the discipline, in which orthodox economics – having a unitary vision of itself influenced by the unit at the epoch of economics imperialism – may no longer recognize itself.

In truth, it is not so much today's fragmentation but the heterogeneity of mainstream economics, reflecting the “outside-economics” origins of its research programs, that may justify the parallel drawn between the discipline and the protagonist of Pirandello's novel. Like any discipline, economics cannot be defined purely internally, for its identity depends on how it differs from other fields. But drawing conceptual boundaries between economics and other disciplines is extremely difficult because economists have been taken aback by the advent of reverse imperialisms (Frey and Benz 2004) and the resulting sudden awareness of the illusory nature of a single absolute identity for the discipline. From economics imperialism to reverse imperialisms, i.e., from “one” to “one hundred thousand”, that is “no one”, if compared to the unity of economics imperialism².

The current debate on “mainstream pluralism” draws thus attention to the boundaries – the margins, the edge – of the discipline. There is a presumption that a state of pluralism – read: plurality, or variety, to adopt a descriptive notion of pluralism – is typical of “immature” sciences (we here borrow from Kuhn 1962). All the more so for a discipline like economics, which its orthodoxy believes to be as rigorous as hard sciences. It is thought that the current state of economics may change shortly if various research programs begin to converge on specific foundational issues. After all, the present multitude of new approaches shows areas of overlap and shared concerns, and the history of economics appears to show that the discipline tends to go through recurring (though non-regular) cycles in which competition

² The history of mainstream economics is evidently characterized by a series of paradigm “breakdowns” (Davis 2006), somehow crumbling the previously unified conceptual structure of neoclassical economics. Two important illustrations of such erosion phenomena are Keynes's methodological-in-character critique of classical theory in *The General Theory* (Carabelli and Cedrini 2014) and the Cambridge capital controversy of the 1950s to 1970s (Cohen and Harcourt 2003). The high degree of resilience demonstrated by orthodox theory invites reflection, although the abovementioned episodes of crisis are “internal” to the discipline, whereas our focus here is on “outside takeover” views, that see other disciplines as driving (though not unique) factors of change in economics.

between alternative approaches is typically followed by reunification under the aegis of a peculiar dominating perspective. At the same time, it has been argued that extreme specialization in economics might be at the origins of a trend toward increasing pluralism and that exchanges and crossing between social science disciplines at the boundaries have, in truth, a transformative impact on fields themselves. In this “complexity view” of relations between disciplines, today’s fragmentation might potentially signify the beginning of a post-foundational era in economics.

Using a literary text to discuss the evolution of economics provides the opportunity to speculate about the possibilities attached to the mutually incompatible scenarios mentioned above – or at least some elements that might help frame the discussion in a fresh perspective. For sure, the move from imperialism to reverse imperialisms is, precisely as in Pirandello’s novel, a culture shock, building up slowly but finally threatening economics’ former identity. Suppose one were to describe today’s economics discipline to someone who has no familiarity at all with the dismal science. In that case, she could not omit a few or even one research program only populating today’s mainstream pluralism. She would likely start from the perceived (neoclassical) core. But she would then feel the necessity to add that the orthodox approach is now one among various possible perspectives. She would add that the most promising (“progressive”, Lakatos would say) programs are new, unconventional, hybrid fields like complexity economics, happiness economics, and the capability approach. As Rodrik (2015) observes, mainstream economists (those who teach and conduct research in the most prestigious universities and win Nobel prizes) can have non-orthodox ideas – non-neoclassical ideas.

This situation may appear positive to heterodox economists. As Colander, Holt and Rosser (2004) have remarked, some of the research programs of mainstream pluralism have origins in heterodox economics. Supporters of economics imperialism, for whom economics “is”, and proudly so, “an imperial science” (Stigler 1984), will conversely believe that economics has genuinely moved to unfamiliar cultural environments and encountered other ways of making science and investigating human behavior. They will note that these latter approaches differ from those that characterized economics during its “unitary” epoch and may also threaten the belief that economics’ presuppositions are correct. Coherently with Pirandello’s novel, where Moscarda’s discovery is simply destabilizing, this way of reasoning about the fundamental

novelty of today's economics already implies a vision of economics as an independent discipline. In the metaphor of economics imperialism, economics is thus allowed to conquer and occupy territories through some presumed "superiority".

The paper replicates the structure of Pirandello's novel. Using an open/closed system perspective, Section "One" explores economics in relation to other social science disciplines in the epoch of economics imperialism, while section "No one" discusses the potential identity crisis occurring to economics during a prolonged phase of reverse imperialisms by other social sciences. In Section "One Hundred Thousand" we speculate upon the current status and possible future appearance of economics. A concluding table (Figure 1) summarizes the line of reasoning here proposed.

One

Fourcade, Ollion, and Algan (2015: 95) have recently examined the dominant position of economics within social sciences. Its status depends upon "insularity" ("intellectual standing and autonomy", p. 92) and pronounced internal hierarchy. Still, it is also a matter of how economists see themselves – external factors like high demand for their services and high compensation are considered aspects of social superiority, which breed self-confidence and further insulate economists. Fourcade and colleagues show that economists are the only social scientists who tend to disagree with the view that "in general, interdisciplinary knowledge is better than knowledge obtained from a single discipline". This is highly illustrative of economics imperialists' view of the relationships between disciplines.

Remarkably, at the apogee of economics imperialism, Stigler listed the areas where "economists-missionaries" had aggressively ventured "without any invitations" (p. 311). He was intrigued by the reasons why economics had begun "its imperialistic age so recently as the last two or three decades" (p. 312) and found them in the growing abstractness and generality of economics, which "increased the distance between economic theory and empirical economic phenomena – not without some cost to economics – and made the extensions to other bodies of phenomena easy and natural". "If that explanation is correct", he maintained, "there will be no reversal of the imperialism" (ibid.). Some fifteen years later, Lazear (2000) famously praised the virtues of economics imperialism. The "rigor, relevance, and generality" of economics is reflected in a "rigorous language that allows complicated concepts to be written in relatively

simple, abstract terms”, p. 99), he maintained. Lazear claimed that disciplines are entities that trade ideas, concepts, and methods with one another and may therefore be treated as nations with positive or negative trade balances. This “market test” would grant economics, which exports to other social sciences much more than it imports from them (see also Demsetz 1997), the right to act imperialistically.

Since economics imperialism is a kind of scientific expansionism not in open lands but territories typically occupied by other disciplines (Mäki 2009), its supporters have often felt the necessity to provide reasons for their discipline’s superiority. However, they rarely provided empirical evidence supporting shocking “Beckerian” theses on social issues “in an economic perspective” (Guala 2006). As Dupré (1994, p. 377) once remarked, “typical imperialists do not merely establish embassies in foreign countries and offer advice to indigenous populations. And similarly, economic imperialists do not merely export a few tentative hypotheses into the fields they invade, but introduce an entire methodology”. Thus, one might wonder why “apprehensive and hostile” (Stigler 1984, p. 304) natives came to generate demand for economics imperialism.

The relationship between economics and other social sciences can be addressed in “open and closed system” terms (Davis, 2022a), drawn from Piero Sraffa’s (1931) rehabilitation of Classical Ricardian economics. Sraffa used this reasoning to argue that the Classical core, the system of equations that determine commodity values in cost of production terms, could not explain the existence of an economic surplus. The only possibility to close the relatively, and thereby only apparently closed system of the Classical core is to incorporate elements (which are not determined in the way inputs to the production process are but are in truth) coming from the outside (by definition) open system of social struggle over distribution between workers and capitalists. Remarkably, Sraffa believed that two types of causal systems exist, requiring the working of a non-reductionist logic to manage the relationship between the two. While production could be explained in an objectivist way, social forces operate in a different causal pattern, as “outside causes” operating in, and impacting upon, the otherwise “closed system” of commodity production and economic activity, with effects that “go beyond the boundary” of the economic field. The economic system is thus, in truth, “in communication with the world”: therefore, it operates like a relatively closed system, which is, however, open to what

is outside. Historical conditions “close” the system: social forces determine those economic relationships which are not endogenous to the system itself.

The same analysis, to take another example, can be employed for the case of the general equilibrium theory. A fixed-point theorem, coming from outside the system of price equations, was required to guarantee that an equilibrium is possible. The system appears thus only relatively closed. Let us now apply this reasoning to the relationships between economics and social sciences in the epoch of economics imperialism. Consider Lazear’s argument: “Economics succeeds where other social sciences fail because economists are willing to abstract ... It is the ability to abstract that allows us to answer questions about a complicated world” (pp. 102-103). There is a risk here for economics. Lazear believed that “the broader-thinking sociologists, anthropologists and perhaps psychologists may be better at identifying issues, but worse at providing answers. Our narrowness allows us to provide concrete solutions, but sometimes prevents us from thinking about the larger features of the problem. This specialization is not a flaw; much can be learned from other social scientists who observe phenomena that we often overlook. But the parsimony of our method and ability to provide specific, well-reasoned answers gives us a major advantage in analysis” (p. 103). Whereas sociologists, which we here refer to as representatives of other social sciences, used economics “as an intellectual straw man. For a while in the 1980s and 1990s, every economic sociology article, on every topic, ran something like this: it began by ritualistically presenting the view from economics, and then proceeded to pull it to pieces by showing that ‘it is, in fact, much more complicated’ than the play of interests and incentives” (Fourcade 2018). To perceived “naïve economism”, sociologists and anthropologists opposed the relevance of the social dimension – networks, culture and politics, and sociological theories of action. “They celebrated their ‘dirty hands’ against the economists’ ‘clean models’ and worried about the encroachments of rational choice theory into their discipline” (ibid.).

From an “open and closed system” perspective, economics (in a strong position) appears to “close” the social science system. The intrinsic openness of social sciences (as against the insularity of economics) reflects in truth the all-encompassing character of these disciplines taken as a whole. We might propose an analogy – albeit a spurious one – with how neoclassical economics conceives the economic system in relation to the environment. As Herman Daly (2015) remarks, neoclassical economics tends to favor a view of economic activity as operating

in an “empty” world to be progressively integrated into the economy. In contrast, the larger ecosphere is finite and cannot grow. It is a closed system open only to the continual but non-growing throughput of solar energy. Due to the laws of thermodynamics, the open system of economic activity grows by conquering space to the detriment of the ecosystem itself. Further economic growth and preservation of the environment are thus in stark conflict. Still, the assumptions on which neoclassical economics rests are no longer valid in the “full” world of scarce, non-renewable natural resources. Remarkably, Daly defines “economic imperialism” as one of the three possible strategies to integrate the economy and the ecosystem, the other two being “ecological reductionism” (the determinism of natural laws extended to economic activity) and (his proposal of a) “steady-state subsystem”. Economic imperialism “reduces everything to human will and utility, neglecting objective constraints of the natural world”. As in the case of economics imperialism, here, the specific features of the “other” are denied relevance. Social costs are internalized into prices (*economic imperialism*), and in general, everything is transformed into market relationships (*economics imperialism*).

Contrary to Stigler’s view, economics imperialism somehow created the conditions for its reversal. The broad-thinking of social sciences found a closure in the parsimony of the method and in the rigor of the language of economics, “that allows complicated concepts to be written in relatively simple, abstract terms” and to “strip away complexity” (Lazear 2000, p. 99). Economics’ exactness can succeed “where other social sciences fail because economists are willing to abstract”, Lazear observed following Coleman (1993). A “narrow theoretical frame, self-consciously sacrificing much of the rich detail of social and economic activity” is exchanged for “the power provided by a parsimonious theory, that of neo-classical economics”. Both Coleman and Heckman insist on the “strong interest” Gary Becker had in “empirical testing of theory” (ibid.): “his ideas launched the production of hundreds of data sets and thousands of empirical and theoretical studies” (Heckman 2015). This was the result of ever-increasing confidence on the part of economists about the discipline’s generality (Davis 2013), of “growing ‘economism’ in society” and “increasing reliance of policy making on economics expertise’ (Mäki 2020).

No one

The call for empirical work contributed to the age of the applied economist, as Backhouse and Cherrier (2017) define it. The epoch of economics imperialism, when theory dominated the field, turned out therefore to represent an “exceptional interlude” (p. 4). Instead, enthusiasm for the discipline’s generality and the belief economists could unproblematically apply their approach elsewhere were a step toward displaying the openness of this generality to other sciences’ reverse imperialisms. The cause and at the same time the product of its insularity (that Stigler and Lazear prized), mainstream economics’ growing abstractness and generality is thus accompanied by an unrecognized openness to outside interpretation that can complete it in unintended and unexpected ways (see Fig.1). Like Moscarda in his identity crisis, the mainstream finds its identity prey to other sciences’ views of it and the social world they share. It faces the prospect, like Moscarda’s proud identity imperialism, that others will say what it is, shattering its disciplinary bravado Fourcade et al. (2015) so well describe³.

Decreasing marginal returns had already started working against economics imperialism (see Frey and Benz 2004, Marchionatti and Cedrini 2017). They revealed that, in the end, economics imperialism had created a parallel universe of interpretations of subject areas traditionally occupied by other disciplines, which are primarily only of interest to economists professionally interested in promoting the expansion of economics (Davis 2006). Consider the case of economics and sociology. “Apprehensive and hostile natives” reacted against economics imperialists, who had somehow broken the pact the two disciplines had signed after the *éclatement* of political economy into separate sciences. Division of labor was thus replaced by pugilistic forms of “othering”, to use Panther’s (2019, p. 53) terminology, whereby economics and sociology each developed by demarcating themselves from the other, attaching positive values to “us” and negative characteristics to “them”. In negative, the development of the relatively new (and highly heterogeneous) field of economic sociology is (in part at least) a consequence of having identified an enemy, neoclassical economics. In

³ Fine and Milonakis (2009) argue that with the evolution from political economy to (Robbins’s) economics, economics came to focus on market relations exclusively, leaving other disciplines the task of deepening the understanding of the ‘social’ and the ‘history’ from which economics had decoupled. Such dimensions were rescued in economics in the Eighties, when the information-theoretic approach and new institutional economics re-embedded the social and history into economic analysis. In Fine and Milonakis’ critical reconstruction, economics now explains social structures, institutions, culture, and ultimately the “social” as “rational, possibly collective, sometimes strategic, and often putatively path-dependent, responses to market imperfections” (2009, p. 9). This openness to “non-economic” dimensions appears to them as sort of “new” economics imperialism. But even without supporting this view, it is evident that economics could appear even more attractive to other social sciences.

positive, it implies the possibility of bringing together scholars with varying research programs (“political science, business studies, law, public policy, and to some degree heterodox economics”) interested “in pursuing economic issues and opposing the hegemony of economics as a discipline over our understanding of those issues” (Fligstein 2015, p. 305). Panther notes that, notwithstanding overlapping topics and potential complementarities, sociology and economics independently developed the two fields of economic sociology and social economics. As Fourcade (2018) observes, sociologists polemized with those economists who were closest to them intellectually (economic historian Alfred Chandler, institutionalists Oliver Williamson and Douglas North).

This is legitimate, for mainstream social economics and economic sociology are cross-disciplinary ventures, resulting from established disciplines drawing on one another to serve independent goals (see White 2018 on the field of economics and ethics). The two disciplines thus end up competing in similar but different, non-communicating fields since, while mainstream economics can address social phenomena using the method of economics, economic sociology can be said to investigate economic phenomena using the methods of sociology. At the same time, heterodox social economics offers a third vision of the domain separate from both (Davis, 2022b). This marks a substantial change from the era of economics imperialism: the “fixation” sociologists “and others, such as historians and science studies scholars” have with the defense of their discipline’s boundaries helped them “free themselves from their inferiority complex and became more confident in their own contribution to the analysis of economic processes (some of which, like network analysis, has influenced recent economic research); second, they turned their analytic lens toward economics itself. They started to investigate the sources of the economists’ authority and its complicated relationship to democratic politics; building on the contributions of historians of economics, they probed the discipline’s development over time and its variability across nations, shattering the myth of a universal science; and they strove to make sense of what the expansion of economic technique means for the way we live our lives” (Fourcade 2018, p. 1).

In the end, Ronald Coase (1978, p. 210) was right in predicting (but very few could see this coming epoch of imperialism) that economists would study other social systems “not with the aim of contributing to law or political science, but because it is necessary if they are to understand the economic system itself”. But for this to happen, an epoch (30 years) of reverse

imperialisms was first necessary. From an open-system perspective, reverse imperialisms provide closure to economics because they produce specific content that gives interpretation to abstract, general explanations that Stigler and Lazear thought were economics' strengths. Why is it that "foreign" mathematic formalism or game theory could be incorporated into economics and even become its "language" without weakening the status of economics, while in contrast, experimentalism could have produced a threat to the neoclassical core? Because despite the neutrality of experimentalism, it nevertheless creates the possibility of questioning fundamental assumptions in the discipline. As Orléan (2005, p. iii) puts it, the development of new economic sociology as a counterpart to economics imperialism allowed the new field "to present itself as a competitor to economic theory on economic theory's own territory". In other words, reverse imperialisms are threatening because they can transform economics into a "contestable" field. The development of behavioral economics, for instance, under the influence of psychology, made economists realize that the choice is not independent of the environment in which it takes place and that (as broader-thinking sociologists already knew) it is influenced by necessity and relative social positions.

Thus, behavioral economics (see Davis 2022b) – or, better, the contribution of behavioral psychology to economics – is an open system that "closes" the only apparently closed system of rational choice theory (an all-encompassing one, as Becker would maintain). The anti-conformism of reality, so to speak, is the factor that can explain market failures ("Market failures are failures to complete the set of connections", Loasby 2003, p. 291) in theoretical constructions, as Potts (2000) would say, that aspire to complete connectivity. A consequence is that the structure has no relevance beyond what is traceable to the elements that compose it. The "periphery" of economics provides the core with the "context" it needs. But this means that economics can change under the impact of reverse imperialism. This awareness is why Lazear was somehow compelled to use a reductionist version of the "trading nation metaphor", tacitly positing that disciplines are independent of one another and that exchanges at the frontier have no transformative impact on domains. If economics can change, it is precisely because, as with any other social science (Neves 2012), it is an open system. One may even argue that the more reductionist a discipline is, the more innovation is possible (as Loasby 2003 observes, incompleteness is a source of creativity) – provided that it is genuinely possible. There are many possible ways a system can only be incompletely connected. We should be aware that "any closed model is a conjecture and it facilitates the

generation of variety that is essential to any kind of evolutionary account of the growth of knowledge” (pp. 293-94).

Endorsing Colander, Holt, and Rosser’s (2004) view about the changing face of mainstream economics, Rodrik (2015) can now remark that “economics is a collection of models that admits a wide variety of possibilities, rather than a set of prepackaged conclusions”. The advent of reverse imperialisms has in fact demonstrated that the core-periphery structure of economics (see Davis 2019b) is not immutable. Note that Rodrik uses the “variety” argument in response to criticisms of “insularity” (illustrated by Fourcade et al. 2015). Complaints of market fundamentalism, he argues, should be directed not towards economics per se, but toward those economists who mistake economics for market fundamentalism. As the analogy with Vitangelo Moscarda shows, however, this can create problems for a discipline that had a well-defined core, one whose “divisions [were] driven by internal, not external forces” (Dogan and Pahre 1989), and was used to sanction subfields for excess openness. Still, disciplines are explicitly meant to isolate elements employing assumptions of independence of other factors, assumed to be irrelevant. Only, while deepening the understanding of specific anomalies, specialists “come to expose the weakness of their specialty and ... to see the gaps left between subfields. At some point these factors which have been excluded will have to be judiciously reintroduced” (ibid., p. 57). However, it is not a matter of grand theories; specialization is followed by hybridization and fragmentation by recombination. What goes under the name of “interdisciplinarity”, in general, is, therefore, a landscape of specialized subfields, quite in line with Kuhn’s (2000) own “later” (read: post-*Structure of scientific revolutions*) predictions about the progress of scientific knowledge (see Cedrini and Fontana 2018; Ambrosino, Cedrini and Davis 2021). But a long tradition of thought in economics equates (irreducible) plurality of perspectives with “immaturity”.

One hundred thousand

The problem for Moscarda is not only the postmodern plurality of identities he suddenly becomes aware of but that no “external” identity corresponds to his self-understanding. In the analogy with economics, the plurality of research programs resulting from reverse imperialisms is perceived as the lack of a unifying paradigm that can shape economics research. Self-confidence easing (and being nurtured by) unsolicited expansions outside the

discipline's borders at the epoch of economics imperialism - one could even refer to performativity, to a certain extent, also given the power attached to the self-image that economics could project onto other social science disciplines - leaves room to doubt and uncertainty concerning the identity of economics after other social sciences have established colonies within its territory. Incidentally, these are the doubts that inspire Lazear's defense of Chicago economics (and its imperialism) against psychologists' (among others) criticisms of the *homo oeconomicus* (i.e., reverse imperialisms).

It is as if economics had moved from a "unification" to a "fragmentation" trap, to borrow from Knudsen (2003). According to Kuhn, there is a tension between "normal" science - a phase in the progress of knowledge characterized by adherence to a paradigm - and innovation - a cacophony of perspectives, too little normal science, or excess exploitation of the existing paradigm. Economics might be said to have overexploited the neoclassical paradigm until it fell victim to a "unification" trap. "Economists developed a more and more refined mathematical heuristics that made it more and more attractive to use the neoclassical research program and its positive heuristics and less and less attractive to switch to any alternative program's heuristic", with the result that it creates "an imbalance where heuristic progress ... came to dominate the empirical problem solving activity in the field" (Knudsen 2003, p. 20).

Knudsen uses Whitley's (1984) account of the organization of scientific fields to argue that during the epoch of economics imperialism, the (highly abstract, theoretical) discipline was characterized by high internal interdependency (that is, researchers rely on one another for obtaining reputation) and low task uncertainty (faced by researchers in trying to solve scientific problems). The mix would be due to the rigid structure and well-organized background knowledge of economics. It would produce a situation called "partitioned bureaucracy", a core with abstract theorizing being surrounded by a periphery of applied subfields. Partitioning here means that work at the theoretical core is more prestigious than applied research in the periphery, to the extent that this latter cannot influence the immunized core.

What we now have is, conversely, a "polycentric oligarchy". There is a variety of "minarets" which, as early as 1991, represented "local confluences of authority" in John Pencavel's (1991, p. 81) speculative fresco of future economics as "a fragmented world of specialization" (see

Fig.1). In this latter, Pencavel predicted, no one will be aware of developments ‘in more than a few narrow fields of the subject’ (ibid.). Plurality can imply disorganization; and disorganization implies immaturity. But she who believes that sciences begin in disunity and advance towards unification tends to perceive an immature science as a science that regresses. As Hibbert (2016) has recently argued, however, there is no reason to assign logical priority to the ambition of unifying social disciplines through overarching research programs. Such unifiers, in the end, risk eliminating (by increasing the opportunity costs of searching for alternatives and making it difficult for alternative programs to compete) the possibility of “revolutionary” science. The historical development of social sciences, *economics included*, appears to exhibit, in fact, a tendency towards *more* pluralism and *less* (or more flexible) unity. If today’s economics is seen as immature because of the plurality of research programs that populate mainstream pluralism, this is because a criterion is adopted that equates maturity with monolithism. This criterion does not originate from social sciences, though. It is instead imported (as standard) from outside, that is, due to the successful track records unification made possible in physics and chemistry. One possible criterion (Shapere 1986) used to separate mature from immature science is the firm idea of a distinction between internal and external considerations as regards the theories, methods, and goals of science. These considerations typically emerge from practicing science: science becomes rational, in other words, by internalizing the considerations on which it relies. And the criterion of unity can scarcely be said to have been “internalized” in social sciences.

Is there any reason to privilege disunity – pluralism – in social sciences? Not necessarily; much depends upon the “success” of disunity itself. At least, however, pluralism must be recognized for what it is, i.e., “a live possibility” (Hibbert 2016, p. 12), that must first be perceived if we are to evaluate the chances of success. We should thus move from normative calls for pluralism – pluralism as prescription – to awareness of some real movement towards pluralism – increasing difference and diversity in economics (Davis, 2019). We have already noted (in Ambrosino, Cedrini, and Davis 2021) that, like natural ecosystems, disciplines operate like complex systems. Complex systems depend on the functioning of all their interconnected, specialized activities. Specialization is thus a function of the system’s overall diversity, but it is also the factor that ensures its stability. As Simon (2000, p. 7) maintains, “if the task is to design a system that must perform many functions in order to operate successfully in its

environment, then design a set of subsystems, each capable of performing one (or a few) of these functions, and connect them appropriately so that they can cooperate with each other”.

In economics, it means that the existence of various schools of thought determines a sort of “diversity pluralism”, where each non-dominant school has an incentive to “self-protect”, de facto increasing pluralism. But this self-protection also creates opportunities to develop interconnections linking different specialties if it is perceived as encompassing the goals of other schools. Hence, considering the interaction among disciplines as complex systems, the focus is not on the division produced by specialization but on the interconnections. Plurality and heterogeneity might simply be a necessity in highly complex systems.

In other words, well-functioning complex systems exhibit a happy compromise between specialization and interconnection. Another analogy comes to help here. Since economics is typically American, we might borrow from philosopher Michael Walzer, who in *What It Means to Be an American* (1992) famously argued that America “is a country of immigrants who, however grateful they are for this new place, still remember the old places. And their children know, if only intermittently, that they have roots elsewhere. They, no doubt, are native grown, but some awkward sense of newness here, or of distant oldness, keeps the tongue from calling this land ‘home’” (p. 634).

Economics is not a country of immigrants, but it may become one. And, in any case, it is not an accident that reverse imperialisms (psychologist Daniel Kahneman was awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel) have been described as social sciences’ colonies into economics. Economists who are native grown in one of the various research programs of today’s mainstream pluralism do not merge or fuse their work with other communities in mainstream economists; there is only “a fastening, a putting together: many-in-one” (p. 635). There is fragmentation, to a certain extent. Take sociology, which “expanded the definition of its subject matter in all directions, in the process fragmenting into a large number of poorly connected, and mostly hybrid, subfields ... There are sociologies of education, law, science, religion, medicine, values, knowledge, politics, economics, family, leisure, sports, deviance, communication, alienation, agriculture, organizations, imperialism, mental health, migration, gender, youth, and the arts, as well as committees on rural sociology, urban sociology, military sociology, comparative sociology,

sociolinguistics, social psychology, sociocybernetics, social ecology, and others” (Dogan and Pahre 1989, p. 66).

The same goes for today’s economics. Today’s economics is “hyphenated”: economists are in truth social-, happiness-, complexity-, feminist-, behavioral-, experimental-, neuro- (the list is almost endless) economists, hyphens connecting de facto economics to the science “of origin” of these new approaches. “Is there still any field that could be called *economics* today, without an adjective?”, one would be inclined to wonder by substituting “economics”, in Dogan and Pahre’s (ibid.) statement, to “sociology”. In 1916, US President Teddy Roosevelt claimed, “There is no room in this country for hyphenated Americanism ... a hyphenated American is not an American at all”⁴. Today, we might say that an economist is hyphenated or she is not an economist. We have hybrids; we would need a different term for this new internal variety, one that would allow “for the survival, even the enhancement and flourishing of manyness” (Walzer 1992, p. 635).

An immigrant society has perhaps no choice, says Walzer: “tolerance is a way of muddling through when any alternative policy would be violent and danger”. Still, as Sarah Song (2009, p. 38) observes concerning Walzer’s essay, “respect for deep diversity presupposes a commitment to some shared values, including perhaps diversity itself”. In the case of economics, this is what would produce the same extraordinary result achieved, not without difficulties, by the United States. “The virtues of toleration, in principle though by no means always in practice” (Walzer 1992, p. 650), would perhaps supplant “the single mindedness of republican citizenship” (ibid.): pluralism would supplant imperialism, but for the hyphen to work as “plus sign”, on a plane of equality with “American”, economists should recognize, against Lazear, that disciplines can have, and have indeed, a transformative impact on one another – precisely as, and also as a result of, economics imperialism⁵. But this implies that the only possible form of unity in the discipline and social sciences is the one embedded in

⁴ “America for Americans”. Afternoon speech of Theodore Roosevelt at St. Louis, May 31, 1916 <http://web.archive.org/web/20140328025514/http://theodore-roosevelt.com/images/research/txtspeeches/672.pdf> (accessed: September 14, 2022).

⁵ There is no doubt that in selecting external (other social science disciplines’) contents to appropriate, economics opts for principles, concepts and methods that can be easily domesticated, without endangering the core. Still, while being used in economics research, such contents do exert a transformative impact on the discipline, thus contributing to weaken the rigidity of the core-periphery structure of economics. Favoring pluralism, these changes appear able to progressively blur the distinction between orthodox and heterodox economics, if seen in perspective. Note that this reasoning holds also for Fine and Milonakis’ (2009) argument about the “new” imperialism of recent research programs in economics (see note 3).

the patterns of interconnection that characterize entities and agents in a complex system. In this sense, concretely bringing the possibility of alternative theoretical frameworks to the forefront (and frontier) of research, pluralism is an antidote to the illusory unity given by the “end of theory” that accompanies the revolution of Big Data - which appears potentially able to transform the “dataset by dataset” evolution of economics away from neoclassicism preconized by Colander et al. (2004) into the flatness of an “economics without theory”, somehow affecting the work of today’s “applied economist”. Pluralism is in any case to be conceived as a way of defending and promoting not so much (or not at all) the divisions produced by alternative approaches, but rather the possibility of interconnections between such strands, that is the element that makes plurality become a value – pluralism meaning therefore plurality plus reasons motivating that plurality is desirable. This is the way out of the impasse: given the trajectory, here tentatively outlined, that economics has covered in relation to other disciplines, the only way of positively transforming “no one” into “one hundred thousand” is to move from passive acceptance of the historical reasons that can justify the emergence of alternatives to a proactive support approach, seeing today’s plurality as first step towards a more pluralistic, “social-scienciated” (Bögenhold 2018) economics and thereby fostering fruitful and engaging conversation between alternative approaches. As Roncaglia (2019) maintains, this is what makes the history of economic thought and the reconstruction it provides of the different historical and methodological foundations of the various approaches more needed than ever.

Figure 1: Economics and other social science disciplines

	One	No one	One hundred thousand
Economics (ECON) and social science disciplines (SSD)	Economics Imperialism	Reverse imperialisms	Cross-disciplinary ventures
ECON and SSD in an open/closed system perspective	ECON “closes” SSD	SSD “close” ECON	Social-scienciation of economics
ECON: appearance	Unity, insularity	Mainstream pluralism	Hyphenated Economists
ECON: structure	Rigid, core/periphery	Loose, mainstream /heterodoxy	“Minarets”

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