

“ECONOSOPHY”: VENTURING A TRANSDISCIPLINARY APPROACH
TO PHILOSOPHY AND ECONOMICS

VALENTINA ERASMO*

ABSTRACT

This paper proposes that the dialogue between economics and philosophy might give origin to a transdisciplinary approach (Bernstein 2015; Davis 2022) that I would call ‘econosophy’. This approach might produce a hybrid field characterized by high specialization in research that leads to nuanced disciplinary boundaries among the disciplines involved (Davis 2018). In this regard, this paper will consider the limitations and opportunities deriving from econosophy: about limitations, for instance, mainstream economics might potentially challenge the approach expressed here, for the issues that econosophy leaves open. About opportunities, an econosophical perspective offers a methodological base for enhancing the dialogue between philosophy and economics through a high level of specialization that might improve the scientific rigor and standing of these studies against the potential criticism of mainstream economics.

Keywords: Disciplinary (Boundaries, Interaction, Relationships), Econosophy, Interfield Research, Transdisciplinarity.
JEL Codes: B40, B41, B590.

INTRODUCTION

One of the most widespread criticisms of modern economics is that many scholars embrace scientific reductionism and privileged static economic models for analyzing the complex and unstable reality of economics (Van der Berg 2012). The origins of this scientific reductionism in economics are very old and they might be principally traced back to the Anglo-Saxon economists and their forerunner, Alfred Marshall. His *Principles of*

* Università di Torino. Address for correspondence: valentina.erasmo89@gmail.com.

Economics (1890) favored the diffusion of the neoclassical paradigm – that acknowledges scientific reductionism – into mainstream economics.

In this respect, neoclassical economists have shared the refusal of broader explanations for economic outcomes and adopted a more linear perspective in their economic analysis where only specific economic questions were examined, while disciplinary relationships were set apart from their studies. Between the late nineteenth and the early twentieth centuries, neoclassical economists mostly focused on the analysis of the market, especially banking, finance, individual markets, and resource allocation, availing of a reductionist approach (Nicolaidis 1988). These scholars were oriented to this analysis because they believed that economics ought to define which were the best institutions and/or economic policies in organized markets only.

Despite this persisting trend, because economics was expanding its disciplinary boundaries and/or increasing its interactions with other disciplines from the end of the Sixties, some economists began to focus on methodological issues. This focus derives from the recognition that economics could gain an advantage by handling the problems of other disciplines, as Coase (1978) stressed some years later. Many recent research programs like agent-based complexity economics, behavioral economics, the capability approach, cognitive and experimental economics, evolutionary game theory, new institutional economics, and neuroeconomics have confirmed this methodological trend and deviated from the neoclassical core, locating economics in a ‘mainstream pluralism’ (Davis 2006) where specialization exists without a reductionist monism¹ (Cedrini and Fontana 2018).

However, the reductionist trend still survives among mainstream orthodox economists together with all its related limitations, for instance, in the idea that it is satisfactory to analyze an economic system’s main components and their functioning in organized markets only; as well as, in turn, the lack of consideration of the relationships between economics and all those disciplines that are in dialogue with it. These limitations are relevant because economics is significantly affected by non-economic variables, such as environmental, social, and political ones, among many others.

In light of these limitations, the dialogue between economics and philosophy could offer the methodological opportunity to develop a perspective that might be able, on the one hand, to acknowledge the relationships between economics and other disciplines (in this case, philosophy); while

¹ As CEDRINI and FONTANA (2018) emphasized, the phenomenon of specialization is an “inevitable consequence of the maturing of economics” (TURNOVSKI 1991: 143) due to the progress made in economics. Since this progress, it also follows that more detailed knowledge and skills are required.

on the other hand, to offer a specialized knowledge in line with the high degree of specialization generally required in scientific studies.

This paper suggests that the dialogue between economics and philosophy might give origin to a transdisciplinary approach that I would call 'econosophy'. Econosophy might analyze the same domain of inquiry as the philosophy of economics (Hausman 1994), such as action theory,² ethics (or normative, social, and political philosophy) and economics, philosophy of science and economics. But distinct from the philosophy of economics, econosophy would be based on a transdisciplinary perspective (Bernstein 2015; Cat 2017) where the dialogue between economics and philosophy might be finally understood as an intersection between these two disciplines. In accordance with a transdisciplinary approach, this 'econosophical' intersection could produce a hybrid field characterized by high specialization in research that leads to nuanced disciplinary boundaries among the disciplines involved (Davis 2018), as has happened, for example, in economic methodology.

This paper is composed as follows: Section 1 will define what disciplinary boundaries are; then, Section 2 will offer an overview of the main forms of disciplinary relationships from crossdisciplinarity to transdisciplinarity. This overview will be seminal in introducing the disciplinary relationship that exists between economics and philosophy in econosophy and how this interfield research differs compared to other approaches where two or more disciplines are involved. In Section 3 a comparison between interdisciplinarity, multidisciplinary, and transdisciplinarity will show their analogies and differences. Section 4 will introduce a possible 'manifesto of econosophy' as a transdisciplinary approach to philosophy and economics, identifying its possible research interests, methodology, ideal audience, and analogies and differences compared to other approaches which combine economics and philosophy. Section 5 will analyze the limitations and opportunities of econosophy: considering, on the one hand, the potential opposition by mainstream economists and on the other hand, the transdisciplinarity that may enhance the dialogue between philosophy and economics and improve the scientific rigor and standing of these studies against the criticism of mainstream economics.

² Although it is part of the philosophy of economics, action theory was born in sociological studies, and introduced by Talcott Parsons. This is a theory of social action where Parsons integrated the analysis of social action and social order with macro and micro elements (MÜNCH 2010). Action theory is an interfield research that comes from sociology and economics, not from philosophy and economics.

1. HOW CAN WE DEFINE DISCIPLINARY BOUNDARIES?

It is a demanding task to define disciplinary boundaries because “boundaries between disciplines are conceptual and ambiguous”. In particular, “we are unsure”, for example, “where the boundary between economics and psychology is, as the emergence of behavioral economics demonstrates, even though economics and psychology are generally regarded as two different disciplines.” (Davis 2019a: 410). Since this acknowledged complexity exists (especially when economics is involved in disciplinary relationships), what might help scholars to define disciplinary boundaries is the analysis of what a certain discipline involves and how it differs compared to the others. The analysis of disciplinary boundaries can also explain how knowledge advances (Dogan and Pahre 1989): in this sense, the identity of a certain discipline is not always the same, on the contrary, is rather unstable. This implies that disciplinary “boundaries have to be constantly policed” (Massey 1999: 6) to properly define them. Furthermore, this instability requires a different way of understanding a discipline’s identity, such as in terms of relationality with other disciplines or, even better, “in terms of multiple relations” (*ibid.*) with them (for instance, the multiple disciplinary relationships that economics establishes with other social sciences). All these elements imply that not only disciplinary boundaries should be defined within the domain of the discipline itself, but also considering the disciplinary relationships with other disciplines.

Another way to imagine disciplinary boundaries was offered by Coase (1978). According to him, disciplinary boundaries are not defined in terms of *relationships between disciplines*, instead, they are determined by *competition between disciplines*, as if they were competing firms. In this analysis, Coase (*ibid.*) gives an analogy from history, comparing disciplinary boundaries to the boundaries of empires. He mentioned the historian and writer Edward Gibbon (1776) and his description of Augustus’ acceptance of the redefinition of the Roman Empire’s boundaries. Coase (1978) emphasized that Gibbon supported that it was easy for Augustus to realize that:

Rome, in her present exalted situation, had much less to hope than to fear from the chance of arms; and that, in the prosecution of remote wars, the undertaking became every day more difficult, the event more doubtful, and the possession more precarious, and less beneficial (Gibbon 1776, quoted in Coase 1978: 202).

Like Augustus and his acceptance of a division of the Roman Empire into a different set of boundaries, academic scholars should accept that their disciplines might extend or narrow their disciplinary boundaries depending upon the questions they have to address. The analogy is vivid, but it implies

an imperialist perspective toward the idea of disciplinary boundaries. The Roman Empire represents the strong and aggressive neoclassical core that progressively extends its boundaries towards the periphery. This imperialist perspective implies that “competition between alternative approach[es] is typically followed by reunification under the aegis of a peculiar dominating perspective” (Ambrosino *et al.* 2022: 2-3). However, this reunification effort is based on a sense of disciplinary unity where economics may conquer and occupy these peripheries because of its supposed superiority (*ibid.*). This imperialist perspective is less than ideal for analyzing and exploring an issue like that of disciplinary boundaries where disciplinary relationships play a pivotal role.

So, this paper will privilege the explanation of disciplinary boundaries in terms of disciplinary interactions, instead of ‘disciplinary competition’.

2. FROM CROSSDISCIPLINARITY TO TRANSDISCIPLINARITY: AN OVERVIEW OF THE MAIN FORMS OF DISCIPLINARY RELATIONSHIPS

Between the Sixties and the Seventies, economics began to expand its disciplinary boundaries, while also increasing its interactions with other disciplines. For a better understanding of how these interactions changed the shape of economics, an overview of the main forms of disciplinary relationships is needed.³ According to Cat (2017), there are four forms of disciplinary relationships, namely crossdisciplinarity, interdisciplinarity, multidisciplinary, and transdisciplinarity. This classification enables us to better analyze the disciplines involved and characterize their interaction in terms of the closedness or openness they have to each other. In particular, Cat’s classification shows, on the one hand, how much these disciplines are respectively affected by this interaction; on the other hand, how this interaction is able to produce new interfields research (such as new disciplines or projects) that, in turn, also influences the disciplines from which these interfields derive (Davis 2022). As Ambrosino, Cedrini, and Davis (2021) point out, “Disciplines influence each other not only by exporting their ideas but also by locating new territories within other disciplines outside their own, thereby influencing existing disciplinary forms through greater degrees of integration” (634).

According to Cat (2017), crossdisciplinarity represents the most closed disciplinary interaction because it “involves borrowing resources from

³ This passage draws upon DAVIS (2022) being the most authoritative and recent reference on this issue.

one discipline to serve the aims of a project in another”. In this case, the disciplines involved are largely unaffected by interaction and no interfield research discipline follows from this interaction (Davis 2022). Interdisciplinarity is the second most closed example of disciplinary interaction: this kind of disciplinary relationship creates a new interfield research where the original disciplines are not extensively affected by their interaction because the influence of interfield research is relatively weak. In contemporary economics, interdisciplinarity is probably the prevailing form of disciplinary relationships.

Multidisciplinarity is where the disciplines involved are juxtaposed in their treatments, but their scholars get together to address a common issue. In this case, we have an open approach because the disciplines are relatively affected by their interaction and interfield research is able to compete with the original disciplines. An example of multidisciplinarity is complexity economics that is focused on the need to introduce the complexity reasoning that characterizes many disciplines into economics (Davis 2006). Among these forms of disciplinary relationships, ‘multidisciplinarity’ is probably the oldest term (Colander *et al.* 2004) where the contribution of the disciplines involved could be sufficiently identifiable in interfield research because everyone keeps their distinct identities in the contribution provided (Colander 2014).

Finally, there is transdisciplinarity which most of our attention will be devoted to because this approach is at the basis of econosophy. It is generally acknowledged that the concept of transdisciplinarity was introduced by the psychologist Jean Piaget (1972) during a seminar about the phenomenon of interaction among disciplines in academies – with a focus on interdisciplinarity – held at the University of Nice (López-Huertas 2013). In his conclusions, Piaget defined transdisciplinarity in terms of a “higher stage succeeding interdisciplinary relationships” (Piaget 1972: 138) that covers interactions among disciplines and elaborates an interfield research without tight disciplinary boundaries (Bernstein 2015). This interfield research can even encompass works from the original disciplines (Repko 2012). In this regard, transdisciplinarity offers knowledge that goes beyond disciplinary boundaries because it follows a process that recombines information from the original disciplines towards a new disciplinary form. This process is possible because this recombination of information is due to the breaking down of the original disciplines into their basic elements and their recombination into a new interfield research (Alvargonzález 2011).

3. FURTHER EXPLORING TRANSDISCIPLINARITY: ANALOGIES AND DIFFERENCES COMPARED TO INTERDISCIPLINARITY AND MULTIDISCIPLINARITY

Since the phenomenon of recombination, transdisciplinarity includes the flow of information among different disciplines in terms of ‘unity amidst diversity’ and ‘diversity through unity’ (Nicolescu 1987). At the basis of transdisciplinarity, there is an act of deconstruction that admits that an object can belong to different levels of reality where conflicts, contradictions, and paradoxes are included (Klein 2004). Indeed, transdisciplinarity understands, for example, the issue of the unity of science in terms of ‘transcendence’ compared to “the narrow scope of disciplinary worldview” (Klein 2015: 12). We currently live in an era of growing fragmentation of culture and knowledge, including in economics. In this respect, transdisciplinary scholars suggest that this fragmentation demands a different, transcendent perspective compared to the narrow view that might be offered, for example, by interdisciplinary works (*ibid.*).

More specifically, “transdisciplinarity is an extension of the interdisciplinary forms of the problem-specific integration of knowledge and methods. While integration refers to scientific questions at the interface of different disciplines in interdisciplinarity, in transdisciplinarity, it is about integration at the interface of these scientific questions and societal problems” (Jahn *et al.* 2012: 2). While the term ‘transdisciplinarity’ was introduced in a seminar on interdisciplinarity in academic disciplines, it should be carefully distinguished from interdisciplinarity.

Although interdisciplinarity and transdisciplinarity are both able to create new interfield research, they differ in the kind of interfield research that they can respectively create and the effects of disciplinary interactions on the identity of the interfield. For instance, interdisciplinarity is strictly academic and it is based on “concepts and theories from other sciences but adapts them to its core (or ‘hard core’ in Lakatosian terms) assumptions and principles, thereby securing its identity as an independent science” (Davis 2022: 18). Thus, when an interfield research arises from interdisciplinarity, it is characterized by relatively closed disciplinary boundaries, while concepts and theories brought from other disciplines secure its identity, as well as the identity of the disciplines involved. In this case, we might talk about relatively closed interfields.

Instead, transdisciplinarity is characterized by a higher level of specialization compared to interdisciplinarity, including the cooperation between researchers and extra-scientific actors (Jahn *et al.* 2012), in offering more pluralistic works to address complex problems (Leavy 2012). These characteristics make for more unstable disciplinary boundaries due to the constant interac-

tions with other disciplines. In this case, we might say that the disciplinary boundaries are open. This openness has enabled transdisciplinarity to develop new synthetic frameworks, like post-structuralism, feminist theories, and ecological economics (Klein 2015). However, openness and continuous disciplinary interactions are not without cost. Indeed, “interacting fields may begin to lose their independent individual identities, and emergent interfield research begins to dominate, sometimes with contributing disciplines being replaced in the long run by new disciplines” (Davis 2022: 11).

Considering some practical cases, econophysics was born as a multidisciplinary field but has the ambition to become transdisciplinary, elaborating a new hybrid field (Ambrosino *et al.* 2021). In this regard, econophysics cannot be multidisciplinary any longer because multidisciplinary implies a juxtaposition between disciplines as stated in the OECD (Organization for Economic Cooperation and Development) classification (OECD 1972). Certainly, juxtaposition promotes broader informational resources, and knowledge, as well as furthering methods. However, multidisciplinary implies that “disciplines remain separate, disciplinary elements retain their original identity, and the existing structure of knowledge is not questioned” (Klein 2010: 2). In other words, multidisciplinary implies that scholars from “different disciplines get together and contribute ideas from their separate discipline in ways that maintain the distinct identities of their disciplines, as in separate chapters within a book” (Colander 2014: 496). Instead, econophysics is moving quickly towards a transdisciplinary approach because the disciplines involved, namely economics and physics, are no longer separate. Rather we might argue that econophysics is “metaphorically encompassing the parts of material fields that disciplines handle separately” (Miller 1982: 21). As stated above, transdisciplinary offers the opportunity to transcend disciplinary boundaries, not only to blur these boundaries, as in the case of multidisciplinary.

Another possible example of transdisciplinarity is represented by ecological economics that has favored the promotion of the term ‘transdisciplinary’ to describe those disciplinary interactions that lead to new synthesis⁴ (Colander 2014). At its inception, ecological economics was introduced and defined as ‘the science and management of sustainability’ (Costanza 1991). This definition indicates that ecological economics inherited from sustainability science its core intellectual interest in the interconnectedness between natural and social systems. However, a relevant difference is that

⁴ This new synthesis might be considered as works located at the edge of economics, such as work that challenges the orthodox core of economics by promoting a broader complexity vision (COLANDER 2000). This work carried out at the edge is cumulative and gradually causes the shift of the center of economics’ approach towards a “new orthodoxy centered on a broader complexity vision” (COLANDER 2014: 497) based on transdisciplinarity.

ecological economics “is distinct in its explicit theoretical confrontation with economics” (Thoren *et al.* 2021: 26). Ecological economics is contrasted to environmental economics and its application of standard economic analytical tools to environmental conservation and protection. In other words, ecological economics is potentially an enemy of environmental economics, while sustainability science is rather an ally for other sciences interested in sustainability.

This different relationship with other disciplines concerning economics and ecology might be further explained through the different approaches that ecological economics and sustainability science respectively have to economics. For instance, ecological economics might be located in the heterodox economics framework (Douai *et al.* 2012), while sustainability science appears as ecumenical (Bettencourt and Kaur 2011). This ecumenicalism means that sustainability science does not have a theoretical core. This missing core makes sustainability science an ideal ally of other sciences that are interested in sustainability. In contrast, ecological economics is developing its core and aspires to become ‘the science of sustainability’. These elements make ecological economics a potential enemy for other sciences who are interested in sustainability. It follows that the new synthesis that may arise through transdisciplinarity is ambitious, and their goal is to become an independent science.

4. ‘VENTURING ECONOSOPHY’, IT’S POSSIBLE RESEARCH INTERESTS, METHODOLOGY, AUDIENCE, ANALOGIES, AND DIFFERENCES COMPARED TO OTHER APPROACHES

Having analyzed what transdisciplinarity is compared to disciplinary boundaries and disciplinary relationships, we may finally venture what econosophy might become. For this purpose, we should define which might be its potential research interests, its ideal audience, its methodology, and its analogies and differences compared to other approaches that combine economics and philosophy, for example, like philosophy of economics.

In terms of main research interests, econosophy would analyze the same domain of inquiry as the philosophy of economics (Hausman 1994), such as action theory, ethics (or normative, social, and political philosophy) and economics, philosophy of science, and economics. These domains of inquiry often overlap, especially when we refer to ontology and gnoseology of economic phenomena and rational choice theory. Therefore, the distinctions in action theory, ethics and economics, philosophy of science and economics are helpful for better establishing the main subjects of philosophy of economics.

Regarding their respective domains of inquiry, philosophy of economics and econosophy might also have in common the same philosophical theses and their audience, especially scholars from fields like political and social philosophy, as well as philosophical sociology (Hausman 1994). Thus, 'econosophers' might be philosophers by training but interested in economics and vice versa, while its potential audience might be composed of economists interested in epistemology and philosophy of science or philosophers with marked interests in economic methodology. They will mostly adopt philosophical reasoning.

The methodology of econosophy would be transdisciplinary. This methodology might be summarized into three axioms, such as the ontological axiom, the logical axiom, and the complexity axiom (Nicolescu 2010). According to the ontological axiom: "there are, in Nature and society and in our knowledge of Nature and society, different levels of Reality of the Object and, correspondingly, different levels of Reality of the Subject" (*ibid.*: 22). For the logical axiom "the passage from one level of Reality to another is ensured by the logic of the included middle" (*ibid.*). Finally, the complexity axiom establishes that "the structure of the totality of levels of Reality or perception is a complex structure: every level is what it is because all the levels exist at the same time" (*ibid.*). The first two axioms have their basis in physics, but they are suitable for going beyond the understanding of economics as a natural science only. The third axiom is also based on other human sciences, including social sciences that would play an essential role in econosophy. Thus, econosophy puts its emphasis especially on the third axiom because every transdisciplinary approach understands reality as a complex structure, as already discussed.

The ideal audience of econosophy might be composed of human sciences scholars (not only philosophers and economists, but also pedagogists, psychologists, and sociologists) interested in boundary questions between philosophy and economics. Econosophy might be appealing to human sciences scholars because they understand economics as a social science. This understanding of economics as a social science is not new in the history of economic thought and methodology. In his obituary in honor of Alfred Marshall, Keynes (1924) introduced the distinction between natural and social sciences. According to Keynes (*ibid.*), economics is a social science because it is different from the clearness, determinism, linearity, and regularity of natural sciences (Coates 1996). In contrast to neoclassical economics and its scientific reductionism that considered economics as a natural science, Keynes suggested that the economy is a very complex reality where a state of rest is highly improbable (Erasmus 2021). This distinction between natural and social sciences urges the acknowledgement that economics cannot be analyzed from a physical and monistic perspective. On

the contrary, the analysis of economic phenomena requires the adoption of a social and plural perspective that we might also apply in the dialogue between economics and philosophy, as Mirowski, Sent, Wade Hands and Weintraub have emphasized (Maki 2012).

These scholars not only devoted a significant effort to highlighting the influence of social aspects on economics, but also considered the relationship between economics and philosophy. This effort is important for a better analysis of the philosophy of economics. In turn, this effort is also useful for econosophy since they share the same domains of inquiry. According to Maki (2012), economics is gradually ‘naturalizing’ the philosophy of science because philosophy is adopting tools that derive from sciences. Likewise, economics has social elements that demand a ‘socialization’ of philosophy bringing in elements from social sciences.

In this respect, econosophy might refuse a naturalization of the philosophy of science because the interfield research deriving from a transdisciplinary approach does not enable it to distinguish the disciplinary boundaries between philosophy and economics. Indeed, transdisciplinarity “produces a new hybrid field that develops in a free-standing way outside of the fields which contribute to it that presumably bears less of the imprint of its contributing disciplines” (Davis 2018: 63). So, it would be incorrect to talk about a naturalization of philosophy of science in econosophy, distinct from what happens in the philosophy of economics. Instead, the socialization of philosophy certainly would occur because econosophy might also consider those non-economic variables that act in the dialogue between philosophy and economics, socializing both philosophy and economics. Economics should also include a plural perspective in its dialogue with philosophy from an econosophical perspective. This perspective is in line with the understanding of economics in econosophy, such as economics as a social science. Among these sciences, philosophy has a pivotal, but not exclusive role in better understanding the economic reality against monistic reductionism.

Considering these analogies and differences, the most relevant difference between the philosophy of economics and econosophy is methodological and it should be found in the transdisciplinary perspective (Bernstein 2015; Cat 2017) adopted by econosophy. This is what still happens in economic methodology. One of the effects of high level of specialization in research is that disciplinary boundaries become more nuanced (Davis 2018): this has already happened in economic methodology and might be considered the first example of an econosophical approach.

5. ECONOSOPHY: CONSIDERING LIMITATIONS AND OPPORTUNITIES

Econosophy might provide new opportunities in the dialogue between economics and philosophy, but this approach is certainly not without limitations. In this respect, mainstream orthodox economists might disagree with an econosophical approach to philosophy and economics for those issues that econosophy might leave open. Among these open issues, we should consider some implications related to transdisciplinarity. For example, the unity of science and the potential rivalry between econosophy and economics/philosophy. Contemporary economics is characterized by mainstream pluralism because many mainstream research programs have significantly deviated from the neoclassical core (Cedrini and Fontana 2018). The fragmentation of mainstream economics will persist in the future because of the impact of specialization and cooperation with other disciplines that contribute to creating new specialties and approaches (*ibid.*), including the birth of new interfields. Because of this fragmentation, the idea of the unity of science is not the same as that characterized economic imperialism for decades (unity as unification of disciplinary approaches). Unity has rather become something that can “affect economics locally when it inspires the emergence of new research fields [...], while internally, the ‘pluralism’ of mainstream economics, and increasing perception of the nature of the economic science as fragmented are generating a lively debate within the profession” (Ambrosino *et al.* 2021: 645).

In this lively debate, mainstream orthodox economists are still nostalgic of the ‘old idea’ of unity of economics and usually view with suspicion the birth of interfields that deviate from the neoclassical core. Thus, econosophy might be rejected by mainstream orthodox economists, especially for its transdisciplinarity that contributes to this fragmentation of mainstream economics. Econosophy might be considered as a step backward compared to the reductionist monism of mainstream economics. And mainstream orthodox economists could potentially oppose econosophy with their old criticism towards those who have previously favored the blurring of disciplinary boundaries, promoting interdisciplinarity in economics, like Bataille, Foucault, Habermas, and Sen, just to name a few (Giri 2002). But econosophy is based on transdisciplinarity, which is an even more radical approach compared to interdisciplinarity, as seen in Section 4. Transdisciplinarity significantly reduces disciplinary boundaries compared to interdisciplinarity. In this way, it becomes hard to distinguish what concerns the field of philosophy and what concerns the field of economics because their interfield research would be naturally intertwined.

Furthermore, transdisciplinarity is ambitious and may also aspire to become an independent science, especially if these new interfields develop their own core. Thus, a transdisciplinary approach to philosophy and economics could potentially make econosophy become an enemy both to philosophy and economics if it developed its own core. At the same time, econosophers might seem ‘too much economists to be philosophers, too much philosophers to be economists’ in some academic contexts because of the nuanced disciplinary boundaries they would establish between philosophy and economics. In this respect, mainstream orthodox economists and some philosophers of science might rather advocate for a more traditional disciplinary relationship between economics and philosophy with well-defined disciplinary boundaries, based on interdisciplinarity. However, econosophers might lament that an interdisciplinary approach to economics and philosophy sometimes misses a real academic acknowledgment and this can lead to the development of more transgressive approaches to economics and philosophy because they significantly deviate from the neoclassical core.

Certainly, we should not forget that modern economic discipline was initially born as a transdisciplinary interfield. As Davis (2022) stressed economics “emerged as a relatively new interfield domain of investigation when its eighteenth-century focus on prices and incomes distanced it from narratives of just price and feudal power that acquired other disciplinary locations” (11). Although Davis (2022) is not an exponent of mainstream orthodox economics, he firmly believes that new transdisciplinary interfields cannot replace economics. Thus, econosophy might ‘only’ become a more specialized perspective on the disciplinary interaction between economics and philosophy, but there is no risk that transdisciplinary interfields might replace economics.

This more specialized perspective on the disciplinary relationships between economics and philosophy, however, is one of the opportunities that econosophy might offer. This perspective might be interesting especially for heterodox economists and other philosophers of science who might be interested in a new methodological basis for enhancing the dialogue between philosophy and economics. This new methodological basis might be characterized by a high level of specialization that might improve the scientific rigor and standing of these studies against the potential criticism of mainstream economics. Econosophy is focused on a broader domain of inquiry compared to ethics and economics which also includes action theory and philosophy of science and economics. Among the already existing approaches to this domain of inquiry, we might consider the approach to ethics and economics in the recent works of White (2018) and Davis (2018). According to White, ethics and economics should be understood as a cross-

disciplinary field, while Davis (*ibid.*) opened the doors to transdisciplinarity in ethics and economics, understanding this interfield research as a complexity theory approach.⁵ Thus, econosophy is mostly indebted to Davis (*ibid.*) for his effort to enhance the dialogue between ethics and economics towards transdisciplinarity. But we have to proceed gradually.

White (2018) argued that ethics and economics is a crossdisciplinary field within economics that has two different kinds of development:

one, carried out largely by heterodox economists, is essentially a critical discourse that examines what is regarded as a misuse and distortion of concepts and theories borrowed from ethics in their introduction into economics. The other, carried out mostly by orthodox or mainstream economists, he labels 'accommodationist' to capture their goal of adapting concepts and theories from ethics to the goals of explanation in economics (Davis 2018: 58).

In his development of ethics and economics, White (2018) makes the first field closer to the philosophy of economics, while the second field represents an accommodation of ethics to mainstream economics. Although White (*ibid.*) undoubtedly suggested an interesting understanding of ethics and economics, his proposal is based on crossdisciplinarity where the original disciplines are mostly unaffected by their interaction. Instead, the most important opportunity offered by econosophy is a high level of specialization thanks to transdisciplinarity, such as the same disciplinary relationship that we might find in Davis (2018). In his comment to White (2018), Davis (2018) emphasized that White also suggested multidisciplinarity as an alternative to crossdisciplinarity, but he went a step further and considered the opportunity to make economics and ethics a transdisciplinary perspective.

For this purpose, Davis (2018) understands economics and ethics as a complexity theory approach.⁶ To move towards transdisciplinarity in ethics and economics, he suggested the need to overcome the separation between researchers' training and professionalization because specialization is equally important to research activity for their analysis of economic reality. It follows that highly specialized scholars might become experts on equally highly specialized topics. This high specialization represents the biggest opportunity also for econosophy because it might be also applied

⁵ Although DAVIS (2018) focused on transdisciplinarity in the relationship between ethics and economics, he is tendentially more oriented to multidisciplinarity for the success of the dialogue between economics and philosophy. For more, see DAVIS (2019b).

⁶ I will not further explore how DAVIS (2018) elaborated a complexity theory vision of economics and ethics because it would go beyond the aim of this paper. See his comment to WHITE (2018) for further details.

to the other issues that are interesting for this interfield research, like action theory and philosophy of science and economics.

CONCLUDING REMARKS

This paper argues that the dialogue between economics and philosophy might give origin to a transdisciplinary interfield, such as econosophy. The exploration of econosophy has shown that specialization is probably the main opportunity offered by this approach. Specialization certainly has consequences, as Davis (2018) highlighted in his transdisciplinary proposal with regard to ethics and economics: on the one hand, disciplines might become more and more fragmented, and scholars often might not have incentives for synthesizing the result of this disciplinary fragmentation; on the other hand, in turn, those more nuanced disciplinary boundaries we have in transdisciplinarity do not help to understand what the disciplines are as a whole. These consequences would be the same if we apply transdisciplinarity not only to ethics and economics, but also to action theory and philosophy of science and economics, such is the broad domain of inquiry of econosophy. Although these consequences also meet the above-mentioned limits of econosophy, we have to wonder about the cost-benefits of this transdisciplinary approach to economics and philosophy. In the dialogue between philosophy and economics, a high level of specialization together with a plural and social understanding of economics based on transdisciplinarity is the ideal alternative to that reductionism that still survives among orthodox neoclassical economists. At the same time, this high level of specialization that characterizes econosophy is able to communicate with mainstream pluralist economists.

Certainly, specialization without an academic acknowledgment of this kind of research activity might be dangerous, given that “there are few research outlets independent of traditional disciplinary location for economics and ethics” (Davis 2018: 66). But this is exactly what econosophy and econosophers should be able to do. The promotion of econosophy in the academic context is pivotal to improving the scientific standing and rigor of this transdisciplinary perspective to the dialogue between philosophy and economics toward serious scientific publications based on this approach.

REFERENCES

- ALVARGONZÁLEZ D. 2011, "Multidisciplinarity, Interdisciplinarity, Transdisciplinarity and the Sciences", *International Studies in the Philosophy of Science*, 25 (4): 387-403. Available at: <https://doi.org/10.1080/02698595.2011.623366> (accessed June 6, 2023).
- AMBROSINO A., CEDRINI M. and DAVIS J.B. 2022, "Today's Economics: One, No One and One Hundred Thousand", Università di Torino Working paper 15-2022, presented at the ESHET 2022 Annual Conference.
- AMBROSINO A., CEDRINI M. and DAVIS J.B. 2021, "The Unity of Science and the Disunity of Economics", *Cambridge Journal of Economics*, 45 (4): 631-654. Available at: <https://doi.org/10.1093/cje/beab014> (accessed June 6, 2023).
- BERNSTEIN J.H. 2015, "Transdisciplinarity: A Review of Its Origins, Development, and Current Issues", *Journal of Research Practice*, 11 (1): 1-20. Available at: <http://jrp.icaap.org/index.php/jrp/article/view/510/412> (accessed June 6, 2023).
- BETTENCOURT L.M. and KAUR. J. 2011. "Evolution and Structure of Sustainability Science", *Proceedings of the National Academy of Sciences*, 108 (49): 19540-19545. Available at: <https://doi.org/10.1073/pnas.1102712108> (accessed June 6, 2023).
- CAT J. 2017, "The Unity of Science", in E.N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Fall). Available at: <https://plato.stanford.edu/archives/fall2017/entries/scientific-unity/> (accessed June 6, 2023).
- CEDRINI M. and FONTANA M. 2018, "Just Another Niche in the Wall? How Specialization Is Changing the Face of Mainstream Economics", *Cambridge Journal of Economics*, 42: 427-451. Available at: <https://doi.org/10.1093/cje/bex003> (accessed June 6, 2023).
- COASE R.H. 1978, "Economics and Contiguous Disciplines", *The Journal of Legal Studies*, 7 (2): 201-211. Available at: <https://www.jstor.org/stable/724212> (accessed June 6, 2023).
- COATES J. 1996, *The Claims of Common Sense: Moore, Wittgenstein, Keynes and the Social Science*, Cambridge: Cambridge University Press.
- COLANDER D. 2014, "The Wrong Type of Pluralism: Toward a Transdisciplinary Social Science", *Review of Political Economy*, 26 (4): 516-525. Available at: <https://doi.org/10.1080/09538259.2014.950460> (accessed June 6, 2023).
- COLANDER D. 2000, "A Thumbnail Sketch of the History of Thought from a Complexity Perspective", in Id. (ed.), *Complexity and the History of Economic Thought*, New York: Routledge.
- COLANDER D., HOLT R.P.F. and BARKLEY ROSSER J. 2004, "The Changing Face of Mainstream Economics", *Review of Political Economy*, 16 (4): 485-499. Available at: <https://doi.org/10.1080/0953825042000256702> (accessed June 6, 2023).
- COSTANZA R. 1991, *Ecological Economics: The Science and Management of Sustainability*, New York: Columbia University Press.
- DAVIS J.B. 2022, "Change in and Changing Economics", Working paper 2022-05, College of Business Administration, Marquette University.
- DAVIS J.B. 2019a, "Economics and Economic Methodology in a Core-Periphery Economic World", *Brazilian Journal of Political Economy*, 39-3 (156): 408-426. Available at: <https://doi.org/10.1590/0101-35172019-3004> (accessed June 6, 2023).
- DAVIS J.B. 2019b, "Specialization, Fragmentation, and Pluralism in Economics", *The European Journal of the History of Economic Thought*, 26 (2): 271-293. Available at: <https://doi.org/10.1080/09672567.2018.1555604> (accessed June 6, 2023).

- DAVIS J.B. 2018, “Comment on White on the Relationship between Economics and Ethics”, *Annals of the Fondazione Luigi Einaudi*, LII (2): 57-68. Available at: <https://doi.org/10.26331/1053> (accessed June 6, 2023).
- DAVIS J.B. 2006, “The Turn in Economics: Neoclassical Dominance to Mainstream Pluralism?”, *Journal of Institutional Economics*, 2 (1): 1-20. Available at: <https://doi.org/10.1017/S1744137405000263> (accessed June 6, 2023).
- DOGAN M. and PAHRE R. 1989, “Fragmentation and Recombination of the Social Sciences”, *Studies in Comparative International Development*, 24 (2): 56-72. Available at: <https://doi.org/10.1007/BF02687172> (accessed June 6, 2023).
- DOUAI A., MEARMAN A. and NEGRU I. 2012, “Prospects for a Heterodox Economics of the Environment and Sustainability”, *Cambridge Journal of Economics*, 36 (5): 1019-1032. Available at: <https://www.jstor.org/stable/24232399> (accessed June 6, 2023).
- ERASMO V. 2021, “Re-Reading the Treatise. History Will Matter (Again) in Economics: A Comment on John B. Davis”, *History of Economic Ideas*, XXIX (3): 135-138. Available at: <https://doi.org/10.19272/202106103009> (accessed June 6, 2023).
- GIBBON E. 1776, *The Decline and Fall of the Roman Empire*, New York: Modern Library.
- GIRI A.K. 2002, “The Calling of Creative Transdisciplinarity”, *Future*, 34 (1): 103-115. Available at: [https://doi.org/10.1016/S0016-3287\(01\)00038-6](https://doi.org/10.1016/S0016-3287(01)00038-6) (accessed June 6, 2023).
- HAUSMAN D.M. 1994, *The Philosophy of Economics: An Anthology*, Cambridge: Cambridge University Press.
- JAHN T., BERGMANN M. and KEIL F. 2012, “Transdisciplinarity: Between Mainstreaming and Marginalization”, *Ecological Economics*, 79: 1-10. Available at: <https://doi.org/10.1016/j.ecolecon.2012.04.017> (accessed June 6, 2023).
- KEYNES J.M. 1924, “Alfred Marshall, 1842-1924”, *The Economic Journal*, 34 (135): 311-372. Available at: <https://doi.org/10.2307/2222645> (accessed June 6, 2023).
- KLEIN J.T. 2015, “Reprint of ‘Discourses of Transdisciplinarity: Looking Back to the Future’”, *Futures*, 65: 10-16. Available at: <https://doi.org/10.1016/j.futures.2015.01.003> (accessed June 6, 2023).
- KLEIN J.T. 2010, “A Taxonomy of Interdisciplinarity”, in R. Frodeman, J.T. Klein and C. Mitcham (eds.), *The Oxford Handbook of Interdisciplinarity*, Oxford: Oxford University Press: 15-30.
- KLEIN J.T. 2004, “Prospects for Transdisciplinarity”, *Futures*, 36 (4): 515-526. Available at: <https://doi.org/10.1016/j.futures.2003.10.007> (accessed June 6, 2023).
- LÓPEZ-HUERTAS M. 2013, “Reflexions on Multidimensional Knowledge: Its Influence on the Foundation of Knowledge Organization”, *Knowledge Organization*, 40 (6): 400-407. Available at: <https://doi.org/10.5771/0943-7444-2013-6-400> (accessed June 6, 2023).
- MAKI U. 2012, *Philosophy of Economics*, Amsterdam: Elsevier.
- MARSHALL A. 1890, *Principles of Economics*, London: Macmillan.
- MASSEY D. 1999, “Negotiating Disciplinary Boundaries”, *Current Sociology*, 47 (4): 5-12. Available at: <https://doi.org/10.1177/0011392199047004003> (accessed June 6, 2023).
- MILLER M.C. 1982, “Varieties of Interdisciplinary Approaches in the Social Sciences: A 1981 Overview”, *Issues in Integrative Studies*, 1: 1-37. Available at: https://interdisciplinarystudies.org/docs/Vol1_1982/01_Vol_1_pp_1_37_Miller.pdf (accessed June 6, 2023).
- MÜNCH R. 2010, *Theory of Action. Towards a New Synthesis Going Beyond Parsons*, London: Routledge.

- NICOLAIDES P. 1988, "Limits to the Expansion of Neoclassical Economics", *Cambridge Journal of Economics*, 12 (3): 313-328. Available at: <https://www.jstor.org/stable/23598136> (accessed June 6, 2023).
- NICOLESCU B. 2010, "Methodology of Transdisciplinarity – Levels of Reality, Logic of the Included Middle and Complexity", *Transdisciplinary Journal of Engineering & Science*, 1: 17-32. Available at: <https://doi.org/10.22545/2010/0009> (accessed June 6, 2023).
- NICOLESCU B. 1987, *Moral Project*, Paris: International Center for Transdisciplinary Studies and Research. Available at: <http://nicol.club.fr/ciret/english/projen.html> (accessed September 26, 2023).
- ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT 1972, *Interdisciplinarity: Problems of Teaching and Research in Universities*, Paris: OECD.
- PIAGET J. 1972, *The Epistemology of Interdisciplinary Relationships*. In *Centre for Educational Research and Innovation (CERI), Interdisciplinarity: Problems of Teaching and Research in Universities*, Paris: OECD: 127-139.
- REPKO A.F. 2012, *Interdisciplinarity: Process and Theory*, Thousand Oaks: Sage.
- THOREN H., NAGATSU M. and SCHOENNACH P. (2021), "Interdisciplinarity", in C.P. Krieg and R. Toivonen (eds.), *Situating Sustainability: A Handbook of Contexts and Concepts*, Helsinki: Helsinki University Press: 21-38.
- TURNOVSKI S.J. 1991, "The Next Hundred Years", *Economic Journal*, 101 (404): 142-148.
- VAN DER BERG H. 2012, "Complexity and the Culture of Economics: A Sociological and Interdisciplinary Analysis", *The Journal of Philosophical Economics*, 5 (2): 38-63. Available at: <http://jpe.ro/pdf.php?id=2909> (accessed June 6, 2023).
- WHITE M. 2018, "On the Relationship between Economics and Ethics", *Annals of the Fondazione Luigi Einaudi*, LII (2): 47-57. Available at: <https://doi.org/10.26331/1052> (accessed June 6, 2023).