Research Policy 53 (2024) 104944

Contents lists available at ScienceDirect

Research Policy

journal homepage: www.elsevier.com/locate/respol

Beyond the good and the right: Rethinking the ethics of academic entrepreneurship from a relational perspective

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ARTICLE INFO

Keywords:
Academic entrepreneurship
University spin-off
Knowledge transfer
Ethics
Moral
Paul Ricoeur
Gift

ABSTRACT

This paper critically reviews the ethical resonance of the academic entrepreneurship (AE) phenomenon in light of contemporary concerns about ethics and responsibility in public engagements with science, technology and the commercialisation of technological discoveries through the creation of university spin-offs. In this context, we address the question of how we can know when we may consider AE as being ethical. We draw on the works on ethics of the French philosopher Paul Ricoeur– one of the most influential thinkers of the twentieth century– to provide an answer which encompasses but also goes beyond the association of ethics solely with 'good' purposes or 'right' norms to value it in each situation by paying special attention to how academic entrepreneurs behave in their relationships with others. We conclude that it is the manner and quality of open, generous, meaningful and appropriate 'self-regulation' that defines academic entrepreneurs as ethical individuals. The paper helps to improve the understanding of ethics in this field and may also illuminate academic entrepreneurs and university policymakers seeking to improve qualitative outcomes in university spin-offs.

1. Introduction

Ivor Royston is referred to by some as a key pioneer in the development of academic entrepreneurship (AE) (Berman, 2012; Gibbons, 1989; Jones, 2009). In 1978, Royston was a cancer researcher at the University of California (San Diego) (UCSD) when he became the first medical researcher to transfer technologies and biological materials from the UCSD campus in order to run a business (Gibbons, 1989). He co-founded two successful firms, becoming an early pathfinder in the biotech industry (Gibbons, 1989; Jones, 2009; SDTA, 1997; Wosen, 2022) and, somehow, paved the way to what has more recently been described as the entrepreneurial turn of universities (Cunningham and Menter, 2021; Goldstein, 2010; Goldstein et al., 2013; Hjorth and Steyaert, 2021).

While successful cases such as Royston's story align with the optimistic rhetoric that can often be perceived in the broader field of entrepreneurship (Vedula et al., 2021), the adjective "academic" adds a social function —the valorisation of academic research — (Sengupta, 2021) that is typically interpreted in conjunction with academic entrepreneurs' ethical properties or moral commitments (Hirvonen and van Langenhove, 2021; Leišytė, 2021). In fact, although AE has multiple facets and there is no overall consensus on how it should be defined[1] (Miller et al., 2018; Shane, 2004; Siegel and Wright, 2015), one of the central ideas behind it is that scientific and technological discoveries conducted on a university campus can be turned into marketable products through the creation of spin-offs —also called university-based companies— with the involvement of the university's researchers in their ownership and management (Miranda et al., 2018; Shane, 2004). Their positive influence on technological innovation processes (Clarysse et al., 2011; Leišytė, 2021) and economic, social and sustainable development (Goldstein, 2010; Iorio et al., 2017; Sengupta, 2021) is a widespread narrative that makes academic entrepreneurs appear heroic

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[1] Several comprehensive literature reviews have stressed different facets of AE (e.g. Caputo et al., 2022; Grimaldi et al., 2011; Miller et al., 2018). Broadly, it can refer to how universities follow the logic of entrepreneurialism to address the demands of an entrepreneurial society or, in a more specific sense, to how they transfer the knowledge and technology through consultancy or other more formal ways such as licences, patents, and spin-offs created by faculty or students (Hirvonen and van Langenhove, 2021; Miller et al., 2018). In this article, we narrow the meaning and refer to AE as to identify the formal activity of university spin-off creation by faculty.

https://doi.org/10.1016/j.respol.2023.104944
Received 27 November 2022; Received in revised form 15 December 2023; Accepted 18 December 2023
Available online 29 December 2023

individuals, even having ethical connotations (Christensen and Gornitzka, 2017; Hirvonen and van Langenhove, 2021; Leišytė, 2021), although exaggerated expectations have been cautioned against in several countries (Buenstorf, 2009; Colyvas and Powell, 2007; Hossinger et al., 2020; Siegel and Wright, 2015).

On many occasions, academic entrepreneurs are judged from a teleological perspective, being perceived as *good* individuals by society and colleagues because of their *good* purposes (Di Maria et al., 2021; Meek and Wood, 2016; Hirvonen and van Langenhove, 2021; Leišytė, 2021; Van Burg, 2014). In other cases, they are qualified by their moral rightness, because they are aligned to deontological principles and standards of excellence due to the universities in which they work (Cook-Deegan, 2007; Christensen and Gornitzka, 2017; Godin and Gingras, 2000; Shane, 2004). This perception, despite some critical views (e.g. Abbott, 1998; Altbach, 2005), becomes particularly evident in some European countries where higher education institutions evolved from the monastic schools of the Middle Age, and whose role in producing and transmitting knowledge was historically legitimated (Cattaneo et al., 2016; Christensen and Gornitzka, 2017; Domínguez-Gómez et al., 2021).

However, we argue that the ethical resonance of academic entrepreneurs is problematic, at least, in two ways. On the one hand, there is a problem in how academic entrepreneurs may be attributed uncritical ethical assumptions, regardless of their daily actions (Di Maria et al., 2021; Fini et al., 2018; Hirvonen and van Langenhove, 2021; Meek and Wood, 2016). On the other hand, there is the issue of the meaning of ethical behaviour as such; except for a few notable exceptions in the literature (e.g. Di Maria et al., 2021; Hirvonen and van Langenhove, 2021; Van Burg, 2014), it is generally assumed but not explicitly discussed. Given this picture, to address the aforementioned conceptual imprecisions and to shed light on the understanding of ethics within the AE field, the question arises as to when we can consider AE to be ethical. To address this issue, we introduce Ricoeur's insights and arguments.

Paul Ricoeur (1913–2005) is considered to be one of the most influential thinkers of the twentieth century (Wall et al., 2002). The significance of his philosophical thought has been widely recognised in different areas, including entrepreneurship and business ethics (e.g., Deslandes, 2012; Dey and Steyaert, 2015; Toledano, 2020, 2022). We argue that Ricoeur offers a more complete ethical framework for valuing ethics in AE, going beyond the common rationalities of associating ethics only with the individual's good purposes (teleological ethics) or right norms (deontological ethics) and incorporating a specific view of practical wisdom (sapiential ethics) that acknowledges the strengths and weaknesses of the human condition as embedded in relationships that take place in public contexts (e.g. organisational contexts). In this sense, Ricoeur (1992)'s framework allows us to encompass several levels of analysis, adding specificity to multilevel explanations of AE and contributing to illuminate this area as a multi-phenomenon (Gianiodis and Brown, 2012; Phan and Siegel, 2006). We also believe that the Ricoeurian approach may help to expand ethical practices in AE and inform university administrators in charge of designing policies to promote and increase its effectiveness from a humanistic perspective.

In the remainder of the paper, we first examine the notion of ethics of AE as it is presented through universities' public discourses. Then, we explain Ricoeur's approach to ethics, which we later apply to AE, pondering its strengths, implications and limitations. Further, we highlight the main conclusions and implications, followed by the limitations and avenues for further research.

2. On the ethics of academic entrepreneurship

AE, when referring to the creation of university spin-offs, is recognised as being a very complex, collective process. Broadly, it implies the start-up of a new business and the transfer to that business of specific and technological knowledge developed in universities by researchers – academic entrepreneurs – who participate in their ownership (Iacobucci and Micozzi, 2015; Miranda et al., 2018; Zhang, 2009). In fact, among the whole range of knowledge transfer mechanisms that operate in universities (e.g. patenting, contract research, and consultancy), the creation of spin-offs is the one that requires greatest commitment from academics due to its greater formality and accountability to others (e.g. consumers, private funders) (Hayter, 2016; Holloway and Herder, 2019; Miller et al., 2018; Tartari et al., 2014). It often requires a great consumption of resources from the parent university and the involvement of several participants from society (Bolzani et al., 2021; Iacobucci and Micozzi, 2015; Sciarelli et al., 2021). Despite these complexities and the concerns about their effectiveness in some contexts (Bolzani et al., 2021; Iacobucci et al., 2011), university spin-offs have become one of the most celebrated ways of knowledge and technology transfer, due in great part to the expected contribution of their innovations to economic, social and sustainable development (Di Maria et al., 2021; Iacobucci and Micozzi, 2015; Perkmann et al., 2013; Wright et al., 2008).

The association of AE with innovative, social and sustainable ideas instils the notion with promise; it lends itself particularly well to narrations that suggest an ethical approval of academic entrepreneurs and their activities (Almeida, 2021; Di Maria et al., 2021; European Commission, 2022; Fini et al., 2018; Meek and Wood, 2016; Hirvonen and van Langenhove, 2021). Two discourses are predominant in universities' and policymakers' narratives, especially within the European context. One stresses academic entrepreneurs' good purposes in tackling great social and environmental challenges (e.g. Hirvonen and van Langenhove, 2021); the other acknowledges the submission of their firms to strict protocols and norms in order to be part of the organisational agents leading the green transformation of the European countries (e.g. European Commission, 2022; Fissi et al., 2021; OECD, 2019). In both cases, AE becomes ratified with a moral distinction, albeit with two facets and levels: the teleological, from which ethics is analysed on an individual level and associated with the good or desirable ends to be achieved by academic entrepreneurs; and the deontological, illustrative of an understanding of ethics at an organisational level premised on the normative prescriptions that regulate university spin-offs' creation and activities.

2.1. Academic entrepreneurship at the service of the common good: A teleological ethical view

The universities' public messages behind their transformation towards a more entrepreneurial university typically rest on societal benefits (Marzocchi et al., 2019; Meek and Wood, 2016; Iorio et al., 2017; Sengupta, 2021; Van Burg, 2014). A great part of the commercialisation-focused rhetoric from university administrators and European policymakers characterises AE with heroic qualifiers as the appropriate way to improve our world, societies, economies and environments (Di Maria et al., 2021; Fissi et al., 2021; Meek and Wood, 2016; Wright et al., 2007). On many universities' websites, their narratives stress academic entrepreneurs' technological capacity to tackle pressing social challenges such as adapting to climate change, fighting diseases and living in greener cities. The creation of spin-offs in sectors such as nanotechnology and biotechnology are particularly noteworthy, as they are indicators of universities' potential to help turn cutting-edge European research into world-leading business (Carayannis and Morawska-Jancelewicz, 2022; Elnathan et al., 2022; European Commission, 2022). Successful academic entrepreneurs who possess this specific knowledge set and are driven by a strong social purpose are highly publicised by their parent universities; and this image is also recurrent in the discourses of the entrepreneurs (Di Maria et al., 2021; Hirvonen and van Langenhove, 2021; Meek and Wood, 2016).

A prominent example can be found at the University of Helsinki in Finland. It shares laboratories with Tampere University of Technology that have become commercially very successful, and some of its spin-offs, such as *Uute Scientific,* are used as role models in the European context (Allen, 2022; Ylijoki, 2005). *Uute Scientific* is presented by its

founders as a spin-off with a strong research and technology background that aims to address the worldwide problem of immune-mediated diseases through biotechnological applications of microbes from forests and agricultural environments (University of Helsinki, 2022). Another well-publicised example is *Picosats*, a spin-off of the University of Trieste, Italy, whose academic entrepreneurs were rewarded in 2021 by the European Technology Awards[2] for its contribution to the development of a new generation of sustainable telecommunications systems to be applied to small satellites. The founder places the keys of its success in honourable attitudes, such as to have curiosity to understand the world through science and technology and to look for their functional uses to the common good (European Technology Awards, 2021).

When stories such these are told, the organisational context is cast in a virtuous light that is symbolically charged with an ethical nature, which also has implications for the ethical identification of academic entrepreneurs as moral and trustworthy actors (Di Maria et al., 2021; Hirvonen and van Langenhove, 2021; Meek and Wood, 2016). While this ethical association could be extended in general to entrepreneurs (e.g. founders of other start-ups), often described uncritically as deserving entrepreneurs who will bring benefits to societies (Baumol, 1996; Vedula et al., 2021), the link is widely made and more evident among academic entrepreneurs. Indeed, a recent survey reported that scientists ranked first as objects of trust, more than twenty points beyond business CEOs and more than thirty points over government leaders (Edelman, 2022). This trust in scientists is maintained in their entrepreneurial role as academic entrepreneurs (Di Maria et al., 2021; Hirvonen and van Langenhove, 2021; Meek and Wood, 2016).

The ethical assumption is also notable because it reflects a teleological Aristotelian perspective according to which all human activities aim at some good (Van Burg, 2014). This view of Aristotle's ethical thought implies judging ethics by focusing on the good ends pursued; and because the means involved in every action are valued to the extent that it potentially realises the end desired, the end itself becomes a higher good than the means (Aristotle, 1999). It is following this line of thought that universities' social goals, and more precisely academic entrepreneurs' social purposes and *good* intentions, guide the positive moral judgement that academic entrepreneurs receive from both outside the university context (e.g. societies, policymakers) and inside (e.g. university administrators, academic entrepreneurs) (Di Maria et al., 2021; Van Burg, 2014). In any case, the view of ethics stems from an external focus that resonates with an external socially constructed 'good'.

However, despite that this teleological view may sound attractive, it remains problematic: by making ethics synonymous with the social and environmental effects pursued by the academic entrepreneur's initiative, what is ethical becomes confined to publicly validated evaluations of the pursued outcomes, regardless of actions. Moreover, the academic entrepreneurs' social purposes might not always be pure. Some academic entrepreneurs might be mainly guided by a self-centred perspective, prioritising the personal benefits they get out of the creation of a spin-off (e.g. promotion) (Meek and Wood, 2016; Ylijoki, 2005). To resist the attractions of an ethics mainly subject to prevailing public agreements on partial views of the social utility, which might also be used instrumentally, normative prescriptions that consider more general aspects may become necessary.

2.2. The moral legitimacy of academic entrepreneurship: A deontological ethical view

Viewing AE as an activity that occurs within an educational institution means seeing it as having a structural organisation that includes a community of specialists performing various tasks according to specific rules, including ethical rules such as intellectual honesty (Fini et al., 2020; Goldstein et al., 2013; Siegel et al., 2003). Certain societies, particularly in Europe, have historically held universities to high ethical standards, expecting them to act in accordance with deontological principles, norms, and standards that legitimise them as moral institutions dedicated to generating knowledge and conducting research for the betterment of society (Christensen and Gornitzka, 2017; Domínguez-Gómez et al., 2021; European Commission, 2022).

Such a moral legitimacy is still credited to the universities' activities, despite the normative transformation going on in the university context with the stimuli of knowledge and technology commercialisation in a degree greater than before (European Commission, 2022; Goldstein et al., 2013; Meek and Wood, 2016). While some interpret these regulations with scepticism and criticise them as ways of infusing academic life with values that are contrary to traditional educational principles[3] (Lemley, 2007; Hamilton and Schumann, 2016; Skute et al., 2019; Ylijoki, 2005), others receive the normative changes with enthusiasm, and stress the opportunities that the new political instruments open to academics to be responsive to public needs in our contemporaneous societies, for instance, contributing to innovation and the sustainability agenda (Clarysse et al., 2011; Goldstein, 2010; Jones, 2009; Van Burg, 2014). The European Commission (2022)'s recent document, 'On a European strategy for universities' is an illustration of this point. The document emphasises the significance of close cooperation among faculties, industry and stakeholders to promote the European model of higher education; it also highlights the importance of progress in green and digital transitions in alignment with international norms and the EU's interests and values.

In this scenario, the notion of Responsibility Research and Innovation[4] (RRI) is becoming one of the recognised standards to integrate ethical concerns, such as diversity and inclusiveness, with the research and innovation processes that take place in universities and businesses (Landeweerd et al., 2015; Lozano and Monsonís-Payá, 2020). Furthermore, some management scholars have argued for regulations that consider the interest of others in all decision-making processes, beyond innovation processes. Organisational research has produced notable studies on stakeholder theory (e.g. Jones et al., 2007) and corporate social responsibility (e.g. Smith, 2012), which underline the duty to incorporate stakeholder's and societies' concerns into business decisions. Although these approaches have only recently been applied to the field of AE, they are gaining recognition for their focus on collaboration within the broader entrepreneurial ecosystem in which universities and university spin-offs are embedded (e.g. Almeida, 2021; Rasmussen et al., 2020; Redford and Fayolle, 2014; Toledano et al., 2022).

While differences among these paradigms exist, their ethical

[2] Similar examples can be read in other editions of the European technology awards at <https://www.theeuropeanawards.eu> and in the European Commission research and innovation community platform <https://research-and-innovation.ec.europa.eu/index_en>.

[3] Recent literature offering a critical perspective of the entrepreneurial turn of universities is using the notion of 'new public management' or 'the managerial university' (e.g. Benassi et al., 2022). This scholarship cautions against the exaggerated expectations placed on university spin-offs and the ethical dangers of turning universities into a purely market-based phenomenon. It is argued, for example, that the majority of university spin-offs have a limited economic impact, and that conflict of interests can emerge between commercial and academic work (see, for example, Slaughter and Rhoades, 2004; Van Burg, 2014; Ylijoki, 2005).

[4] Responsibility Research and Innovation (RRI) refers to processes by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (Holloway and Herder, 2019).

foundations reflect, in part, a reformulation of Kant's universal component of respect to others (Jones et al., 2007; Lozano and Monsonís-Payá, 2020; Smith, 2012). From this perspective, ethics draw on a reflective process aimed at establishing guiding principles or fundamental rules — maxims[5] in Kantian terminology (Kant, 2001) — to facilitate ethical conditions in the organisational life — e.g. university spin-offs' obligations regarding innovation processes, environmental concerns and stakeholders' interests. For academic entrepreneurs, this also means adhering to what Kant, 2001 would call the universal principle of *right* —interpreted in modern terminology as *justice* (Sullivan, 1994) – which points to the idea that principles ought to be reversible, a notion well-captured by the Golden Rule: do unto others as you would have them do unto you[6] (Jones et al., 2007, p. 139).

Kantian ethics in this form may overcome some of the limitations of the teleological approach by retaining a cognitive and universalistic perspective, the idea of strong justice and autonomy (Lozano and Monsonís-Payá, 2020). Nonetheless, this is not an approach free from faults. For instance, the wide variety of partners who may be involved in university spin-offs' activities and the information asymmetry that is inherent in innovation and business contexts might open up moral discussions about the logic and rationality to be considered (Behrens and Gray, 2001; Fassin, 2000; Hayter, 2016; Pandza and Ellwood, 2013; Van Burg, 2014). Moreover, there might be different interpretations of how academic entrepreneurs are bound by the categorical imperative, such that although their strategies can be designed according to the norm, their actions can only be judged morally with reference to particular views —e.g. those of academic entrepreneurs and businesspeople (Slaughter and Rhoades, 2004).

In sum, to base the ethics of AE on a Kantian deontological perspective might be as problematic as to base its ethical legitimacy on an assumption of academic entrepreneurs' teleological good purposes. It is in this context that we propose to turn to Paul Ricoeur's approach to ethics to progress our comprehension of ethics in the AE field and to solve some of its current weaknesses.

3. Paul Ricoeur's ethical project

Paul Ricoeur wrote on the topic of ethics in a number of essays throughout his career (Wall, 2005). In particular, for the issues addressed in this paper, we find two aspects of Ricoeur's ethical thought that are helpful: firstly, his relational approach, explained in the framework of what he labelled as his 'little ethics' (Ricoeur, 1992, p. 290) and in which he integrates several philosophical traditions; and secondly, his application of practical wisdom or sapiential ethics under what he termed 'the economy of the gift' (Ricoeur, 1992, p. 25). These two aspects are premised on Ricoeur (1992, 2002, 2005)'s anthropology from which human beings are seen as relational and capable selves, but also fragile[7], and can help us to move beyond the limitations of the teleological and deontological ethical views that are implicit in the ethical perception of AE.

3.1. Ricoeur's 'little ethics': A mediation between the good and the right

The conciliation between understanding of the good in the Aristotelian tradition and the right or moral obligation in Kantian ethics is a key characteristic of Ricoeur's 'little ethics' (Wall et al., 2002). His departure point is teleological, Aristotelian in conception (Ricoeur, 1987), relating ethics with 'that which is considered to be good' (Ricoeur, 1992, p. 170). *The good*, in turn, is explained differently throughout Ricoeur's writings. In his earlier works, Ricoeur addressed *the good* on an individual level, identifying it with our ethical intentionality, defined by diverse standards of excellence (Wall, 2005). Thus, we might refer to ethics in terms of desiring to be a good professor, a good academic entrepreneur and so on.

During his later works, Ricoeur completed his initial definition of *the good* to include social and institutional dimensions and, more precisely, associating it with the ethical aim of 'seeking the good life, with and for others, in just institutions' (Ricoeur, 1992, p. 172). The 'good life' is interpreted by Ricoeur as 'living well' in the Aristotelian tradition —that is, implying a life that has value and merits existence for oneself and from the social perspective (Wall, 2005). We might at first think of academic entrepreneurs' large personal and professional projects as dimensions whose merit may be considered to judge the Ricoeurian 'living well'. However, there is also a social and institutional level that considers one's relations to others, including social institutions. Accordingly, in our example, *the good* would go beyond any subjective urge of a particular academic entrepreneur to involve others' interests (e.g. faculty members). Seen from this relational dimension, *the good* implies a certain mutual care —what Ricoeur (1992, p. 180) calls 'solicitude'— and surpasses other static understandings, since it becomes interpreted dialectically.

In a second step, Ricoeur (1987) complements his Aristotelian view of ethics with his interpretation of Kant's deontological ethics. For Ricoeur (1987), ethics has to pass the test of the Kantian norm, the test of moral obligation in which it encounters duties and prohibitions. Particularly, Ricoeur (1987, 1992) develops this normative level from Kant's rule of universalisation, maxims of respect for others and the categorical imperative of treating humanity as an end in itself and never simply as a means. In this manner, Ricoeur (1992) says, it is assured that one's (good) purposes – the ethical aim – do not affect others' rights.

Finally, moving from morality to concrete decision-making, Ricoeur (1992) acknowledges that the duty itself must undergo the test of a wise and prudent decision. He refers to a form of practical wisdom to apply in specific conflictive situations. To take again the example above, practical wisdom would be necessary to apply when an academic entrepreneur has to prioritise among different goodness (e.g. make public the research discoveries or keep them in secret for some time to protect the stakeholder's interests) and needs to conciliate universal rules of morality with contextual moral values. Ricoeur (1995a, 1995b)'s concern for finding a proper mediation on these tensions brings him to unfold ideas on responsibility and the goodness of being, which opens different directions in ethics. His arguments on this point are articulated as part of

[5] The Kantian process for forming maxims, known as the categorical imperative process, is built upon three interrelated formulae: (i) 'act only on maxims you would have everyone act on' (Kant, 2001, 4:402); (ii) 'act so that you treat humanity, whether in your own person or in that of any other, always as an end and never as a means only' (Kant, 2001, 4: 429); and (iii) 'all maxims that proceed from our own making of law ought to harmonize with a possible kingdom of ends, i.e. pursuit of a moral community' (Kant, 2001, 4: 433). Original quotations are taken from the translation by F. Max Muller and Thomas K. Abbott of Immanuel Kant's (1785) book Grundlegung zur Metaphysik der Sitten (Groundwork for the Metaphysic of Morals) edited by A.W. Wood (2001).

[6] The Golden Rule is considered as a consistency principle and guide to treating others with respect and has widely been used in business ethics. Such a respect is defined according to the actor's own moral principles as a personal guide. If followed, it ensures that no one will be treated in a way that the actor would not consent to, but it does not prevent different treatments (Burton and Goldsby, 2005).

[7] Although a deep explanation of Ricoeur's anthropology is beyond the scope of this paper, it is important to clarify that his understanding of human beings as capable also implies the human fragility derived from our finitude as mortal selves and our social and limited condition (e.g. bounded rationality, passions, selfishness, dependence on others). For further details, see Ricoeur (1996).

a broader discussion on what he called 'the economy of the gift' (Ricoeur, 1992, p. 25).

3.2. Ricoeur's application of practical wisdom: An economy of the gift

At the core of Ricoeur (1992)'s economy of the gift is the mediation between two opposed logics that he identifies by considering together the motivation and act of gift-giving: a logic of equivalence governed by the norms of reciprocity and a certain sense of duty even though through informal norms and a logic of overabundance or superabundance in which abundant generosity prevails over any sense of just exchange (Einsohn, 2005).

Under a logic of equivalence, gifts have an instrumental meaning, such it might be interpreted from the Golden Rule typically used in the commercial sphere (Ricoeur, 1995b). In this context, the self-oriented behaviour prevails; the gift points towards some future reciprocated benefit, even though this response may at times not be demanded explicitly by law (Ricoeur, 1995b, 2005). In contrast, under a logic of superabundance, the notion of gift is associated with the idea of disinterested giving. What prevails in this logic, Ricoeur (1995a, 1995b, 2005) says, is a kind of generosity that surpasses what is ordinarily expected by common reason or required by law, such as might be found in some of the extravagant narratives characteristic of the biblical discourse of creation – with God showing an excess of generosity through his gift of existence to human beings.

Considering the two logics as two extremes, Ricoeur (1992, 2005) suggests an intermediate position that implies an affirmation of being-able-to-be a generous and capable person in spite of human fragility. From his perspective, gift is associated with a firm commitment to act in favour of others' interests (the commitment of caring for others and giving with generosity), which functions as a mediator between the two extremes –giving instrumentally or in a radical disinterested excess. For Ricoeur (1995a, 1995b, 2005), such a generous act is crucial, since it inspires a sense of trust and gratitude in the receiver, providing a deeper meaning to the relationships between receiver and giver regardless of any expectation. It also propels a virtuous cycle, empowering others to give freely, such that in the very act of giving, the person would provide a response that will end up renewing himself or herself in a positive way (Ricoeur, 1995a, 1995b, 2005).

4. The ethics of academic entrepreneurship from a Ricoeurian perspective

As explained above, Ricoeur (1992)'s proposal on ethics implies a structure of responsibility composed of teleological, deontological, and wisdom or sapiential levels. Moreover, in his appeal to practical wisdom, Ricoeur (1995a, 1995b) suggests pursuing a logic of gift that involves gratitude in addition to openness to others. Having examined the distinctive character of Ricoeurian ethics, we are now in a position to address the question at the heart of this article: when can we consider AE to be ethical? In order to explain the rationale and implications of adopting Ricoeur's ethical theories as a basis for our response, we first procced by comparing Ricoeur's approach to the various ethical perspectives related to AE and analysing the applicability of his ethical vision to this area.

4.1. A comparison of Ricoeurian ethics and conventional ethics in academic entrepreneurship

One useful way to see the contributions of Ricoeur's ethical project to our research topic is to compare its rationality with the underlying ethical rationales with which AE is commonly associated. As previously stated, two ethical logics, namely the good-centred view and the right-centred view, become apparent in AE (see Table 1).

In light of a *good-centred* interpretation, the subjective view of ethics is clear. Academic entrepreneurs pursue commercialise those

Table 1
Relationships between Ricoeur's approach to ethics and the ethical perceptions of academic entrepreneurship.

	Ethical rationalities associated with academic entrepreneurship		*Ricoeur's approach to ethics*
	Good-centred view	*Right-centred view*	
Academic entrepreneurs' main ethical logic	*Subjective view of goodness:* Academic entrepreneurs follow their personal evaluation of what is considered to be good for society.	*Objective view of right:* University's scientific rules, standards of excellence, and normative codes.	*Intersubjective perspective:* Assuming the good and the right, emphasis on caring behaviours displayed by academic entrepreneurs in their relationships with others.
Common perception of the ethics–academic entrepreneurship nexus and level of analysis	*Elevated and social ideals:* Emphasis on academic entrepreneurs' heroic features and *good* intentions to commercialise their technological innovations and research discoveries. Individual level.	*Governance of the university spin-off:* Emphasis on organisational structures and rules designed by universities, which allow spin-offs to develop their activities '*rightly*'. Organisational level	*Situational view of doing what is considered good, right, and prudent in a particular ethical conflict:* Openness and generosity to others' perspectives. Multi-level (individual, social and institutional).
Ethical approach	*Teleological:* Ethics of 'good' that locates the ethical goodness in the expectations of the ends to be attained.	*Deontological:* Moral of 'right' that locates morality in the fulfilment of duties and obligations.	*Teleological, deontological, and sapiential:* Ethics of the good incorporated in the moral of what is right and carried out according to what practical and critical wisdom suggests.
Normative force of the ethical approach and discourse	*Promise-making:* Non-prescriptive mode of discourse based on personal responsibility for providing innovative solutions to social problems.	*Legal duty:* Prescriptive mode of discourse based on university rules and regulations.	*Prudent interpretation of categorical imperative in consonance with promise-making:* creative moral discourse based on the economy of the gift.
Logics of reciprocity in business relationships	*Logic of equivalence:* Instrumental business relationships based on the expectation of receiving something in return, even without formal norms.	*Logic of equivalence:* Instrumental business relationships based on the expectation of receiving something in return, through formal norms.	*Logic of the gift: Meaningful* business relationships premised on generosity, relational-based trust, moral imagination and affective commitment.
Kernel of the entrepreneurial ethical action (Golden Rule formula)	*I give so that I can receive:* Based on self-actualisation and an understanding of the self as separated from others.	*I give so that I can receive:* Based on a deep sense of obedience and an understanding of the self as separated from others.	*Because it has been given to me (sense of gratitude), I give*: Based on others' interests and understanding of the self as a relational self who is connected to others.

technological innovations and discoveries they personally –as individuals– consider highly valuable for society, such as those with social and environmental impact (Fissi et al., 2021; Marzocchi et al., 2019). This commitment is underpinned by a profound sense of responsibility (Hirvonen and van Langenhove, 2021; Meek and Wood, 2016), as seen in the example of *Picosats*, and serves as the foundation of the commonly held belief in the ethics-academic entrepreneurship nexus. Academic entrepreneurs' expectations of solving social problems hint at the principles of Aristotelian teleological ethics (ethical approach), as the attempts to reach socially (and/or environmentally) valuable goals constitute a responsible act (Aristotle, 1999). Such expectations also provide the ethical force for a non-prescriptive mode of discourse that is mainly composed of impersonal promises at the risk of not being kept.

Under a *right-centred* view, a more objective logic prevails in the understanding of ethics. The ethical judgement perspective shifts from the micro-individual level of the good-centred view to an organisational level. Here, ethics is assessed in terms of how academic entrepreneurs, adhering to the standards and normative precepts of universities, govern their spin-offs, with a specific focus on organisational structures (Christensen and Gornitzka, 2017; Domínguez-Gómez et al., 2021; Siegel et al., 2003). This ethical logic aligns with deontological approaches, such as Kantian ethics (Hirvonen and van Langenhove, 2021; Van Burg, 2014), grounded on moral principles and a priori rules dictating the appropriate conduct (Kant, 2001). The legal duty associated with these principles functions as the main normative force of a prescriptive discourse mode that, initially, is intended to inhibit academic entrepreneurs from interfering in the legitimate activities of others (Shane, 2004; Siegel et al., 2003).

However, both the good-centred and right-centred views of ethics fundamentally embody a logic of equivalence as it may be assimilated with the classic logic behind the Golden Rule —I give so that I can receive– and a consideration of the individual as autonomous and separated from others (Ricoeur, 1995b, 2005). In the particular context of AE, this suggests that academic entrepreneurs engage in virtuous or righteous actions –e.g. doing the good or the right thing – assuming a logic of equivalence with an expectation of reciprocity. However, from a Ricoeurian perspective, due to fragile human nature, any logic of equivalence is always at risk of interpreting relationships from an instrumental perspective; and thus, it might be difficult to argue that academic entrepreneurs are not setting their goals instead of reciprocity.

To mitigate these risks, Ricoeur (1992, 1995a, 2005) proposes an intersubjective and dynamic approach to ethics, adopting a relational perspective that productively links the good (teleological ethics) and the right (deontological ethics), surpassing static considerations. Following Ricoeur (1995a), we might have faith in academic entrepreneurs' own given goodness, which in turn would be the occasion for further possibilities of morality respecting other stakeholders. However, when faced with conflicting duties, the final ethical judgement should thoroughly assess what is considered a morally obvious good in each specific situation, adopting a perspective that takes the specific circumstances into account and implies responding with abundant generosity. Such a benevolent behaviour is framed in Ricoeur's (1992, 1995a) relational view of human beings and the consciousness of their capability and fragility, which makes clear that everyone, some time, has need of others. Ricoeur's (1992, 1995a, 1995b, 2005) moral discourse emphasises the possibility of creating a virtuous circle of generosity and gratitude out of the awareness of having received something –a 'gift'– which in the case of academic entrepreneurs might take the form of their universities' support or previous scholars' knowledge.

In sum, our comparative analysis elucidates that Ricoeur's relational ethical framework not only surpasses the confines set by the teleological and deontological paradigms frequently linked to the ethics of AE but extends the scope of concern for others through the generous commitment that is embedded in its idea of actively *doing* good or logic of gift –sapiential ethics.

4.2. On the application of Ricoeurian ethics to academic entrepreneurship

Ricoeurian ethics implies, as suggested above, that the primary factor in evaluating the ethicality of a conduct and resolving unanticipated conflicts of interests is the adoption of a gift-giving attitude, inspired by an overabundance of generous concern for others. Nevertheless, Ricoeur's (1992) ethics entails the practical application of his philosophical thoughts in the interpretation of situations. This requires establishing a critical distance from the beliefs and common interpretations held by those engaged in decision-making, e.g., profit maximisation as the unique goal of commercial firms or other typical economic mentalities that prevail in transactions and relationships (Lam, 2010), through a different perception in which a fraternal and generous mentality transgresses the ordinary thoughts (Wall, 2005).

Transposing Ricoeur's (1992, 1995a) "supramoral" ideal of care and generosity to the specific context of AE involves a twofold aspect. First, the understanding of gift-giving as a benevolent behaviour, initially given by the academic entrepreneur to any person in need who encounters him or her –whether or not he or she is a direct stakeholder. This means emphasising the universality of the action of giving, which is not directed at a specific person –usually those closest to the academic entrepreneur– but it is open to "the other" in general, and therefore encompasses both inter and intra-organisational levels. Secondly, the understanding of giving as an attitude or experience that is done out of generosity, without concern for reciprocity, which is distinct from the common norms of a market economy. Such a generous practice tends to create a continuous virtuous circle in which "gifts" circulate from one person to another without necessarily returning to the person who initiated the practice of gift-giving. As a result, human interactions can become more open and more globalised.

While in some cases it might be difficult to see how the Ricoeurian logic of the gift can make sense in the field of AE, in particular in the wave of increasing corruptive practices such as nepotism within some circles of senior professors (Abbott, 1998; Altbach, 2005), integrity and benevolence are still central to scientific life (Vermeir, 2013) and a central part of scientific practice is still organised according to alternative principles that seem close to the Ricoeurian economy of the gift. For example, in a certain sense, the production of knowledge and the work needed for the maintenance of the knowledge production system all become gifts to the academic community (Vermeir, 2013).

It is in this context, that we argue that a Ricoeurian ethical approach can offer us an appropriate lens for considering specifically the ethics of AE. In fact, although Ricoeur's perspective can be applied to different entrepreneurship areas such as social or sustainable entrepreneurship (e.g. Toledano, 2022), his notion of the economy of the gift seems especially suited to preserve and take advantage of the specific character of scientific knowledge and technology behind university spin-offs and harnesses its positive aspects. Previous studies have shown how academic entrepreneurs' early socialisation and work practices such as publications, articles review or supervision of PhD work have been shaped with abundant gift experiences (Hirvonen and van Langenhove, 2021; Van Burg, 2014; Vermeir, 2013) that resemble the Ricoeurian ethics of the economy of the gift.

An illustrative example of Ricoeurian logic in practice can be found in *Phyco-Genetics*, a European university-based company that develops products based on biotechnologically improved microalgae and offers training, advice and integral solutions for genetic engineering of microalgae. Its main ethical approach, summarised in Table 2, may serve to clarify an application of what is meant by "giving" according to Ricoeur's notion of the economy of the gift in the context of a university spin-off creation.

As Ricoeur (1992) recognises, gift embodies all the previous acts of giving and the different world it has been part of. In this sense, gift-giving behaviours contribute to create meaningful personal relationships (Mercier and Deslandes, 2020) and a bond of trust within a community, such as often happens with the academic community. At the

Table 2
Example of academic entrepreneurs' ethical behaviours akin to the Ricoeurian ethical logic of gift.

Ricoeur's logic of the gift	Academic entrepreneurs' activities, opinions and behaviours akin to the Ricoeurian ethical logic of the gift	Quotes* akin to the Ricoeurian ethical logic of the gift
Aims in giving: *Contributing*	One of the activities of *PhycoGenetics* is to provide advice and support for R&D&I projects on microalgae. The academic entrepreneurs have noticed how much of their advice and assistance to companies and researchers seeking advice is given freely, just for the sake of "contributing".	"Many of the customers that come to us are colleagues within the profession, so we end up giving freely; on many occasions, we do not ask them for payment for our professional advice, but we contribute in this manner with their research projects."
Character of giving: *Gratitude*	*PhycoGenetics* was founded in 2013 as a university spin-off after its technology was awarded with the ceiA3 prize (9000 €), A3BT-Entrepreneurs 2013. In 2014, it was awarded with the CeiMar prize: Atr EBT 2014-Enterprise project. On many occasions, the two founders have publicly expressed their gratitude for this recognition.	"Without the awards received, we would not have been able to commit to the creation of the university spin-off (…) we really understand that the funding of our spin-off was a big and unexpected gift."
The heart of the logic: *Benevolence*	The *PhycoGenetics'* founding team perceive their relational exchanges with business and colleagues under a benevolent logic in which the experience of transaction itself as well as the way of using the knowledge motivate and matter more than the selling of the product itself.	"The spirit of gift is part of our values, and it has been a part of our socialisation process throughout our lives as researchers and academics (…) Scientific discoveries are the result of long processes in which many people collaborate seeking some goodness for our societies, beyond ourselves."
The expected response: *Uncertain*	There is no expectation of reciprocation for *PhycoGenetics*' gift-giving practices. The possible response is uncertain and is beyond the control of academic entrepreneurs. Nevertheless, the founders recognised that, even without seeking a response to such gift-giving attitudes, often such gift-giving practices have led to the establishment of relationships based on trust.	"The benefits you get when giving some advice freely or provide some solutions are never known, yet the act of assisting colleagues is a prevalent practice in our research community and is inherently satisfying; it forms part of the values and culture on which we have grown and often opens the opportunity to a relational future which is not set."

* Academic entrepreneurs were interviewed in 2020 and the responses included in this table have been contrasted with them in 2023.

organisational level, establishing enduring trust between actors may encourage the development of caring habits that, over time, can become ingrained in the organisational culture of university spin-offs, enabling people to get involved in friendly corporate collaborations.

5. Concluding remarks and implications

Public discourses give increasing prominence to AE, particularly in its dimension of creating university-based companies as a proper way of technology transfer and contributing to the formation of healthier and greener societies (Goldstein, 2010; Hossinger et al., 2020; Sengupta, 2021; Wright, 2014). In this context, academic entrepreneurs' activities are interpreted as being for the common good and an ethical understanding of AE may be endorsed, whether ethics is understood in a teleological (as good) or deontological (as right) sense (Christensen and Gornitzka, 2017; Hirvonen and van Langenhove, 2021; Leišytė, 2021). In this article, we have argued that Ricoeur's ethical thoughts provide a distinctive relational perspective that allows us to rethink the notion of what it means to be ethical in the context of AE with implications for both theory and practice.

5.1. Theoretical implications

Our analysis of Ricoeur relational approach contributes a modest advance in theorising about ethics in the area of AE. In particular, it offers a comprehensive view of ethics with a critical evaluation of the ethical category of relations that can be very useful for advancing our understanding of AE as a relational practice, provided the rich social relations characterizing the creation of university spin-offs (Bolzani et al., 2021; Iacobucci and Micozzi, 2015; Sciarelli et al., 2021). As noted above, ethics is commonly understood in AE in terms of good purposes or right principles. However, our study highlights that following Ricoeur it is the manner and quality of open, generous, meaningful and hence appropriate 'self-regulation' that may define academic entrepreneurs as ethical individuals. This offers a different framing whereby in addition to determining a priori ethical purposes or principles, academic entrepreneurs need to expose themselves continually to the possibility of ethical challenges as they relate to others in diverse contexts. It is, therefore, in their generous responses to these challenges that academic entrepreneurs are potentially ethical. Therefore, the study of ethics in AE could be approached by considering how academic entrepreneurs embrace creative actions of care that can be spontaneous, random, and unpredictable without violating higher ethical standards. At the same time, this opens a substantial diversity of adaptations to different contexts, understood not as something that geographically exists on their own, but are instead enacted and shaped by the caring practices of academic entrepreneurs and, more generally, because of the changing human dimension. Such a situational view can help overcome the lack of contextualised insights of previous ethical perceptions, aligning better with recent studies that regard context as a central constitutive element in understanding AE (Sengupta, 2021; Urban and Chantson, 2019).

5.2. Policy implications

Rethinking the ethics of AE from Ricoeur's relational perspective is of intertest to practitioner audiences, notably policy-makers and university managers, as Ricoeur's approach stresses a dynamic ethical dimension that may be applied to the governance of AE at universities. Specifically, it may bring a new responsibility for university policy-makers who, in order to play a proper role in promoting the creation of university-based companies, might also stimulate the elements of goodness and righteousness, and those aspects of relational care that Ricoeur proposes as constitutive of an ethical action. In order to do so, university leaders would need to demonstrate ethically effective leadership and implement the organisational tools (e.g. rewards) that can stimulate generous practices among academic entrepreneurs and promote consensus around them. For example, heads of universities might encourage academic entrepreneurs to create compassionate organisational cultures in their university spin-offs. Thus, to implement the Ricoeurian disposition to give freely practical, it might be suggested to introduce a motive of compassion through formal programmes such as 'volunteering programmes' (Grant, 2012) in order to promote and enable spin-offs' employees or stakeholders to give internal support to others, or beyond the confines of the organisation through charitable donations. A spirit of giving may also be informally encouraged by providing spaces where benevolence can be practised beyond the control of the university. However, this is not only about increasing prizes to reward specific actions, but about helping academic entrepreneurs to acquire caring and benevolent habits by showing them a model to emulate. Thus, university leaders, by visibly adopting generous behaviours may serve as implicit role models for academic entrepreneurs who,

in turn, might display such a benevolent attitude in their spin-offs by showing assistance towards their employees and other stakeholders for professional and personal growth, listening to them and helping them to solve problems. In addition, academic entrepreneurs could find motivation in our approach to promote ethical reflection in their university spin-offs, for example, through training or onboarding practices, ensuring that ethics becomes an integral part of their culture. Some training may include topics such as ethical decision-making or conflict resolutions and provide tools, including real-life ethical cases relevant to the spin-offs' sector, that can be used to explore ethical dilemmas among different stakeholders or ethical implications of alternative decision-making. Onboarding practices that address ethical reflections based on the Ricoeurian framework might also serve to connect ethics with the objectives and values of the university spin-offs encouraging responsible business practices that may in turn enhance the trust of stakeholders.

6. Limitations and directions for future research

The paper has some limitations that present opportunities for future research. Firstly, our arguments are primarily based on examples linked with biotechnology and nanotechnology as outstanding areas of AE (Carayannis and Morawska-Jancelewicz, 2022; Elnathan et al., 2022; European Commission, 2022). However, previous research has shown that the creation of university spin-offs is growing in universities across all disciplines (Abreu and Grinevich, 2013; Lam, 2010). While a systematic analysis of ethics across disciplines is beyond the scope of this study, a fruitful line for future enquiry would be to explore how ethical approaches in AE may be mediated by the disciplinary or even institutional contexts. Specifically, future research could explore how a Ricoeurian ethics can be related to disciplines such as the social sciences, humanities, or law, or to different sectors. For example, it would be enriching to consider examples and/or conduct empirical analyses premised on cases that focus on the social orientation of AE, where there is no need of high R&D budgets and AE can be used as a mechanism to foster social value creation (Roncancio-Marin et al., 2022). In such a scenario, academic entrepreneurs' ethical challenges may be different, as without intensive research they may shift their focus to commercialisation activities and pay more attention to their relationships with potential customers by adopting customer-centric approaches (Morrish et al., 2010; Rajagopal, 2020). Furthermore, academic entrepreneurs may be more inclined to adopt iterative development and co-create value with different stakeholders (De Silva et al., 2023; Soini et al., 2019), where Ricoeur's ethical approach may manifest in different relational forms worthy of study.

To adopt geographical criteria to select study cases might be another possibility, thus comparing examples from different European universities. Indeed, different universities encounter unique challenges and adhere to distinct cultural, institutional, and regulatory norms (Haeussler and Colyvas, 2011; Miranda et al., 2017; Wright, 2007), which may influence the ethical endorsement and assessment of AE by university managers. Hence, comparative analysis may aid in identifying commendable AE practices that integrate a Ricoeuerian ethical viewpoint. Moreover, the selection of cases from broader contexts, considering, for instance, where the general public has developed somewhat negative representations of academics in terms of performance and reputation, may also serve for extending our work. Studying a variety of examples can improve both the generalizability of findings and the development of methods for reducing ethical risks in AE.

Secondly, our proposed Ricoeurian ethical framework has also its own limitations in the context of AE. In particular, the promotion of the Ricoeurian economy of the gift, despite being a reasonable effort, is a difficult and endless task and doubts may emerge with respect to how to find a proper balance when there are conflicts of interests among stakeholders. Indeed, Ricoeur's ethics do not eliminate the contradictions and tensions that characterise some ethical dilemmas, and in this respect Ricoeurian ethics might be perceived as an imprecise and vague approach, especially when compared with deontological principles.

Moreover, there are also limitations that come from our own personal interpretation and application of Ricoeur's thoughts; they may be flawed and leave scholars and academic entrepreneurs with doubts about why and how to apply Ricoeur's relational ethics in this field. To address these limitations, future studies could potentially undertake meticulous assessments of prevailing theories concerning various dimensions that may influence relational practices, namely trust, honesty, or social intelligence (e.g. McEvily et al., 2003), and scrutinise how these theories complement or hinder the use of the Ricoeurian ethical logic. In this sense, it might be useful to continue exploring academic perspectives from other disciplines, such as sociology or organisational psychology, and evaluate the integration of concepts and frameworks that can enrich Ricoeur's ethical approach. Moreover, in order to apply Ricoeur's relational ethics in the AE field, further longitudinal studies might gather observations from academic entrepreneurs and stakeholders to test the applicability of its different logics (teleological, deontological and wisdom logic based on the logic of gift) in real-world contexts.

Nevertheless, our proposal may also be criticised, since AE, even in the form of university spin-offs, does not form a coherent and homogeneous entity. Different realities may inhabit different contexts, such that one may wonder how a Ricoeurian perspective might help in redefine previous approaches and serve to the variety that exists in the field of AE. We also realise that Ricoeur's philosophical language might be questioned; it introduces new elements and terms to the conversation in the AE field, e.g. the logic of overabundance, gift, which might need the opening up of a different discourse on ethics within organisation life and institutions. Moreover, the fact that Ricoeur's understanding of ethics was grounded on philosophical Western traditions such as Aristotelian or Kantian ethics makes our arguments to be thought from a Western —and, more specifically, a European— point of view.

Therefore, Ricoeur's understanding of ethics should not be embraced because of its superiority in providing a general and wide contribution to the AE literature. However, we believe Ricoeur (1992)'s relational approach can be both helpful and fruitful in surveying new horizons in the study of ethics within this and other related areas (e.g. social entrepreneurship, environmental entrepreneurship) and even serve to progress scholarship focused on the links between ethics and entrepreneurship in general (Fassin, 2000; Harris et al., 2009). It is a first step in its development. We believe that Ricoeur provides a key to moving forward in this area by making us more aware of the situational ethical dilemmas that can challenge academic entrepreneurs' good purposes and normative principles and inspiring us with possibilities to respond with the moral creativity that accompanies the economy of gift, which both encompasses and transcends purposes and principles. However, academic engagement in the ethics of AE remains a salient topic that demands future attention among scholars and policymakers. It is our hope that our approach will be a stimulus for scholars to continue the discussion of other ethical frameworks that may be applicable to this field.

CRediT authorship contribution statement

Nuria Toledano: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Supervision, Writing – original draft, Writing – review & editing. **Juan D. Gonzalez-Sanz:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Acknowledgments

We would like to express our gratitude to Editor Ben R. Martin and the three anonymous reviewers for their valuable feedback and guidance throughout the review process. An earlier version was presented at the 7th Annual Entrepreneurship as Practice Conference & Symposium, held from 4-7 April 2022. The first author also extends thanks to the participants of this conference, with special appreciation to Orla Byrne, Inge Hill, Juliano C. De Oliveira, and Sara R.S.T.A. Elias for their valuable comments and suggestions.

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