

# Collaborating for Competition? Unpacking Ambiguities and Paradoxes Across the Academic Profession

Rómulo Pinheiro and Kirsi Pulkkinen\*

## Abstract

This paper unpacks the complexities, ambiguities and paradoxes associated with the concepts of competition and collaboration, using the academic profession in the Nordic countries as an empirical case. We relied on paradox theory to reconceptualise the complex and dynamic relationship between competition and cooperation. Our analysis focused on the ways in which university-based academics in the Nordic countries navigate the tensions and paradoxes associated with the interplay between competition and cooperation while shedding light on the nestedness among various levels of analysis. The findings not only show that the competition–cooperation interplay is strongly present throughout multiple contradictory tensions, but also that the tensions and paradoxes identified act as push factors in the further development of the academic profession and the higher education systems in which these are embedded.

## Introduction

Cooperation and competition in the realm of European higher education (HE) and the academic profession are not new topics per se (Teixeira et al., 2004; Kehm and Teichler, 2013). However, in the last two decades or so, government-mandated reforms focusing on efficiency, accountability and excellence, combined with an increasingly competitive landscape and the rise of a performance management regime, have led to new dynamics across the field (Gornitzka and Maassen, 2011; Vukasovic et al., 2012). One result has been an increasing tendency to coordinate teaching and research activities. In research, a traditional focus on individual projects (e.g. in the social sciences and humanities) has gradually been replaced by an emphasis on team-based and project-oriented collaborative efforts, often under the motto of “collaborate to compete” (Ylijoki, 2016). However, at the same time, competition for talent, scarce resources, and prestige both within and across universities has intensified largely due to the quest to become world-class (Shattock, 2017).

Although previous studies on HE systems have acknowledged such developments, most studies have focused either on traditional and/or emerging forms of collaboration and competition in isolation. Little systematic attention has been paid to unpacking the complex relationships between competition and collaboration in the context of a changing academic profession on the one hand, and the sets of new dilemmas and paradoxes that emerge from the interplay between academic collaboration and competition on the other. By using insights from the growing field of paradox studies, this paper applies a 'both/and' perspective underpinning the field to the study of academic profession dynamics

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in Northern Europe. Traditional notions of collaboration and competition in HE are being replaced by new forms, logics and normative connotations, resulting in the coexistence of old and new structures, practices, norms and identities ( Berg and Pinheiro, 2016; Pietilä and Pinheiro, 2020). Such hybridity has led to new tensions and volitions, both within specific disciplinary domains and work contexts and across organisational settings. Such developments are apparent, for example, in the increasing reliance on both inter- and intra-organisational networks for task coordination and communications, and emerging cross-professional endeavours aimed at achieving noticeable added value and novel insights in competitive markets (Pulkkinen and Hautamäki, 2019). While “collaborate to compete” pushes have considered the requirements of work coordination to some extent, they have focused strongly on managerial aspects and largely ignored the cultural factors related to interdisciplinary- and, in particular, transdisciplinary- work (Strober, 2010).

Against this backdrop, this paper unpacks the complexities, ambiguities and paradoxes associated with the concepts of competition and collaboration, using the academic profession in the Nordic countries as an empirical case. We relied on a framework developed by Chen (2008) to analyse the notion of paradox and reconceptualise the competition–cooperation relationship beyond traditional binary dimensions. Our analysis focused on the ways in which university-based academics in the Nordic countries navigate the tensions and paradoxes associated with the interplay between competition and cooperation while shedding light on the nestedness among various levels of analysis. This paper consequently addresses the following research question:

*How do university actors in the Nordic countries interpret and navigate the emerging tensions and paradoxes associated with the competition–cooperation interplay?*

The paper is organised as follows. The next section outlines the extent to which competition and cooperation underpin the working conditions of academic professionals across the globe. We then illuminate our conceptual framework and the notion of paradox as a means of exploring the interplay between collaboration and competition and provide information on the methodological approach. We subsequently describe the key policy aspects associated with the Nordic context, followed by an exposition of the empirical findings. In the last section, we discuss the findings considering the framework adopted and the literature, and we conclude by reflecting on implications for future studies.

## Competition and Cooperation in Academia

Historically, competition and cooperation have been intrinsic elements of the academic enterprise. According to Teichler et al. (2013, p. 13–14), as an organisational field or sector of the economy, HE is simultaneously shaped by the universalistic elements of the various disciplines it comprises, worldwide discourses about the best possible solutions, international cooperation and global competition for academic success. The nature of disciplinary domains may shape interaction patterns among academic professions, with some fields (e.g. the natural sciences) being more collectively oriented and others (e.g. the humanities or social sciences) traditionally placing a stronger emphasis on individual

endeavours (Becher and Trowler, 2001). That said, the introduction of various types of performance management regimes has resulted in an increase in competition across the academic profession (Teichler et al., 2013, p. 56). In the European context, Teixeira (2017, p. 33) elaborates on this as follows:

*Although the academic profession continues to be significantly regulated by government and professional forces, there have been important advances in the influence of market forces; however, its impact has varied across countries, institutions, disciplines, and professional status.*

These global trends are forcing HE systems and organisations to adapt and evolve alongside other societal developments, leading to the emergence of new academic structures and arrangements (Young et al., 2013). Machado-Taylor and Peterson (2007, p. 53) refer to a shift in the traditional orientation of the academic profession from one that is individualised, and discipline-focused towards one that is team- and interdisciplinary-based. This shift should also be assessed in light of the prevalence of a knowledge-based regime focusing on the application of knowledge, problem solving and multidisciplinary collaborations (Nowotny et al., 2002; Valkenburg et al., 2019). The quest to address grand challenges and highly complex problems has resulted in increasing collaboration among researchers and across HE systems and institutions (HEIs). This is attested to by the unprecedented global scientific efforts to address the COVID-19 health pandemic (cf. Haghani and Bliemer, 2020). However, competitive pressures have continued to climb, with scholars and HEIs competing for scarce external funding, particularly from highly prestigious organisations such as the European Research Council (ERC), and limited space in highly prestigious publication outlets (Geschwind and Pinheiro, 2017). Studies show that faculty collaboration with international peers is a critical factor in academic publishing, with highly productive scholars being, on average, the most collaborative overall (Shin and Cummings, 2010).

At the sub-unit level, Smeby and Try (2005) revealed that a cooperative climate has a positive effect on faculty publication rates, whereas a more competitive culture was found to have a negative impact. However, the types of collaborative patterns are also significant, with international endeavours having a positive effect. One study showed that faculty members who collaborate with international peers have 38% more publications than those who do not (Shin and Cummings, 2010, p. 588). In their analysis of international research collaboration patterns in Norway, Gornitzka and Langfeld (2008, p. v) noted that “individual level self-organised international collaboration is increasingly supplemented by national and supranational organised activities, and by market-oriented activity with a global scope.” Their analysis revealed that Norwegian publications involving international co-authors more than tripled from 16% to 52% in the period from 1981 to 2004, with similar trends occurring in other Nordic countries. Their study also points to the importance of policy mechanisms (e.g., the EU’s Framework Programmes) in promoting research collaborations across national borders within and beyond Europe.

Paradoxically, anecdotal evidence suggests that the internal complexity associated with research collaborations results in practical coordination challenges and tensions, especially given the absence of a formalised hierarchy and the competitive drive of the involved researchers. At the tender or application stage, many academics play multiple roles, often competing as parts of various consortia in the quest for competitive resource (and status) allocations. Overall, these studies raise important questions regarding the role that formal, managerialist HE structures alongside more informal (collegial) academic cultures play in relation to the twin dynamics of collaboration and competition.

Many of these trends are not new per se, with earlier studies suggesting that such tensions and volitions could be seen as an intrinsic strength of the academic profession, which is traditionally handled through collegial forms of governance (Tapper and Palfreyman, 2010). However, we argue that the current competitive dynamics, as regards both scope and degree, which are prevalent at multiple levels and centred on a zero-sum game, result in the exacerbation of the well-known ‘Mathew effect’ in science. That is, the cultural divide between “haves” and “have nots” is increasing, as empirically demonstrated in multiple comparative studies across Europe (cf. Kwiek, 2016).

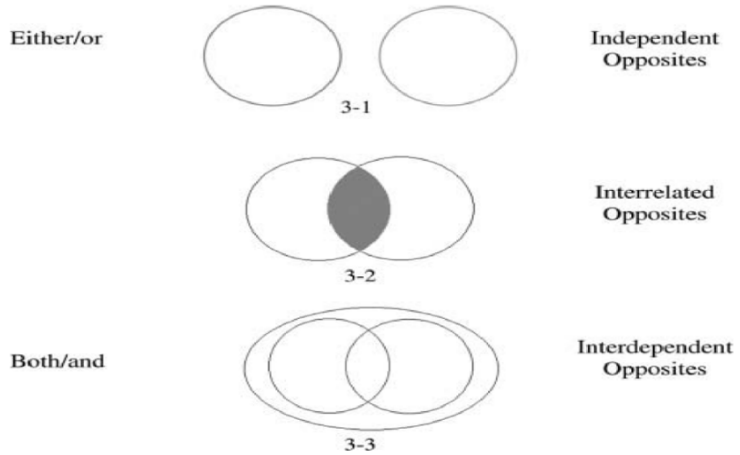
## Investigating Organisational Paradoxes

There is a burgeoning interest in the role that paradoxes play in organisations, organisational learning, and processes of organising. Proponents of paradox theory argue that apparent contradictions or oppositional forces are the essence of organisational life and development, and that there is a need to unpack the complex dynamics that unfold as social actors attempt to resolve such tensions in their daily, professional lives (Bednarek et al., 2021c). The paradox lens in organisational studies has been used to shed light on diverse phenomena such as hybridity (Smith and Besharov, 2019), sustainability (Hahn et al. 2014), ambidexterity (Papachroni et al., 2016), temporary organising (Braun and Lampel, 2020), social networking (Keller, Wong and Lioul., 2020) and improvisation (Fisher et al., 2020). Recently, there has been scholarly interest in embracing holistic and inclusive perspectives by appealing to interdisciplinary dialogues across fields and their respective ontologies, epistemologies, and paradigms (Bednarek et al., 2021a, 2021b). Attesting to the popularity of this growing field of study, the European Group for Organizational Studies (EGOS) established a permanent standing group on the topic, which hosted an online annual event in 2021 with more than 50 papers, including an earlier version of this paper.

Chen (2002, 2008) has advanced an analytical model that allows for the analysis of paradox in relation to the competition–cooperation relationship in a more systemic way. The framework argues that the concepts of competition and cooperation can be independent (either/or), interrelated and/or interdependent (both/and) opposites, creating three possible paradox scenarios. This is undertaken by combining Eastern and Western traditions of understanding paradoxes, which, in the Western context, “denote contradictory yet interrelated elements – elements that seem ‘logical’ in isolation but absurd and irrational

when appearing simultaneously” (Chen 2008, p. 290). In the Eastern context, Chen argues, paradox implies a consideration of the whole rather than its individual parts and their inherent conflicts, approaching paradoxes through the interdependencies and interrelations of seemingly disparate elements (Chen, 2008). The framework introduces three generic relationships within the concept of paradox: 1) independent, 2) interrelated and 3) interdependent. These relationships are based on the idea that opposites both define and are defined by one another, and that therefore the conceptualisation of one is impossible without its inverse. The three relationships are illustrated in Figure 1.

Figure 1. Competition–cooperation relationships



Source: Chen (2008, p. 298)

The first relationship, *independent opposites*, represents the conventional wisdom regarding competition and cooperation as being in an either/or relationship, i.e., as irreconcilable opposites. This is the classic zero-sum game scenario conventionally upheld in neoclassical economic arguments that presents competition and cooperation as two opposing or mutually exclusive forces. The second – *interrelated opposites* - conceptualises the relationship between competition and cooperation as encompassing overlapping elements. It acknowledges that the interplay of interconnected opposites can “derive from either the ambiguity or the mixed nature of the ‘opposites’” (Chen 2008, p. 298). As individual forces, competition and cooperation are connected to one another in ways that may shape the nature of the competition. The third relationship, *interdependent opposites*, emphasises the idea that the intertwined nature of the tension between competition and cooperation is only one part of the dynamic. This relationship is marked by the notion that the (polar) opposites of a paradox form the core of the whole. Some actions may constitute collaboration, while others are competitive in nature. The overlapping area is either mixed or ambiguous in ways in which neither may be particularly evident. Therefore, the interdependent opposite relationship moves beyond dichotomy and towards a (trans)paradoxical idea of inseparability. Within this perspective, elements that

could be deemed contradictory form, instead, a strategy of dynamic duality (Chen, 2008).

Considering the focus of this paper, particularly the latter two relationships – interrelated and interdependent opposites – are explored and illustrated through the empirical data presented in the next section. This enables us not only to unpack the mechanisms associated with the complex dynamic underpinning the interplay between collaboration and competition within contemporary academia, but also to illuminate how university actors both interpret and navigate emerging tensions and potentially contradictory agendas.

## Datasets and Method

The datasets were collected during the three-year FINNUT Perfect project (2014–2017) funded by the Norwegian Research Council. The primary goal of the project was to assess the effects of government-led reforms in terms of leadership structures alongside the introduction of performance management on teaching and research tasks at Nordic universities (for detailed information see Pinheiro et al., 2019). The collected data included proxy variables related to collaboration and competition, performance metrics, as well as data related to endogenous and exogenous factors that affect the ways in which academic staff navigate multiple tensions. Data on these proxy variables - related to the interplay between collaboration and competition in academic work - derived from interviews in Finland and Norway. These two cases present ideal type situations with respect to contrasts in terms of reform trajectories affecting the academic profession. Finland has in the last decade undertaken a bold reform agenda, which has, among other things, strengthened the performance-based funding system, changed the legal status of public universities, their traditional links with the public sector and the notion of academics as civil servants. In contrast, Norway has taken a more evolutionary reform approach centred on the introduction of market-based elements (like contracts, performance indicators and mergers) alongside classic arrangements such as generous state funding and the full integration of universities and the academic profession as part of the broader public/civil service sector. Both systems have thus introduced new elements of competition that co-exist alongside traditional as well as emerging forms of collaboration, like co-creation (Karlsen and Pinheiro, 2022). This has helped blur the boundaries between the two logics.

Interviews were conducted with academic staff and university managers at four case universities: one flagship (comprehensive, research-intensive) university and one regionally embedded university (younger and located in a more peripheral geographical area) in each of the two countries. The universities were multidisciplinary and included both natural and social science faculties. The two disciplinary groupings were selected to provide differing perspectives on; research and teaching, cultures of leadership, academic methods and working traditions within universities.

Interviewees were strategically selected based on their official positions, ensuring they represent different genders and sub-disciplines and can thus relate their personal experience in a broader context. They included senior academics from the natural and the social sciences such as principal investigators,

programme directors and sub-disciplinary heads of studies (n=10 in Finland, 8 in Norway); academic managers at the department and faculty levels (n=7 in Finland, 10 in Norway); and professional administrators in key roles within research and teaching services within central administration (n=7 in Finland, 8 in Norway). A total of 50 semi-structured and face-face interviews were conducted between the spring of 2015 and the spring of 2016 (for more details see Pulkkinen et al., 2019). The interview guide was organised around 7 key topics, namely: goal specificity and degree of autonomy; decision-making and strategy; control and evaluation; support structures; external stakeholders; trust and accountability; and incentives and recognition. Questions that were used as proxy for this paper addressed complexities from multiple angles, such as whether the interviewee considered academic work to face contradictory demands, how performance goals are defined and measured, what types of support are available and in which situations, and the degree of alignment between various internal and external expectations (e.g., as regards performance).

For this paper, an inductive content analysis was undertaken using NVivo software. An automatic content search for key terms like ‘academic profession’, ‘competition’, ‘cooperation’ and/or ‘tensions’, as well as their synonyms and antonyms, were undertaken. This information was complemented with a focused reading of the interview material, followed by a selection of key excerpts of relevance to the research question. The latter were then critically analysed by both authors and selected for inclusion based on their empirical and theoretical relevancy and comparative insight.

## Governance Regimes in Nordic Higher Education

During the 2000s, Nordic HE systems were the target of New Public Management (NPM) government reforms centred on efficiency and accountability, resulting in the rise of a performance management regime (Pinheiro et al., 2019). Substantial changes have emerged in both the formal and informal structures underpinning academic work and governance. A focus on performativity at all levels has meant increasing scrutiny of core teaching and research tasks. Quality in teaching and excellence in research have come to the fore as key agenda items (Geschwind and Pinheiro, 2017). Furthermore, a strengthened emphasis on accountability and efficiency has resulted in the increasing formalisation of internal processes, the centralisation of decision-making procedures and the decline of some traditional collegial structures (Pietilä and Pinheiro, 2020).

Some systems, such as those in Finland, went one step further by delinking public universities and academics from the state, by establishing independent corporations under public law and foundations governed by the Foundations Act (Aarrevaara et al., 2009). The decline of traditional collegial structures (Hansen et al., 2019), alongside the emergence of new professional norms and practices, like managerialism, has resulted in hybrid arrangements, combining new and old features, leading to new tensions and volitions (Berg and Pinheiro, 2016).

In Nordic universities, the rise of cultures of accountability and performativity has, *inter alia*, resulted in a decline in trust between academics

and administrators (Hansen et al., 2019). Growing inequality between haves and have nots has led to new internal ruptures among academics within and across disciplinary fields, and propagated attrition-related conflict and cultural fragmentation (Pinheiro et al., 2014). Interestingly, NPM-inspired reforms have promoted both competition and cooperation due to their emphasis on de-bureaucratisation, standardisation and rationalisation resulting from the complex interplay between quality, performance and accountability regimes across the sector (Hazelkorn et al., 2018). In addition to the intended increase in cooperation, the government led reforms have also had unintended consequences, as academics have sought new ways to manage the growing pressures to perform (Pulkkinen, 2020).

The shift from an NPM to a New Public Governance (NPG) regime has privileged all types of collaborative and network-based arrangements across the public sector at large, including between HEIs and multiple external stakeholders. The policy emphasis on the role of science in solving grand challenges has led to a renewed social mandate for universities and a reconceptualization of what it means to be a socially engaged academic professional and a responsible academic institution (cf. Sørensen et al., 2019). In the last few decades, there has been an exponential rise in global scientific collaborations across the board, what some refer to the ‘collaborative turn’ in science (Olechnicka et al., 2019, p. 34).

New regimes of knowledge (co-)production centred on problem solving and inter-, multi- and transdisciplinary collaboration have gradually led to a reconfiguration of traditional disciplinary boundaries and collaborative arrangements (Nowotny et al., 2002). These new arrangements encompass reaching out to academic fields beyond directly related ones, as well as external stakeholders across government, civil society, and the private sector in the form of the co-production and the co-creation of knowledge (Pulkkinen, 2020). This, in turn, has led to the formation of new hierarchies of status and prestige among academic professionals – what we term ‘relational power’. The latter is centred on strategic access to scarce resources and influential networks (social capital) with the potential to leverage both broader skillsets and societal impact of academic work. Against this backdrop, university administrators increasingly expect academic professionals not only to do “more with less”, but also to undertake teaching, research, and engagement tasks together with fellow academics and external partners, locally or globally, in a spirit of “collaboration for competition”. Pressures to “play the game” have also emerged informally and more horizontally in the form of peer pressure and socialisation, for example, the focus on competitive peer-reviewed, article-based doctoral training.

## Mapping Paradoxes in Nordic Academia

### Strategic science and excellence regimes

The empirical evidence across the four Finnish and Norwegian universities points to multiple nested tensions associated with the interplay between competition and collaboration. The first set of tensions pertains to the rise of a strategic science and research funding regime that centres on scientific excellence (measured according to the number of publications in top journal



outlets) and the attainment of competitive research funding. Both aspects are increasingly subject to stringent accountability requirements, which has manifested itself in the salience of bibliometrics and performance indicators that act as regulators of academic behaviour.

The stronger competitive ethos for securing external funding has contributed to a dual response. On the one hand, many academics, so-called “old individualists”, have shifted their behaviour orientation from an individualistic to a more collectivistic stance. In both countries, there is a clear awareness of the need to collaborate in multiple ways to succeed. Some refer to a mixed or hybrid regime in which the traditional notion of collegiality is combined with a new competitive or enterprising spirit because of a changing external environment, though not necessarily in a negative sense. Others consider changes in collegiality as a positive development towards more transparency and teamwork. Managing collegiality and individual success is seen by some as part of a creative and dynamic, academic profession that is transforming alongside university culture. As pointed out by two of the interviewees:

*It [internal university culture] is a competitive environment. Well, that is by definition.... I do not perceive it as being negatively competitive.... People are good at working together, but they also get incentives for it because the Research Council [provides funding accordingly] .... To get funding, something more is required. There are very few funds suitable for a single researcher today .... Because if it is not competitive, then it is not good in a university environment. It should be a bit competitive, but it is not necessarily. I think it is positively competitive. I think it is quite collegial, but not ... [negatively] competitive ... that we will achieve something, and more and more people will achieve something together, and we have carrots [incentives] because that system supports [collaboration]. (Norwegian, Flagship, Manager, A5)*

*An academic career is like an artist's career. They [academics] invest in their own input in a similar manner, have no clear template to work against. They create it themselves .... It's a dynamic style of work that requires constant creative thinking. (Finnish, Flagship, Academic, A10)*

Performance-based management pushes academics to compete for external funding, but the choice to submit a competitive research proposal or tender is not always in the hands of individual academics. In some highly competitive calls, like Horizon/EU funding, faculties are starting to strategically prioritise proposals internally through a quality assurance process. The perception among academics of an untransparent prioritisation process causes, in many cases, internal competition and exacerbates tensions around established and emergent status or prestige hierarchies (winners vs. losers). This situation, which is particularly visible in the two Finnish case universities, has led to a system of

‘internal lobbying’ whereby colleagues within the same faculty at times compete to convince the dean to support their proposals. There are concerns that this situation harms those in already precarious situations, especially early-career researchers with less ‘relational power’.

### Structured collaborations

Structured and strategic academic collaborations increasingly occur within the context of relatively autonomous research groups and research centres. These have emerged in the last decade as the primary social arenas for formalised collaborative endeavours at the faculty or departmental levels. Collaboration and research groups provide efficiency, but they also push researchers to make new choices between being collaborative and/or managing competition. It may be easier to form research groups within closely related fields, but internal accounts suggest that more phenomenon-based multidisciplinary groups often provide for more innovative approaches and, thus, have a competitive edge. In a competitive system, as is the case of Nordic academia, research endeavours and outcomes result from established collaborations underpinned by local, national and/or global networks. However, especially according to the Finnish respondents, only the leaders (of research groups or units) are usually rewarded in case of major achievements. Such a focus on prolific researchers lifts individuals and feeds individualism, but discards the need to incentivise all group members, i.e., the structures and work habits that “produce” or help nurture excellence.

*In this competitive world, we forget that everyone is important in the game and [RDI] chain. It's only these group leaders and unit managers who are seen and visible, but the rest of the team is forgotten. We need to have incentives for normal staff [non-prolific scholars]. They should also be remembered sometimes. (Finnish, Regional, Academic, B11)*

*When I talk about developing an excellent research environment and all that sort of thing, one of the main points that has been made is that we work, to a large extent, with self-motivated professionals. Then, there are different shades, as well as what motivates people, but the worst thing we [managers] can do is demotivate people. That's the way it is. Of course, there are some [academics] who need recognition, and there are those who ... they are allowed to work in peace, then they are satisfied. I think we can get better at praise, so we note, for example, that our professional communities, to a small extent, nominate colleagues for national awards. (Norwegian, Regional, Manager, B2)*

The data also show slight disciplinary variations with respect to the types of actors involved. Academics within professional fields such as education and healthcare have a long tradition of collaborating with external stakeholders close to their respective fields (schools, hospitals, local government agencies, etc.). They also play a key role in training students as well as joint research,

development, and innovation (RDI) activities. Shifts in the funding mechanisms at the national and European levels and quests to solve grand societal challenges are also having an impact. In both countries, academic groups are reaching out to broader and more varied (skills-wise) external stakeholders much more than in the recent past.

However, internal competition between faculties is also increasing, as those who traditionally have stronger ties with well-funded stakeholders, such as industry, attempt to stake claims for larger proportions of internal strategic funding allocations. This causes friction and pushes academics and research groups to build new types of collaborations in the quest for excellence, thus increasing their competitive edge internally and externally. An awareness of the mutual dependencies within universities acts as an engine for the renewal of academic practices. Competition and collaboration are not only opposites; they also feed off one another:

*It's a game of pulling each other's tails, but it's not between individuals really. These are shared things. We're in the same boat and can only function like that since, on many levels, we're dependent on each other. (Finnish, Regional, Academic, B10)*

*And then, you can feel that it does not always apply to everyone, but we have to work together to succeed .... We are probably quite far on the collaboration side. I think so, within the research groups. Between the research groups, there may be a good deal less collaboration. (Norwegian, Regional, Academic, B15)*

Norwegian respondents reported the move towards a modus operandi best characterised as 'organized collaboration' across research groups and disciplinary fields to tap into emerging strategic opportunities. At the system (national and international) level, science and a focus on grand societal challenges are moving in a direction such that projects are increasingly complex in nature. Both scale and internal synergies are pointed out by some as critical factors for fostering internal (university) and external (societal) visibility and recognition.

*So, then, you might get the centre of gravity that you need in some contexts. Then, to show that here we are big and heavy, and we also believe that, internally, at the university, we also want to make it visible in a way .... Then, it [the trend] is within all faculties. It's about art, culture. It's law. It's fishing. It's health. It's social sciences, humanities, right? It's about everything. So how can you make superstructures [large research groups/centres] in a way, like ... where we then get the [competitive] potential out there like that? (Norwegian, Regional, Manager, B3)*

## Winners and losers

Obviously, the establishment of dedicated internal structures for collaboration, as in the case of research groups, creates new tensions regarding who gets what (winners) and who is left behind (losers). The inclusion/exclusion dilemma also persists in relation to who has the resources and abilities to network broadly. The interview data highlight a worry that reward systems may be pushing the limits of multiple affiliations or membership in research groups, thus bringing forth unintended (negative) consequences alongside its benefits.

*So, some research groups are faculty-supported [strategic], as I say ... so, in a way, someone has become, in a way, a bit like: Well, can we not be a research group? Yes, of course you can! You can establish a research group, but you do not get support from the faculty! Because we have encouraged the institutes to give them some [financial] support for the feeling that someone is in an A-class [top group] and someone in a B-class [lower/aspiring group], so we have worked to communicate in such a pedagogical way that this is because they [groups] applied and they received funding because of this and that [merit-based]. It is not forever. It is simply an experiment, a social experiment. (Norwegian, Regional, Manager, B9)*

Such an increase in needs-driven thinking was highlighted in both countries but was not necessarily seen as a manifestation of collaboration as opposed to competition. While networking was seen as a necessity, it was not inevitably collaborative in character but rather a reflection of the complex social relationships within (and across) universities. The experimental spirit of the system was highlighted by respondents in both countries. They believe that some academics further their personal interests excessively to secure their own positions in rapidly changing conditions, leaving others behind. This effect, which appears to be stronger in the more competitive Finnish system, leads academic professionals to compete against their closest (local) colleagues in a manner that is particularly detrimental to early-career scholars with weaker networks and legitimacy claims, i.e., lower status.

*This competition for funding, well, it's quite strongly exacerbated that they [research groups] are rather selfish. The groups that succeed have to be [selfish]. So, for them, collegiality arises when they need help, but if they don't, they couldn't care less about it! (Finnish, Regional, Academic, B11)*

## Ambidextrous environments

The cultural heterogeneity characterising academic environments in the Nordic cases, both as a function of various disciplinary norms and traditions and distinct nationalities and socialisation effects, was pointed out by some as a reason to embrace multiple forms of, and approaches to, competition and collaboration, instead of a “one size fits all” solution. Research groups, the social arenas and formalised arrangements in which internal collaborations play out on a regular

(institutionalised) basis, are described as rather complex entities characterised by ambidextrous characteristics and orientations.

*No, they [academics] are very individual[istic], I think. They are individual[istic], but that [collaboration] within [research] groups is also something that has come more and more. That is, those groups are also individual[istic] in a way. So, they are quite autonomous, the groups, as such. (Norwegian, Regional, Manager, B3)*

*This is a group of more or less crazy researchers and fierce personalities. It just wouldn't work without collegiality as its basis. The demand for individuality is absolutely a condition for those crazy and brilliant thoughts ... to surface. That's why individuality is an integral part of the university. (Finnish, Flagship, Academic, A10)*

### Networking effects

Unsurprisingly, the data show the importance of scientific networks of global collaboration around scientific publications and research tenders. Nordic academics feel the need to adjust research to fit the frameworks of funders. However, due to the scarcity of time, the content of the research may remain unchanged and simply be framed anew to fit into different contexts. Such 'strategic framing' is increasingly practiced by academics and university leadership alike, as researchers attempt to balance academic integrity and scientific quality with the need for funding. Regarding non-academic actors, such as industry or government, there are accounts of both positive experiences and tensions associated with intellectual property rights. This has even led some academic environments and universities to cease collaborating with local or national industry to safeguard academic integrity. According to several respondents in both countries, external collaborations across the public and private sectors are central to the university's mission and *raison d'être*. Additionally, the ability to collaborate (network) across the board and attract competitive funding is seen as a key success factor in today's highly dynamic and competitive academic profession.

*No, you [academics] must be dedicated to research and be oriented toward the research community and not least seek the right international academic environments that are good and that are good to collaborate with and from which there is a lot to gain. (Norwegian, Manager, Flagship, A6)*

Hence, the data provide evidence of the complex interplay between cooperation and competition within the context of contemporary academic settings and a changing academic profession. In the next section, we attempt to make sense of these findings from the perspective of paradox theory as outlined at the onset.

## Discussion and Conclusion

The empirical evidence provided above lends support to the idea that paradox integration centred on the interdependence of competition and collaboration logics, when taken together, forms a totality of academic experiences, as suggested by Chen (2002, 2008). Rather than conceiving of the two logics as conflicting or binary, as is often the case in policy and scientific discussions around the changing nature of the academic profession (cf. Kehm and Teichler, 2014), our evidence from the Nordic countries suggests that the observed dynamics are part and parcel of an integrated academic whole or system. It is an emergent (rather than a designed) phenomenon and results from the complex interplay of multiple factors at various levels: policy/macro, strategy/meso and group/individual/micro. From the perspective of paradox theory, this lends support to the importance of integrating multiple levels and dimensions of analysis into the study of complexity and its significance in understanding organisational and professional change (Keller et al., 2020). This aspect resonates with Chen's notion of 'opposite interdependence' (see figure 1) referring to "the importance of broader contextual concerns such as institution (e.g., government and industry) and culture (e.g., social values and norms) in the study of competition and cooperation (Chen, 2008, p. 299).

Moreover, given their degree of nestedness, these levels influence and feed off one another, as observed earlier by Pekkola et al. (2021). This supports Chen's contention (2008), within the prism of 'interdependent opposites' (figure 1), that collaboration and competition combine in complex ways to form a new entity or behavioural posture rather than cancelling one another out in the form of a zero-sum game. Not only is competition (e.g., for scarce funds) a driver of internal and external collaboration as well as trigger for the development of work methods to increase excellence and provide tools for professional coping, but the presence and salience of collaborative dynamics and arrangements reinforce the centrality of competition among academic actors. This dynamic is present both internally within universities and externally at the HE-field level and the RDI chain more broadly.

That said, it is important to note that, in certain circumstances, the accounts provided by the academic actors in the two Nordic countries may take a highly symbolic or ritualistic role. They may be a way of signalling to their environments that they are complying with external expectations to address both competition and collaboration dynamics or that they aim to manage a highly stressful environment by creating new professional spaces and broader pathways. This insight is associated with the highly institutionalised environment under which public universities (in the Nordic countries or elsewhere) operate, laden with formal and informal rules (cf. Pinheiro et al., 2016; Pulkkinen, 2020).

The data also support the notion that *co-petition* dynamics (see Chen, 2008, p. 293-95) exist across the academic profession, with actors simultaneously competing against and collaborating with one another, most notably in the highly competitive research realm. Moreover, following the idea that cooperation and competition are tightly intertwined, as posited by Chen (2008), there are signs suggesting that these new collaborative arrangements are shaping emerging

competitive behaviours among Nordic academic groups and their host universities alike.

The internal accounts emanating from both the Finnish and Norwegian participants show a change dynamic that balances the negative aspects of increasingly contradictory tensions with the positive ones related to new, emerging forms of collegiality. While the introduction of metrics related to performance management was found to create added pressures for academic professionals, these simultaneously push actors to develop new work methods based on closer collaboration as a means of both coping with and striving/succeeding in fiercely competitive local, national, and global HE environments (Alajoutsijärvi et al., 2021).

The perceived loss of trust in the system and its appreciation of academic endeavours are balanced with a sense of improved transparency and a need to develop a strategic eye with which to guide academic work in the short- and long- terms. The cross-country data show that academic professionals are well aware of cultural differences between disciplines and social settings (e.g., teaching versus research tasks) and attempt to manage these in their own work situation in the context of complex, emergent social relations, both with their academic peers and in relation to the university/science system as a whole – locally, nationally and globally. This is particularly salient with respect to the rise of, and strategic role played by, increasingly inter-disciplinary research groups and/or centres that are dedicated to scientific collaborations aimed at joint publications and/or the attainment of competitive funding (cf. Nokkala and Diogo, 2020). Contrary than was the case in the past, where competition and collaborations mostly took ad hoc and informal forms based on personal networks and shared interests, these findings reinforce the notion that, as *inter-dependent opposites* (Chen, 2008), academic competition and collaboration increasingly denote a structured and strategic dimension, manifested along the lines of ‘organised collaboration’ (for competition) and ‘organised competition’ (that both justifies and supports further collaborations). At the university level this development is visible, for example, in the strengthening of specialised research services that provide structural support for academics to build both varied capacities and broad, strategic networks.

The data suggest that the competition–cooperation interplay is not only strongly present in multiple contradictory tensions but that the trans-paradox (Chen, 2008) is highlighted as a *push* factor in the further development of the academic profession. Stated differently, the ambiguity created by the coexistence of competition and collaboration is a key driving force for the further development of existing (old) and emerging (new) professional and institutional practices. For example, these include work methods and tasks that push the HE systems and HEIs in which academic work is embedded (cf. Birnbaum, 1988) towards more NPG-style management, where the simultaneous effects of complex social networks are not only acknowledged but celebrated as valid reflections of legitimate academic work (Deephouse and Suchman, 2008).

These findings resonate with earlier studies using paradox theory which have found that the heterogeneity of networks affects collective responses in ways that build consensus rather than polarisation (Keller et al., 2020).

However, while the coexistence of the dynamics of competition and cooperation could be seen as a major strength of the modern academic profession, its setting in the context of performance management creates new (structural and cultural) ruptures that risk harming academic work and potential innovations. This is particularly true if/when differing notions of cause-and-effect dynamics are not acknowledged by key stakeholders such as HEIs' managers, funders, and regulatory agencies. Our analysis shows that the ways in which actors at various levels of the academic system perceive the coexistence of paradoxical tensions (Jarzabkowski et al., 2013) and their respective effects, plays a crucial role in how the system as a whole and the academic profession in particular respond to the coevolution of the paradox. These findings lend support to Chen's (2008, p. 297) notion of 'strategic duality' underpinning the dynamic and complex interplay between competition and cooperation wherein "two opposites may be interdependent in nature and together form a totality" (Chen 2002, p. 180).

From a comparative standpoint, the detected similarities across the four case universities could be due the fact that the traditional differences between "old" comprehensive and "younger" more regionally embedded universities have gradually eroded due to convergence trends or drift in both directions. In Norway, recent mergers have moved the domestic HE landscape in the direction of a quasi-unitary system, whereas in Finland, major changes in the legal framework and funding mechanisms have also led to isomorphism pressures, with less-competitive institutions copying their apparently successful counterparts while making special efforts to profile their specific expertise. At the system level, diversity of institutional forms has declined, accompanied by an increase in structural and cultural complexity (*hybridisation*) within HEIs themselves (Pekkola et al., 2021). These developments have, *inter alia*, re-enforced the centrality of the 'strategic duality' underpinning the interplay between collaboration and competition, resulting in a gradual transition from independent- to interdependent- opposites, as postulated by Chen (2008).

Moreover, from a managerial stance, embracing rather than ignoring paradoxes has the potential to foster experimentation, learning (professional and organisational), diversity, and slack. These elements have been found to support the build-up of organisational resilience over time (Pinheiro et al., 2022) and the development of innovations (Carlile, 2004). As organisations increasingly collaborate with multiple actors across sectors and jurisdictions in the context of co-production and co-creation (Brandsen et al., 2018), the inclusion of non-academic actors in the context of stronger links between universities and the (local/global) political economy that surrounds them may help identify some of the macro-origins associated with paradox formation. In addition, the insights emanating from this study are, in our view, relevant to identifying key drivers and mechanisms that impact on how modern academics navigate tensions between competing logics and how, in turn, these affect academic practices and identities (Karlsen and Pinheiro, 2022; Pulkkinen, 2020).

Moving beyond our Nordic cases, HE as an organisational field and the academic profession, the study lends credence to the notion that organisational paradoxes across the public sector and beyond cannot be resolved from a managerialist or means–ends rationality standpoint. Instead, paradoxes are one type of manifestation of the increasingly complex and turbulent environment



facing modern organisations across the public, private and third sectors (for a recent discussion see Trondal et al., 2022).

The study is obviously limited in terms of its scale (small N design) and scope, not taking full account of the vast variety of experiences across multiple institutional cases (domestic HE landscape) and disciplinary domains. In addition, as stated earlier, the datasets used in this study were taken from an investigation of effects of governmental reforms rather than a ‘pure’ investigation of the complex interface between competition and cooperation in Nordic academia. Moreover, data collection occurred at a particular historical point in time, following major government mandated reforms. Thus, the topic was not approached from a longitudinal perspective, following developments over time.

Future studies, addressing the aforementioned limitations, and with the aim of further unpacking the extent to which the identified (trans)paradox of the competition–collaboration interplay is affected by or helps mediate other paradox-induced elements at the macro, meso and micro levels, could include, for example, factors such as; incentive structures, academic norms, professional and localised values and identities, the prevalence of managerialism and the rise of a performance management regime, the role of transnational actors like the EU/ European Research Council (ERC), among others. More concretely, future studies across and beyond the Nordics, could embrace mixed methodologies and resort to longitudinal designs to grasp the complex ways in which the elements under observation co-evolve and interrelate over long periods of time, thereby considering critical historical junctures, such as shifts in governance/reform regimes targeting HE as an organisational field, universities as strategic actors and fiduciary institutions, and the academic profession as the primary human foundation.

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