



TALENT MANAGEMENT

Talent Management in Higher Education

MARIAN THUNNISSEN AND PAUL BOSELIE

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BOOK

Talent Management in Higher Education

TALENT MANAGEMENT

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Talent Management in Higher Education

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INVESTOR IN PEOPLE

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Chapter 1

Introduction

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Abstract

Talent management in higher education institutes is an underexplored topic. Only a small portion of talent management publications is focussed on describing talent management in higher education institutes. In this chapter, we give an overview of the most important topics in the talent management literature in general and link it to what is known about these issues in higher education. It discusses the definition of talent and talent management, the talent management process and the multilevel outcomes of talent management, the fairness and justice issues related to talent management and the importance of embedding the analysis of talent management in its broader organizational and institutional context. In the final part of this introduction chapter, we will explain how the talent management topics are discussed in the subsequent chapters of this book.

Keywords: Talent; talent management; academia; university; context; performance; outcomes; talent management practices; Open Science; Recognitions and Reward

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Introduction

The days of the university as an ivory tower are over. More and more institutes in higher education are called up to play their part in society (Frank & Meyer, 2020), because the level and standard of education and research activity are critical determinants of the innovation capacity, the economic prosperity and well-being of a nation or a region (Dutta et al., 2020). In many universities, societal impact and public value creation have become part of the strategic goals, integrated in research and education, and as an outcome of research and education. More recently, Open Science programmes are becoming an essential characteristic of higher education, aimed at, for example, open access of research output and publications, the sharing of high-quality data management and the involvement and engagement of citizens and stakeholders as knowledge producers (European Commission, 2019). The worldwide Covid-19 crisis has forced societies and academia to search for alternative ways of cooperation, co-creation and knowledge sharing in a joint fight against one of the biggest global challenges of our time.

For universities, the people (human resources (HRs)) are the most valuable asset for the success of the organization (Thunnissen, 2016). Although in some disciplines (in particular science) the laboratories and machines are essential, in the end, academic work is very labour intensive, and it's the people who shape universities through research and education. Therefore, academic performance depends on the devotion and specific characteristics of the academic and support staff. For performance in research, teaching and societal impact the availability of talented, creative, innovative and motivated academics, and support staff is essential. The competition for highly educated and academic talents is fierce; also other knowledge-intensive organizations are involved in this 'war for talent' (Holley et al., 2018; Stahl et al., 2012). The attraction and retention of qualified and highly motivated staff are key objectives of universities operating in a global competition for talents. Furthermore, the aforementioned Open Science programmes and its operating principles such as involving society, teamwork, open access of output, sharing data, cooperation and academic leadership are also related to people management issues and therefore the HRs of academia.

Up until now, research on human resource management (HRM) in higher education institutes in general and on talent management in specific is scarce. A review of empirical talent management research by Thunnissen and Gallardo-Gallardo (2017) shows that only a small minority of talent management publications is focussed on public sector organizations, and within that small portion, an even lesser amount of publications is aimed at describing talent management in higher education institutes. This raises the question on what do we know on how universities attract, develop and retain their talents and how do they support their staff to stay employable and qualified to face the global and local challenges?

In the next section, we will give an overview of the most important topics in the talent management literature in general and link it to what is known about these issues in higher education. In the final part of this introduction chapter, we will explain how the talent management topics are discussed in the subsequent chapters of this book.

The Meaning of Talent and Talent Management

Talent management is often described as the systematic attraction, identification, development, engagement/retention and deployment of talents (e.g. CIPD, 2006; Scullion et al., 2010; Steward & Harte, 2010). Within their talent management definitions, authors adopt different terms for ‘talent’, for example, ‘excellent abilities’, ‘key employees’, ‘stars’ or ‘high potentials’. Since the rise of the topic of talent management nearly 25 years ago, there has been an intensive debate on the definition of talent. Even up until now, new academic publications appear with novel insights regarding the conceptualization of talent (Gallardo-Gallardo & Thunnissen, 2019; Skuza et al., 2022; Vardi & Collings, 2023). In 2013, Dries (2013) gave a solid ground to the debate by identifying five tensions in the literature regarding the definition of talent. The first tension refers to object versus the subjective perspective on talent (Gallardo-Gallardo et al., 2013). The subject approach focusses on the identification and development of talented people, while in the object approach, talents are identified as characteristics of people (referring to skills and qualities). The second tension in the literature discusses whether or not to differentiate in the workforce and highlights the difference between an inclusive versus an exclusive approach. The inclusive approach is based on the assumption that all employees are talents or have talents valuable to the organization and the whole workforce should benefit from talent management investments. The exclusive approach is aimed at a select group of employees, namely those individuals who can make a difference to organizational performance (Tansley et al., 2007), and assumes that only this select group should benefit from the talent management inducements. The third tension – input versus output – refers to the distinction between skills, motivation and effort, on the one hand (input), or on the outcomes in terms of excellent performance and success, on the other hand (output). The fourth tension focusses on the question whether talent is innate (‘you either have talent or you don’t’) or, on the contrary, can be acquired and/or further developed. Finally, the fifth tension deals with the discussion of whether a talent is universal and transferable to each context or whether talent is context dependent and that talents in one context are not necessarily relevant in the other context. The academic literature has been criticized for offering a binary conceptualization of talent (Vardi & Collings, 2023). The ‘either/or’ approach as becomes apparent in the aforementioned tensions is not recognized by organizations in practice, as we see that next to the single inclusive and the inclusive approaches also more hybrid or mixed forms exist within organizations. We call for a more nuanced approach to the topic and build insights from paradox theory, encouraging a transition from ‘either/or’ perspectives to ‘both/and’ perspectives. (Dries, 2022; Skuza et al., 2022; Thunnissen et al., 2013; Vardi & Collings, 2023) and urge scholars to do more research on this nuanced or balanced approach to talent management. They have two arguments for that: on the one hand, a balanced approach is more in line with the plural occurrence of talent management in practice; on the other hand, the ‘either/or’ single approach to talent definition makes the company vulnerable as it is not using the full potential of talent management.

In short, for organizations, the main question regarding talent is whether the organization needs to differentiate its workforce (inclusive vs exclusive approach) and on what basis (people or characteristics; potential or performance; etc.). We see two main approaches that integrate some of the tensions mentioned before. Although the inclusive approach could be focussed on people (subjects), we see that the accent is put on the object approach, in particular highlighting the importance of strengths. Strengths are personal characteristics that allow employees to perform well or at their personal best, and in this case, talent management can be interpreted as the identification, appreciation and use of the strengths of employees, assuring that all employees work in a context and organizational climate that enables them to use and develop their talents (Meyers & Van Woerkom, 2014; van Woerkom & Meyers, 2015). The strength-based approach is mainly aimed at empowering and motivating employees and enhancing employee well-being and commitment. The exclusive approach, on the other hand, is more performance oriented, with the assumption that high-performing employees will increase organizational performance (Thunnissen et al., 2013). Regarding the exclusive approach, the conceptualization of talent management by Collings and Mellahi (2009) is dominant. In their 2009 article, Collings and Mellahi argue that the starting point of talent management should not be the identification of talent but the identification of the key positions that are crucial to the survival and performance of the organization. Once these pivotal positions are determined, talent management is aimed at identifying the best-performing employees and creating talent pools to develop and prepare them for fulfilling these positions.

The academic literature available on talent management in higher education shows a preference for the exclusive talent management approach (Björkman et al., 2022; Thunnissen & Buttiens, 2017). The scarcity of positions but also the inherent system of competition within academia emphasizes the importance of performance, and only the most excellent academics will be selected for a tenure and an academic career. We notice a fundamental debate in line with Open Science and Recognition and Rewards transformations on the concept of 'excellence'. In itself, the concept of 'excellence' implicitly assumes some kind of high performance linked to specific goals, for example, research success in terms of publications, citation impact and received research grants. In their publication on talent management in business schools, Björkman et al. (2022) take a subject approach to talent, as they identify two groups of faculty that are most likely to be at the centre of 'business schools' exclusive talent management activities: faculty on a tenure track career path and 'star' tenured faculty with exceptionally strong track records. The tenure track scholars represent the future of the business school, and the tenure track offers these excellent scholars the succession plan to become a full professor once they fulfil the criteria for tenure. The tenure track is regarded as the best way for the university to enhance their performance and professional development and to keep this group engaged and motivated (Björkman et al., 2022). The 'stars' are, according to Björkman et al. (2022), the most experienced, tenured faculty, who outperform their peers in research and, in the context of business schools, also in executive education programmes and in

a high media profile. In contrast to Björkman et al. (2022), Thunnissen and Van Arensbergen (2015) have taken an object approach to talent and tried to identify the main characteristics of a talented academic. They also found the dominance of an exclusive performance-oriented talent management approach. A talented academic excels because of the traditional academic abilities (i.e. scientific understanding and academic expertise) but also offers extra, non-scientific skills: nowadays an academic talent is able to communicate, enthuse and inspire others, is proactive and able to market his or her ideas and research (Thunnissen & Van Arensbergen, 2015). Also, a strong passion for science, a high motivation and the ability to work very hard is of importance and will help you to survive the rat race in academia. High (proven) performance is up until now the most distinctive feature of academic talent and in particular outstanding research performance visible in many top-ranking publications and a high rate in acquiring research funding. The study of Thunnissen and Van Arensbergen (2015) shows that the precise operationalization of talent is highly subjective and contextual: the several stakeholders within academia – HR, management, employees – each have their own interpretation of what makes someone talented, and the operationalization of talent differs between the academic disciplines. However, at critical moments – such as career promotions or granting a research grant – the best track record in research performance is decisive (van Arensbergen et al., 2014; Van den Brink & Benschop, 2012).

A Multiactor and Multilevel Perspective on Talent Management Practices

The conceptualization of talent is important because it has implications for the talent management practices induced by the organization (Meyers et al., 2020; Meyers & Van Woerkom, 2014; Skuza et al., 2022). According to Meyers and Van Woerkom, (2014), the fundamental underlying assumptions and beliefs about the nature, value and instrumentality of talent held by an organization's key decision-makers are essential determinants of the specific shape of HR practices. For example, an inclusive and developmental perspective would imply investments in learning and development practices available to all employees, as an exclusive and stable talent philosophy could lead to putting accent on attracting the best top talents available on the labour market (Meyers & Van Woerkom, 2014). The idea of talent philosophies affecting the implementation of talent management also implies that talent management is more than an objective and rational process. The individuals' cognitive representations of the world affect how they perceive and act upon things (Meyers et al., 2020). Several recent talent management publications have focussed on the impact of mental models or talent philosophies of HR professionals on the development and implementation of talent management strategies (Dries, 2022; Meyers et al., 2020; Meyers & Van Woerkom, 2014). The usual suspects in talent management research are top and middle managers and/or HR professionals, as they examine their perspectives regarding the intended talent management strategy and its presumed contribution to organizational performance. Stahl et al. (2012) and Anlesinya et al. (2019) claim that that successful

companies are aware that the talent management process includes multiple owners: not just HR and top management but managers at all levels. Only a handful of publications include line managers as research participants (Bos et al., 2020). More recently, we see a growing number of studies investigating the perceptions and experiences of another important stakeholder: the employee (De Boeck et al., 2018; King, 2016). De Boeck et al. (2018) did a review on research on employee reactions to (exclusive) talent management and found mixed signals in the literature. On the one hand, they found that, in the exclusive approach, employees labelled as talents were more committed, engaged and willing to perform, but, on the other hand, these studies could not give a clear proof of these outcomes being related by talent management practices as control groups with 'non-talents' were absent in these investigations. Moreover, they also found negative effects of being labelled as talent: it rises expectations and demands put on talents and could lead to turnover (De Boeck et al., 2018).

Wright and Nishii (2007, 2013) have developed a multilevel HRM process model, in which they identified these multiple actors as well as their role in the different stages in the HRM process. The first stage refers to the intended HRM practices: the development of the policies and decision-making regarding HRM often developed by HR and top management. The actual HRM practices, the second stage in the talent management process, concern the implementation of HRM by line managers in different levels in the organization. The activities of the line managers have a signalling effect on the employee perceptions and experiences with talent management: the perceived HRM practices. These perceptions and experiences influence employee behaviour, which in turn affects the outcomes on the team and organizational level. In the ideal world, there is full alignment between the intended, actual and perceived HRM practices resulting in HR contributing to excellent organizational performance, yet in practice, there are often significant differences between the intended, actual and perceived practices due to mediating factors inside and outside the organization and the involvement of stakeholders. This deviance can hinder the effectiveness of the HR strategy. Within the academic field of talent management, the attention was, as we mentioned earlier, put on investigating the development of intended talent management strategies (Thunnissen & Gallardo-Gallardo, 2017). Thunnissen and Gallardo-Gallardo (2017) were the first to adapt a multiactor and multilevel perspective on talent management. Although research on the multilevel talent management process is scarce, during recent years, the implementation of talent management is getting more attention as well as talent management being the collective responsibility of multiple stakeholders (Anlesinya et al., 2019; McDonnell et al., 2023).

Regarding the implementation of talent management in the context of higher education, research shows that the accent is put on the identification and attraction of talent (Thunnissen et al., 2021). Although human development and training are core activities for universities there is little attention for talent development and retention for the academic staff (Björkman et al., 2022). For the early career scholars, investments in training and development are offered, but for the senior staff, there are hardly any specific development practices and they mainly develop themselves 'on

the job' (Björkman et al., 2022; Thunnissen, 2016). For the senior positions performance, appraisal is a key talent management activity (Thunnissen, 2016). Björkman et al. (2022) point at two crucial decisions in attracting talent: the initial decision to offer an applicant an assistant, professorship position and the tenure decision. These decisions are mainly based on formal performance systems, which most universities have (Björkman et al., 2022). Nonetheless, research by Van den Brink (Van den Brink & Benschop, 2014; Van den Brink & Stobbe, 2009) revealed that the recruitment and selection process was, despite the regulations and protocols in the formal performance systems, highly informal and not transparent. Her research in particular pointed at a gender bias in the selection of professors, due to closed procedures (which are not open to competition), scouting via the informal, male academic networks and the limited number of females in the selection committees, and a lack of transparency in selection procedures and practice. Skuza et al. (2022) state that the increasing role of managers in talent selection has the risk of subjective bias. Van den Brink (Van den Brink et al., 2013; Van den Brink & Benschop, 2014) affirms this and calls academic managers (i.e. professors in supervising or management roles) gatekeepers, because they determine who may enter (or not) the academic community and who can pursue an academic career. At each stage in the academic career, this gatekeeping process is present, and in each stage, excellence is re-assessed and rewarded with a temporary position. The early-career academics who will stay in academia first have to accept a number of temporary contracts as post doc researcher or assistant professor (Van Balen et al., 2012), with each time the insecurity whether he or she will be able to continue the research activities. In the last decades, this job insecurity also includes the senior academic positions (Thunnissen, 2016), having a negative impact on their well-being (Thunnissen et al., 2021). Björkman et al. (2022) also state that the exclusive talent management approach might be visible in higher rewards and benefits for the talents than for the non-talents. The authors expect all higher education institutes to experience the pressure to offer the going market rate for outstanding academics, although this might be more difficult for public schools. They also expect more individualized star faculty work arrangements to attract and retain the talented academics.

Fairness and Justice Issues Regarding Talent Management Implementation

With its accent on the exclusive and performance-oriented approach to talent, the most important decision in the academic talent management approach is the decision whether or not the academic staff member obtains tenure, as the career path structure is 'up or out' (Björkman et al., 2022). A substantial part of the literature on talent management in higher education is focussed on the perceptions of academic staff regarding their academic career and the obstacles they are confronted with while developing and deploying their talents and pursuing an academic career (van den Besselaar & Sandström, 2015; Waaijer et al., 2018). On the one hand, we see publications that investigate the stress, frustration and disappointment attached to these obstacles but also the perseverance to continue the academic career despite the obstacles (Mattijssen et al., 2021; Van Balen

et al., 2012; van der Weijden & Teelken, 2023). On the other hand, studies show career changes and turnover of academics because they experience a psychological contract breach and wish to pursue a career outside academia (Teelken & Van der Weijden, 2018; Van der Weijden et al., 2017).

These findings hint at issues regarding the (perceived) fairness in these crucial decisions, and the ethical issues related to excluding certain groups of the workforce. Exclusive talent management denies a large portion of the workforce the opportunity to realize their potential, to become star performers and to flourish as valued employees (Anlesinya & Amponsah-Tawiah, 2020). Kwon and Jang's (2022) critical review on talent management literature identifies four themes underpinning the dysfunctional aspects of exclusive talent management and workforce differentiation practices. The first theme is organizational justice, referring to a fair treatment with due consideration for the employee's well-being. A distinction between the fairness of outcome distributions and allocations (i.e. distributive justice), the fairness of the procedures used to determine the outcomes and distributions (i.e. procedural justice) and the importance of the quality of the interpersonal treatment people receive while procedures are implemented (i.e. interactional justice) can be made (Colquitt et al., 2001; Greenberg, 1990). Kwon and Jang (2022) state that talent identification is the most sensitive stage in terms of its effects on employees' perceptions. Employees identified as talents may get extra benefits because of their talent status, resulting in higher commitment and engagement of the talents but also causing perceptions of injustice in talent identification procedures by the non-talents which may make them cynical and less productive (De Boeck et al., 2018; Gelens et al., 2013; Kwon & Jang, 2022). The second and the third themes identified by Kwon and Jang (2022) refer to ethics and internal competition. The competition inherent to exclusive talent management may cause a 'burning out culture' that pushes talents to take high responsibilities and to be available for work constantly. It may also diminish internal collaboration and threaten a learning climate in the organizations because of the overestimation of the talent's abilities and underestimation of the abilities of those employees not labelled as talents (Kwon & Jang, 2022). Recent research shows that a fair, learning and caring-ethical organizational culture contributes to positive employee reactions (i.e. the perception of being able to develop and use their talents) (Helfenrath et al., 2023). Finally, the search for specific talents may lead to homogeneous workforces, which overlooks the increasing diversity on the current national and international labour market. Anlesinya and Amponsah-Tawiah (2020) plea for a responsible talent management construct that addresses the concerns of all stakeholders, including employees and society. This responsible approach includes inclusivity, corporate responsibility, equity and equal employment opportunities for all employees, in order to achieve sustainable outcomes such as decent and quality work, employee well-being and organizational well-being. The question raises whether the current exclusive talent management approach, and its dysfunctional aspects, will stand with the current developments in academia such as the rise of movements such as Open Science and Recognition and Rewards.

The Impact of Contextual Factors on Talent Management Policies

An important critique on academic research on talent management is the lack of contextual awareness (Gallardo-Gallardo et al., 2020). In the past, questions have been raised regarding the dominant focus of talent management scholars on defining talent and talent management based on research that mainly took place within the private sector and in particular in large multinational corporations. Knowledge on talent and talent management in that specific context may not be suitable for other kinds of organizations such as small- and medium-sized enterprises and public sector organizations (Boselie & Thunnissen, 2017; Skuza et al., 2022; Thunnissen et al., 2013). In a review of the empirical literature on talent management, Thunnissen and Gallardo-Gallardo (2019) found an increase on research being conducted in a broad variety of contexts (i.e. countries and organizations), yet they point at a neglect of the impact of internal and external contextual factors on the conceptualization and implementation of talent management. This indicates a gap in academic interest (Anlesinya et al., 2019) and also makes it difficult for practitioners to identify valuable research applicable to their specific organizational context (Pfeffer & Sutton, 2006).

Michael Beer was one of the first scholars to explain HRM outcomes and the relevance of context (Beer et al., 1984, 2015). His Harvard model has had two major contributions. First, based on multiple stakeholder theory and situational factors, the model incorporates multiple stakeholders such as managers, shareholders, trade unions, employees and government in combination with acknowledging contextual factors that are assumed to affect the shaping of HRM and its impact on performance. Second, performance is defined as a multidimensional construct acknowledging (1) organizational effectiveness, (2) employee well-being and (3) societal well-being as equally important long-term consequences in the value chain of an organization. In the talent management literature the importance of talent management for the organization and organizational well-being is highlighted: increasing efficiency, flexibility, profit and competitive advantage (Thunnissen & Gallardo-Gallardo, 2017). Several scholars call up to broaden the objectives of talent management beyond the shareholder perspective, at least to employee benefits but also to outcomes beneficiary to society (Collings, 2014; Farndale et al., 2014; Thunnissen et al., 2013).

This multilevel approach to talent management might even be more important for public sector organizations, since they continuously have to meet the needs of multiple stakeholders. Therefore, the shaping of HRM and the effects of HRM in a public sector context is complicated and often fuzzy. In 2013, Vandenabeele et al. (2013) used, among others, the HR process model (Wright & Nishii, 2007) and the Harvard model (Beer et al., 2015) to build an HRM process model that fits the complexity of the public sector. Boselie et al. (2021) adapted this model for the specific context of talent management in public sector organizations (see Fig. 1.1).

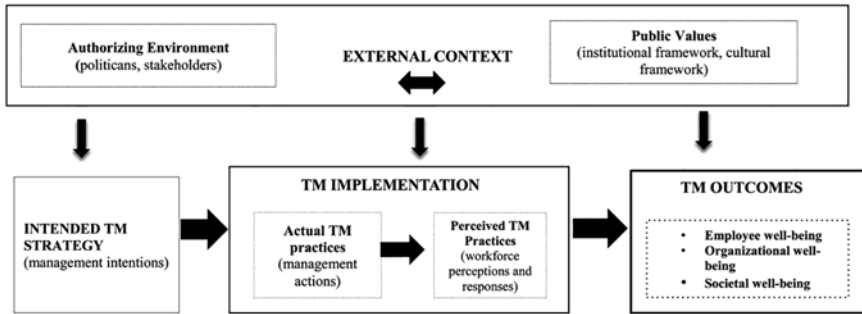


Fig. 1.1. Talent Management Value Chain for the Public Sector. *Source:* Adapted from Boselie et al. (2021).

In line with the model of Vandenaabeele et al. (2013), the upper half of the model shows that contextual factors directly and continuously have an impact on the development and implementation of talent management practices in public sector organizations. The authorizing environment consists of politician and stakeholder influences. The stakeholders can be situated outside or inside the organization: for example, governmental policymakers, political parties and unions, audit offices and governmental advisory bodies, as well as managers and public service workers within the organization. Public values refer to the public sectors’ contribution to society (e.g. service to society as a whole, social cohesion and sustainability), and how public sector organizations and their employees should behave in relation to their environment such as politicians and citizens, referring to values such as loyalty, responsiveness, accountability, honesty and integrity (Jørgensen & Bozeman, 2007; Vandenaabeele et al., 2013). The public values are determined by the existing institutional and cultural framework. The lower half of the model shows a simplified version of the already explained HRM process model of Wright and Nishii (2007) and the multidimensional performance construct of Beer et al. (1984, 2015) at the right-hand side of the figure.

Also in academia, the talent management practices cannot be disconnected from its broader, institutional context. And it is this broader context that is changing rapidly, having its impact on the academic organization and academic work. We are living in an era of big societal challenges related to, for example, climate changes, growing inequality, migration, ageing populations and digitalization. The urge to play their role in society and to open up and to contribute to the exploration of key societal issues such as climate change and sustainability leads to, for example, a shift from individual academic work to collaboration in multidisciplinary teams, sharing data via open science with other researchers, and more involvement of external actors via stakeholder and public engagement in research as well as triple- and quadruple-helix collaboration. The global Covid-19 crisis, for example, has shown that different scientific disciplines

(including Virology, Epidemiology, Psychology, Sociology and Economics) can play a role in understanding society and contributing to finding solutions for the pandemic. This implies a redefinition of relevant academic skills and talents required for the academic job, in particular cooperation (teamwork) instead of individualism and multidisciplinary activities instead of mono-disciplinary tasks.

Moreover, the aforementioned Open Science programmes and its operating principles such as involving society, teamwork, open access of output, sharing data, cooperation and academic leadership are also related to people management issues and therefore the HRs of academia. A related issue is the Declaration on Research Assessment (DORA) movement which started in 2012. This movement asked for recognition for the need to improve the ways in which scholars and the outputs of scholarly research and education are evaluated. This worldwide initiative covering all scholarly disciplines and all key stakeholders, including funders, publishers, professional societies, institutions and researchers, started, at least in large parts of Europe, a discussion on what skills and talents are relevant in current academia, and how can that be acknowledged and rewarded ([European Commission, 2019](#)). In the alternative and new rewards and recognition approaches that are part of the European and national Open Science programmes, we see, for example, the following HRM shifts that emerge ([VSNU et al., 2019](#)):

- From the individual employee towards teamwork and cooperation.
- From one-dimensional performance orientation (mainly research outcomes in terms number of publications, impact and grants) towards narratives and meaningful metrics at team level.
- From research dominance towards acknowledging research, education and societal impact.
- From a result orientation towards an employee development orientation.
- From one-size-fits-all towards context sensitivity and strategic choice (e.g. related to research assessments).
- From supervision as a necessary task towards leadership, hands-on and value-driven.

These developments raise questions regarding talent management in higher education. It could point at a shifting perspective within the aforementioned dominant exclusive approach within academia: ‘who are the real stars and how are they managed? Are new competences and new types of positions needed?’ ([Björkman et al., 2022](#), p. 141). Or do these developments indicate a shift from the performance-oriented talent management approach based on research output to a more strength-based inclusive talent management approach in which the strengths and output of all involved in academia are appreciated? The HRM discipline and its talent management scholars have looked at and studied many different sectors, both private sector organizations and public sector organizations. Yet, so far, these studies have not embedded the talent management activities in

these sectors in the institutional context and historical heritage regarding work and HRM labour in a specific sector, such as higher education. Talent management in higher education in this book is like looking in the mirror to ourselves as a research object.

Overview of This Book

This book aims to provide an overview of how talent is defined in higher education, the implementation of talent management practices, how this is perceived by employees and its impact on academic performance. It is based on a multilevel and multiactor perspective (Beer et al., 2015; Vandenabeele et al., 2013; Wright & Nishii, 2007) and intends to position the contemporary talent management issues of universities in the broader institutional context (Paauwe, 2004) in which universities are constituted and the historical developments regarding HRM and talent management policies. According to Deem (2001), the institutional context of higher education institutes can differ between countries and regions. Therefore, we will focus on the context of European universities in general and in some chapters in specific on the context of Dutch public universities.

This book will start two chapters focussing on the macro context of higher education and describes the development in the organizational context and the stakeholders involved and how these developments affect academic jobs, academic work and academic recognition and rewards in terms of talent and talent management. In Chapter 2, Joop Schippers describes the historical developments in higher education and how these developments affect academic jobs and academic work. He sketches the four major developments of higher education: (1) growth and the related development from a small-scale elite institution to broad training (and research) institutes; (2) a struggle over control of higher education; (3) the professionalization of higher education; and (4) the rise of the open science movement. Additionally, this chapter discusses how these developments affect academics and academic work and consequently the conventionalization of talent in academia, throughout history. The opening up of academia for society points at a shift from an elite approach to a talent management approach that is more inclusive and embracing the diversity – yet, not all diversity – within the student and staff population.

Chapter 3, authored by Judith de Haan, Paul Boselie, Marieke Adriaanse, Sicco de Knecht and Frank Miedema, examines the emergence of open science as a transformative force in the academic world. Open science has an immense impact on the perceptions and ideas regarding ‘what a university is for’, widening the scope of academic performance. The authors stress the urgent need to realign our system of recognition and rewards, and accordingly talent management, with the premises of open science. By highlighting the disconnect between current recognition mechanisms and the values of universities, this chapter emphasizes the necessity of transformative changes at institutional and systemic levels. To provide higher education institutes inspiration and concrete insights into the

implementation of these changes, this chapter explores a case study of Utrecht University.

Subsequently, in Chapter 4, Bianca Kramer and Jeroen Bosman make a connection between the external developments and subject of this book: talent management. They explore what the changes in the academic landscape mean for the assessment of academic performance and academic talent management. This chapter describes how assessment in academia traditionally has been focussed on individual research performance and, within that, on (journal) publications as measurable output. In recent years, open science practices as well as research integrity issues have increased awareness of the need for a more inclusive approach to assessment, broadening assessment to reward the full spectrum of academic activities and, within that spectrum, deepening assessment by critically reflecting on the processes and indicators involved. According to Kramer and Bosman, the developments reflect a shift from an exclusive, subject-oriented talent management approach with the aim of selecting the best individual performers, to an inclusive, object-oriented talent management which gives room to the qualities, expertise and competences needed at the team level to reach its strategic goals.

Chapters 5–8 are focussed on talent management practices regarding the attraction, development and retention of talent and employee perceptions of those practices. In Chapter 5, Loes van Beuningen critically assesses the factors that influence doctoral students' well-being. She explores the perceived job demands and resources, and motivations of a sample of 25 PhD students in the Netherlands, in order to recommend adequate talent management strategies to improve PhD work conditions at universities and to reduce the increasing levels of ill-being. The study proposes a collegial model, focussing on the enjoyment of work, instead of the current managerial model, which focusses on strengthening knowledge and skills, and stimulating performance-orientated behaviour. Van Beuningen stresses the need for a differentiated approach, offering customized talent development for each PhD student in order to respond to their specific qualities, improving general well-being. This radical shift in talent management is needed to counter the mental health crisis in the early academic career.

Although an increasing number of PhD holders will pursue a career outside academia, we know little about their further career prospects. To develop a better understanding of how this group constructs and justifies a successful career outside academia, Christine Teelken, Inge van der Weijden and Stefan Heusinkveld conducted semi-structured interviews with 47 PhD graduates who have obtained elaborate experience working outside academia. The findings of this study are presented in Chapter 6. It shows that the PhD holders experience four key tensions (related to society, colleagues, work and personal development) when deciding on such career transitions. Balancing the disadvantage sides and attractive aspects of both academia and the 'outside' ultimately leads to a decision in favour of pursuing a career outside academia. The PhD holders especially appreciated their contribution to society, their permanent contract and multidisciplinary

collaborations. Thus, while discontinuation of an academic career may easily hold a pejorative connotation, the study revealed rewarding opportunities in pursuing a career in other sectors.

In Chapter 7, Sanne Nijs, Christina Meyers and Marianne van Woerkom discuss talent development in the context of higher education. They present empirical data that detail how the participants of a focus group study perceive talent development in higher education. The data show the importance of a contextualized reading of talent development, as the competitive context results in a performance-centred, instead of a development-centred, approach to talent management, where outperforming others in narrowly defined areas (e.g. publication record) is the main goal. The authors show that in such a context, the development of competitive talent is rewarded, and the development of communal talent is not. The focus on performance instead of (inclusive) development becomes more pronounced when employees move through their career and is believed to have several negative consequences. Mostly, women perceived that such a non-inclusive approach to talent development hinders the development and deployment of their talents and obstructs their career progression.

Little research is devoted to how salary allocation processes interfere with gender inequality in talent development in universities. Administrative data from a university indicated a substantial salary gap between men and women academics, which partially could be explained by the unequal distribution of men and women in the academic job levels after acquiring a PhD, from lecturer to full professor, with men being overrepresented in the higher job levels, as well as in the more senior positions within each job level. In Chapter 8, Marloes van Engen and Brigitte Kroon demonstrate how a lack of transparency, consistency and accountability can disqualify apparent fair, merit-based salary decisions and result in biased gender differences in job and salary levels. This chapter reflects on how salary decisions matter for the recognition of talent and should be an integral part of talent management.

The Open Science and Recognition and Rewards movements require innovations in how to attract, develop and retain talent in academia. Universities as a single employer cannot make this happen on their own. In Chapter 9, we therefore zoom out as we take a look on the collaboration of universities regarding talent management. The goal of this chapter is to deframe and unwrap the nature of collaborations, alliances and cooperation in higher education, in particular linked to HRM transformations such as the worldwide recognition and rewards movement in academia. Cooperation at local, sectoral, national and international levels affects the recognition and rewards transformation. It can be beneficial through institutionalization and social legitimacy, but it can also be effective in a joint academic talent effort. This chapter provides an overview of different types of collaboration in the academic recognition and rewards transformation focusing in particular on talents and talent management.

This book comes to a conclusion in Chapter 10 in which we critically review and discuss some specific issues concerning talent management in the context of higher education raised in the chapters of this book. This chapter also presents recommendations for practice and further talent management research.

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Chapter 2

The Changing Context of Higher Education and Its Impact on Academic Jobs and Academic Work

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Abstract

This chapter is focussed on the macro context of higher education and describes the historical developments in higher education and how these developments affect academic jobs and academic work. When we sketch the development of higher education with a few broad strokes of the pen, we see (1) a development from a small-scale elite institution to broad training (and research) institutes; (2) a struggle over control of higher education; and (3) a movement in which higher education is professionalized and increasingly assigned a societal task, with a series of consequences for education, research and impact. These developments contribute to a field of tension in which old traditions of academic behaviour must be reconciled with demands that are placed on higher education by society. This makes talent management, both on an individual and collective level, no easy task.

Keywords: Historical context higher education; socialization of higher education; new public management; professionalization of higher education; academic labour market; open science; talent management; higher education

Talent Management in Higher Education, 19–36



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Introduction

When it comes to talent management, organizations in higher education have a double function. On the one hand, they are faced with the question of how they ‘manage’ the talent of the employees of their own organizations. On the other hand, they are pre-eminently part of the chain in society that aims to develop the talent of the young generations. While the rest of this book is mainly devoted to how universities deal with the talent of their staff within their organizations, this chapter also focusses on the question of the role of higher educated people in the labour market and within society as a whole. This role also determines which questions and assignments higher education institutions receive in fulfilling their tasks. Moreover, it also determines what society is ready to make available in financial terms for educating young people and how society in a broader sense looks at universities and those who work there. In this chapter, we therefore examine ‘the environment’ of the university in a broad sense, the increasing importance of human capital in the modern economy and on the labour market and the changing composition of the population of students and staff who populate the university. Of course, this ‘environment’ does not look the same in all countries of Europe or the Organisation for Economic Co-operation and Development (OECD), and each country has its own development and associated peculiarities. That does not alter the fact that a number of recognizable patterns can be sketched that can be seen as a kind of greatest common denominator of development in many (especially) Western countries. When we sketch the development of higher education with a few broad strokes of the pen, we see (1) a development from a small-scale elite institution to broad training (and research) institutes; (2) a struggle over control of higher education; and (3) a movement in which higher education is professionalized and increasingly assigned a societal task, with a series of consequences for education, research and impact. In the remainder of this chapter, we will reflect on each of these developments. Before that, we will pay attention to the growing role of knowledge and academic skills in society and the need for workers with an academic background. This chapter will mainly focus on Europe, although it does not even remotely pretend to discuss all the – often very different – developments on this continent (see for a somewhat broader and more general description [Van der Zwaan, 2017](#), especially part I. See also [Thunnissen & Van Arensbergen, 2015](#); [Van den Brink et al., 2013](#)).

The Growing Significance of Knowledge

Until well into the second millennium, the lives of most citizens were simple and orderly. Whether they worked on the land or practised a craft, the necessary knowledge and skills were passed on from father to son or from mother to daughter. Precepts about what to do and what not to do (not to steal, not to divorce, but to show solidarity with your neighbour and to atone for your sins, to name a few) were handed out by members of the clergy. They long had a monopoly on reading and writing and ‘scientific’ discussions, which were often related to matters that

also touched faith in one way or another (like discussions on the origin of the earth, the sun, the stars and the planets).

Halfway through that second millennium, this status quo changes. Without pretending to want to discuss the entire history of the second half of the second millennium here in a nutshell, we can conclude that a number of developments contribute to a sharp increase in the role of knowledge in the labour market and within society. In any case, the Reformation should be mentioned, which contributes to the fact that more and more individuals want to be able to read their Bible themselves. The process of state formation and centralization within states is also important. A well-functioning army needs knowledge of the latest insights in the field of military science, and a well-functioning state needs well-trained civil servants, mostly lawyers. Above all, it is technical development that – with England leading the way from the 18th century and continental countries such as Belgium, France and Germany as followers – increases the importance of human capital in industrial production processes. Working with steam engines, the construction of railways and its necessary infrastructure - it would all have been impossible without knowledge and skills that exceed the basics like reading, arithmetic and writing.

We see the different steps of this broad development reflected in the focus of the activities of universities. In addition to the first university courses that were mainly concerned with theology, law and humanities, we are gradually seeing a proliferation of education and research in other scientific fields, such as medicine and the natural sciences. Many of the institutions that currently make up the League of European Research Universities (LERU) were founded in the 15th to the 17th centuries, often with the consent or on the initiative of the monarch. In several countries, they are also at the forefront of higher education institutions, in various cases (such as the universities of Strasbourg, Utrecht and Helsinki, among others) arising from what we would today call gymnasias or other forms of upper secondary education (Rudy, 1984).

How small-scale university education was initially is illustrated by data from the University of Zurich, which at its start in 1833 had 161 students and 55 instructors (a guidance standard that many in contemporary education will envy). The 161 students are divided into four faculties: Theology – 16, Law – 26, Medicine – 98 and Arts – 21. This modest design also characterizes the research. Still around 1870, during his studies at Leiden University, the later Nobel Prize winner Hendrik Antoon Lorentz had to conclude that the new school type Higher Civic School (HBS) created by the Dutch government, which was intended to provide the business community and the government with well-educated young people in order to boost the economy, was better equipped for doing physics experiments than the university at the time. Despite the fact that Newton's gravitation law dates back to 1687, Europe is still in its infancy when it comes to experimental physics almost two centuries later.

In the 19th century, studying was still mainly something for the 'happy few'. Apart from the fact that the 'happy few' in most European countries consist exclusively of men until the 20th century, it is mainly sons of the social elite for whom studying is an option. Where this social elite was initially mainly formed

by the nobility, in later times, the administrative and economic elite were also added. Students are supported by their parents and hire members of the locals of university towns to do chores for them. In most university cities, they form a separate and privileged group. However, the biography of the aforementioned later physicist Lorentz also shows a different story (Berends & Van Delft, 2020). That of a talented boy of simple origin who, with the support of his environment (sometimes parents who turned over every dime to let their son study, sometimes a committed teacher who encouraged such a boy to apply for a scholarship) and with many sacrifices, manages to penetrate the university environment. Often years of hardship (studying in a cold room, barely enough money for food and certainly no parties or other social pleasures) precede this. Higher education is certainly not yet an emancipation machine.

Even at that time, universities trained more graduates or PhD students than they themselves needed for scientific education and research. PhD candidates found their way to (public) administrative positions, politics and the judiciary, but also, for example, to secondary education. Especially when that was expanded in the course of the 19th century, it was not uncommon for a teacher with a PhD-degree to stand in front of the class.

Growing Need for Higher Educated People

In addition to smart people developing new knowledge at universities, other smart people are throwing themselves into the application of this new knowledge, for example, by developing new products and services or improving the infrastructure of society. Over time, and starting in the 19th century, this results in a rapidly growing demand for workers who are able to make things or do things based on scientific knowledge. Think of the work of engineers or doctors. They do not need to develop scientific knowledge themselves, but they do need to understand how certain processes work in order to deliver good work. With the rise of disciplines in the 20th century such as psychology, marketing, political science, educational science – and only a few have been mentioned – companies and governments also felt the need for employees who were trained at university level in such fields. In all kinds of research areas, in the alpha, beta and gamma sciences, far-reaching specialization occurred, which found its counterpart in education and on the work floor in factories and companies. Specialized technical universities arose in various countries where, in addition to specializations such as civil engineering, engineering and electrical engineering, training is also provided in the field of industrial engineering and design, computer and data science, chemical engineering and aerospace engineering. But then, we are already well into the 20th century. Other disciplines also received specialized institutions for scientific education and research, such as the London School of Economics, the Agricultural University of Wageningen and the University for Humanistic Studies in the Netherlands. In addition to the traditional universities, we also see the emergence of institutions for higher vocational education (sometimes known as Polytechnics or Fachhochschule), where education has a stronger practical component than at most universities. Discussions regularly arise as to whether such institutions should also have a research task and to what extent they should also

be regarded as ‘real’ universities. Different countries make different choices at different times (Kyvik, 2004).

So, the growth of the nation-state in the 16th and 17th centuries gave a first impetus to the foundation of universities, and the industrial revolution led to a growth of vocational education at a secondary level in the 18th and 19th centuries; economic growth in the 20th century contributed significantly to the further growth of the demand for more people with vocational higher education. The largest growth there is seen in the last quarter of the 20th century. Given the aforementioned causes of the increasing growth towards higher educated people, it is logical that we see large differences between countries in the development of higher education. Whether it is nation-building or the start of the industrial revolution, these processes vary widely between countries. Before we discuss this growth further, we first pay attention to one of the most important growth spurts: the student revolts of the late 1960s.

Student Demonstration Time: Who Has Control Over Higher Education?

Although the growth of higher education is a gradual process that is faster in one country and slower in another, the history of higher education in Europe has an important marker and that is the Paris student revolt of May 1968. After the ‘summer of love’ of 1967 (‘be sure to wear a flower in your hair’) and the accompanying sense of freedom and liberation, large-scale protests arose here and there in various countries by (especially) young people against traditional institutions that showed no affinity with the modern sense of life and the need of young people to be heard and to voice their opinion. In many cities, universities – sometimes hundreds of years old – were located in old, dusty buildings, where a small group of seated professors with often conservative ideas ruled the roost, pre-eminently the symbol of traditional society. In different cities and countries, different problems predominated. For example, Italian students protested against the fact that higher education had long since reached its capacity limits (Van Osta, 2020), while in the Netherlands, where new campuses had been built in the years before, the resistance was rather the regent mentality of the administrators. Certainly in countries where university education had a strong theoretical character, under the influence of the increasing number of students (see the next section), doubts arose whether – in the words of Van Osta (2020) – the university would ‘instead of a breeding ground of the elite become a parking lot for an “intellectual proletariat” with no future prospects’. Although the demands differed here and there, democratization in all senses of the word was a common thread in the protest. Young people wanted more opportunities for ‘ordinary people’, for those who did not belong to the social upper class by birth. They also wanted more control over the content and organization of education, including space for the discussion of non-traditional (in those years often Marxist, but later on also feminist) insights and ideas. Lecturers who read the same story from their own prescribed book year after year had to be told. Why could students – often adults – not have an equal say in administrative and financial matters of the universities?

Often the call for university reforms mixed with protests against, among other things, the American involvement in the war in Vietnam, the nuclear threat posed by the cold war, the racial segregation between whites and blacks and the deprivation of the population from (former) colonial areas. Sometimes groups of workers joined in. Here and there, the nature and intensity of the protest differed, as well as the reaction of the authorities. Sometimes they used the national guard and police to put an end to the protests. In other countries, the authorities re-joined and students' demands were (in part) met. Often the domination of the traditional administrators, mostly professors of a certain age, came to an end. Although 'ordinary' teachers and students in some countries were given certain forms of participation (as a discussion partner of the control), the result of the student revolts was not that the universities have become a paradise of 'workers' self-management'. Rather, the traditional administrators gave way to new, mainly government-appointed administrators and managers who became responsible for ensuring that the public money that flowed more and more lavishly benefitted the growing flows of students and the quality of education in an efficient way.

A Transition from Elite to Mass Higher Education

Almost everywhere one can notice (a) a substantial growth in the number of students in higher education; (b) broadening of the accessibility of higher education for students from what was previously referred to as 'the lower classes', even though students from academic families remain overrepresented (Kivinen et al., 2007); and (c) a huge increase of women in higher education (initially mainly among students, but later also among staff), even though gender differences remain (Lörz et al., 2011). Incidentally, the strong growth in the number of students since the mid-sixties is not only due to the democratization movement. Two – even more important causes – should be mentioned. First, this growth simply has its origins in the baby boom in the first decade after the Second World War: because the birth cohorts of those years are more extensive, after almost 20 years more young people also report to the gates of the universities. But that is only part of the story. Second, due to the rising prosperity and the rise of the welfare state in various (mainly European) countries, higher education is within the reach of large groups of citizens, who want to give their children the opportunities that they themselves did not get. This means that it is not only larger cohorts that deliver more potential students but also a higher educational participation per cohort. This development can be seen to varying degrees in different countries and continues from the mid-1960s to the present day (see Fig. 2.1). As a result, higher education is developing into an important part of the emancipation machine that was previously mainly formed by primary and – to a lesser extent – secondary education (Trow, 1973).

Fig. 2.1 shows for a selection of countries that in all of these countries, the share of the population between the ages of 25 and 35 with a degree in higher education has increased considerably. In some countries (the Netherlands, Norway, Sweden and UK), this percentage will even be slightly above 50% in 2020. In



Fig. 2.1. Population with Tertiary Education, 25- to 34-Year-Olds (%), Selected Countries, 1987–2020. *Source:* OECD (2022).

a number of countries, such as Italy, Hungary, Germany and Turkey, however, even the 40% is not achieved. To a large extent, these are real differences; for another, smaller part, it has to do with definition differences.¹ Some countries, such as Poland and Turkey, show a relatively late but very fast growth, while a country like Finland already had a share of almost 40% tertiary educated people in this age group at the turn of the century, and this share has hardly risen in 20 years.

How big the difference is with older generations is illustrated by Fig. 2.2. Fig. 2.2 shows the proportion of people with tertiary education for 25- to 35-year-olds, on the one hand, and for 55- to 65-year-olds, on the other hand. The greater the distance between the diamond and the sphere per country, the greater the educational level of the population has risen: after all, the series of diamonds indicates how large the proportion of the then young, but now older generations that completed higher education was. The series of spheres does that for the youngest generations. We see that almost all countries show an increase in the share of people with a degree in tertiary education. The biggest difference we find for the countries that turned out to be the fast risers in Fig. 2.1: Poland and Turkey. For Finland, there is hardly any difference between the younger and the older cohorts.

Although the transfer to higher and particularly university education is certainly not yet easy or self-evident for all groups in society, an enormous democratization of higher education has taken place since the 1960s and 1970s of the last century. The university is no longer a place where mainly young people of which one or both parents have already followed higher education study. Many students

¹This is particularly important for Germany and Belgium.

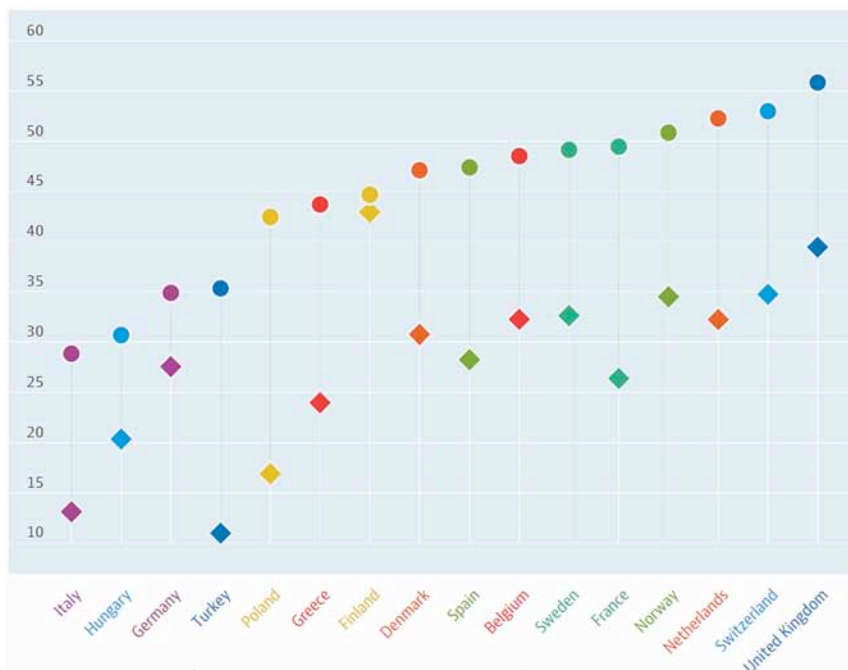


Fig. 2.2. Population with Tertiary Education, 25- to 34-Year-Olds (Spheres)/55- to 64-Year-Olds (Diamonds) (%), Selected Countries, 2020. *Source:* OECD (2022). Population with tertiary education (indicator). <https://doi.org/10.1787/0b8f90e9-en> (accessed on 21 June 2022).

of the past 50 years are first-generation students (Spiegler & Bednarek, 2013). On the one hand, they did not always have an easy time adapting to university traditions and mastering existing customs and mores (Soria & Stebleton, 2012). On the other hand, these traditions and mores also changed under the influence of the influx of a large group of ‘newcomers’ (Bronner, 2012). In some countries, changes were more prominent than elsewhere, partly depending on the prevailing culture in a country. For example, it is still tradition at some universities that the students stand up when their professor enters the room at the beginning of the lecture. Elsewhere, this does not occur to the students and the lecturer must very emphatically ask for silence before the lecture can start.

With the increase in the number of students, the entire system of higher education expanded (Schofer & Meyer, 2005). Existing institutions started new programmes or specializations within existing programmes. On the one hand, this development reflected the growth of available scientific knowledge. As a professor of economics in the first half of the 20th century, you could still keep up with what was written in all areas of the profession, with the development of new ideas, theories and the emergence of increasingly advanced empirical research on increasingly rich data, that gradually became impossible. Generalists – whether

in economics, law, physics or biology – gave way to specialists, who not only had their own field of research but also liked to teach about it, sometimes for a few but sometimes – if it was also useful knowledge in practice – for large groups of students. On the other hand, regularly, the industry or the government advocated new training based on the need for specialist knowledge. Think, for example, of oil companies that need knowledge about drilling techniques and seismic conditions where they want to drill or international governments that need the development of international legal rules. New institutions were added that also absorbed part of the growing student population. Of course, this growth also translated into an increase in the number of staff employed by universities and colleges, with a sharp increase in the share of employees who were the first in their families to have a job in higher education. In this way, not only the students but also their lecturers ensured far-reaching ‘socialization’ of the university. Some students and teachers can be found in their free time in the stands of a football club from the highest national league and others you will find at a ballet or concert performance. Some read a liberal newspaper and vote for a liberal party, while others seek their information and salvation from a communist- or nationalist-oriented newspaper or political party, respectively. Students and teachers form a more diverse population than in the past, even though they certainly do not make up a complete reflection of the rest of the population. Most countries show a serious underrepresentation of migrant students among their university population and often an even stronger underrepresentation of migrant teachers and researchers among their staff.

Growing Influence of Government and Society: New Public Management and Counting the Numbers

Although in many countries the government has always played a role in determining the course of universities – previously we saw that in some countries, it was the monarch himself who took the initiative to found a university – we see, although not everywhere to the same extent, with the expansion of higher education and the increase in student numbers overall an increase in the involvement of the government. If the aforementioned Lorentz had to write begging letters to the minister of education in the 19th century to get equipment for his laboratory financed, with the advance of technological innovation, research (and education) in the beta-medical sphere in particular has become so expensive that most universities cannot survive without government funding. And that often also applies to the student-rich programmes in the alpha-gamma domain. Here, it is not the cost of equipment and installations that causes the high cost but the labour costs of the teachers to provide education for all these students. Underneath lies the political choice that is made in many countries not to let students pay the full cost of their education. If that were the case, higher education would never have been able to achieve the proliferation it has today. In the view of many politicians, higher education is a ‘merit good’, that is, a ‘product’ whose social benefits exceed the private benefits. In other words, not only the individual benefits from following a course in higher education in order to realize interesting work and a

high reward during the rest of his/her life course. Society also benefits from large numbers of citizens who have completed higher education, for example, because these citizens are more productive in the labour market and their human capital is an important natural resource for the country in which they live. Many countries therefore subsidize the following of education. This often starts with ‘free’ education at an elementary or intermediate level but in many countries also extends to higher education, with some countries even going so far as to fully subsidize that as well. Other countries then choose to have students (or their parents) pay a substantial personal contribution because of the considerable individual benefits of higher education.

At this point, it is worth reflecting on an important difference between countries. Some countries have almost exclusively publicly funded universities that operate – regardless of any autonomy for the administrators – within a system that is entirely regulated by the government. Other countries have a mixed system from publicly funded universities and universities that raise their own financial resources (from tuition fees, donations and fundraisers) and where the government mainly supervises a number of minimum standards for the quality of education. Yet – despite the neoliberal revolution of the 1980s and 1990s of the last century – we see hardly any countries where higher education is completely left to the market. Apparently, governments consider (also) higher education so important that they like to keep a finger in the pie (Lynch, 2006; Olszen & Peters, 2005).

In many cases, this government funding from the universities is not provided ‘free of charge’ and without conditions. Society, often represented by the Minister of Higher Education or a body of experts set up by the government, makes all kinds of demands against funding. In most countries, these relate at least to the quality of education and research. These can be very global requirements, but in some countries, more detailed requirements are chosen.

Partly driven by insights from modern scientists who want to materialize their public responsibility, but sometimes also inspired by public demands, we see the emergence of a new movement called Open Science (see, among others, Hessels et al., 2021; Miedema, 2022; UNESCO, 2021). This movement covers various aspects of scientific practice and seems to have conquered a strong bridgehead, especially in the Netherlands. Within this movement, attention is being drawn to transparency from science to society, to open access of publications (so recent knowledge will no longer be hidden behind a paywall), to more attention to teamwork versus the strongly flourished individualism within science (cooperation instead of competition) and therefore also to other assessment and selection criteria within higher education. Although this movement is certainly not yet commonplace everywhere in academic circles, it finds a lot of resonance here and there, though there is also opposition. Even if not all components are translated equally everywhere, it is still a movement that will have major consequences for talent management within higher education, especially because it is a movement that originated to a large extent from science itself. Later in this book, for example, in Chapter 3 of this book by De Haan et al. (2024), the significance of this movement for talent management will be discussed in more detail.

Research

With regard to research, in addition to sufficient publications in a quantitative sense, the quality requirements have also been increased here and there in the sense that publishing in international peer-reviewed journals has increasingly become the norm. This development was supported by the enormous growth of a commercial market for scientific journals that followed the expansion of the research volume at universities worldwide (Van der Zwaan, 2017). Funding from public funds (directly by the government or through national research councils) became increasingly dependent on (easily measured) output. This way, government intervention with representatives of ‘new public management’ at the helm stimulated competition between scientists and between universities, at the expense of cooperation (Bryson et al., 2014). Within the European Union (EU), a country like the Netherlands was quite at the forefront of this and Belgian, German or Italian colleagues were surprised by the strict requirements of the Dutch system. Gradually, more countries adopted these stricter requirements and Dutch, Danish and Italian scientists are all busy meeting their national publication requirements. In the wake of this, they are all increasingly complaining about the increasing workload. Sometimes, the demands on the part of the government go further and the funding is linked, for example, to a certain degree of division of tasks between the institutions in order to prevent too much fragmentation of research and the associated inefficiency according to the policymakers. Of more recent date are requirements that relate to creating social impact with the research and the research results. From the perspective that ‘it’s all tax payers’ money’, the idea is gaining ground that society may see something in return for all the financial efforts with which it enables the ever-growing army of researchers to exercise their ‘hobby’ every day. A superlative form of this approach is that the funding of research is linked to the extent to which research actually addresses important social issues and works on solving the grand challenges that society increasingly faces. This is a development that we see not only at the national level, but also, for example, at the EU level in programmes such as Horizon Europe. We will come back to this development in our concluding section.

This conditionality of research funding touches on a theme that is often hotly debated among scientists and between scientists and policymakers: the increasing need to acquire grants – in competition – for conducting research. This system, which some (especially Anglo-Saxon countries) have known for a long time, has found its way into more and more European countries and also dominates the funding of research funded by the EU, for example, through programmes such as Horizon Europe. For many, obtaining grants is a *sine qua non* for the continuation of their appointment at a university: (part of) their salary must be paid. Moreover, in the highly competitive world of science, it has also become to a large extent a measure of academic success. That is why many university researchers – in addition to their substantive research – are also constantly drawing up research proposals, sometimes for one and then for the other potential funder. Although resources are limited and therefore the chances of success are small, it is not an option for many not to participate in this race: their academic existence depends

on it. This creates an enormous overproduction of research proposals of which only a limited part is awarded funding, but the drafting of which in the meantime leads to an enormous workload and a lot of frustration among the authors.

More than other segments, the labour market for scientific research shows a relatively large degree of international mobility. It is not exceptional for a Swiss student to do her bachelor's in Zürich, take a master's in Paris, write her PhD in Utrecht and continue her career as a postdoc in Oxford. Finally, she may end up as a professor in Munich. Often this is fun, but often, it also places high demands on the individual researchers, the receiving institutions and the people who work there. Employees from different cultures and traditions need to feel at home in order to be productive. Especially, if an appointment includes both research and teaching tasks, a match is not self-evident. Where research methods and traditions often have similarities between countries, this is to a much smaller extent the case for education systems. So, over the years, international mobility has become a challenge for more and more universities who want to keep up with their fellow institutions. But attention for international mobility is not necessarily an element of talent management everywhere.

All this together implies that careers of contemporary scientists at the university often look very different now than those of, for example, half a century ago. Ignoring all kinds of nuances and differences, going to work at the university in the 1960s or 1970s of the last century meant for many accepting a permanent job for the rest of life. Now almost all young scientists start with a series of successive temporary positions in which they try to distinguish themselves from their colleagues in order to be eligible for the next position. They often approach the age of 40 before being eligible for a first permanent job. And even then that is rarely – as for many of their predecessors – a relaxed job: education, under the influence of the socialization of universities, also increasingly places demands on lecturers and the support staff that makes that education possible.

Teaching

The idea advocated by some during the revolt of 1968 that students should henceforth be allowed to compose their own curriculum and dismiss professors who did not sufficiently meet their wishes and desires has not become a reality. However, in most European countries – here too we see variation – educational curricula are no longer a matter of a club of professors who together call the shots and divide the tasks among themselves. For example, many countries have review procedures not only for research but also for education, in which external experts or other stakeholders visit the universities once in a while to assess the quality of education. A multitude of aspects of education can be discussed, ranging from the quality of the teachers, the attainment targets of education, the number of contact hours between students and teachers, the educational design of teaching programmes, the supervision of starting students, programmes for the integration of foreign exchange students to the procedures that are followed in case of cross-border behaviour of a teacher towards a student or between students themselves. Apart from these review procedures, you could say that education is highly

professionalized. Whereas in the past you were allowed to teach at the university on the basis of your own scientific qualities, but no one wondered whether you could also transfer your own rich knowledge to different groups of students in an effective and inspiring way, it is now increasingly true that – just as in primary and secondary education – in university education requirements are set for the didactic abilities of lecturers. In some countries, teachers have to submit student evaluations of previous courses when applying for applications, in other countries you have to obtain a certificate of didactic competence, and so, there are different routes to ensure that educational skills are not simply taken for granted. Just as in healthcare, government-imposed quality requirements in education require the use of all kinds of protocols, the reporting of all kinds of quantitative data about education and the setting of check marks. All with the necessary workload as a result. Given the massiveness and the many procedural regulations, various stakeholders describe the university today as an ‘educational factory’, in which college students are ‘processed’ into young academics in the most efficient way possible and of which the ideal of ‘Bildung’ as propagated by [Von Humboldt \(1810\)](#) is little left ([Flikkema, 2016](#); [Lauer, 2017](#)).

Say and Worker/Student Participation

Apart from the fact that the ‘outside world’, often in the form of a controlling government agency, interferes much more than before with the quality of education and research, in various countries, the control relationships in today’s university have changed considerably compared to those before the great democratization movement. The situation in the Netherlands is an interesting example of this. At every administrative layer within the university (university – faculty – institute/programme) in addition to the board that has control, there is also a form of participation in which a joint body of staff and students not only controls the board but must agree to certain board proposals on a number of essential points before they can actually be implemented. This applies, for example, to the Strategic Plan that each university must draw up once every four years but also to the main lines of the annual budget plan. These rights of participation are laid down in law in the Netherlands, but within some institutions, the board and participation have agreed to extend the rights of participation and, for example, to give participation control over the range of courses offered by the institution. Furthermore, according to Dutch law, employee participation plays a role in the appointment of directors and the supervisory authorities appointed by the government. This Dutch approach is certainly not standard in Europe, but it does show that the context in which university employees – be they scientific or support staff – has changed considerably under the influence of the growth and socialization of the academic world ([Christensen & Eyring, 2011](#)).

Impact

As far as we haven’t realized, the Covid-19 pandemic has shown us once again how much science is sometimes at the centre of the public debate. Whether you

watch the Belgian current affairs programme ‘Ter Zake’ or the weekly discussion programme ‘Anne Will’ on the German ARD, on all kinds of topics – the pandemic, the climate crisis, the war in Ukraine, increasing obesity or the monetary policy of the European Union – a highly educated person is asked for his (and fortunately also increasingly: her) opinion (and sometimes also firmly put to the test). The time when scientists could lead an isolated life, far away from everyday reality, hidden in their ivory tower is far behind us. Society demands the participation of science in the social debate and more and more scientists want to play a role in this, even if they do not always have a popular message. Here too we see that in terms of staff, the university is increasingly populated by ‘ordinary’ people, who also have a grandmother who finds it difficult to make ends meet from her retirement pension, a neighbour boy with a speech disorder or a fellow member in the choir who is worried about the future of her children. They are aware that it is not self-evident that they have the opportunity to conduct groundbreaking scientific research – to a large extent with public money – but rather a privilege. And when they travel together on the train to their hometown, they can still be genuinely surprised that they are amply paid for being able to work day in and day out on what they like to do best.

What the Covid-19 pandemic has also shown is that the authority of ‘science’ is waning. For many critics, science – even if it comes from top researchers – represents ‘just another opinion’. Whoever meets the professor on Saturday along the line at his daughter’s football league or then at the takeaway Chinese sees him primarily as a fellow citizen and fellow villager and therefore looks at him primarily from that perspective on Monday, even though he may speak *ex cathedra* and on the basis of his professional insights. While this may be the price that society should bear for non-elitist science and non-elitist scientists, among politicians who do not find critical science particularly well, there is almost a hotchpotch and incitement of public opinion against those scientific insights that show, on the basis of facts and figures, that these politicians are wrong. In the Netherlands, among others, this has now led to the establishment of a hotline for endangered scientists, but also in a country like Belgium, a well-known virologist has been in hiding for some weeks at the time of the heaviest Covid-19 measures. In this situation, it is not primarily about the impact of, but about the impact on, science and those who are committed to it.

Concluding Remarks

If we try to summarize the picture of the changed context of higher education outlined in this chapter in a few concepts, ‘growth’ and ‘socialization’ seem to be the most appropriate, with socialization being a more or less logical consequence of the growth inspired by population and prosperity development. If you want to add another one, you will soon end up with professionalization (and the associated bureaucratization). In some ways – think, for example, of the real estate portfolio of some universities and the huge amounts of money that go into it each year in terms of staff salaries – the university has become a business, similar to a hospital or a ministry. At the same time, this has led to a new form of

distance between university and society. The world of education and research, the procedures and funding streams are such a world in itself that outsiders, but also politicians who are supposed to bear responsibility for what happens to the large amount of money for higher education, actually have no idea what buttons you can turn if you want to change or even adjust something. Where professors are less in an ivory tower than half a century ago, this is now often the case for professional administrators: he/she consults with other administrators, with the Ministry of Education, with policy officers, with faculty deans and institute directors, but is often not a scientist himself or has long since left the practice of teaching and doing research behind. In addition, it should be noted that the socialization of research is proceeding faster than the socialization of university education. Students – with exceptions – all too often consume relatively resigned to the education that is presented to them. Certainly in countries such as the Netherlands, where questions from citizens and, for example, patient organizations penetrate the agenda of renowned research groups and institutes fairly directly via the Dutch National Research Agenda (in Dutch: Nationale Wetenschapsagenda – NWA), research on this point is well ahead of education. The question of the content of educational programmes, what can and cannot be dealt with is rarely the subject of public discussion but remains mainly a discussion among specialists and insiders.

The question is to what extent a movement such as Open Science, which we already mentioned, that is highly welcome in itself will also bring about change here (Boon et al., 2021). So far, the discussion within this movement about the relationship between science/universities and society seems to focus mainly on research. Among other things, very relevant issues are discussed, such as the relationship between fundamental and applied knowledge and the question to what extent knowledge and insights obtained with public funds should also be freely available to society. The practical consequences of the answers to such questions have been clearly underlined by the corona crisis. Anyone who realizes that universities (and universities of applied sciences) primarily derive their *raison d'être* from educating young and increasingly older citizens – through lifelong learning (Schippers, 2018), hopefully also recognizes the need for stakeholder engagement in education as an important dimension of Open Science. In (secondary) vocational education, we already have forms of stakeholder management through the involvement of employers, but in university circles, the concept of 'academic freedom' is quickly waved to keep difficult stakeholders out. Established science knows what is good for you or society.

This critical observation does not alter the fact that at the same time, most of the work that is done within the walls of the university has a high dose of idealism: whether it is about education or research, most lecturers and researchers do it not because of the money (the payment is roughly decent, but you get really rich in business) but from intrinsic motivation. This brings us to a final point of discussion and uncertainty: a number of trend-based developments in the labour market. The first of these concerns dejuvenation and ageing, which together lead to increasing staff shortages. This scarcity primarily affects those sectors in a country that are already ageing strongly and will therefore have high staff

turnover and a high demand for replacements in the coming years. In some EU countries, this also applies to a large extent to scientific education and research. More generally, the shortage on the labour market will mean that universities will have to behave more in line with the market in terms of pay and other working conditions than has been the case so far. A university employee can still be so intrinsically motivated, every (wo)man has his (her) price, and if the remuneration is too out of step with other sectors, the universities risk emptying out. Moreover, the scarcity of staff will increasingly require choices, both outside and within universities. For which tasks do we as a society want to use manpower and human talent? And at university level, for which disciplines and sub-areas within a discipline do we want to deploy our scarce people?

These scarce people will have to take into account that their work is also subject to change in the coming decades. Artificial intelligence (AI) is advancing throughout society and education and research will not escape this. Covid-19 has helped us take a big step towards the (partial) digitization of education and at the same time made us wiser (and sadder) with regard to the dark sides or the preconditions to be observed. Only good and challenging education attracts students to the lecture hall, while AI puts the position of the teacher as the pivot within the education that everything revolves around in perspective. On the research side, on the one hand, we see the emergence of data science as a new field. On the other hand, we see that with new techniques (see, e.g., ChatGTP, but also think of all kinds of statistical tools) ‘anyone can fabricate (all kinds of) everything’ in analyses and reports, can put together beautiful courses and spread all this with the greatest ease all over the world. However, that is no guarantee that it will be good. The fight against fake news and false information will become more important and will also have to be waged by the teachers and scientists of the future. They themselves will have to meet high ethical standards, both in their scientific work and in their dealings with colleagues and students.

Together, all these developments contribute to a field of tension in which old traditions of academic behaviour must be reconciled with demands that are placed on higher education by society (Van der Zwaan, 2017). This makes talent management, both on an individual and collective level, no easy task. This presents the question: who is responsible for what? Of course, every responsible scientist must keep an eye on his/her own development. But where should the responsibility lie at the collective level? At the scientific peers, at the faculty, the university or the ministry? The further away from the individual, the smaller the chance of good substantive management. At the same time, the greater the chance that socially important values will also be given a place in talent management. Developments in the gender composition of university staff have taught us that more diversity may be a necessary condition for change but not automatically a sufficient one. Despite more female students, more female PhD students and more (but not nearly enough) female professors and administrators, the university is still a male chauvinist stronghold in many respects, although the sharp edges may be gone. Undoubtedly, diversity – also in terms of social and ethnic origin – will increase further in the coming years. But we are far from there. The challenges facing higher education require a form of talent management that focusses on those

people and those competencies that can continue and complete the movement towards social higher education and communicate clearly about it. At the same time, they must be people who do not blow with all the winds and who clearly have the awareness and ability to convey that science is something other than ‘just an opinion’, a scientific article is something other than a journalistic product and a university education imparts different knowledge and skills than an internet course compiled by a skilled coach. Hopefully, it will help to continuously keep an eye on the institutional, historical and social context in which universities have to fulfil their tasks.

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Chapter 3

Wind of Change: The Recognition and Rewards Movement

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Abstract

Research excellency has long been the dominant paradigm in assessing academic quality and hence a prime determinant of academic careers. Lately, this approach to academic performance has come under higher scrutiny for its narrow focus on the individual, promoted an exclusive, performance-oriented talent management and inhibiting collaboration, transparency and societal involvement.

As a response to the limitations of the excellency policy, this chapter examines the emergence of open science as a transformative force in the academic world. Open science represents a paradigm shift, emphasizing the importance of transparency, and increased societal engagement in the academic process. It opens up the possibility to include the context dimension, multiple stakeholders and a more diverse set of development and performance indicators.

This chapter stresses the urgent need to realign our system of recognition and rewards with the premise of open science and with talent management. By highlighting the disconnect between current recognition mechanisms and the values of universities, this chapter emphasizes the necessity of transformative changes at institutional and systemic levels.

Talent Management in Higher Education, 37–53



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To provide concrete insights into the implementation of these changes, this chapter explores a case study of Utrecht University. This specific example showcases how strategic decisions at an institute level allow navigation of the complexities of recognizing and rewarding open science practices. The Utrecht University case study serves as an inspiration for other institutions seeking to embrace open science and adapt their policies and practices accordingly.

Keywords: Recognition and Rewards; Open Science; university; talent management; academic performance

Introduction

There is movement in the academic world: developments in open science, change in how we recognize and reward people in academia. These changes come from the urge to rethink what a university is for. In the last few decades, the focus of universities has slowly drifted to a particular kind of research excellence, a kind that leads to economic growth. Today, with the worldwide challenges that we are facing, we are confronted with that we have been slowly diminishing the other domains of what universities are for: provide academic teaching and contribute to society. In this chapter, we explain how we got to this one-sided view on research excellence, the response of open science to restore the balance and what this means for recognizing and rewarding employees, using the theoretical frameworks ‘the Harvard model of Beer and colleagues’ and ‘the AMO model’.

Over the Past Four Decades: Research Excellence of a Particular Individual Kind

There are several cases that have been made in the past 10 years for a change in human resource management (HRM) in higher education and academia. These changes were driven by forces that questioned our perception and ideas about ‘what a university is for’. This implicated several questions related to both external and internal discussions in academia. We will in a brief chronological overview of the past 20 years discuss a few major changes in our thinking about the university (Miedema, 2022). It will be discussed how this has affected the ideas about mission, profile and strategy and subsequently the administration and organization of universities. External debates have induced discussions about policies and internal management of research and education which asked for changes in the composition of the workforce, both academic and non-academic, temporary, and tenured. It was evident that these developments and changes in strategy and mission could only be achieved by a reform of recognition and rewards that supports these activities. This reform based on content, on what

the university wants to achieve with research and education, will be the basis for newly developed HRM.

At the beginning of this century, there was a strong belief that universities and especially research were a major driver of the economy, and that research and innovation was a critical factor in economic growth at the national level and international level. This has developed since 1980 with the neoliberal turn in the United States, the European Union (EU) and the rest of the developed world and has also determined internal developmental policies alike. Investments in academia and its research mainly aimed at intellectual property, knowledge exchange and job creation through start-up companies were seen as the main engine of economic growth and prosperity. This has influenced and determined the policies and management of higher education and universities around the globe (Miedema, 2012; Rip, 1994; Sarewitz, 1996; Van der Meulen, 1997; Whitley, 2000; Ziman, 1994). Increasingly, since the 1990s, indicators were being used to monitor especially and mainly on academic output of Science, Technology, Engineering and Math (STEM). These evaluations became very important for national, but also international, comparisons and rankings of academic and economic competitiveness (Hazelkorn, 2011; Wouters, 1999, 2014).

This has culminated in a major emphasis on quantitative metrics mainly on the number of papers in journals with a high journal impact factor (JIF), on citations and on grants obtained and patents (Wilsdon, 2016; Wouters et al., 2015). Academics who were scoring well on these metrics were seen as the top talents of the university. A quite different but highly important critique of the university system as it had developed came from yet another perspective.

From 2009 onwards, it was felt that in the developments described above, the university and academia in general had focussed her goals and strategy and policies almost totally on research, with no or little attention for teaching and education (Dijstelbloem et al., 2013; Miedema, 2022). Teaching had little to add to the institutional reputation, and thus teaching and teachers were simply not recognized and rewarded as researchers were. Serious problems with the quality and replicability of published work in many fields were demonstrated in many studies since 2012 (Ioannidis, 2005; Nosek et al., 2012). It was made clear that it was caused by the enormous competition between individuals (Dijstelbloem et al., 2013; Wouters, 1999). High pressure to publish a high number of papers yearly was incentivising 'sloddy science' and fraud in unsafe research environments. This called for emphasis on academic leadership, incentivising openness, a safer academic culture and rewarding collaboration rather than competition.

These issues composed a major 'case for change' depicting its various but interrelated issues that can be improved but not without a corresponding change in the recognition and reward system. In that endeavour, professionals in research, teaching and administration need to team up with HRM professionals to design new ways of evaluation, to implement and help the academic community to use it properly and to study its unwanted adverse effects when in use. From 2015 onwards, with a multitude of initiatives, the EU Directorate Research and Innovation took the lead in the first institutional response to

these issues, launching a comprehensive integral programme of Open Science (EU, 2018; Miedema, 2022).

Academic Performance: Past and Present

According to Guest (1997), there is a need for an overarching HRM model if we want to fully understand the added value of employees in organizations. The Harvard model, developed in the early 1980s by Beer et al. (1984), is an HRM model that reflects a developmental humanism approach (Legge, 2005) that fits academia, Open Science and the Recognition and Rewards transformation. The developmental humanism approach of the Harvard model is reflected in the nature of academia (learning and development, knowledge creation and knowledge sharing). In a modern version of the Harvard model, presented by Beer et al. (2015, also see Chapter 1), there are three components that can be used to understand and transform academia. First, situational factors reflect internal and external contextual factors such as workforce characteristics; specific academic conditions (e.g. rituals, routines, symbols and procedures); labour market conditions; technology and systems installed; and sector-specific regulations, norms and values. For universities, the movement of Open Science, and opening up the university to society, has been a major force to change the focus on the importance and value of human capital in higher education. Second, the Harvard model incorporates a multiple stakeholder perspective, including the financiers, the board of directors, the managers, the employee representatives, the trade unions and the community. As we will show in this chapter, multiple stakeholders at multiple levels outside and inside the higher education institute are involved in Open Science and in the Reward and Recognition movement. According to Beer et al. (2015), both the situational factors and stakeholders affect the HRM decisions in a university, for example, with respect to recruitment and selection, training and development, performance appraisal, promotion opportunities, pay and rewards and work design (e.g. teamwork, employee involvement and job rotation). Third, the long-term consequences or ultimate outcomes are represented in a multidimensional performance construct: (1) individual employee well-being, (2) organizational effectiveness and (3) societal well-being. These three ultimate outcomes are equally important in the Harvard model. However, there are natural strategic tensions between the three. In other words, what is excellent or good in terms of organizational effectiveness (e.g. research grants and (inter)national education rankings of the best bachelor and master programmes) is not necessarily good for individual employee well-being in terms of workload, stress and burn-out risks. The societal well-being outcome is in particular interesting and relevant in the light of recent open science developments, as we will discuss below, because it aims at bringing science and society closer together. Beer et al. (2015) state that the field of HRM itself is too much in search for applying a ‘proper science paradigm’ with an emphasis on one-dimensional performance indicators (preferably in terms of money or quantitative figures) and a lack of attention to the people component (employee well-being) and big societal challenges (societal well-being). The authors make a plea to restore the balance, a new balance we are also in need of in academia.

Open Science as a Reaction to the Lack of Societal Well-being and the Narrow Definition of Organizational Effectiveness

Since 2000, we have seen several initiatives and actions that aimed for a more productive relationship of science with society to increase the impact and value of research for society (Miedema, 2022) (societal well-being). In the EU in the first decade of this century, a large programme was started on responsible research and innovation with the aim to increase the impact of research on society funded by the EU (Owen et al., 2012). These programmes were started to mitigate the emphasis on science for science, because a self-referential evaluation system had developed and became dominant over time. But they were not yet accompanied by an institutional movement to accordingly change the recognition and reward system.

Open Science is also a movement that attempts to create more room for societal well-being, because it commits to more transparent and accessible knowledge that is shared and developed through collaboration. The Open Science movement includes, not exclusively, the topics of FAIR (Findable, Accessible, Interoperable, Reusable) data, open software, public engagement, preregistration, team science, open access (OA) and open education. Open science experienced its first acceleration in the early 2000s with the push for OA as its main driver. The emergence of the internet had a tremendous effect on the publication cultures in science. But in contrast to earlier predictions, the internet did not herald the end of the subscription scientific journal. Quite contrary, there was a tremendous rise in journals and publications, and publishers were quick to act and build an impressive web of closed access publications. University libraries were the first parties to take issue on the increasingly exploitative business of publishing behind paywalls. After decades of negotiating similar deals on journal packages, librarians backed by their institutions decided to opt for a different negotiating strategy. Therefore, OA became at the core of the strategy of university libraries, to be able to make all scientific knowledge accessible. Besides this enormous rise in the amount of publications, the internet also made it possible to actually openly share knowledge, papers but also data and software on a much larger scale.

In 2010, awareness was created for the fact that much research is not reproducible or difficult to reproduce (Ioannidis, 2005; Nosek et al., 2012). This is of course harmful in many ways, such as the lack of credibility of the scientific knowledge, but also, for example, in the biomedical field, it leads to translation failure to clinical practice. In response, researchers are promoting various open science practices, such as preregistration of research protocols, sharing open data, open methodology, open-source software and code. Also, the encouragement of publishing negative and null findings is part of this response.

With the growth of the Open Science movement in the EU from 2015 onwards, it was clear that to be able to achieve open science, the recognition and rewards system of academia needed to change. Publishing research papers as the sole purpose of academic work needs to broaden to all aspects of what academic work

entails. And a focus on quality rather than on quantity should be restored. In open science practice, time and efforts will be devoted to outreach and stakeholder engagement to improve the research and education agendas. This needs to be explicitly and systemically incentivized and rewarded in academia. One cannot ask for one thing and then judge on something else. To be able to work in accordance with the open science principles, academics should also be incentivized and rewarded for the transparent and accessible way of their research.

Universities are currently taking concrete steps to implement open science, increasing the urgency to change the recognition and reward system. At most institutes, both movements are closely associated, but depending on the context, their relationship varies. Utrecht University (UU) has chosen to make open science its primary objective and to designate a change in the system of recognition and rewards as one of its key drivers (see Fig. 3.1 and text box ‘Case Study: UU’). The strength of this approach is that the ‘why’ of change is very clear, and therefore, the urgency for change is felt, making academics more willing to change. At UU, we have since 2018 worked on an integral approach to implement open science as the way of working in research and education with four interdependent themes (see Fig. 3.1) and with open education. In terms of societal well-being (e.g. in terms of societal impact) and employee well-being (in particular recognizing and rewarding multiple academic domains and not just research), the Open Science movement broadened the performance scope of academia from one-dimensional focus on organizational effectiveness in terms of research output towards a multidimensional performance construct.

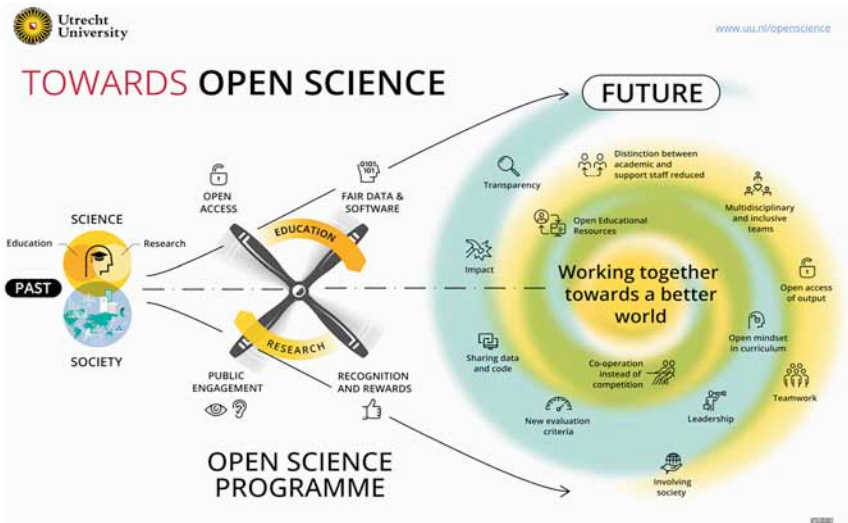


Fig. 3.1. Recognition and Rewards as an Integral Approach to Implement Open Science to Improve Working Together Towards a Better World. Source: Provided courtesy of Utrecht University.

Movement of Recognition and Rewards in Academia

In a collective move of (nearly) all the relevant parties in the Dutch ecosystem, the major organizations agreed on the need of reforming the recognition and rewards system. Five Dutch institutions involved in policymaking and implementation regarding Dutch Higher Education – UNL (the Dutch employers' organization for universities), KNAW (the Dutch Royal Academy), NFU (the Netherlands Federation of University Medical Centers), NWO (the national Dutch research funding institute) and ZonMW (the national Dutch medical research funding institute) – presented a position paper focussed on recognition and rewards in academia with the title: 'Room for everyone's talent' (VSNU et al., 2019). All the Dutch universities fully supported this position paper and its general principles. These principles are:

- Enable the diversification and vitalization of career paths, thereby promoting excellence in each of the key areas.
- Acknowledge the independence and individual qualities and ambitions of academics as well as recognizing team performances.
- Emphasize quality of work over quantitative results (such as number of publications).
- Encourage all aspects of open science.
- Encourage high-quality academic leadership.

Stating that:

Many academics feel there is a one-sided emphasis on research performance, frequently leading to the undervaluation of the other key areas such as education, impact, leadership and (for university medical centres) patient care. This puts strain on the ambitions that exist in these areas. The assessment system must be adapted and improved in each of the areas and in the connections between them. The implicit and overly one-sided emphasis on traditional, quantifiable output indicators (e.g., number of publications, *h*-index and journal impact factor) is one of the causes of a heavy workload. It can also upset the balance between academic fields and is inconsistent with the San Francisco Declaration on Research Assessment (DORA) principles. (VSNU et al., 2019, p. 4)

In addition to deciding on a common framework to work from, the signatories of the position paper agreed to set up institutional committees to 'create support for the system and develop initiatives in a manner suited to the institution in question'. These committees convene at the national level to ensure progress and alignment.

It is important to note that the recognition and research movement is not limited to the Dutch context. Quite contrary: recently, many national and international movements have been launched to implement open science and a

responding practice of recognition and rewards and research evaluation. Here, UNESCO and the EU commission and literally hundreds of diverse agents in the higher education and research domain are joining forces (Coalition for Advancing Research Assessment (CoARA), 2022). CoARA, for example, is an international network of universities and institutions from all over the world that aim for an alternative approach in academia, building on open science and recognition and rewards principles similar to the 2019 position paper described above.

Although many of the major players and advocates have been based in the United States from the onset, a concerted effort beyond signing DORA was lacking. Initially, US institutes seemed less eager to reform the recognition and rewards system through institutional means, and clear action from funders was lacking. The year 2022 marked a period of significant change, with the launch of the Higher Education Leadership Initiative for Open Science (HELIOS), initially signed by 50 (now 90) notable universities. Simultaneously, many funders like the National Institutes of Health have adopted open science policies, and the White House Office of Science and Technology has declared 2023 to be the Year of Open Science.

Text Box: The UU Case

Adopting an alternative approach to recognizing and rewarding academic work is considered a prerequisite and integral aspect of promoting open science. The multiple practices aimed at improving the quality of academic work and changing the relationship between the university and society require an integrated approach. That is why UU chose to embed recognition and rewards in the Open Science programme, from the very beginning alongside the themes of OA, Open Education, FAIR Data and Software and Public Engagement (see Fig. 3.1). Over the years, open science has become an integral part which in turn is part of the UU strategy highlighted by the motto ‘sharing science, shaping the future’.¹

To formalize the UU approach to recognition and rewards, a vision was formulated through a deliberative process involving academics, human resource (HR) professionals and other non-academic staff. The content of this vision was based on discussions within the university and on formal policies within the university (e.g. the strategic plan) and developments on sectoral (e.g. the Netherlands National Strategy Evaluation Protocol for accreditation of research programmes) and international levels (e.g. DORA). The vision introduced the TRIPLE model, the UU model describing the multiple domains of academic work according to this acronym: Team spirit, Research, Impact, Professional performance, Leadership and Education.

¹Or in Dutch: ‘Open blik, open houding, open wetenschap’.

The letters are in a random order except for the ‘T’ of Team spirit which was deliberately put first to illustrate the departure from the individualistic model of science, towards a strategic, team-based way of working. This approach was also applied within the Open Science programme which includes fellows and theme leads from all disciplines, both junior and senior colleagues and from a wide range of academic and non-academic functions.

In the TRIPLE model Education, Research and Professional Performance are specified as the three core domains where academic outcome is generated. Professional performance captures those activities relating to the academia work that go beyond education and research and are characterized by the fact that they provide a service to academia or to society at large, for example, most notably patient care in medicine or public engagement in general. Impact is defined as the way of working. Starting from the notion that academic work aims to create impact, societal or scientific, but taking into account that the specific impact can be hard to predict on forehand. Its categorization as an outcome rather than a separate activity is deliberate since there can be no impact without education, research and professional performance: it is the outcome of academic work. Finally, Leadership was defined as the facilitator and enabler of academic work.

Next to the TRIPLE model, the following five guiding principles were introduced:

- The collective is our point of departure: With this principle, it is stressed that activities such as evaluation of academics and hiring and promotion decisions should be based on the goals and needs of the team.
- Invest in leadership: Good academic leadership is considered a prerequisite for high-quality work and should have a prominent role in hiring, development, evaluation and assessment procedures.
- Stimulate diversification in profiles and promote dynamic careers. Profiles should become more diverse, but the policies underlying this transition should prevent giving the impression that individuals have to excel in all domains. In contrast, employees are encouraged to focus on selected domains with regard to the communal goals. Naturally this focus can change depending on the context and time period.
- Recognize and reward openness in all domains. To avoid seeing open science as an additional task that is not incentivized, all evaluations of academic work should emphasize transparency, reproducibility and public engagement.
- Recognize and reward quality over quantity. With this principle, the UU calls for a more narrative approach and identifying novel approaches, including meaningful metrics, to assess quality of the process and output of all academic work.

The vision document was formally accepted and adopted by the deans and the Board of the University in 2021 and communicated widely. The presentation did not go unnoticed and sparked a myriad of responses both nationally and internationally. The clear choices made in the UU vision were well received in a general sense. Most notably, an interview with one of the programme leads on the Nature website published focussing on UU's decision to abandon the JIF and *h*-index in individual hiring and promotion decisions triggered the most vocal response. Remarkable, since this controversial point was also the least novel, UU had already signed DORA and basically stated that they would act accordingly. Established academics, mostly from the Life Sciences, voiced their opposition to this 'subjective' approach and warned of the dire consequences of exposing a younger generation of academics to new arbitrary rules (Poot, 2021). Memorably, early career academics swiftly responded voicing their support for the culture change heralded by the new vision (Algra et al., 2021). These and other concerns warrant continuous dialogue and evaluation at the university as well as national and international levels.

Talent Management in the Recognition and Rewards Movement

The dominant approach in academia is very much focussed on individual research excellence with an individual performance focus on one-dimensional indicators as mentioned before. This is a very narrow definition of academic talent, very much focussed on a selective group of employees (researchers), excluding many other employee groups in universities, such as teachers and support staff.

The Harvard model in HRM (Beer et al., 2015) represents a multiple stakeholder- and multidimensional performance approach that can be applied to the recognition and rewards movement. The question that remains is: What is required from a HRM and talent management perspective in the Recognition and Rewards transformation? In other words, if we acknowledge the context dimension (situational factors), multiple stakeholders and multidimensional performance (employee well-being, organizational effectiveness and societal well-being), we need a framework for filling in the HRM or people management gap. As mentioned before, the model of Beer et al. (2015) is based on a developmental humanism approach, focussed on increasing commitment and involvement and moving away from the dominant performance-oriented HRM approach within academia (see Fig. 3.2 for the link between Harvard model and the model of Beer). A popular, and in this case, helpful HRM model is the so-called AMO model (ability, motivation, opportunity) and its related Mastery/Purpose/Autonomy approach (Appelbaum et al., 2000; Jiang et al., 2012).

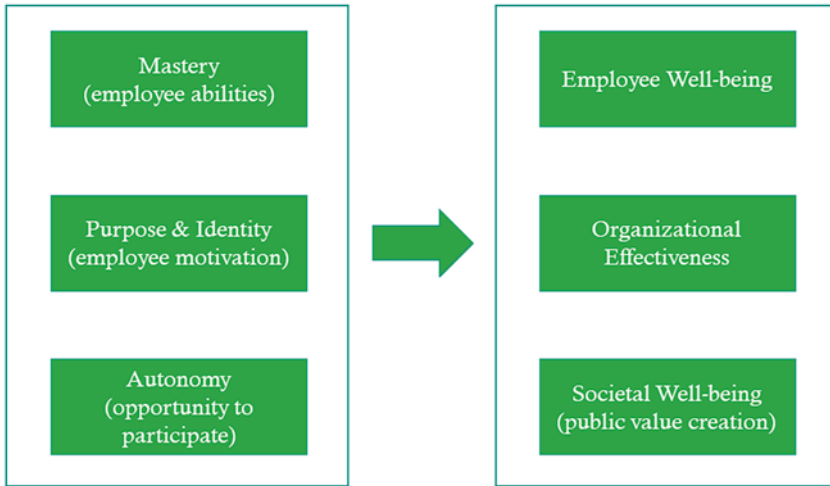


Fig. 3.2. Link Between AMO Model and Harvard Model.

According to the AMO model, employees perform well when (Boxall & Purcell, 2016):

- They are able to do so (they can do the job because they possess the necessary knowledge and skills). Abilities.
- They have the motivation to do so (they will do the job because they want to and are adequately incentivized). Motivation.
- Their work environment provides the necessary support and avenues for expression. Opportunity to participate.

The concept of ‘mastery’ very much links to the Abilities described above and covers the intrinsic drive for personal and professional development. In other words, the academic professional that strives for getting better at doing the work. ‘Purpose and identity’ correspond with Motivation in the AMO model and refers to meaningful work and professional identity in academia. What is it that really motivates employees, in particular employees working in universities? ‘Autonomy’ is called ‘employee influence’ in the Harvard model and considered to be the most powerful HRM domain. It covers employee to manoeuvre, employee involvement in decision-making, agency and autonomous teamwork.

In the contemporary talent management literature a distinction is made between exclusive and inclusive talent management. In the exclusive approach, talents are A-players, best-in-class and/or top performers. In the inclusive approach all employees have talents with the organizational challenge of getting the best out of all the employees. Thunnissen (2016) concluded that an exclusive, performance-oriented talent management system prevails in academia. However, in practice and in academia in particular, a mix of exclusive and inclusive talent

management can be applied, even within the principles of the 2019 position paper ‘Room for everyone’s talent’. Whatever talent management approach is applied, there are two inevitable important components: Leadership and Team spirit.

Restoring the Balance Through Talent Management in Recognition and Rewards

The Recognition and Rewards transformation represents not only a multidimensional but also a more balanced approach taking into account employee well-being (appreciation for the individual talent), organizational effectiveness (optimal use of sources for achieving organizational goals) and societal well-being (public value creation or science for a better world) (Boselie et al., 2022). The academic talent management value chain through recognition and rewards opens up opportunities for a more inclusive work environment through connecting employee well-being, organizational effectiveness and societal well-being into meaningful work. In return, this meaningful work can be the basis for attracting and retaining qualified and motivated talents through mechanisms of organizational identity and purpose.

In a way, the Recognition and Rewards movement represents a shift from ‘productification’ (performance in terms of publications, impact factors, grants and prizes) towards ‘humanisation’ (good employership, healthy work environment and great place to work) and public value creation. In terms of the Harvard model by Beer et al. (2015), the Recognition and Rewards transformation is restoring the balance between employees (the talents in academia), organizational effectiveness (in particular given the basic funding by public money) and public value creation in particular linked to big societal challenges. This new balance also represents what universities are for and that is far beyond the number of article publications, high impact scores and the number of grants.

Discussion

The Open Science and Recognition and Rewards movements have major implications on how we answer the question: ‘what are universities for?’ This represents a shift or rebalancing act from too much focus on research and research output of the individual towards a broad approach that highlights multiple domains. It looks at both the individual and the collective (team spirit), acknowledges multiple stakeholders and builds on a multidimensional performance construct. This in return also affects the mission, vision and strategies of universities. Without a vision and university strategy, any attempt towards open science and a different employee recognition and rewards plan would most likely end up in loose couples and a fad or fashion of a certain era. In Simon Sinek’s (2009) words on the relevance of ‘why’ we are doing things: What if Martin Luther King had started his famous speech with the words ‘I have a plan’ instead of ‘I have a dream’. The dream in this metaphor represents the vision and the strategy of the university. If applied by a university, this automatically affects the way we appreciate, evaluate, appraise, praise, value, motivate and develop the employees of the university: the

talents in academia. Additionally, it is interesting and relevant to mention the multi-actor/multi-stakeholder involvement in the transformation process of open science and recognition and rewards. Academics, and later on also support staff, policymakers from national bodies (research funders and university employers' associations), and policymakers from universities (in particular the HRM functions) got involved in the design and change process through dialogue sessions, platforms, seminars, conferences and media discussions (e.g. on ScienceGuide). This broad involvement increases the sense of ownership and offers insights from different perspectives.

Talent management is often seen as a panacea for the happy few, implying an exclusive approach for A-players. The talent management literature, however, reveals the emergence of both exclusive and inclusive approaches, the latter referring to the idea that everybody has talents. We propose a hybrid approach to talent management combining exclusive and inclusive talent management in academia to start restoring the balance among individual well-being, organizational effectiveness and societal well-being. The starting point is the collective ambition of a group, institute or university. Depending on the collective ambitions, for example, to make the world a better place, different profiles of employees are required. The inclusive talent management approach offers opportunities to optimize the academic human capital, in line with the 2019 paper room for everyone's talent and its notions of diversification and dynamic career paths. The exclusive talent management approach is aimed at key positions that are required to achieve the collective ambitions. These key positions are in themselves not static. Instead, there is a dynamic component. The software engineers and open science project managers we need today and the next couple of years may represent key positions that we require to boost our open science ambitions. Academic leadership is another potential key position required to reach our collective goals. In this approach, inclusive and exclusive talent management can coexist as long as we take the collective and team as the starting point in combination with the acknowledgement that key positions should change over time.

In the past, there was lifetime employment, and in some areas of academia, it still exists. Increased complexity and dynamics have contributed to a shift from lifetime employment in academia to lifetime careers in society. In other words, organizations are expected not to offer a job for life but instead contribute to a career for life. This phenomenon has received a lot of attention under the umbrella of sustainable employability (Van Harten, 2016). The simple definition of sustainable employability is 'creating the right conditions for employees to have a long, healthy and happy career by ensuring someone enjoys working, is healthy and motivated, he or she remains employable for a long time'. This is a joint responsibility of the employer and the employee. The principles of diversification and dynamic career paths of the 2019 position paper room for everyone's talent almost perfectly align with the notions of sustainable employability. The dynamic career paths can be both vertical (hierarchical) and horizontal (enrichment and enlargement). Internal and external mobility are key aspects that can contribute to shaping sustainable employability. Iconic and high-performance organizations in other sectors are known for letting their talent go to other organizations

assuming they will attract other talents and perhaps re-attract the talents that have left in the past and who have grown and developed because they were able to spread their wings to other contexts. Although there is still a long road to go, as we will see in the next chapters, we also see that this is something that is partly already applied to early career academics (in particular PhD candidates and post-doc researchers). This is in line with open science principles to stimulate cooperation across institutes and international borders given the big societal challenges that require multidisciplinary and interdisciplinary efforts.

Leadership plays an essential role in the shaping of talent management in academia. This is also known as line management enactment, focussed on the implementation (actual practices) and the internalization (perceived practices) (Purcell & Hutchinson, 2007). Effective line management enactment implies implementing the talent management policies and taking care of the desired perceptions by those involved. The HR Process Model provides a framework for an implementation strategy for talent management in academia (Wright & Nishii, 2013). In the framework, a distinction is made between intended, actual and perceived practices with a central role for leaders and managers to shape the employment relationship. The research by Knies (2012) shows that leaders and managers can optimize people management in the organization if they are able (manager ability) and willing (manager motivation). The manager's motivation in turn depends on the opportunity or leeway (manager opportunity to participate) that is perceived by the manager. The 'L' in the TRIPLE model of the UU plays a central role in the shaping of an alternative talent management approach aimed at recognition and rewards in academia. Academic leadership in TRIPLE goes hand in hand with the 'T' of Team spirit, because the collective is the starting point.

The future research agenda on talent management and recognition and rewards in academia could focus on the following research themes:

- Academic leadership development of both scientific and support staff.
- The impact of line management enactment on employee well-being, societal well-being and organizational effectiveness.
- Team spirit and team development towards open science ambitions.
- Sustainable employability, different profiles and dynamic career paths inside and outside academia.
- A balanced approach towards performance management and meaningful metrics.
- Strategic alignment of Open Science and Recognition and Rewards transformations with the overall university strategy.
- Effective implementation and the role of different actors involved including employees, line managers and HRM professionals.

The practical implications that we would like to emphasize relate to attention for recognition and reward themes such as leadership development, creating a high involvement culture (team spirit and workforce participation), communication and information sharing, room for pilots and experiments, and creating a platform for collecting good practices and best principles that can be the basis for professional

and organizational development. Many of these practical suggestions can be found in other sectors, strongly related to the foundations of the AMO model discussed in this chapter. If employees are able, willing and involved (employee abilities, employee motivation and employee opportunity to participate), there is a basis for positive effects on employees, society and the organization.

Conclusion

In this chapter, we have talked about the history of the recognition and rewards system in academia. How this changed over time is because the mission of university was changed. However, this one-sided view of what a university is for and what excellence is has been challenged by the Open Science movement, including the Recognition and Rewards movement. To change the recognition and rewards system in academia, we also need to balance our view on talent management, a combination of inclusive and exclusive talent management, using exclusive talent management for the strategy of a university.

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Chapter 4

Recognition and Rewards in Academia – Recent Trends in Assessment

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Abstract

In academia, assessment is often narrow in its focus on research productivity, its application of a limited number of standardised metrics and its summative approach aimed at selection. This approach, corresponding to an exclusive, subject-oriented concept of talent management, can be thought of as at odds with a broader view of the role of academic institutions as accelerating and improving science and scholarship and its societal impact. In recent years, open science practices as well as research integrity issues have increased awareness of the need for a more inclusive approach to assessment and talent management in academia, broadening assessment to reward the full spectrum of academic activities and, within that spectrum, deepening assessment by critically reflecting on the processes and indicators involved (both qualitative and quantitative). In terms of talent management, this would mean a move from research-focused assessment to assessment including all academic activities (including education, professional performance and leadership), a shift from focus on the individual to a focus on collaboration in teams (recognising contributions of both academic and support staff), increased attention for formative assessment and greater agency for those being evaluated, as well as around the data, tools and platforms used in assessment. Together, this represents a more inclusive, subject-oriented approach to talent management. Implementation of such changes requires involvement from university management,

Talent Management in Higher Education, 55–75



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human resource management and academic and support staff at all career levels, and universities would benefit from participation in mutual learning initiatives currently taking shape in various regions of the world.

Keywords: Academic culture; agency; culture change; evaluation process; impact; metrics; qualitative indicators; quantitative indicators; research assessment

The Role of Assessment in Shaping Academia

For institutions that include acceleration and improvement of science and scholarship as well as their societal impact in their mission, it is important to use assessment of academic activities and their outcomes that align with those missions.

Assessment of academic activities, both within and outside universities, determines how research budgets are allocated and who is hired, promoted and given tenure. It also plays a role in how the university is viewed as a partner for international collaborations, and whether potential new students and employees view the university as a desirable place to study and work. Therefore, universities are strategic in how they want to be perceived compared to other institutions, both nationally and internationally.

This has a direct link with talent management – the way a university thinks about talent and how to best attract and sustain it. In literature on talent management, a distinction is made between talent conceived of as subject (with a focus on people as ‘talents’) and talent viewed as object (where ‘talents’ are characteristics of people, such as abilities, knowledge and/or competencies). In addition, a distinction is made between exclusive and inclusive talent management, with exclusive talent management focusing on selection of people or characteristics at the exclusion of others, and inclusive talent management as more broadly considering the need for multiple qualities to support the organisation’s overall objective (Thunnissen et al., 2013). How a university approaches talent management has a direct relationship with how assessment is taking place.

This raises questions as to how to shape assessment of academic activities to promote the academic culture that research organisations aspire to, internally as well as for the higher education system as a whole. Choices in assessment of academic activities (whom to assess, what to assess and how to assess) have the potential to shape both the institution and the wider system of higher education and research, and care should be taken to align assessment practices with the core values of the institution and the system as a whole. In essence, then, the question becomes: what kind of institution do universities want to be? From that, choices in assessment practices follow.

Importantly, this way of thinking also provides a key to change when current assessment practices do not support these core values – when certain essential academic activities and roles are undervalued compared to others, when a focus

on competition fosters a culture of individualism rather than teamwork and collaboration and when success is defined by narrow measures of quality and impact rather than reflect the multiple qualities of academia ([Advisory Council for Science, Technology and Innovation \(AWTI\), 2023](#)) that together provide true relevance for science and society.

The previous chapters of this book have described how the academic landscape has changed and how open science is altering academic tasks, systems and structures. In this chapter, we will discuss what this means for assessment, by looking at current developments in the Netherlands and internationally. What choices can be made by a university in how hiring, promotion and tenure decisions are made, both for academic and non-academic staff? What are the issues with commonly used metrics for academic success, and what alternative approaches are being proposed?

This chapter will first discuss the concept of both broadening and deepening assessment: rewarding the full spectrum of academic activities and, within that spectrum, critically reflecting on the process of quality and impact assessment. This will be followed by a closer look at the role of qualitative and quantitative assessment and appropriate use of indicators in both. Next, the relation that open science and research integrity play in assessment will be discussed, as well as the importance of equity and open infrastructure, with a special look at university rankings. Finally, some examples will be given of how changes in assessment practices are implemented at different academic institutions in the Netherlands, and a number of actionable international developments will be highlighted that could provide a springboard for further action.

Broadening and Deepening Assessment

For assessment practices to optimally support the role of universities to accelerate and improve science and scholarship and its societal impact, two aspects are important. First, they should reward the full spectrum of academic activities and not focus primarily on research. Second, they should reward practices that improve the quality, relevance and impact of academic activities, using appropriate indicators and processes. These two aspects can be conceived of as ‘broadening’ and ‘deepening’ assessment.

Traditional assessment is often relatively narrow, with its limitation to research and within that to (journal) publications. It is also often relatively shallow, with the orientation at measurable output, the importance of quantity and the use of a small number of standardised metrics. [Aubert Bonn and Bouter \(2023\)](#) describe how metrics use in assessment developed from mere quantitative measurement to impact measurement through citation counts and journal impact factors (JIFs) but also how both provided incentives that could harm research. In addition, traditional assessment often uses a comparative–summative approach aimed at selection ([Aguinis et al., 2020](#); [Kallio et al., 2017](#)). Finally, it often employs ‘excellence’ as its central tenet ([Moore et al., 2017](#)). The concept of ‘excellence’, while difficult to define, is used by many institutions and underpins approaches that are

highly selective and often based on proxies for quality, such as journal metrics or lists of approved journals. Obviously, the exact set of criteria used differs between institutions and between the various assessment contexts such as hiring, tenure and promotion, grant allocation, prizes, etc. (see, e.g., [McKiernan et al., 2019](#); [Moher et al., 2018](#)). In terms of talent management, this approach to assessment corresponds to an exclusive, subject-oriented approach, [Thunnissen et al. \(2021\)](#) focused on individual performance appraisal ([Boselie, 2014](#)). In contrast, broadening and widening assessment can be seen as moving towards a more inclusive, object-oriented approach.

Broadening Assessment

The concept of broadening assessment of academic activities means acknowledging that for a university to meet the expectations set upon it, more is needed than high-quality and relevant research. Education, for one, forms a large part of what a university is, and to do it well, it should be recognised and rewarded as an academic activity at par with doing research, with enough time, resources and recognition allocated to it. Many academic activities also fall under ‘professional performance’, be it clinical work at university hospitals or university veterinary hospitals, serving on governing or advisory boards of professional societies or associations, editorial work for scholarly journals and books, to name but a few activities. Another important area is leadership: time invested in managing a research group, fostering an open and inclusive research culture and mentoring trainees are important activities, relevant in all stages of an academic career. Two other important aspects of leadership are taking the lead and responsibility in innovation and improvement of processes and services and personal leadership: self-reflection in order to perform well.

It should be apparent that these activities require dedicated time and skills and thus need to be recognised and rewarded as valuable activities on their own. When academics are primarily valued for their research activities and outcomes, but at the same time are expected to carry out these other tasks as well, this can result in overburdening people who are expected to do it all, or creating ‘second-class citizens’ within academia, e.g., when teaching is performed by people on temporary contracts who have less favourable career opportunities within academia.

A corollary of the above is that no single person can or should be expected to excel at all academic activities or, in other words, be the elusive ‘sheep with five legs’. Rather, success in academia is a team effort, and recognising this in assessment opens the door for more diverse career paths that are considered equally valuable. It also makes it easier to value contributions by support staff as bona fide academic activities – including, but not limited to, activities of lab technicians, data stewards, research software engineers, librarians who often work closely together with research groups and contribute to research, teaching and professional performance. Recognising these contributions also fits with assessment at team level, where the focus is on the functioning of the team as a whole and the contributions of all team members.

Ultimately, research, education and professional performance, supported through leadership and team science, result in impact. This can be either scientific or scholarly impact (e.g., contributions to theory, methodology or results leading to practical applications) or societal impact (e.g., practical applications, contributions to societal discourse, public–private partnerships). Here, too, broadening the concept of impact in assessment is important to value diverse academic activities more equitably, rather than focus on a narrow sense of research impact as most valuable, or consider ‘impact’ as societal impact only, separate from impact from research or education.

In the Netherlands, examples of the idea of broadening assessment can be found in the joint position paper ‘Room for everyone’s talent’ (VSNU, 2019) and the implementation of the ambitions expressed therein at each individual university. Utrecht University has operationalised the concept of TRIPLE (Fig. 4.1) with Research, Education and Professional Performance supported and enabled by Team Science and Leadership as the scaffolding for broadening assessment (Utrecht University, 2021). This has since been implemented in requirements for tenure and promotion, as well as in the template for performance review for both academic and non-academic staff. For the latter, a decision could be made to rename the three top leaves of the lotus flower model (research, education, professional performance) to reflect relevant other task domains, such as administration, information technology services or facility management.

For hiring and function profiles, the broadening of assessment can also translate into describing various types of academic functions, based on different profiles, with different sets of tasks and requiring different sets of skills and expertise. For instance, the University Medical Centre Utrecht (UMCU), an early mover in assessment reform, has introduced six academic career profiles: clinical researcher, academic educator, exploration researcher, implementation researcher, methodology and technology researcher and valorisation researcher (UMCU, 2022, 2023).

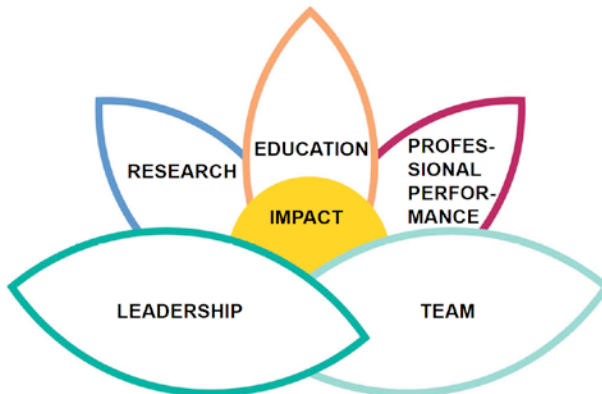


Fig. 4.1. TRIPLE Model for Recognition and Rewards, Utrecht University. Source: Provided courtesy of Utrecht University.

Deepening Assessment

As discussed above, broadening assessment from a narrow focus on research outcomes to a wider valuation of academic activities and contributions can help reduce pressure on single individuals to ‘do everything’ while being assessed primarily on research outcomes and can stimulate diversity in academic career paths by explicitly valuing all academic activities. In itself, though, this is no guarantee that for any given type of academic activity, quality and impact are appropriately assessed and, through that, encouraged.

An important question then is: what are appropriate indicators for the broadening assessment of academic activities? The risk in this context is the use of proxy indicators, particularly quantitative indicators, for quality and impact. Well-known examples are the use of the JIF in research assessment as a proxy for both quality and impact or article-level citations as a proxy for quality (McKiernan et al., 2019). There are a number of risks associated with the use of such proxy indicators:

- the risk that the proxy does not measure what it is intended to measure (methodological risk);
- the risk that the proxy is used primarily because of its availability, not because of its relevance or methodological quality (streetlight effect);
- the risk of the proxy being used in isolation, without taking into account other indicators; and
- the risk that the proxy indicator, rather than the underlying quality, becomes the target-guiding practices of both academics and organisations (Goodhart’s law).

Taken together, the uncritical use of a limited set of proxy indicators can lead to perverse incentives (Hicks et al., 2015). This will be further elaborated on in Section 3 (Quantitative or Qualitative Assessment). In this section, we will address a number of approaches to move beyond such a limited approach. While we draw our examples primarily from research assessment as we are most involved and familiar with this domain, the same considerations and approaches are relevant for education and professional performance.

One approach is to critically reflect on the indicators used: are they appropriate indicators for the purpose for which they are used? Are there other indicators that can complement or even replace the indicators used, e.g., to look at a broader set of outputs, and include a broader set of indicators for relevance and impact? For research assessment, this approach has been advocated by the San Francisco Declaration of Research Assessment (DORA) which recommends

For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice. (DORA, 2013)

Another aspect of ‘deepening assessment’ is to not look solely at outputs (be it of research, education or professional performance) but consider the activities and processes (including leadership and teamwork) leading to these outputs as subjects of assessment. One benefit of this is that assessment can be more formative: asking groups or individuals to reflect on their strategic goals and the activities undertaken to achieve these goals, as well as on the results thereof. In this way, assessment can bring about changes in process going forward, rather than be a reflection of ‘success’ or ‘failure’ after the fact. This is the approach taken by the Dutch Strategy Evaluation Protocol (VSNU, 2020) (formerly the ‘Standard Evaluation Protocol’, a telling rebranding it itself) in shaping the periodic formative evaluation of research groups. It allows for context-specific choices (accounting for disciplinary differences) as well as for choices to be made collectively at the level of the groups (research groups, departments, faculties) being evaluated.

In addition, focusing on process shifts the focus from producing outputs (which can itself be a perverse incentive) to safeguarding good processes. Fig. 4.2 provides an overview of possible processes to include in research evaluation, with accompanying aspects that could be considered. Similar thought exercises could be envisioned for, e.g., education and professional performance.

Finally, it is important to critically reflect on *who* sets the criteria for what is included in assessment and *how* assessment takes place. Especially when strategic goals are the starting point, the activities and outputs included in assessment, as well as any indicators used, should ideally be decided on in dialogue with who is assessed, rather than be decided for them. In addition, it should be carefully considered whether indicators used are appropriate for both the ‘aggregation level’ at which they are used and the goal of assessment.

Assessment can take place at various levels: the individual, a research group or department, a university as a whole or even a whole country. It has already

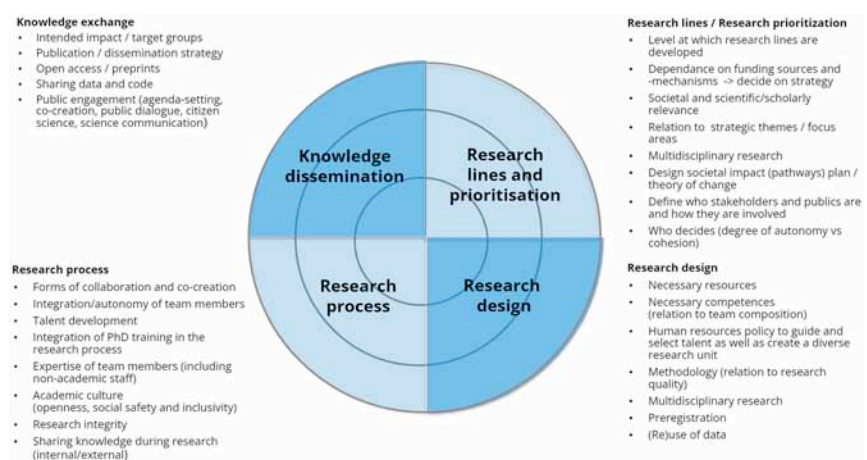


Fig. 4.2. Various Aspects of the Research Workflow That Could Be Considered in Assessment to Focus on Process Rather Than Outcomes.

been discussed how a focus away from individuals and towards teams can allow for more diverse career paths and recognition of a wider spectrum of competencies (also reflecting a more inclusive, object-oriented approach to talent management). Assessment at the level of institutions or countries usually has a different role, more focused on comparing performance or understanding the effects of local differences.

Depending on both the level at which assessment is taking place, and the goal of assessment, the use of certain indicators may not be appropriate. For example, institutional-level indicators do not reflect the qualities of individual people working or studying at that institution. Similarly, using indicators with the goal to increase understanding or even for promotional purposes carries lower risks for the entities being assessed than the use of metrics for incentivising or deciding on distribution of rewards (Gadd, 2019).

Finally, assessment could also take into account various forms of hybridity, especially when institutions apply their renewed assessment goals and process to all staff, including support staff. Hybridity might involve people having mixed functions (e.g., part-time in an academic role and part-time in a support role), people switching between roles during their career (e.g., an academic moving into research policy for a few years and then back into research and teaching) and people being part of mixed project teams consisting of academic as well as support staff. All three have repercussions for choosing assessment criteria and for the design of the process, in particular the question who is involved in assessing.

Qualitative or Quantitative Assessment

One question that has been getting a lot of attention in the discussion around research assessment is the role of metrics versus peer review, sometimes put as a dichotomy between quantitative and qualitative evaluation. Peer review, defined by the European University Association (EUA) as the process of experts making a qualitative judgement of research quality (Saenen & Borrell-Damián, 2019), refers to the process where one or more individuals perform in-depth assessment, often followed by a consultation between the peer reviewers, or a comparison and synthesis of their assessments. Peer review can take place at various levels, both for assessing individual outputs (like research articles undergoing peer review before being published in a journal or grant proposals being assessed for funding), assessing individuals (for hiring tenure and promotion) and assessing research groups (like in the Dutch Strategy Evaluation Protocol (VSNU, 2020) which involves site visits).

Peer review is sometimes considered the ‘gold standard’ – assuming assessment by a group of peers with knowledge of a specific discipline and context, can be expected to be more reliable than relying on metrics to make the ‘right’ decisions on, e.g., grant allocation, benchmarking research groups or hiring and promotion decisions. However, peer review has been shown to carry substantial variety in judgement between experts (peer reviewers) (Bertocchi et al., 2015; Cole et al., 1981; Traag & Waltman, 2019), raising questions on whether any decisions on, e.g., grant proposals objectively reflect the ‘right’ outcome, and even whether

such an objectively right outcome exists in the first place (Lee et al., 2013). Other arguments against peer review that can be made are its sensitivity to subjective decisions (Teplitskiy et al., 2018), including the phenomenon that that search and hire commissions often gravitate towards candidates who are similar to them, as they are looking for a good ‘fit’ – leading to a lack of diversity (van den Brink & Benschop, 2014), as well as the argument that more qualitative methods often associated with peer review take a lot of time and are therefore sometimes considered unsustainable (Bendisoli, 2018; Singh Chawla, 2019).

In practice, assessment decisions made through peer review often already include the use of metrics or other indicators as part of the information gathered, and therefore, there is less of a dichotomy between qualitative and quantitative assessment, and more a question of what indicators are suitable for use in a given context. Also, both qualitative-based (review) and quantitative-based (metric) assessment reports can come with contextualisation and interpretation. As mentioned above, a few aspects to consider here are a) the validity of an indicator for the purpose it is used for; b) avoiding the ‘streetlight’ effect or choosing an indicator because it is available, rather than because it is the most appropriate; c) allowing a variety and diversity of indicators, rather than one or two default ones; and d) the risk that the indicator itself becomes a target (Goodhart’s law).

(Not) Fit for Purpose

These aspects are all in play in cases where it is customary to use indicators which are not fit for purpose but which are used because they are readily available and commonly used by others and where there is resistance, distrust or just uncertainty towards using more diverse and less standardised indicators.

Two examples of this are the use of the JIF and the h-index in assessing research quality. The JIF is a metric at the level of an academic journal, giving (roughly speaking) the average number of citations in a given year to papers published in the journal in the two preceding years. There are a number of issues with the use of JIF to assess research quality, both methodologically and conceptually (for a summary, see Larivière & Sugimoto, 2019, and Fig. 4.3). Arguably, the most important one is that, being an average at the journal level, the JIF does not reflect or predict the number of citations to any given (published or future) paper, as illustrated by the observed skewness of citation distribution in many journals (Larivière et al., 2016). A second, more general argument is that citations in themselves do not necessarily reflect quality and only reflect a particular type of impact (i.e., used as reference by other academics). Despite this, the JIF is used so ubiquitously in evaluations that publishing in high-impact journals has become a target in itself that shapes research practice (a prime example of Goodhart’s law).

Somewhat similarly, the h-index (most often a metric at the level of individual researchers but which could also be applied at the level of journals or institutions) reflects the number of x publications (e.g., of a specific author) that each have received x or more citations. As such, it is a metric that favours late career over early career researchers (as the h-index can only rise over the course of a career) and again only reflects citations as at best a narrow metric of quality and impact.

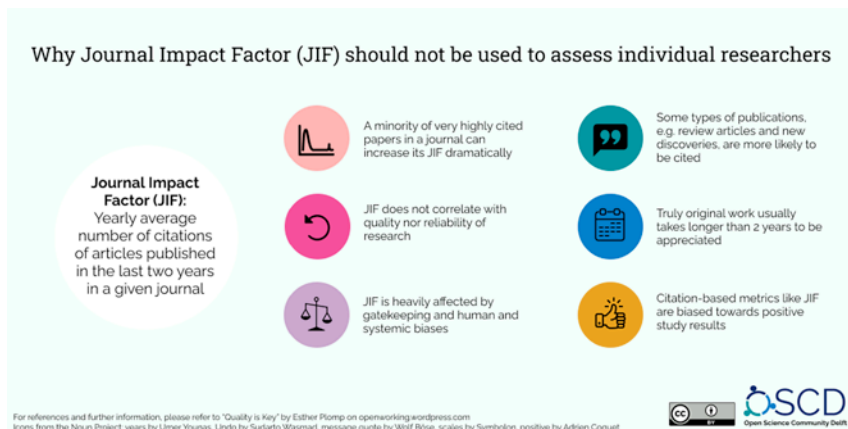


Fig. 4.3. Why JIF Should Not Be Used to Assess Individual Researchers (Plomp et al., 2021). Image license: CC-BY.

For an overview of the discussions around other problematic aspects of the use of the h-index, see Bornmann and Daniel (2009) and de Rijcke et al. (2021) and also Fig. 4.4.

A compelling visual example of the various types of usage and impact of a researcher’s output and activities that are disregarded when a narrow focus on JIF, h-index and citations in general is applied is provided in the infographic ‘I am not my h-index (or my JIFs)’ (Fig. 4.5), where against a background of a simple plot of number of publications and number of citations, a number of publications are highlighted with the specific impact they have had.



Fig. 4.4. Why h-Index Should Not Be Used to Assess Individual Researchers (Plomp et al., 2021). Image license: CC-BY.

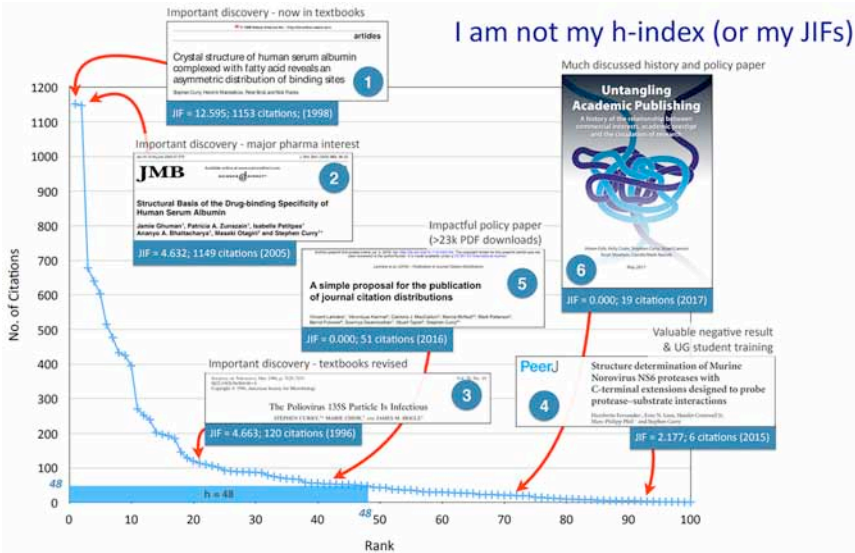


Fig. 4.5. I Am Not My *h*-Index (or My JIFs) (Curry, 2018). Image license: CC-BY.

Alternative Approaches

At the surface level, examples of the use of broader indicators for research assessment include looking at indicators for societal impact (e.g., use of research in policy documents and public debate), looking at citation diversity, rather than citation counts, as a measure for the (academic) audience reached (Huang et al., 2022). At a deeper level, leaving the decision on which outputs and activities to report on, and which indicators to provide to demonstrate quality and impact, up to the individual researcher is an approach taken by the Dutch Research Council (NWO) in a number of its funding schemes (Dutch Research Council (now), n.d.; Gossink-Melenhorst, 2019). It is echoed in the Dutch Strategy Evaluation Protocol (VSNU, 2020) for the periodic evaluation of research groups at Dutch universities, which is aimed at aligning research evaluation with the aims and goals of those being assessed, rather than with a standardised concept of what counts as good performance. Finally, the explicit guidance provided by NWO to not use aggregate indicators (like JIF) to provide evidence of quality and impact of individual research outputs is a prime example of deepening research assessment – addressing inappropriate use of specific indicators.

NWO also implemented the narrative, or evidence-based, CV – a combination of a narrative section to showcase the candidate’s expertise and experience relevant to the project, and a ‘key output’ section to list a maximum of 10 outputs (not necessary publications) and indicators for their quality and impact. Other funders and institutions are also introducing the concept of narrative or evidence-based curriculum vitae as a way to enable qualitative and quantitative

assessment in a contextualised way (Woolston, 2022), with the choices of what to present driven by those assessed rather than by those doing the assessment. It is important to stress that these formats still include objective indicators that can be assessed for their relevance and value by those performing assessments. Nonetheless, responses to narrative CVs have been mixed (Bordignon et al., 2023), with often-heard criticism that it favours those with the ability to ‘sell themselves’ on paper and fear that it will make assessment more subjective. Kaltenbrunner et al. (2023) have proposed a research agenda to get a better sense of the extent to which narrative CVs can be effective as part of a coordinated broader strategy to foster inclusive practices in research evaluation and of the practical conditions that must be met to achieve this potential.

More in general, the right balance between relevance and contextualisation, on the one hand (with more options for those being assessed to select what to present to assessors), and comparability, on the other hand (with more standardised requirements for outputs and metrics to report and use), needs to be decided for any given assessment exercise. This requires critical reflection on the actual goal of the specific assessment, the capacity of reviewers/assessors to engage with a variety of reported outputs and indicators to compare candidates and any changes needed at the organisational level to enable broader assessments. Whatever the process, care should be taken not to default to the use of a narrow set of metrics only for convenience, especially where there are concerns about their validity for the type of assessment at hand.

Finally, it is good to realise that the need for standardisation also depends on the kinds of comparisons one wishes to support: are these only with one’s own goals or previous performance? Or is comparison needed within an institution, or even nationally or globally? The wider the required scope of comparison, the stronger the need is for standardisation of criteria used. For cases where wide comparability is required, it remains the question to what extent it is possible to have assessments that combine standardised criteria with more variable types of evidence.

Open Science and Research Integrity

Two aspects of academic assessment that are associated with both broadening and deepening assessment are open science and research integrity. When open science is seen as open sharing of research processes and outputs (like data and software code) and open reporting (open access to publications and using open peer review), including it in assessment can be as straightforward as broadening assessment to include these outputs and activities, as well as recognising time and effort required to make research output openly available. This could also include recognising the roles of, e.g., data stewards and research software engineers in the research process, as part of a broader recognition of team science. When open science is considered more broadly as also including outreach activities, these activities could be similarly recognised in assessment. Recognising open science in this way helps create a research environment in which these activities are not seen as taking time away from but as integral part of doing research. Taking this

one step further, considering from the start what parties are relevant stakeholders both in setting a research agenda and in making use of the outcomes of research, can help set a publication and dissemination strategy that is optimised to reach these goals and which in turn can be the basis of evaluation and assessment. In such an integrated approach, openness can be considered a goal, rather than a characteristic of research outputs only.

Open science not only makes more parts of the research process accessible to a wider audience, it also makes the research process more transparent and, as such, contributes to research integrity. This includes making protocols, data and code openly available, including through preregistration. Stimulating openness to this end can help to prevent questionable research practices and promote responsible ones (Gopalakrishna, Ter Riet, et al., 2022; Gopalakrishna, Wicherts, 2022) and match expectations set on researchers by research integrity guidelines and mandates (see, for example, VSNU, 2018, Universities UK, 2019). To achieve this, it is important to ensure such openness, as well as the time and effort required to achieve it, is recognised accordingly in research evaluation (Bouter, 2023). With that also comes the recognition that the possibility for error detection that is facilitated through transparency is not just aimed at detecting potential scientific fraud but primarily at improving the scientific process, e.g., by increasing the chances of catching inadvertent errors in code and data and checking the robustness of results through reproducibility and replication studies. For this, an error-friendly environment is paramount, where errors are not seen as a stigma but as part of the process to improve science.

There are two additional important considerations regarding the role of open science and research integrity in research evaluation. First, there is no one-size-fits-all approach in what practices to encourage and/or require, including through research evaluation. Not all aspects of open science are relevant or viable for all disciplines or, within disciplines, for all research projects. A prime example is the restriction on data sharing imposed by privacy concerns (including compliance with the General Data Protection Regulation (GDPR)). This does not mean that open science is not relevant in these cases, but that the aspects of open science that are relevant and feasible, and the ways these are implemented, often are dependent on the specific context of the research. Acknowledging this in research evaluation can encourage adoption of open science practices without it being perceived as a straight jacket.

Second, research evaluation also has the potential to shape research practices through what is seen as valued and needed for career advancement. In that sense, including open science in research evaluation can be seen as not just rewarding additional practices but shifting the focus from research outcomes (rewarding novelty and attention) to research process, rewarding robust methodology and transparency in reporting. This is another view on what high-quality research means.

Equity, Open Infrastructure and Rankings

So far, we have discussed both broadening and deepening research assessment – including a wider range of academic activities, outputs and indicators for quality

and impact and critically assessing the validity of the indicators used. One additional aspect to question is the tools and platforms providing information on both research outputs and indicators for quality and impact, as this determines both what is included and excluded and who is given deciding power over this. Many universities manage a current research information system (CRIS) to maintain a record of research outputs and/or make use of commercial, often off-the-shelf, tools for research metrics, like SciVal (provided by Elsevier) or Incites (provided by Clarivate) that are built on commercial bibliographic databases (Scopus and Web of Science, respectively). There are several limitations to the use of proprietary data for research assessment. First, where the coverage of such databases is selective, where selectively is decided by the (commercial) provider, this transfers agency away from the research organisation or individual researchers to the data provider. In practice, this can mean research outputs are limited to journal articles only, skewed to English language publications from Western countries and restricted to journals that meet the providers' definition of quality and impact. Especially when the desire is to broaden research assessment to more varied research outputs and indicators, this can be problematic. Compounding this issue, research information in commercial proprietary databases cannot be accessed or shared publicly, so can be neither verified or have a different lens applied to by others, including the ones being assessed. In other words, assessment and talent management are affected by the companies providing the assessment criteria and data, which raises issues with respect to distributive and procedural justice.

In recent years, the availability of openly available research information (open for both access and reuse) has grown, with initiatives such as Open Citations (<https://opencitations.net>), the OpenAIRE Research Graph (<https://graph.openaire.eu/>) and most recently OpenAlex (<https://openalex.org/>) providing alternatives to closed, proprietary bibliographic or citation databases. Use of these platforms, especially by public institutions, not only allows institutions more control over the selection of data used for assessment but also supports the idea of these type of data to be managed through public, rather than commercial infrastructures, in line with recommendations such as the UNESCO Recommendation on Open Science (UNESCO, 2021) and the COARA Agreement on Reforming Research Assessment (COARA, 2022). Where the use of open and/or non-proprietary sources would require additional time investment (e.g., to clean data and write code to analyse the data), this could be taken up in the form of collaborations of research performing and research funding organisations, including consortial funding of non-profit infrastructure that utilises open data.

Finally, a word on rankings. An argument that is often made against initiatives for broadening and broadening research assessment is that research organisations cannot decide to change their evaluation systems unilaterally, as in order for them to be attractive for potential employees and students, as well as give their current employees and students the best changes for future study and employment at other institutions, conforming to commonly held ideas on quality and how to assess it is important. Nowhere is this more important as in the ambivalence around university rankings. There are serious reservations with both the methodology and application of university rankings (Gadd et al., 2021; Universities of

the Netherlands (UNL, 2023), including the impossibility to capture the quality of an entire university with different programmes and disciplines into a single digit; the use of selective quantitative data and self-selecting questionnaire responses, with the data themselves not being openly available; and the emphasis on scoring and competition, as opposed to collaboration. Nonetheless, universities are still participating in supplying information to the often commercial organisations producing rankings and publicising their position on these rankings on their website.

There have been calls for change, though. Recently, initiatives like More Than Our Rank (<https://inorms.net/more-than-our-rank/>) have been developed in response to some of the problematic features and effects of the global university rankings, providing ‘an opportunity for academic institutions to highlight the many and various ways they serve the world that are not reflected in their ranking position’. Importantly, the EUA, with over 800 member institutions, explicitly supports More Than Our Rank (EUA, 2022). Although changing rankings usage in reality by individual institutions may prove hard, actual steps to collaboratively approach the issue are being taken (Upton, 2023). Also, at least for researcher assessment, the Coalition for Advancing Research Assessment (COARA, see below) calls to not use university rankings for research assessment, especially because the criteria on which they are built tend to trickle down from the university to the researcher level (COARA, 2022). On the issue of transparency, the Leiden Ranking has announced an initiative to launch a version of their ranking fully based on open data sources (van Eck et al., 2023).

International Developments

In the previous sections, a number of developments in the Netherlands as well as international developments have been mentioned that align and support changes in academic assessment. As alluded to above, it’s important that there is both broad support for such changes and that changes are driven by, or developed in close consultation with, researchers and research organisations, rather than imposed on them. Although the Netherlands has in many respects been in the forefront of research assessment reform, in particular regarding national collaboration of stakeholders, that reform has roots in many countries and is supported by many international and regional initiatives as shown by the Future of Research Evaluation report (De Rijcke et al., 2023). Reforms are not only discussed in academia but also in mainstream science media (e.g., Pain, 2023). A selection of four developments, that all provide the opportunity for direct action at the level of research organisations, is elaborated on below as a jump off point for research organisations interested in changing assessment culture at their institution and beyond.

DORA

One of the first initiatives to challenge the widespread use of journal metrics like JIF for assessment of research and researchers has been the San Francisco

Declaration of Research Assessment (DORA) (DORA, 2013), which also suggests alternative approaches for journals, funders and institutions. In the 10 years since DORA was published in 2013, it has collected signatories of 20,479 individuals and 2,866 organisations in 161 countries. It has been a starting point for wide-ranging discussion and explorations on changes in assessment and evaluation. Signing DORA is often an early step in the process of reconsidering research evaluation at a university and at the same time signals commitment towards that process.

COARA

COARA (<https://coara.eu/>) was started in 2022 with the drafting of the agreement on reforming research assessment (COARA, 2022) by a team of representatives from the EUA, Science Europe and the European Commission, with involvement from more than 350 organisations from over 40 countries were involved. In 2023, COARA opened for signatories worldwide and proceeded to invite proposals for working groups to collectively work on reforming research assessment at European research performing and research funding organisations. As of 26 June 2023, there are 510 COARA member organisations from across the world. Like with DORA, signing COARA signals commitment to changing research assessment, and moreover, COARA can provide opportunities for mutual learning and exchanging best practices among participating institutions.

More Than Our Rank

The More Than Our Rank initiative (<https://inorms.net/more-than-our-rank/>) was started in 2023 by the International Network of Research Management Societies (INORMS) to provide an opportunity for academic institutions to highlight the many and various ways they serve the world that are not reflected in their ranking position. Academic institutions are asked to post a statement promoting institutional activities, achievements or ambitions that are not adequately captured by national or international university rankings on their website, alongside the More Than Our Rank logo, to expand the information conveyed just by their position on international rankings. This both encourages universities to consider their strengths beyond the usual narrow indicators and makes this visible for all to see.

HELIOS

HELIOS (Higher Education Leadership Initiative for Open Scholarship, <https://www.heliosopen.org/>) is an initiative in the United States that constitutes a coordinated effort to align higher education practices with open scholarship values, with about hundred institutions committing to it at the time of writing. It addresses values, practices and incentives. In its joint statement on Reforming Hiring, Reappointment, Tenure and Promotion (HELIOS, 2022), it asks institutions to commit to an internal dialogue on having hiring, tenure and promotion

better reflect open research and scholarship. That dialogue should be with all institutional stakeholders, it should seek endorsements from decision-making bodies and include the development of frameworks and guidance. While in the current phase, much is left to the individual institutions, HELIOS does commit to yearly progress updates on these reform strategies.

Conclusion and Discussion

Traditionally, assessment in academia has been focused on individual research performance and within that, on (journal) publications as measurable output, with importance given to quantity and a small number of standardised metrics. Assessment (for hiring, tenure and promotion, grant allocation, prizes, etc.) is usually summative, selecting individuals on the basis of demonstrated achievements. In terms of talent management, this approach to assessment corresponds to an exclusive, subject-oriented approach. The ambition for individuals in the system, as well as for institutions as a whole, is to strive for ‘excellence’ – in turn often defined by a narrow focus on research outputs and a limited number of indicators.

There is, however, a tension between these views on assessment and talent management and a more holistic view on the role of academic institutions in accelerating and improving science and scholarship and its societal impact. Open science practices as well as concerns around research integrity are challenging the current incentive system. Increasingly, institutions, also with the push from funders and the open science and responsible research movements, are looking to broaden and deepen their assessment practices. This also has implications for how talent management is conceptualised and implemented.

Broadly speaking, three developments can be observed:

- A move from research-focused assessment to assessment including all academic activities (including education, professional performance and leadership).
- A shift from focus on the individual to a focus on collaboration in teams, where individuals can have different roles, and contributions of both research staff and support staff are recognised as important in reaching the group’s goals.
- Critical reflection on any indicators used – making sure they are both fit for purpose (i.e., whether what they measure indeed reflects the qualities that the evaluation is intended to assess) and fit for the level at which assessment is taking place.

For talent management, these developments reflect a shift from exclusive, subject-oriented talent management (with the aim of selecting ‘the best’ individuals in isolation) to inclusive, object-oriented talent management (with an eye for the qualities, expertises and competences needed at the team level to reach its strategic goals, which in themselves can be broader and more varied).

An aspect that deserves special attention in implementation of this view on talent management is agency. First of all, this means agency of the subjects of assessment (be it research groups and the individuals within those groups, or

universities as a whole), who ideally should have a say in the strategic goals, activities and outputs they are assessed on, as well as involved in the design of the assessment process. In addition, it involves agency in control of the data, tools and platforms that are used for assessment and talent management, to ensure assessment is not limited a priori to data and methods chosen by (often commercial) providers of these tools and platforms, as this effectively amounts to outsourcing part of talent management to external organisations with their own commercial interests (including providers of bibliographic databases, research analytics tools and university rankings).

Implementing such changes in assessment in academia, including in talent management, requires involvement from university management, human resource management and academic and support staff at all career levels. Small steps can be taken in signing relevant declarations (such as DORA) as a publicly visible signal of commitment, participating in relatively low-risk but meaningful initiatives like More Than Our Rank and contributing to and benefitting from mutual learning exercises as organised through COARA and HELIOS to discuss approaches and good practices. As more institutions take steps on the road towards more inclusive, relevant and responsible assessment and talent management, the easier it becomes for other institutions to follow the same path, always allowing for local and disciplinary contexts.

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Chapter 5

Talent Management of Doctoral Students: Focus on Well-being, or How to Deal with the Mental Health Crisis in Graduate Education

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Abstract

High turnover rates, delay and dissatisfaction among PhD students about the high efforts and low rewards are common problems in doctoral education. Research shows that many different factors are associated with the mental health crisis in graduate education, but these diverse aspects have not often been studied in relation to talent management and human resource management (HRM) strategies. Based on questionnaires and in-depth interviews, this chapter critically assesses the factors that influence doctoral students' well-being, using as theoretical framework the self-determination theory, concerned with the social and other conditions that facilitate or hinder human well-being and flourishing, and the job demands–resources model, an occupational stress model that suggests strain is a response to imbalance between demands on the individual and the resources he or she has to deal with those demands. These theoretical frameworks help to explore the perceived job demands and resources, and motivations of a sample of 25 PhD students in the Netherlands, in order to recommend adequate talent management strategies to improve PhD work conditions at universities and reduce the increasing levels of ill-being. The study proposes a collegial model, focussing on the enjoyment of work,

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instead of the current managerial model, which focusses on strengthening knowledge and skills, and stimulating performance-oriented behaviour. A differentiated approach is needed, offering customized talent development for each PhD student in order to respond to his or her specific qualities, improving general well-being. This radical shift in talent management is needed to counter the mental health crisis in doctoral studies.

Keywords: Talent management; higher education; university; academic talent; doctoral students; PhD candidates; PhD degree; graduate education; well-being; mental health crisis

Introduction

The ability to attract and retain top talent is a key issue for HRM at universities, given the highly competitive global environment. The composition and quality of academic staff is vitally important for the quality of education programmes and university research, as well as the reputation and competitive position of universities and institutions in the academic community (Lorange, 2006). Talent and performance management are now part of the strategic HRM agenda, as many universities move from a collegial to a managerial model (Smeenk et al., 2006), incorporating private-sector management practices. Since mid-1980, Western higher education institutions have become subject to the growing role of market forces and commercial values (Washburn, 2005), fuelled by the growing hesitance of governments to spend public money on public services such as higher education (De Boer et al., 2007), resulting in the corporatization and neoliberalization of academia (Gill, 2009; Olssen & Peters, 2005). Furthermore, universities are increasingly evaluated on their output, such as number and quality of publications (via citation indexes and peer review) and number of graduated students (De Boer et al., 2007; Teelken, 2012), which has led to increased pressure to raise the productivity (Werner, 2015). Although these private-sector strategies have become widespread, they have been much criticized (Benschop et al., 2018; Nkomo, 2009).

Due to the ‘projectification’ of academia (Ylijoki, 2016), the number of precarious jobs has grown, especially for early career researchers: large numbers of (post)doctoral researchers are hired for temporary positions (Spina et al., 2022). In the Netherlands, the number of promotions per year has more than doubled in 25 years, resulting in more than 5,000 promotions per year as of 2021, but only half of the around 36,000 PhD students have an employment contract at a university or teaching hospital (Rathenau Institute, 2022). These developments have important implications for early career researchers and for the criteria that are decisive for their retention (Benschop et al., 2018). Embarking on a career in academia after obtaining a PhD is challenging due to the limited number of stable job opportunities (Hnatkova et al., 2022). Only around 30% of Dutch PhD graduates continue to work at a university or learning hospital, and of the PhD

graduates under the age of 35 who work in academia, only 37% have a permanent contract, compared to 64% of young researchers outside academia (Rathenau Institute, 2022).

But Dutch PhD students already face difficulties during their doctoral studies. They are considered a specific hybrid population that sits between working and student populations (Devos et al., 2016). They are called ‘students’, but, at the same time, they often have a work contract (a doctorate grant of an external party, an employment contract of a university or learning hospital or a job outside of academia to support their living). Doctoral students are vital to shaping the scientific landscape and its future (Larivière, 2012; Vollmar, 2019). They are considered a relatively cheap labour force¹ who do most of the research work (Dijstelbloem et al., 2013) and by doing so help shape economic growth and technical innovations. PhD students contribute to a high number of publication output.² Most also have to fulfil teaching activities and supervision of theses, making a major contribution to academic education. Universities on their side get a bonus for each doctorate awarded; this turns especially externally funded PhD students into an earnings model (PNN, 2020). That is why these high efforts and low rewards for PhD students have been subject to criticism. It is not surprising that more than 60% of PhD students experience a high or very high workload (Rathenau Institute, 2022). Only about 75% of the employed doctoral students in the Netherlands successfully complete their PhD (Rathenau Institute, 2022); a high turnover rate, meaning an important loss of talent. Studies have noted that a substantial part of Dutch PhD students is struggling with mental health problems. It seems there are various bottlenecks for PhD students which can undermine their well-being.

In this study, I will look into the different aspects that influence the well-being of Dutch PhD students, and the possible points for improvement, by means of a literature review, questionnaires and interviews. In this way, this research can help to better understand the systematic issues that exacerbate PhD students’ well-being and help to address illnesses by indicating a variety of countermeasures against the mental health crisis in Dutch graduate education. As I will suggest, a shift in the focus of talent management of doctoral students is needed.

Previous Research

In countries where PhD students’ mental health has been studied, there is a consensus that the PhD experience is difficult (Devos et al., 2016), characterized by constant peer pressure, frequent evaluations, poor status, heavy workload, high pressure to publish, deadlines, financial difficulties and many different activities

¹A Dutch PhD student earns between €2,541 (first year) and €3,247 (fourth year) gross per month per July 2022, in addition to a holiday allowance (8% gross annual income) and an end-of-year bonus.

²Some estimates indicate that PhD students contribute to about a third of the publication output (Larivière, 2012).

to deal with (research, teaching and conferences). A number of factors affecting mental health and well-being of PhD students have been identified. In a comprehensive overview of 163 studies on PhD candidate well-being, [Sverdlik et al. \(2018\)](#) identified four main external factors (supervision, personal life, departmental structures and financial opportunities) and five main internal factors (motivation, writing skills, academic identity, self-worth and self-efficacy) that influence PhD well-being.

Much attention has been given to the relationship between the PhD student and the supervisor (discussed in [Juniper et al., 2012](#)). Indeed, supervision style, supervisor experience and frequency of supervision affect emotional exhaustion, burn-out, PhD thesis completion and intention to leave academia and are all potential areas of interest ([Cornér et al., 2017](#)). However, also other environmental and organizational factors were shown to affect PhD students' mental health and well-being, including university policies, training opportunities, career perspectives ([Juniper et al., 2012](#)), working environment, quality of working space, facilities, social relationships at work ([Caesens et al., 2014](#)), balance between personal and professional life ([Juniper et al., 2012](#)), work engagement versus 'workaholism' ([Caesens et al., 2014](#)) and type of motivation for the PhD thesis ([Litalien & Guay, 2015](#)).

A review of 17 studies from 1998 to 2018 in Europe and North America showed that PhD students' well-being affects their productivity in research, teaching, the quality of their education, their engagement in research and risk of dropping out. Dropout rates are high globally, typically between 30% and 60%, including in countries with a perceived high-performing research system ([Litalien & Guay, 2015](#)). A 2021 meta-analysis showed that 24% of nearly 24,000 doctoral students suffered from depression and 17% from anxiety. These numbers are very high in comparison to a normative population of the same age ([Barry et al., 2018](#)). 'Ill-being' is becoming the norm ([Beasy et al., 2020](#)). [Evans et al. \(2018\)](#) have described this situation as the 'mental health crisis in graduate education'. It is therefore necessary to systematically monitor the mental health of doctoral students, which most universities do. They have a duty of care to their PhD students and should create and maintain – potentially via changes in HRM policy and practice – an environment that supports PhD students' well-being.

The Dutch Case

In the Netherlands, the PhD Candidate Network Netherlands (PNN) conducted a survey among 1,600 PhD candidates between March and May 2020, showing that no less than 47% were at risk of developing a psychiatric disorder (i.e. depression or anxiety). In total, 39% showed severe symptoms of burn-out, and 40% experienced a high or very high workload. The PNN survey found international PhD candidates (around half of the total number in the Netherlands) to be more at risk of mental health problems compared to their domestic colleagues. [Van der Weijden and Bergmans \(2021\)](#) showed that PhD candidates who give informal care (almost 30%) to a loved one have a higher risk of developing mental health problems (i.e. feelings of constant strain, inability to overcome difficulties and

sleeping problems). These studies confirm that mental health problems during the PhD trajectory are widespread in the Netherlands.

The Dutch case is relevant for talent management in a globalized academic world, as internationalization and the new managerialism have resulted in the convergence of global academic human resource (HR) practices (Slaughter & Leslie, 1997). The formal criteria used to evaluate candidates are similar to those prevailing in the Anglo-American system; bibliometrics are leading in assessing the work of academics (Nkomo, 2009; Van Raan, 2005). The job market is highly international and very competitive in most disciplines. The structure and composition of the academic career system in the Netherlands can be viewed as a pyramid. The number of lower and temporary positions is high (PhD students and other staff members, such as lecturers), but the number of higher permanent academic positions decreases with each rising level (Van den Brink et al., 2013). As indicated earlier, only around 30% of Dutch PhD graduates continue to work at a university or university medical centre (Rathenau Institute, 2022). There seems to be an ‘up-or-out’ system (Phelan & Lin, 2001); a scientific career is embedded in a forward-looking system where only a particular type of researcher (i.e. one that maximizes research or teaching output) can move upward. If researchers do not step up, they will be dropped out of the system.

The existence of such a system, limiting opportunities and alternatives for researchers in accordance with the available resources, increases the occurrence of certain patterns of behaviour. As a result, Dutch academic working environment is characterized by a competitive, individualistic culture, accompanied by a general lack of care: no interest, attention, involvement, help and support (Benschop et al., 2019). This includes not only basic things, like asking how someone is doing or giving someone a compliment, but also bigger things, like encouraging someone to take on certain tasks or responsibilities. This lack of care creates a cold working environment that encourages undesirable behaviour (Benschop et al., 2019). Recent research by the Dutch trade unions FNV and VAWO (2019) among more than a thousand university employees shows that half of them work in a department where there is or has been a socially unsafe working environment. Four out of 10 have personally experienced something in this context. PhD students are in a particularly vulnerable position, since they depend highly on their supervisor(s), which often means that they tolerate behaviour that otherwise is not tolerable (Benschop et al., 2019). Doctoral students face a great imbalance of power, which could affect their well-being.

With high levels of well-being theoretically required to achieve a PhD degree, it is no surprise that low levels of well-being can have a substantial impact on PhD students’ degree progress, professional development, research productivity and personal lives (Schmidt & Hansson, 2018).

Most Dutch studies focus on single aspects of the work stress experienced by PhD students (e.g. the relationship with the supervisor or the heavy workload) and use questionnaires that do not show all aspects causing ill-being or investigate how to prevent it. To extend the scientific knowledge on this topic, I followed a qualitative approach, in addition to a quantitative one. The combination of these methods offers the opportunity to gain an in-depth understanding of the

circumstances of a sample of PhD students, in order to discover the possible points for improvement in talent management.

Theoretical Frameworks

For this, I adopt the World Health Organization's (WHO) holistic definition of mental health as 'the state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity' (WHO, n.d.). Mental health involves realizing one's own abilities, coping with the normal stresses of life, working productively and contributing to the community (WHO, n.d.). One aspect of mental health is the absence of mental health conditions – a term that covers psychological distress (fatigue, sadness, anger and moodiness), mental disorders (anxiety, depression, eating disorder and post-traumatic stress disorder) and (other) mental states associated with significant distress (burn-out and bore-out), impairment in functioning or risk of self-harm. Burn-out is not classified by the WHO as a medical condition, but as an occupational phenomenon. High levels of psychological distress are indicative of impaired mental health and may lead to the development of a mental disorder. In addition to the above-mentioned terms, I use the label 'ill-being' in this study as the opposite of well-being.

Since there is no standardized instrument to measure the well-being and experienced work stress of PhD students, I used two tested and valid models that both often appear in talent management literature: the self-determination theory (Ryan & Deci, 2000), concerned with the social and other conditions that facilitate or hinder human well-being and flourishing, and the job demands–resources model (Demerouti et al., 2001), an occupational stress model that suggests strain is a response to imbalance between demands on the individual and the resources he or she has to deal with those demands.

Although the job demands–resources model provides a general conceptual framework for understanding job burn-out and work engagement, it does not offer guidance on which specific factors are most critical. The self-determination theory helps to fill this gap by identifying the basic needs that are essential to the psychological well-being of individuals. The integration of the job demands–resources model with the self-determination theory in this study provides thus a general framework for understanding positive and negative job characteristics and identifies the core human needs that are vital to mental well-being.

Job Demands–Resources Model

The job demands–resources model explains how workplace factors affect employee well-being of employees (Alarcon, 2011). According to the model, each condition can be broadly classified as either a job demand or a job resource (Demerouti et al., 2001). Job demands refer to the physical, psychological, social or organizational aspects of the job that require sustained physical and/or psychological effort or skills and are therefore associated with psychological or physiological costs, such as work overload, time pressure, irregular working hours or

an unfavourable physical environment (Bakker & Demerouti, 2007). These job demands may tax an employee's resources when meeting the demands, require high effort and the employee fails to recover adequately. Job resources refer to the psychological, physical, social and organizational aspects of the job that are functional in achieving work goals, reduce job demands and the associated costs and/or stimulate personal growth, learning and development.

It is important to note that job demands are a normal, and arguably inevitable, part of work and are not necessarily problematic. Rather, it is the imbalance between demands and resources (i.e. high demands and low resources) that creates acute job stress and can lead to burn-out or ill-being if not corrected (Bakker & Demerouti, 2007). Therefore, job resources, which foster employee engagement and provide a buffer against the energy depletion caused by job demands, are a critical piece of the puzzle. According to Demerouti and Bakker (2011), job resources may be located at the macro, organizational level (e.g. salary, career opportunities and job security), the interpersonal level (e.g. supervisor and coworker support and team climate), the specific job position (e.g. role clarity and participation in decision-making) and at the level of the task (e.g. skill variety, task identity, task significance and autonomy and performance feedback).

Self-determination Theory

The self-determination theory by Ryan and Deci (2000), and more specifically the basic needs theory, conceptualizes certain psychological needs as essential for optimal functioning, growth and well-being. Three innate needs – competence, relatedness, and autonomy – drive goal-directed behaviours, and their satisfaction leads to increased intrinsic motivation, that is: engaging in activities without the presence of external rewards or constraints. Academic contexts that support PhD students' autonomy, competence and relatedness promote intrinsic motivation (Liu et al., 2014).

Competence refers to the feeling of success in one's endeavours, to experience mastery (Ryan & Deci, 2017) and PhD supervisors can support this need by providing academic support (i.e. for research techniques, academic writing, planning, etc.). Research shows that academic support is related to timely degree completion and satisfaction, and non-existent, little or poor academic support is related to dissatisfaction, longer completion times and dropout (Devos et al., 2015). Relatedness is about connecting with others, caring about others and feeling cared for (Ryan & Deci, 2017). Supervisors can fulfil this need by providing personal support (i.e. being friendly and understanding and reassuring in case of stress) which has been found to be related to PhD students' satisfaction. Conversely, supervisors' lack of interest is related to quit intentions and attrition. Autonomy concerns the experience of volition and freedom (Ryan & Deci, 2017), and to experience this need, autonomy support is necessary (i.e. giving the doctoral student space and opportunity to make his or her own choices, showing respect for his or her point of view and ideas). Perceived autonomy in the doctoral context is related to continuing the PhD, satisfaction and greater research self-efficacy (Mason, 2012).

The opposite, controlling behaviour, is perceived as negative (Devos et al., 2015). So the self-determination theory predicts that talent development is more likely to occur in environments that allow for autonomy and relatedness and affirm a sense of competence.

Taken together, research on the job demands–resources model and self-determination theory provide evidence that job demands are positively related to ill-being, whereas the satisfaction of core psychological needs serves a protective role against ill-being (Alarcon, 2011). Furthermore, supervisor autonomy support has been shown to foster the fulfilment of these core needs (Deci et al., 2001), thus helping to reduce ill-being.

Methods

Using the self-determination theory and the job demands–resources model as theoretical frameworks allowed me to explore the perceived job demands and resources, and motivations of a sample of PhD students in the Netherlands, in order to recommend adequate talent management measures.

To get a broad view of the different perspectives, I included students from all genders, different nationalities and from various fields of study, with different financial backgrounds (scholarship, employment at university, and external PhD students) and stages into their PhD. Specific selection criteria were the enrolment as a doctoral student in the Netherlands and the ability to speak either Dutch or English. The objective of this sampling strategy was to recruit PhD students who represent a broad spectrum of experiences and perceptions (Malterud, 2011). Ethical approval was obtained prior to the commencement of the study.

To recruit the PhD students, I emailed the graduate schools and PhD organizations of all Dutch universities, briefly informing them about the study and asking them to forward the participation request to their PhD students. Not all universities wanted to cooperate, due to a variety of reasons, including the ‘sensitivity’ of the subject or a dreaded overkill of research on this subject. Those PhD students who agreed to participate were invited to participate in an online interview via MSTeams. Participants received participant information sheets and consent forms prior to the interviews. In total, 25 semi-structured interviews were conducted in the second half of 2022 with 15 female, 9 male and 1 non-binary doctoral students from various universities and a variety of fields of research. A few days before the interview, the participants were asked to fill in an online questionnaire, measuring general well-being (using the General Health Questionnaire, see Goldberg, 1972), occupational burn-out (using the Maslach Burn-out Inventory, see Maslach & Jackson, 1981) and occupational bore-out (using the Work Bore-Out Scale, see Poirier et al., 2021). Table 5.1 shows an overview of the socio-demographic characteristics of the participants. During the interviews, the PhD students were encouraged to talk about concrete cases and incidents on the basis of anonymity, rather than in generalities. This allowed to describe a complex social phenomenon from the perspective of the people affected (Malterud, 2011).

Table 5.1. Socio-demographic Characteristics of Participants.

Gender	Female	15
	Male	9
	Non-binary	1
Age	20–24	1
	25–29	13
	30–34	10
	35–39	0
	40–44	1
	Enrolled as PhD student	First year
Second year		6
Third year		2
Fourth year		3
Fifth year or more		6
Study field	Agricultural sciences	1
	Arts and humanities	3
	Behavioural and social sciences	7
	Law	2
	Medical and health sciences	3
	Natural sciences	4
	Technical sciences and engineering	5
University	Erasmus University Rotterdam	1
	Leiden University	3
	Radboud University Nijmegen	3
	Technical University of Eindhoven	2
	Twente University	2
	University of Amsterdam	7
	University of Groningen	1
	University of Utrecht	4
	VU Amsterdam	1
	Wageningen University	1
Main funding source	Employed at university	17
	Externally financed (scholarship)	3
	External PhD student	5

Results

Mental Health

The results of the questionnaires seem to confirm the mental health crisis in Dutch graduate education: of the 25 participants, 80% has at least two symptoms indicating psychological distress (poor concentration, sleeping problems, worrying and losing confidence), and 68% even has an increased risk of developing a psychiatric disorder (i.e. anxiety and depression). Nine respondents had 10 or 11 of the total 12 symptoms (36%), which means a very poor mental health. Only three respondents did not indicate any of the symptoms (12%).

Of the same respondents, only six participants had no significant risk of burn-out (24%). Eleven respondents suffered a moderate level of burn-out (44%), reporting, for example, poor concentration, headaches or irritability. Eight had scores that indicate a high level of burn-out (32%), reporting, for instance, persistent tiredness, procrastination or social withdrawal. One person even had the maximum score, indicating a severe burn-out, which means chronic sadness, social isolation, chronic mental or physical fatigue and/or the desire to ‘drop out’ (which can lead to suicidal tendencies).

In addition to burn-out, 36% of the interviewees suffered (sometimes at the same time) from a bore-out: 20% on a moderate level and 16% on a high level. The consequences of bore-out on mental health are about the same as those of burn-out. These numbers are quite alarming. Most previous research on PhD students focussed specifically on burn-out, but it seems that attention must also be paid to bore-out, as an underrated problem.

Job Demands Versus Resources

Looking at the job demands–resources model, I can point out some of the stressors that cause this ill-being, echoing earlier studies ([Mackie & Bates, 2019](#); [Schmidt & Hansson, 2018](#); [Vilser et al., 2022](#)). More than 85% of the participants stated that they do not feel rightly rewarded for their efforts. Almost all interviewees mentioned a number of work-related responsibilities (besides working on their thesis) and non-work-related tasks as major stressing demands. Regarding the latter, stress is mainly caused by social obligations, finding time for leisure activities, care work and household tasks (mainly for women) and coping with a relocation (mostly for internationals). One PhD student stated:

I barely had one-to-one contact with my supervisor, and the contact we did have often took place outside the university, even outside working hours. The research department organised a lot of social activities and my supervisor is quite an extrovert, so she was often the linchpin of these events. I felt obliged to participate, firstly to get to speak to her about my research project, and secondly to make a good impression on her and the other faculty members. Sometimes events took place at her house and went on until the wee hours. If you weren't there, you missed out on things and weren't taken into account as a PhD student.

Even though this situation seems particular, other respondents also pointed out the importance of participating in social events for networking, improving one's position as a PhD student and future career development. PhD students also have to improve their network on a work-related level by attending lectures or conferences.

The other work-related duties that cause stress, and limit the time available for the actual PhD research, differ per PhD student (those who work at the university versus those working elsewhere). PhD students who work at a university describe tasks that are not directly related to their own PhD project as extra stressing demands, for example, helping others on their research, giving feedback or contributing to papers. One doctoral student stated:

I started to get a lot of pressure from my supervisor to deliver results, but lab experiments take some days. So I was basically working Monday to Saturday in the lab, and then on Sunday analysing the results to present them on Monday morning. Some team members had left, so I was also finishing their experiments. I was delivering a lot of work, but not feeling that I was progressing myself, because I was just finishing experiments for other people.

Others feel like they have too many teaching or student supervision tasks: 'My contract says 10 percent teaching, but actually I am doing more than 20 percent. So this is an obstacle regarding my personal research project. The faculty is asking more of me than they should'. It seems that most PhD students work structural, unpaid overtime.

Doctoral students receiving a scholarship indicate that writing the interim reports is a major effort, and external PhD students who have a job outside of academia experience difficulty in balancing the time between the PhD project, job-related work and switching off properly during their free time. One PhD student stated:

In theory, I would work on my project in the evenings and on weekends. In practice, I have a high-demanding law job, which means that I am working more than 60 hours a week, and I don't have any time for my research. So when I have a deadline and I have to deliver something, I cancel all social activities, because I need that time to read or to write on my PhD research.

Most PhD students interviewed feel that all these demands are not balanced by the resources. They believe that the interpersonal resources (mainly the relationship with the supervisor) should be improved. One doctoral student stated:

I couldn't talk to my supervisor about my doubts. After the literature review, I found out that there was little reason to do this research and I came up with another idea, but discussing this was impossible. My supervisor started ignoring me and forced me to just do it. Our relationship was terrible, and I thought about dropping out.

Also, the organizational resources (salary, career opportunities and job security) are poorly rated:

The pressure to say yes to all kinds of different tasks instead of working on your own research project, I think that is problematic. Especially regarding the low wages. To keep writing research proposals to raise money, the pressure to publish, fixed-term contracts: what the hell are we doing? Why do we do this? I'm too cynical to work in academia, so I'm not going for an academic career after my PhD.

Also on the task level, there is need for improvement:

I would like to have more freedom to make my own choices. I sometimes give my opinion on things, but my supervisors usually push their vision. I am always getting the short end of the stick. Even though I think their feedback is not always relevant or constructive, I have to do what they say to make any progress.

The mismatch between demands and resources is causing a lot of stress for PhD students:

My supervisors didn't help me enough in that first year to get my research project on track, so then at some point I just collapsed. I forgot my stuff, I was crying all the time, I couldn't put myself to work. So one day I called in sick. I had a burn-out, and it took me 1.5 years to come back.

Compared to private sector work, the university system seems less attractive, especially in terms of career promotion opportunities (low number of vacancies and demand for mobility), as well as job security (fixed-term contracts and scarce funds) and the work culture (competitive, pressure and lack of care). As one doctoral student put it:

As a PhD student, you are at the bottom of the hierarchy, you are not really involved in the decision-making. That's actually good, because it's very hierarchical as you go up. So I don't feel like I belong in academia, it's a very competitive world. Lots of ass-kissing, favouritism, elbowing for the rare opportunities there are. I don't like that at all. It's not for me.

Basic Psychological Needs

When looking at the basic psychological needs that are required for optimal functioning, growth and well-being, following the self-determination theory, it seems that the needs of relatedness and autonomy are not being met in most cases. One

third of the interviewed PhD students feels isolated due to the individuality of the research project. Some do not feel at home at university, and there are certain barriers that obstruct the respondents from feeling that they belong to a larger community where they can find support. One PhD student stated:

I was subtly left out by the other PhD students in our team. I've never had a fight or something, but people just ignored me. Of course, that hurts, and I didn't understand why. I felt really lonely, and I had no one to turn to within our research team.

Some of the respondents struggle with networking and exchanging experiences with their fellow PhD students because they have little to no contact with their institute. This is mainly the case for external doctoral students:

My supervisor advised me to talk to peers to improve my project, but I don't know any other PhD students. And I don't know how I could meet them, since as an external PhD student I am excluded from participating in the events of the Graduate School.

On some levels, most of the respondents experience a lack of guidance, which makes them feel lost, especially in the first stages of their project (writing a proposal or a scholarship application, choosing methods and theoretical frameworks). But there is too little autonomy on other levels, mostly at the end of the process, which makes them frustrated. As one recent PhD graduate put it:

When I now look at my dissertation, I see it's the work of the supervisors. They dictated a lot of the thesis, especially at the end. There was pressure to meet the requirements, the end date of my contract came closer. So I gave in, and it's now obviously their project, not mine.

Unsurprisingly, the hierarchical dependence on the supervisor is experienced by many as annoying, especially when the PhD student does not feel the space to express his or her own ideas. The peer-review process is also seen as troublesome and time-consuming, since most supervisors and dissertation committees let their PhD students wait for a long period of time. Some interviewees report struggling to incorporate the feedback as the expectations are too high, the feedback off-topic or too ambivalent. Both cases – too much or not enough autonomy – undermine the motivation of PhD students, causing a lower sense of well-being.

Most PhD students do feel capable of delivering a high-quality research project. The main issue almost all identify is the time period in which they are supposed to finish up: half of the interviewees do not feel like they have sufficient time to work on their PhD project, and they do not think they will complete it in time. Some say their PhD project is too complex, others that it simply is too ambitious. However, most feel like the project design itself is fine, but the planning too tight, given the extra tasks they have to fulfil. So, their basic need for competence seems to be met, but the stress factor hindering this is time:

I am convinced that the PhD trajectory is actually intended to prepare you for an academic position, and that means that it must also give you the opportunity to develop all the skills that are required. It is practically impossible to do a research project in four years, teach on the side, work on your personal development as a scholar, and create the network that is needed to further your career.

Conclusion

The results of the questionnaires not only confirm the mental health crisis in Dutch graduate education but indicate an even more alarming situation than the existing studies already did: 80% of respondents in this study had two symptoms indicating psychological distress, compared to 66.5% in the PhD survey of the PNN, and 68% of respondents has an increased risk of developing a psychiatric disorder, compared to 47% in the PhD survey of the PNN. Although burn-out seems to be less prevalent (32% of respondents had scores that indicate a high level of burn-out, compared to 39% in the PhD survey of the PNN), bore-out appears to be a significant problem that has been largely overlooked in earlier studies.

It seems clear from the results of the interviews that most respondents experience their PhD project as high strain work: they have an extremely high workload (high demands), limited autonomy and not enough organizational resources, which leads to their high stress levels and eventually to burn-out. As a result, these PhD students do not feel like they have the space and time to develop their talents, although the work itself is challenging enough to learn new things. A minority of participants in this research experiences relatively low demands. This does not help the PhD students to develop their talents either and can lead to bore-out.

Discussion and Recommendations

Universities have a responsibility regarding their PhD students' mental health and well-being, since they make up the future talent pool for academia: appropriate interventions need to be deployed. Suggestions and practical implications to increase well-being were made in previous research. Some focus on the mental health of the PhD students; building resilience, teaching them to meditate, to think positively or to develop effective coping strategies (Creed et al., 2020). Others look at their physical health and advise organizing health labs or fitness classes (Haynes et al., 2012). Ideas to improve their feeling of relatedness include creating networking workshops or mentoring programmes with post-docs (Vilser et al., 2022), writer's groups (Beasy et al., 2020), support groups (Panayidou & Priest, 2021) that help PhD students to connect and exchange their experiences or peer coaching (Fried et al., 2019; Skaniakos & Piirainen, 2019). Mentoring programmes and support groups can also help to tackle work-related efforts, such as problems with time and project management, as well as

with the scientific approach of the project (Vilser et al., 2022). This improves the sense of competence of PhD students.

Most of these interventions are focussed on improving performance, thus continuing the current managerial model in academia, by strengthening knowledge and skills, and stimulating performance-oriented behaviour. They reinforce the up-or-out system, built on contract-based employment and performance-related promotion, in which only competitive PhD graduates with an emerging track record of publishing in leading journals are offered tenure-track positions (Heffernan, 2022). Universities seem to have an exclusive understanding of talent, focussing on the very few outstanding individuals who are provided with more developmental and promotion opportunities than the other employees (Meyers, 2016). The constant evaluation of productivity and production draws doctoral students into a ‘winner takes all’ race for status, making them – following the neoliberal logic – individually responsible for their career advancement and well-being (Berg & Seeber, 2016).

Given the high demands pursuing a PhD degree already puts on doctoral students, this up-or-out system is further undermining their well-being. It leads to work overload, a lack of recognition of their work and mental stress, and it is a sign of bad ‘employership’ on behalf of the universities. Therefore, universities should create a work environment in which high job demands are in balance with the job resources, and optimal learning and development are central. Resources should be increased and demands reduced, notably by offering better working conditions and constructive supervision, so that doctoral students experience less work stress, improving their well-being, which will of course have a positive influence on their research output as well.

Recommendations for Talent Management

Most of the above-mentioned interventions to increase the well-being of doctoral students are focussed on improving individual performance, thus continuing the current managerial model in academia, by strengthening knowledge and skills (including through training) and stimulating performance-oriented behaviour. But given the ill-being this causes, the functioning of PhD students could better be influenced applying a more collegial model, focussing on the enjoyment of their work (Boxall & Macky, 2009). The collegial model implies increasing the intrinsic motivation of PhD students and their involvement in the work and the organization, even though they are only temporarily employed at (or connected to) the university. This means that they have a say in the goals and the execution of their research, that they have the autonomy to realize this, that it is jointly evaluated whether these goals are achieved and that the work is arranged in such a way that it makes learning primal (Thunnissen & Bos, 2019).

Therefore, it is important to also look at the relationship between the PhD student and their supervisors, as previous research has done. Supervision is one of the key relationships in supporting PhD students to completion (Orellana et al., 2016). A supervisor’s behaviour towards a PhD student has a direct effect on their performance, productivity, job satisfaction, motivation and engagement in the workplace

(Mathafena & Hewitt, 2018). There are potential well-being outcomes in supervisors validating their PhD students through effective feedback and social and emotional care (Collins, 2021). Part of this social care is the valuable role supervisors play as gatekeepers to wider research networks, which can further embed the feeling of relatedness (Douglas, 2020). So on an organizational level, supervisors and other responsible university staff need to get training on how to provide effective feedback to PhD students and how to coach them in their professional development, helping to create a good leadership culture.

Universities should also improve the working conditions. Doctoral students need more time, to work and to participate in professional training, to have contact with colleagues and to reflect (Ellström, 2001). A radical suggestion would be that universities free up funds for contract extensions, since the majority of Dutch PhD students need 5.1 years to complete their PhD (VSNU, 2019), even though 90% of employee-PhD students have a contract of four years or less (PNN, 2021). This way, PhD students can continue their PhD research, without being on unemployment benefits or having to take another job after their contract has ended.

In addition, more transparency is needed about the conditions of employment: universities often offer a contract for 1 or 1.5 years, with the prospect of an extension of 2, 2.5 or 3 years after a positive evaluation (PNN, 2021). Sometimes they offer a contract for one year with a possibility of renewal, without any further specification as to how long and under what conditions. This creates very opaque situations in which PhD students hardly know what they are getting into or where they stand after starting their research project. These precarious working conditions and a lack of long-term prospects affect the well-being of employees negatively (Rönblad et al., 2019).

Dutch vacancies for PhD positions also lack transparency when it comes to the job demands. Only in a quarter of cases, it is clear whether a PhD student is expected to fulfil educational obligations (PNN, 2021). In practice, most PhD students (certainly PhD candidates employed by universities) are involved in higher education. Only half of all vacancies mention the existence of an evaluation moment (an evaluation that a PhD student usually has to pass positively, otherwise an employment contract is often unilaterally terminated prematurely). In addition, information about elementary conditions such as the applicable collective labour agreement, the salary and the scope of employment is often not indicated. Without this information, individuals cannot make a good career choice. On the contrary, transparent organizational communication fosters employee engagement, which leads to contextual performance behaviour and reduced turnover intention (Jiang & Shen, 2020).

Therefore, the engagement of PhD students within the organization is very important, considering them relevant stakeholders, not temporary staff members who are on the lowest rung of the scientific ladder. It is not enough for universities to focus on improving the resilience of individual doctoral students or to ameliorate the relationship with their supervisor: the working culture needs to change. A shift is required from the managerial model to the collegial model. Universities need to start investing in everyone's talents, also those of PhD students, and expand their focus beyond performance and output, creating a talent- and

learning-minded culture which supports creativity, open communications, effective knowledge management and is built on core values as respect and integrity (D'Annunzio-Green, 2008). Doctoral supervisors should prepare PhD students for a career outside of academia through professional development and career counselling (Dufty-Jones, 2017). Grounded in strength-based theories, which focus on a person's abilities rather than their limitations (Thunnissen & Bos, 2019), a differentiated approach is needed in which the individual value and excellence of PhD students are taken into account, offering customized talent development for everyone. An inclusive, differentiated talent policy makes it possible to respond to the specific qualities of each PhD student, improving their general well-being. This radical shift in talent management is urgently needed to counter the mental health crisis in doctoral studies.

Limitations of the Study and Recommendations for Further Research

The findings of the questionnaires and interviews are not representative of PhD students in general, due to the relatively small sampling method. The number of participants of different funding types (having a scholarship, employment at university or external employment) varied. It should also be considered that I only investigated the perspective of the PhD students while looking at job demands, resources and motivations. Perspectives of the supervisors, colleagues, family and friends are missing, although they have a great influence on the development of talent (Thunnissen & Bos, 2019). This focus on the individual is due to the fact that the theoretical frameworks are based on the individual. Future research should therefore compare perspectives of both PhD students and their social environment.

It is also important to mention that the interviews varied greatly in richness of detail, which is also mirrored in the time range of the interviews. This could be influenced by the satisfaction with the PhD trajectory (PhD students who are unhappy with the situation mention more challenges). As the participation in the interviews was voluntary, participation out of interest or discontent with the prevalent university system might have biased the results.

The temporal context of the study period should also be noted: most PhD students started or were conducting research during the Covid-19 pandemic, which affected their perception of job demands and resources (virtual lectures, home office and social distancing). This means the found effects may have been strengthened by the Covid-19 pandemic. However, even prior to the pandemic, precarity and ill-being of PhD students had already become an issue of public debate, and a major concern in the Netherlands and many other countries.

For further research, it would be interesting to see how the precarity of PhD positions undermines attempts to increase diversity in academia. Only those from privileged backgrounds can afford prolonged precarity. Women may be disproportionately affected, especially when they are considering having children. And to improve the bargaining power of PhD students, exact numbers of their research output and their part in teaching and supervising at university are needed. Further research should try to quantify their contribution, so that their importance

can no longer be minimized by university policymakers. Assuring and improving the quality of science and education should be a strong motivation to reduce the precarity of PhD positions.

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Chapter 6

Reimagining Doctorate Holders' Motivations to Make Career Transitions: Exploring Post-PhD Career Prospects Within and Outside Academia

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Abstract

Although an increasing number of PhD holders will continue their careers outside academia, we know little about their further career prospects. To develop a better understanding of how this group constructs and justifies a successful career outside academia, we conducted semi-structured interviews with 47 PhD graduates from different disciplines (humanities, social and beta sciences) who have obtained elaborate experience working outside academia.

Drawing on a multi-career perspective, we explored the motivations of the PhD holders when making such career transitions. The findings from the interviews demonstrated how PhD holders' main motivations were associated with their perceived *organizational*, *community* and *cognitive* careers. Our data analysis revealed that these motivations related to PhD holders and can be grouped along four key tensions:

- distanced from real life (academia) versus appreciating the practical impact of their research (currently);
- competition and performance orientation (academia) versus enjoying their current multidisciplinary collaboration towards a common goal (current);

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- Individualism and loneliness were typically experienced in academia versus autonomy and intellectual stimulation in their current work; and
- lack of stable career perspectives in academia versus current options for competence-based development and personal growth.

Thus, while discontinuation of an academic career may easily hold a pejorative connotation, the analysis of the PhD holders' motivations revealed important and rewarding opportunities in pursuing a career in other sectors. Overall, from our study, we can conclude that while a major gap may exist between careers in academia and 'the corporate world', shifting careers between these worlds is not as 'unthinkable' as commonly believed.

Keywords: Talent; talent management; university; academia; PhD holders; academic careers; career transitions; early career researchers; societal impact; practical impact

Introduction

Since 2000, the number of PhD graduates from European universities has increased substantially. Several developments, such as the Bologna process, have resulted in more investments in research and development (European Commission, 2015), which is in line with the international trend to secure the future supply of research talent for the knowledge economy (Enders, 2004; Neumann & Tan, 2011).

The Organisation for Economic Co-operation and Development (OECD, 2020) explained that the traditional academic career path can no longer absorb the increasing number of doctorate holders in many systems, consequently heightening career competitiveness in academia to extreme levels and contributing to greater concern. For example, in the Netherlands, 31% of the doctorate holders work for a university or university hospital; the other 69% are employed in public and private non-academic sectors (CBS, 2020; Rathenau Instituut, 2022).

The European Union (EU) intends to increase the number of PhD graduates to ensure the supply of highly qualified employees to the public as well as the private sectors (ESF, 2010; European Commission, 2016). In other words, public and private firms will demand and hire PhDs as part of an increased orientation towards research and development. This enlarged supply has been accompanied by expectations that PhD graduates to an increasing extent find employment outside of the university sector.

In the years 2009–2015, there has been a general increase in the number of job advertisements requesting a PhD grade in the private sector (OECD, 2012, p. 18). Some PhD graduates, from the humanities and social sciences, compared to other disciplines, are characterized by relatively low frequencies of employment in non-university sectors. These two implications emphasize the

requirement that the universities should make sure that the PhDs achieve more general competences during their PhD study and are prepared for both university and non-university employment (Brown et al., 2003; Golovushkina & Milligan, 2013).

Given the concerns of the academic career mentioned above (also see Chapter 5 about precarious work conditions of early career academics), there is a need to further explore alternative options concerning the further careers of PhD holders outside academia, in both the (semi-)public and private sectors. Prior research on post PhD careers, especially in non-academic settings is scarce. The few available studies remain unclear about possible outside career prospects (e.g. Van der Weijden et al., 2017), in particular why leaving academia could be appealing and how an external career can be considered feasible, and more particularly, what kind of motivations for choosing such career prospects play a role.

Indeed, the OECD sees preparing doctorate holders for diverse careers beyond the traditional academic career path as a possible solution for the future labour market of PhD holders. At the same time, this outflow may lead to the departure of the most talented PhD graduates from academic research, as alternative careers can be considered as more attractive, subsequently deteriorating the long-term quality of science in the longer run (OECD, 2020).

This raises questions as to what extent and for what reasons do the PhD graduates consider the non-academic labour market as a feasible option. There is thus a need to know more about why and how further career steps are being taken and how the PhD holders considered themselves eligible for the non-academic labour market. This leads to our research question: *how do PhD holders construct and justify a successful career outside academia?*

Our chapter explores the key motivations of PhD graduates for pursuing a career outside academia and discusses the reasons for leaving the university. We considered the PhD graduates from the alpha (humanities, social sciences) and beta (science, engineering and technology) disciplines. The remainder of this chapter is structured as follows: In our theoretical framework, we will provide an overview of the extant literature in this field and discuss the three-career model. After explaining our data collection and analysis in our research methods sections, we present our findings and develop conclusions.

Theoretical Framework

In this section, we will first discuss previous studies concerning the changing employment conditions in academia, followed by an overview of previous research findings concerning post-PhDs working inside and outside academia. Subsequently, we present the theoretical lens that we draw upon in our analysis of the post-PhD career motivations.

The quality, performance and perseverance of academic staff in shaping academic output are considered as key in a university's academic impact (Thunnissen, 2015). The quantity and quality of published papers are widely seen as the most important measuring rod for the academic impact and excellence of universities and researchers (Hessels, 2010).

As explained in the above, the decline in the number of tenure track positions increases the necessity for people who have obtained their PhD to consider choosing careers outside academia (e.g. [Dietz & Bozeman, 2005](#); [Fitzenberger & Leuschner, 2012](#); [Fitzenberger & Schulze, 2014](#)), calling into question the academic and social capital that PhDs and postdocs have gained ([Yang & Webber, 2015](#)). Seeing PhD candidates and holders as academic capital refers to the financial relationship of the university with the state: when universities act like profit-making organizations, wanting to market the knowledge that they can give to students. This has reshaped academic employment, with an emphasis on utilization of knowledge and budgets, and receipt of higher extramural funding ([Yang & Webber, 2015](#)). A complicating factor is that the role of both PhD researchers and postdocs has been reshaped, and it remains unclear whether they can be considered temporary employees for university research production, without a guaranteed future research career, or as apprentices, learning the academic trade and gaining academic and human capital ([Callei & Polka, 2015](#); [Cantwell & Taylor, 2013](#); [Van der Weijden et al., 2015](#)).

Concerning further careers of PhD holders or former postdocs outside academia, whereas up to about 2016, the number of studies available was limited ([Teelken & Van der Weijden, 2018](#)), but recently, an increasing number of studies is available. We base ourselves here on the studies carried out by [Hayter and Parker \(2019\)](#), [Zollner \(2016\)](#) and [Skakni et al. \(2021\)](#).

[Hayter and Parker \(2019\)](#) investigated the pursuit of postdocs for non-academic continuation of their careers; they researched factors that influenced the postdocs' transition to a non-academic career. Their paper consequently explores factors that may impact the transition of postdocs in the United States to non-academic employment relative to their own a priori career goals. Given the scarcity of related micro-level data, the paper employs an inductive, qualitative approach to identify these factors among a theoretically relevant sample of university postdocs at five Carnegie-classified Research I universities within the United States. Their research is based on interviews with 97 postdocs, from five high-end universities and all disciplines, most of the postdocs (64%) have an international background, and 35 additional interviews with principal investigators, university administrators and industry employers. [Hayter and Parkers' study](#) revealed that the initial percentage of postdocs pursuing an academic career dropped from 87% to 55%, caused by a range of essential individual, organizational and policy factors, but also the influence of their supervisor/principal investigator was crucial. Several elements, such as lack of relevant skills, absence of support and sometimes even opposition of their principal investigators played a role, since they generally wanted to retain their talents. Specially, the poor availability of non-academic career preparation opportunities hindered the postdocs in their further career trajectories and subsequently the utilization of new and innovative knowledge.

[Zollner \(2016\)](#) demonstrated on the basis of interviews with post-PhDs (13 interviews) working outside academia and their managers (6 interviews) that a dual stereotype existed between the post-PhDs and their employers. On

one side, her study confirmed that there was quite a lot of uncertainty about the appreciation for a PhD title outside the university (Stassen et al., 2016). Young scientists expected that their title makes them less attractive in the eyes of the managers through institutionalized prejudices which make scientists less suitable for work in the professional or private sectors. The stereotype of scientists was likely to be shaped by the idea that scientific success inevitably goes hand in hand with remoteness and antisocial behaviour (Zwart, 2005). Most young scientists interviewed (11 of 13) experienced a certain negative image during their application procedure or in their dealings with colleagues. However, on the side of the interviewed managers a similar picture of stereotypes emerged, despite that the managers acknowledged that in practice, when requested to provide real-life examples, their prejudices do not hold. In general, the managers considered young scientists as highly intelligent people that are often less practical and less broadly developed than required. The interviews showed that managers develop their stereotype of young scientists based on (1) the expected strengths and competencies as analytically competent, perseverant, independent and with good writing skills; (2) their own experience with doctorates and workers; and (3) the generally applicable image of scientists.

The work by Skakni et al. (2021), carried out in Switzerland and the United Kingdom, examined the challenges that characterize the passage from academia to non-academic workplaces. The authors analysed 32 semi-structured interviews conducted with PhDs engaged in non-academic careers in private, public or semi-public sectors for 10 years or less. It emerged that, when the PhD holders entered non-academic workplaces, 50% of the participants devoted a large portion of their time and energy to understanding a new organizational culture, including their workplaces' everyday functioning, the values shared within their organizations and the statuses to which they were assigned. The so-called organizational culture shock was specially experienced by those who entered non-academic workplaces directly after the PhD and with little or no work experiences prior to the PhD. The findings of Skakni et al.'s study contribute to the ongoing global conversation about how to prepare PhDs for careers beyond academia.

In short, the relatively small number of prior studies in this field revealed (1) several important distinctions concerning the mutual stereotypes between PhD holders and their employers; (2) the 'organizational cultural' shock when entering the non-academic labour market; (3) the lack of support experienced from academic employers; and (4) poor preparation for non-academic career trajectories. Building on these distinctions derived from our literature review, we seek out to further explore post-PhD careers in the Netherlands by drawing on a theoretical perspective based on the work of Gläser and Laudel (2015) to investigate the mutual interaction between personal agency and social structures. Gläser and Laudel are unique in the way they sought to contribute to the discussions by clarifying the link between research on academic careers and career theory and actually closing the gap between these types of research. Their model explained the peculiarities of academic careers in contrast with general career research by

distinguishing three different types of careers through which academics can move simultaneously (see Fig. 6.1):

- The Community Career refers to status-related experiences and the community career, work roles in communities. This type makes a distinction between four stages (apprentices, colleagues masters and elite). Typical collegial features involve assessing the relevance, validity, reliability of the community's body of knowledge, acquire valid and reliable knowledge that is deemed relevant for their work, identify gaps in such knowledge bases and consequently assess capabilities and opportunities.
- The Cognitive Career refers to the content of their work (research topic). This type of career consists of diachronic structures in research, in other words several subsequent time periods, with different but also overlapping branches. This type of careers refers to individual scientific activity and achievement and involves a continuing development of scientific interests and problem choices and approaches. For example, the range of subsequent themes researchers have addressed during their career.
- The Organizational Career refers to a narrower conceptualization of the academic career and involves typically a sequence of jobs. This type of career differs per nation, such as the chair system (e.g. Germany), tenured systems (the Netherlands) and tenure-track systems (US-American). Purpose of the organizations is to equip researchers with resources, despite that the work roles defined by these organizational positions are rather unspecific.

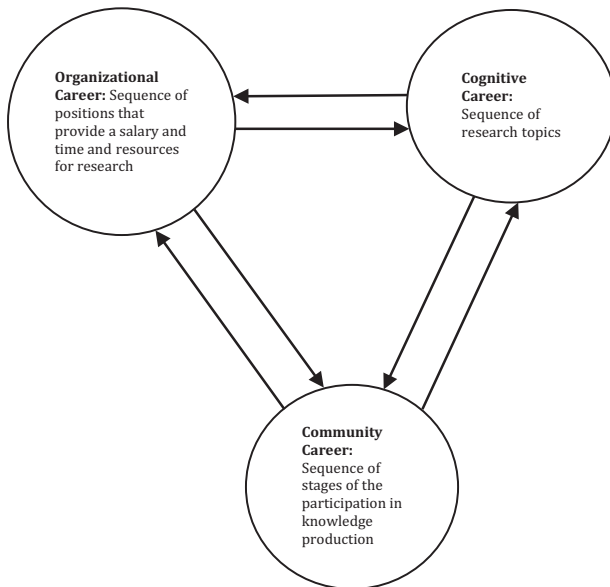


Fig. 6.1. The Three Career Types and Their Interrelations (Gläser & Laudel, 2015, p. 18).

Gläser and Laudel emphasized the importance of the relationships between these three career types. In line with this, we seek to further explore the three links between the three career types, by relating them to relevant literature on career theory and personal agency (Dietz & Bozeman, 2005; Fitzenberger & Schulze, 2014; Thunissen, 2015) and our data. We think that this model provides more clarity in explaining and structuring the variety of motivations for the continuation of the respondents' careers. Given our research topic (post-PhD careers outside academia), we shall discuss the current state of literature concerning the link between the Organizational and Community Career as this is the most relevant for the post-PhD employees (Teelken & Van der Weijden, 2018).

When using the model of Gläser and Laudel as a framework for our literature review, an interesting dimension appears between, on the one hand, coincidence as a major factor in (post) academic careers opposed by, on the other hand, an increasing one-dimensional career progress. Van Balen (2010) and Van Arensbergen et al. (2013) have demonstrated that coincidence is a major factor in explaining academic career progress. Their studies showed that initial small differences and 'being in the right place, at the right time' can eventually produce major differences between different individuals' career progress over the long term.

Likewise, the interviewees in the study by Dany et al. (2011) considered external factors rather than individual choices as decisive to their promotions and felt little control over critical events, making the management of their career much more demanding. Personal agency plays an important role regardless of the environment's impact (whether strong or weak), but this agency is directed and restrained by individual perceptions of environmental factors, such as the rules and models for promotion. While Gläser and Laudel (2015) wanted to avoid the so-called overemphasis on personal agency when discussing academic careers, other authors, such as Dany et al. (2011) and Lam and de Campos (2015), used personal agency in a variety of scales and forms to shed new light on developments concerning academic careers. They demonstrate how young scientists proactively shape their careers and distinguish two types of activities in their relationship with professors: collaborative research versus commercial ventures.

On the other hand, several studies (Ates & Brechelmacher, 2013; Baruch & Hall, 2001; Kwiek & Antonowicz, 2015) demonstrated an increased one-dimensionality in the traditional, academic career, as mentioned in the introduction. Ates and Brechelmacher (2013), Gemme and Gingras (2012) and Felisberti and Sear (2014) discussed that the professorship is still considered highly attractive and academics' single most valued career objective. Academic careers tend to be increasingly identical and divided into several similar steps of uniform length, such as in the tenure track system. Whereas such careers were once quite unstructured, they are now sliced into comparable timeframes, must be carried out within a limited timeframe, and consist of doctoral systems, postdoctoral positions or junior functions, followed by employment in lower-level and consequently higher-level senior positions such as a full professorship. For each period, certain output criteria have been formulated, and these criteria are increasingly similar across several countries (e.g. Kwiek & Antonowicz, 2015).

Research Methods

To address our research questions, we interviewed 47 post-PhDs, 20 females and 27 males; the average year of PhD graduation was 2008. The respondents are all currently working outside academia, mostly in the private sector. Recruitment of respondents occurred through our own networks by means of a snowball sample. The respondents received their PhD from a range of universities, both in the Netherlands (e.g. the universities of Delft, Utrecht, Leiden) and abroad (e.g. University of Oxford, Berkeley, California). Ultimately, our sample comprised a broad range of informants from a variety of backgrounds. Twelve respondents have a background from the social sciences (soc), 6 are from humanities (hum) and 29 have a science background (sc). The largest subgroup of our respondents involves males with a science background (Msc = 21), and 8 female respondents (Fsc). The other categories are (fe)males with a humanities background (Fhum = 4, Mhum = 2) or from the social sciences (Fsoc = 9, Msoc = 3).

In our study, we asked the post-PhDs to look back upon their previous pre- and post-PhD careers during in-depth interviews, thereby revealing how they retrospectively constructed their motivations. The semi-structured interviews were carried out in between 2016 and 2018. The topic list comprised topics grouped in a number of themes, based on our preliminary research about this topic: previous career steps and future perspective, perception of autonomy during the career, competence development, social cohesion of the organization, external incentives for career choice. Analysis of data involved a three-step process, since we used (1) open and (2) closed coding and (3) selective coding (Boeije, 2005). We combined several data sources; interviews were carried out by three different researchers, each of them had a slightly different perspective but we (re-)analysed all the interviews jointly.

In our initial coding of the interviews, we found a range of different motivations concerning further post-PhD career steps which are visualized in [Table 6.1](#), presented in order of comparative frequency mentioned by the respondents. Then, the codes were joined into 'code trees', hence eventually four dimensions emerged, which will be presented in the findings. These dimensions, that can be considered as core constructs throughout this chapter, are used to interpret and describe the 'motivational tensions' the respondents experienced when looking back at their careers and reflecting on their transfer towards outside academia. To distinguish between individual respondents, labels are used to provide background information: number, gender and discipline (e.g. R20Fsc).

Findings

Analysis of our findings revealed that the PhD holders generally agreed that elements they felt lacking in the academic context were specially appreciated in their current profession 'outside' and vice versa: aspects they felt disagreeable in academia are either differently organized in their current profession or have far less impact. Subsequently, we identified four tensions, along the 'academic' versus 'outside-academic' dimension.

Table 6.1. Overview of the General Motivations.

General Motivations	Percentage
Practical impact/relevance	17
Stability	13
Need for collaboration	12
Academic culture	12
Job offer academic field	8
(More) challenging	8
Postdoc as just intermediate stage	7
Autonomy	5
Publication pressure	3
(Lack of) entrepreneurship	3
Travelling time	3
Ambition private sector	3
Opportunities for development	2
Avoid military service	2
(High level of) flexibility	2

These four tensions involve the following:

- Distance from real life versus practical impact of research (relation to society).
- Competition versus multidisciplinary collaboration (relation to colleagues).
- Individualism and loneliness versus supportive space (relation to work).
- Lack of perspectives versus competence-based development (relation to personal development).

***Distanced From Real Life Versus Practical Impact of Research
(Relation to Society)***

Concerning the academic culture in general, about 10 respondents referred to academia as a ‘very special world’ or ‘the magic world of science’ (R37Fsoc) which they consider as quite incomparable with any other work situation: it is a kind of protected environment (R42Fhum) with a distance from reality, a ‘bubble’ (R37Fsoc) or ‘an island’ (R19Fsoc). The respondents felt quite isolated from what they consider as the ‘real, outside world’. Specially, junior scientists, who are recently graduated, know very little about the outside world: ‘When I stepped out of this, rather protective world, a whole new area appeared’ (R41Msc). Consequently, when discussing the transfer to their current profession, it was seen as quite final because ‘If you leave you are unlikely to get back’ (R37Fsoc). At least two respondents were considered as ‘crazy’ (R3Fhum) for leaving academia.

In contrast, a closer look at the results showed that 27 out of the 47 PhD holders see the application or practical side of the work as a most important factor for continuing their work outside academia. They felt the urge to apply their acquired knowledge and use their analytical and problem-solving skills by continuing to do research but in a broader manner than previously. Motives for continuing their career outside the university involve being able ‘to see results immediately’ (R4Mhum and R17Fhum) and ‘having more direct impact’ (R12Msc, R14Msc and R18Fsc). The respondents generally appreciated that in their current profession, they could contribute directly to the solution of practical problems or societal issues, such as improving the lives of people, for example, by setting up a new teaching programme (R5Fhum), retrieving energy from waste (R7Fsc), developing applications for new surgical diagnostic tools (R24Msc) or creating a vaccine against HIV (R22Msc). This is further illustrated by the following quotes:

Yes, it [my current work] has a wider reach and it has a very practical side too. It is what you do is immediately measurable. That is satisfactory, I must say, that you see immediate results that way. (R18Fsc)

Concerning legislation, the relevant developments occur at the large offices, at the ministry, not in academia. (R46Fhum)

Competition Versus Multidisciplinary Collaboration (Relation to Colleagues)

Fourteen of the respondents stated that there is a lot of competition between researchers, especially concerning obtaining financial sources. This type of competition is generally disliked by the respondents, as it creates insecurity and disagreements. For example, because of the limited supply of funding ‘your colleagues are generally not your friends’ (R21Msc) and ‘everybody has their own interest, their own “shop”’ (R25Msc).

One respondent even says that:

Academia is ultracompetitive, very competitive, there are many excellent people around. And I was no more than mediocre, at the university. There are really, very smart, very bright people with a passion for what they are doing, working weekends and late nights. It is not working, more a hobby for them ... to get standing you must be very good, a lot of publications, in the right journals, many experiments. (R38Msc)

This competition means that the respondents experienced work pressure at the university and feared for burn-out (R37Fsc). It is common to work outside office hours, to spend all your time in science (R44Fsc and R46Fhum). More specifically, when talking about work pressure, 22 respondents refer to the pressure to publish sufficiently and in the right (‘in other words high impact’ R25Msc) journals. Several interviewees find that this pressure to publish becomes very much a

goal by itself, because 'who will actually read all these publications?' (R3Fhum) and can have negative consequences: 'Several colleagues who had not contributed at all towards a paper, were mentioned as co-authors' (R33Fsc).

Well, it is true that because output was my only goal, that I thought: 'so and the way I could achieve that was just sitting at my computer'. I thought: 'Well, this is not going to last very long. I don't get any energy from this'. (R19Fsoc)

Some respondents mentioned their relief at not having any publication pressure outside academia (R18Fsc); they considered the pressure of getting grants and publications as a very frustrating cycle, whereas the 'tenure track makes you egoistical' (R11Msc), and for a few, this publication pressure was an important reason to leave academia:

What really worried me was that your track record, the publications you have written is so incredibly important for the rest of your career, that I really worry for the integrity of the academic world. With such a clear link, this integrity cannot be guaranteed, I find that very dangerous. (R11Msc)

In contrast with the 'hyper' competition in academia, 25 (out of 47) respondents mentioned that they appreciate the nature and extent of collaboration both within and outside their current organization. Eight respondents spoke explicitly of multidisciplinary collaboration, whereas seven refer to working in a team. This type of collaboration is mentioned frequently as a positive characteristic of the current employment situation and a reason for switching from the university to the private sector. Respondents saw multidisciplinary collaborating with colleagues from different backgrounds and disciplines as an important asset in the private sector and as something they are greatly lacking in science; they generally enjoyed the broadness of such collaborations: 'I have to say that working with people at my current company ... I really like that. So that you collaborate a lot with other people' (R6Fsc).

The lack of collaboration within their former academic career relates not only to the execution of the work but also to the competences of the PhD holders. Respondents indicated that the competence to collaborate is not learned at the university. 'While you are all officially employed by the same organization, and eh, within that also belong to either an education or research group. But no, I never really experienced that as a group feeling' (R3Fhum).

This concerned not only the ability to work together but also other social skills.

The social aspect in dealing with teams, dealing with resistance, change processes. Managing multidisciplinary processes, where many of these things also come back. I think that that is really a component that would be enormously improved and that will probably not only benefit PhD-candidates who are going to work outside the university, but also who will work in science. (R3Fhum)

Also important were the possibilities to collaborate on a common goal within the private sector, as mentioned by seven respondents. Concerning performance criteria, 18 respondents refer to ways their performances are being assessed. The respondents clearly revealed that they are generally judged in a much broader manner than in academia, where a range of criteria is applied, and generally in a closer connection with the actual content or operational aspects of their work.

However, there is still some focus on output (e.g. funding, patents, software), as five respondents (R1Msc, R15Msc, R17Fhum, R18Fsc and R19Fsoc) refer to their yearly performance appraisal where more or less clear targets have been established. However, the respondents appreciated that in many cases, process criteria were being used. For example, creativity (R28Msc): 'I feel strongly that there is a lot of space for creativity and trying new things' (R18Fsc). Others refer to more general criteria such as 'if everything goes well' (R33Fsc), the ability to solve problems (R15Msc) or the responses from or interactions with customers (R13Msc, R28Msc and R32Msc). This sort of more process-oriented performance appraisal, for example, based on portfolios is considered as more 'human' and generally valued by the respondents.

Individualism and Loneliness Versus Supportive Space (Relation to Work)

Another aspect disliked by the respondents (mentioned nine times) involves the loneliness they experienced when working in academia, especially during the latter part of their PhD trajectory. As one states: 'in the academic world you are very much lonely' (R21Msc), and this loneliness has increased because 'it seems as if everyone sitting on their own island' (R25Msc and R34Msc). This is further illustrated by the following quotes:

The (Phd) project is very lonely, you have to continue writing despite feeling discouraged, and at a certain point you can't explain to your parents what you are doing. (R35Mhum)

Even within the department there are clearly 'islands' (R34Msc), 'everybody is just sitting on their own island, doing their own thing, and that annoyed me. Teamwork is more appealing to me'. (R25Msc)

And I also thought it was a typical world, science. It is actually quite closed. You really do that research for yourself. I have sometimes wondered for what purpose I actually was doing it. Who reads my work? Yes, the people who also wanted to publish in that magazine or who use your documents. But otherwise, it is a very closed world. (R42Fhum)

Scientists that you really just have to lock up in a room on their own and close it off, and they very thoroughly explore a problem and work on it. It was a very lonely situation then in [city]. I don't know how it is now. (R40Msc)

As opposed to the aspects of the academic culture they disliked, more attractive sides of the 'outside' emerged. Nonetheless, nine respondents (six female, three male, seven science, two social science) mentioned that they are experiencing less autonomy in their current profession than during their work in academia, as PhD and postdoc. Remarkably, they feel strongly that within certain limitations (quite broadly set, e.g., based on yearly planning R10Fsc), there is sufficient space to carry out their work. They specially enjoy using their creativity to work on new ideas or find solutions for problems raised by their customers (R18Fsc and R20Fsc).

There is really a lot of room for creativity. So I am really very positive about that, because if you see opportunities, you can create them yourself as long as it fits. The position that I have now means that I can also decide how much space there is. (...) I can think of how it goes, gather the arguments and make choices. (R19Fsoc)

They highly value this autonomy and freedom and consider that it is one of the essential parts of their work. Respondents generally appreciate the lack of steering they experience (e.g. R15Msc). Only one respondent (R17Fhum) states that she experiences more freedom in her current job, as she feels no longer bound by the quite narrow research topics of the postdoc period:

From front to back, I can decide how things are carried out, collect arguments, make choices. Of course, it should be accountable, but these can be my own ideas, so much better than an operational position, as my postdoc was. It was really just carrying it out. (R17Fhum)

[as a postdoc] I did not get the space to work on my own research issues, the actual space to develop my own ideas However, currently, within my scope, I can develop my own ideas, collect arguments, make my own choices This is so much better than just an operational position, like my postdoc was before. (R17Fhum)

Lack of Perspectives Versus Competence-Based Development (Relation to Personal Development)

The lack of career perspectives in academia contrasts plainly with the focus on personal development of their individual competences, within their current profession, which we call here competence-based development. The sequence of temporary contracts and the lack of future perspective towards a tenured contract resulted in a search for clarity and security concerning further career perspectives in academia, which are clearly an issue for 24 (20xsc, 2xhum and 2xsoc) out of 47 respondents.

[...] during that period, it was difficult to find a job as a PhD. A regular job. But a permanent appointment at the university was also very difficult. You were usually hired as a postdoc, and these were mostly temporary contracts. (R1Msoc)

One respondent stated explicitly that ‘her limit to sacrifice herself for an academic career’ had been exceeded (R20Fsc). More specifically, given the pyramid structure at the universities, only few can be promoted to full professor. Specially, when working as a postdoc (e.g. R18Fsc and R20Fsc), the respondents were dependent on the small likelihood to obtain external grants to finance their continuation. They generally disliked the inadequate employership demonstrated in universities, for example, the weak organization concerning performance appraisal. Many respondents find that the private sector provides them with more security especially when it concerns tenured contracts.

There is little substantial and continual support for personal development as demonstrated by the following respondent:

Question: And could you further develop your competences in academia? R: No. (Laughter) No, there’s no guidance there. Q: Not a mentor or coach or anything or a professor who? R: Yes, exactly. There are no coaches who have time for that. A professor has no role in that at all, no. (R24Msc)

In contrast, when working outside academia, the respondents (18 out of 47) felt greatly encouraged to develop their own competences, many were offered a personalized introductory programme and possibilities to follow training programmes and courses. Most of them feel that their current employer is much more professionally organized (R17Fhum and R38Msc) and more ‘human’ (R17Fhum); something they clearly felt was lacking in academia (R24Msc).

This company is very good at developing the competences of staff. We have a whole department for staff development, so to speak, offering training, education, and everything you can think of. Last year we had a ‘learning and development day’, a complete day dedicated to your own development. (R19Fsoc)

However, a few respondents mentioned that despite the options for further development, they find the offering of courses in their current profession quite ‘superficial’ (R27, 28, 29, 30 all Msc) and explain that they can select and follow these courses only at their own initiative (R34Msc) and in their own time (R31Msc and R34Msc).

Synthesis

When taking all the four tensions into account, we can see that these can be fruitfully interpreted in terms of the academic career model (Fig. 6.1). In our data analysis, we identified the following four motivational tensions in relation to the three different career types (Gläser & Laudel, 2015):

- Concerning the community career, we saw this emerging in two main ways: in relation to society, on the one hand, and colleagues, on the other hand. The

community career distinguishes four stages (apprentices, colleagues, masters, elite) in career development. The respondents appreciated a closer link with society in their work, especially in a further mature stage of their career. In their relationships with their colleagues, it became clear that the respondent felt that competition had been replaced by collaboration, team-based and across disciplines.

- Cognitive career refers to the actual content of their work and emerges from the tension on relation to work. Our main findings involve that concerning their work activities, the respondents generally experience less but an acceptable amount of autonomy to carry out their work in a sufficient manner. They specially appreciate the extent they can use their creativity to find solutions for problems or develop new ideas.
- Organizational career refers to a typical sequence of jobs and is related to the tension on personal development, concerning professional autonomy and competence-based development. The respondents greatly appreciated the professional manner where they were offered options for further personal development.

Discussion

Our analysis of the interviews with PhD holders reveals several important developments that may contribute to our current understanding of PhD holders' careers outside academia. In our study, the PhD holders perceived important and rewarding opportunities in pursuing a career elsewhere. This is highly remarkable given that discontinuation of an academic career may easily hold a pejorative connotation. Rather our findings show how much the respondents generally enjoyed and appreciated their current work outside academia. They especially liked their contribution to society, their permanent contracts and multidisciplinary collaborations.

Our research reveals the different aspects of their current work and shows how and why the respondents have constructed several features of their work as feasible and attractive opportunities. Certain typical features of academic culture, which were previously disliked, have been reframed into an opportunity and one that fits their current situation outside academia. Other aspects such as the content of their work, the possibility to use their analytical skills or problem-solving capacities have remained, but put in a different perspective, highlighting their opportunities in a different setting.

It is emphasized that, in moving outside academia, loneliness and hyper competition have been replaced by multidisciplinary or team-based collaboration; output-based performance indicators are substituted by process or portfolio type of assessment, temporary contracts and insecure prospects by a tenured contract with ample attention for competence-based learning. In general, the respondents sacrifice their professional autonomy easily and readily for more job security, clearer perspectives and meaningful work, with a clear societal and practical contribution.

In short, the transfer from academia towards other sectors have been constructed as resulting in a better balance between the cognitive and community career (Gläser & Laudel, 2015), whereas several of the elements of academia (organizational career) have been replaced by a more constructive and favourable framing, thereby making their current work situation more attractive. The model constructed by Gläser and Laudel (2015) provides assistance in a better understanding of these developments and makes clear that especially the organizational career is most eligible for the creation of more attractive career paths and a better application of talent management policies.

When relating our findings to the current discussions concerning talent and talent management, we see an interesting development emerging. Whereas the talent focus within academia is traditionally quite narrowly defined, this conceptualization has been slowly broadened in recent years. In line with this, our findings reveal that respondents generally appreciate a broader set of competences than those typically associated with successful academics and feel better able to practice and further develop their talents and potential.

Additionally, the motivations and needs of the people who end up outside academia seem different than those inside. We found that people consider the lack of possibilities for making a societal impact and working in a team as important motivations for leaving academia. As a result, given these preferences working with people who do enjoy working in academia may be considered as even less appealing to those with a broader orientation. This emphasizes the need for a changing main focus in current practices of talent management, that is, one without the primary performance orientation that currently prevails within science, which the respondents associate with loneliness and hyper competition.

Rather, to stimulate a smooth transfer outside academia or to assist people in their further career progress within academia, more development-oriented talent management policies are required. To preserve talented staff on different levels (junior, mediocre and senior), talent management should develop a different, broader career orientation, with less focus on the ‘up-or-out’ principle, and more options for horizontal careers. Also, by providing a smoother transfer towards outside academia, exit management could lead to a more fruitful starting point for PhD holders and at the same time lay the basis for productive networks and collaborations for universities with external stakeholders.

Suggestions for Further Research

Internationally, substantial data about the careers of PhD holders are available; in the Netherlands, the CBS (2020) keeps track of the employment of PhD holders. This provides a vast potential for further data analysis and comparison, in order to obtain more detailed overviews of careers patterns and make comparisons, for example, in terms of background, gender, discipline or the nature of the PhD constellations (e.g. external, as employee, as student, etc.). More detailed information could help develop the PhD trajectory more precisely and lower the dropout and delays of PhD candidates.

Practical Implications

Finally, some general recommendations for further development of talent management in PhD trajectories at universities are:

- Graduate schools should integrate a broader social focus into PhD programmes from the earliest stages, for example, by organizing visits to companies working in relevant fields or by offering joint research projects in which PhD candidates work together with business and industry.
- In addition, when recruiting, selecting and hiring PhD candidates, awareness concerning their further professional perspectives could be addressed more explicitly.
- HR departments, both at central and decentral levels can invest more directly in their PhD candidates, for example, by helping them to develop a broader range of skills. Instead of just emphasizing on intellectual ability and academic achievements, the development of transferable social and commercial skills can be more encouraged.
- At faculty, department or graduate school level, external networking should be encouraged more actively. This holds for both the PhD candidates and their supervisors, and awareness concerning their talents and potential could be raised more explicitly. Graduate schools should stay actively in touch with alumni PhD holders who have made successful careers for themselves outside of academia. This creates a larger understanding of why and how PhD holders in your field of research continued their careers outside academia or outside the 'traditional academic hierarchy'.

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Chapter 7

Talent Development in the Context of Higher Education

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Abstract

In this chapter, we discuss talent development in the context of higher education. After discussing the advantages and disadvantages of inclusive and exclusive approaches to talent development, we present empirical data that detail how the participants of a focus group study perceive talent development in higher education. Our data show the importance of a contextualized reading of talent development as the competitive context in academia hinders an inclusive focus on talent development. This context results in a performance-centred, instead of a development-centred approach to talent management, where outperforming others in narrowly defined areas (e.g. publication record) is the main goal. We show that in such a context the development of competitive talent is rewarded, and the development of communal talent is not. The focus on performance instead of (inclusive) development becomes more pronounced when employees move through their career and is believed to have several negative consequences. Mostly women perceived that such a non-inclusive approach to talent development hinders the development and deployment of their talents and obstructs their career progression.

Keywords: Talent management; inclusive talent development; exclusive talent development; universities; gender; career stage; focus groups

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As introduced in Chapter 1, talent management is broadly defined as the systematic deployment of human resource (HR) activities to find, attract, develop, engage and retain talented employees (Avedon & Scholes, 2010). Implied in this definition is that talent development is one specific sub-component of talent management (Garavan et al., 2012; Ibeh & Debrah, 2011). According to Garavan et al. (2012), talent development concerns

the planning, selection and implementation of development strategies for the entire talent pool to ensure that the organization has both the current and future supply of talent to meet strategic objectives and that development activities are aligned with organizational talent management processes. (p. 6)

Talent development activities that organizations offer may include management skills training, job rotation, on-the-job training, challenging assignments and early leadership experiences (Dries & Pepermans, 2008), to name a few examples.

Authors who have discussed the construct agree on many important parameters of talent development (e.g. Garavan et al., 2012; Haskins & Shaffer, 2010; Pruis, 2011). First, talent development starts with strategic considerations: where is an organization headed and what does it want to achieve? Talent development should be built on a careful assessment of the organization's key business drivers (Haskins & Shaffer, 2010), strategic objectives (Garavan et al., 2012) or core business challenges (Pruis, 2011). Second, from these strategic considerations, organizations can derive which attributes (e.g. values, skills) to develop and ways (e.g. instruction-based vs experienced-based learning activities) to develop them (Haskins & Shaffer, 2010). This is in agreement with the ideas that talent development requires a careful planning, selection and implementation of development strategies (Garavan et al., 2012), as well as deliberation of the scope of development (Pruis, 2011). Third, Haskins and Shaffer (2010) stress the importance of instilling a culture of continuous learning and of monitoring and evaluating learning outcomes for talent development. Finally, Garavan et al. (2012) and Pruis (2011) would add that talent development needs to be aligned with and embedded in a broader talent management framework, creating synergies with other talent management components such as talent attraction, selection and retention.

It is not often that talent development is discussed on its own, without reference to the broader construct of talent management (Garavan et al., 2012; Hedayati Mehdiabadi & Li, 2016). However, the literature on talent management suggests that talent development may be one of the, if not the, core aspects of talent management (Hedayati Mehdiabadi & Li, 2016). A survey by CIPD (2015) revealed that developing high-potential employees and growing future senior leaders were the most commonly mentioned aims of talent management. The same survey revealed that the six most widely used talent management activities (i.e. high-potential in-house development schemes, coaching, mentoring and budding schemes, 360-degree feedback, graduate development programmes, courses at external institutions) are all directed at talent development (CIPD, 2015).

The talent development activities organizations frequently use are thus aimed at simulating both more formal learning (i.e. planned, intentional learning) and informal learning (i.e. everyday learning embedded in the daily working situation) (Kyndt et al., 2009).

Furthermore, talent development may assist with the other sub-components of talent management because offering opportunities for development is a unique selling point, which helps to attract new talented employees, as well as to retain existing ones (Garavan et al., 2012; Hedayati Mehdiabadi & Li, 2016).

In this chapter, we zoom in on talent development as a core aspect of talent management.

The goal of this chapter is to gain insight into how talent development is experienced in higher education and to explore how gender and career stage shape these experiences. In the first part, we will discuss theoretical perspectives on talent development. More specifically, we will discuss exclusive and inclusive approaches to talent development and the (dis)advantages both approaches have. In the second empirical part, we will focus on talent development in higher education. We will discuss the results of a focus group study that helped us to get a clearer understanding of how talent development in higher education is experienced by different stakeholders. We will pay specific attention to potential differences in experiences, based on gender and career stage. We conclude our chapter with a discussion of our findings in relation to the current state of the literature and the practice of talent development, particularly in higher education.

Theoretical Perspectives on Talent Development

Exclusive Talent Development

Some publications state that talent development initiatives target specific groups of people, for instance, leaders (Ibeh & Debrah, 2011), strategic or pivotal talent (Garavan et al., 2012), high-potentials (Garavan et al., 2021) or ‘employees labelled as talented and those who hold critical and linchpin positions in organizations’ (Chami-Malaeb & Garavan, 2013, p. 4047). These publications emphasize the exclusive nature of talent development as a coveted HR activity that is not available to the entire workforce. Restricting the access to talent development activities is a strategic choice of organizations, rooted in the conviction that not all employees are equally likely to benefit from talent development. Because talent development is a substantial investment (think, for instance, of the costs of an MBA), many organizations direct it at employees who are most likely to produce a high return on the training investment (Meyers & van Woerkom, 2014). Most often, those are employees who are deemed to possess high potential, have a track record of excellent performance or show early signs of leadership potential (Dries & Pepermans, 2008; Silzer & Church, 2009). Lepak and Snell (1999) advise to provide opportunities for internal development to these employees as this can increase their commitment to the organization.

Prime examples of exclusive talent development activities are high-flyer or high-potential management development programmes (Garavan et al., 2021;

Larsen et al., 1998). Such programmes entail several components, starting with a critical screening of junior employees to detect individuals with a specific potential for fast career progress and promotion. The next component encompasses a range of structured development activities, including job rotations, special assignments, training and mentoring programmes, to accelerate the development of critical skills and competences in the target group. The final component is related to a rapid hierarchical career progression, with a quick succession of promotions to higher-ranked organizational positions (Larsen et al., 1998). Often, these programmes are directed at ensuring the succession in an organization's key or management positions (Larsen et al., 1998) and focus on the development of a narrow set of skills, most notably, leadership skills (Garavan et al., 2021).

There are several advantages to exclusive talent development. First, employees who have access to the coveted exclusive talent development activities are likely to repay the organization with higher loyalty and commitment (Larsen et al., 1998). In that sense, these activities form part of a high-commitment HR configuration for employees who are highly unique and valuable (Lepak & Snell, 1999). Second, and relatedly, exclusive talent development ensures the availability of qualified and knowledgeable successors for key organizational positions (Garavan et al., 2012). In tight labour markets, this may give organizations who 'make' talent through internal programmes a critical advantage over organizations who strive to 'buy' talent from the external labour market (Cappelli, 2008). Third, exclusive talent development may help to attract high-performing or high-potential candidates to the organization (Garavan et al., 2012), thus ensuring a sufficient talent inflow. Finally, Pruis (2011) suggests that exclusive talent development directed at high performers and high potentials may be effective to boost short-term (2–5 years) business performance.

There are also certain disadvantages of exclusive talent development. First, the selective investment in very few individuals may bear the risk of misidentifying those with the highest potential. In fact, several authors point out the difficulties of assessing potential in a reliable and bias-free way (e.g. Silzer & Church, 2009; Swailes, 2013). Second, exclusive talent development typically focusses on a very narrow set of talents (e.g. leadership talent), leaving many other qualities of employees underdeveloped (Garavan et al., 2021; Yost & Chang, 2009). Third, several authors also point to the fact that organizations who adopt exclusive talent development evade their societal or ethical responsibilities (Devins & Gold, 2014; Hedayati Mehdiabadi & Li, 2016; Swailes, 2013). Devins and Gold (2014), for instance, indicate that exclusive talent development reinforces and enlarges existing inequalities between employees. They state:

For those not receiving training, a vicious circle arises where those who need the most training to develop their employability and careers receive the least training and subsequently lose their motivation to learn as the pay and career gaps with their peer groups widen. Beyond the negative psychological effects on individual motivation, it maintains a status quo based on a low-skill equilibrium, which traps the economy in a low-wage–low-skill path,

and this lack of sustainable development can be devastating for individuals, localities, employers, labor markets and entire sectors of the economy. (Devins & Gold, 2014, p. 9)

Swales et al. (2014) go as far as to say that organizations that aim to treat all people with equal respect are ‘ethically failing’ if they further develop those who already have the most. Furthermore, they suggest that exclusive talent management that is mainly driven by the rationale to increase organizational profits and performance may violate ethical standards of valuing human beings in their own right (Swales et al., 2014).

Inclusive Talent Development

In contrast to exclusive talent development, inclusive talent development implies that access to talent development activities is not, in principle, restricted. It is based on the assumption that all employees have a ‘great capacity to adapt, change, and grow’ (Dweck, 2012, p. 614) and strives to give all employees the opportunity to exploit that capacity (Meyers & van Woerkom, 2014). Inclusive approaches to talent development are closely aligned with principles of positive psychology, which is dedicated to furthering the ‘conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions’ (Gable & Haidt, 2005, p. 103). To flourish, individuals need opportunities to grow as a person, to realize their potential and to become the best possible version of themselves (Corey, 2002).

Inclusive talent development, similar to inclusive talent management, starts with an (ongoing) assessment of the talents of all employees (Swales et al., 2014). Talents, in this approach, are seen as an individual’s unique potentials to achieve excellence in a specific domain (Biswas-Diener et al., 2011). The next step would be to place individuals in positions where they have real opportunities to apply and further grow their talents (Yost & Chang, 2009). Subsequently, organizations would need to encourage employees to further develop their talents and offer suitable tools such as individual development plans, stretch assignments and mentoring to support this development (Yost & Chang, 2009). In contrast to common development approaches, inclusive talent development not only stresses the aim to increase a person’s proficiency (enhancing a talent itself) but also the frequency of talent use, as well as a prudent regulation of talent usage in calibration with situational demands (Biswas-Diener et al., 2011).

Inclusive talent development knows several advantages. First, it caters to the development of a broad variety of talents (e.g. not limited to leadership talent), which is advantageous in today’s highly dynamic business context which makes it increasingly difficult to predict talent needs (Meyers & van Woerkom, 2014; Yost & Chang, 2009). This ties in with Pruis’ (2011) prediction that inclusive talent development is particularly beneficial when long-term goals are concerned. Second, it grants equal opportunities for development to all employees, avoiding a situation where disparities between highly skilled employees and their lower-skilled counterparts grow increasingly wider (Devins & Gold, 2014). Avoiding

this is not only in the interest of individual employees but also of society at large. Moreover, it appears that inclusive talent development fits well with the Kantian ethics imperative to treat the realization of people's potential as an end in itself (Swaiiles et al., 2014). Third, granting opportunities for development and growth to all employees can make a significant contribution to the overall motivation and well-being of the workforce. For instance, talent development may lead to more mastery experiences among employees, which fosters their self-efficacy (Bandura, 1997); and it may also lead to the fulfilment of their need for competence, which fosters their intrinsic motivation (Deci & Ryan, 2008).

Not surprisingly, inclusive talent development also knows several disadvantages. The first is related to the high costs for development if developmental activities are offered to the whole workforce (Meyers & van Woerkom, 2014). Organizations with tight budgets may struggle to offer substantial and meaningful learning opportunities to everyone. If learning opportunities are not perceived as meaningful, this may have ramifications for the loyalty and commitment of the current workforce, as well as for the employer attractiveness ratings of potential future employees. Second, inclusive talent development requires a lot of tailoring, which may burden HR professionals and, by extension, line managers who assume some HR responsibilities, for instance, by discussing individual talents and related development opportunities with every subordinate.

Talent Development in Higher Education: A Focus Group Study

In this empirical part of this chapter, we describe a focus group study that we conducted in the setting of higher education. While this study was part of a broader study on talent management and career progression, we will filter out information on talent development to analyse how talent development is experienced by different groups.

Method

We use discourse analysis (Van Dijk, 2006) to understand how gender (male; female) and career stage (PhD students; assistant and associate professors; full professors) shape how participants experience current talent development opportunities in one Dutch university. The focus groups were homogenously sampled in terms of career stage and gender to allow for unique sense making of talent development programmes between different groups. This resulted in the following six focus groups: (1) men PhD students ($n = 9$), (2) women PhD students ($n = 5$), (3) men assistant and associate professors ($n = 6$), (4) women assistant and associate professors ($n = 7$), (5) men full professors ($n = 5$) and (6) women full professors ($n = 3$).

We focus on the experiences of employees at the receiving end of talent development. Although employees are an important stakeholder in talent development, who largely determine the success of any given talent development initiative or policy, they are often forgotten in talent management research. Most research has been conducted on the organizational level and centres around intended or

implemented talent management policies and practices (Daubner-Siva et al., 2018). This is problematic, as a recent study of McDonnell et al. (2021) showed a mismatch between intended and perceived talent management practices. In their study, they showed that while there was agreement between senior and HR managers on what talent is and how to identify and develop it, this understanding was not shared by employees. Given the mismatch between intended and perceived talent management and the limited insights in talent management experiences, our chapter focusses on employee experiences with talent development. We distinguish between the experiences of different groups of employees since previous research has shown that perceptions of talent management practices can depend on demographic factors (Festing et al., 2015; Finkelstein et al., 2018). Makarem et al. (2019), for example, argued that talent management has primarily benefitted men, and Finkelstein et al. (2018) claims that developing employees for the future is typically associated with younger instead of older employees. We therefore pay attention to how talent development experiences potentially differ depending on one's gender and career stage.

The participants of this study formed a representation of the makeup of the university as participants with different nationalities and from different schools were represented in each of the focus groups. Each focus group had a duration of approximately two hours, which resulted in rich transcripts with almost 80;000 words in total. The study was part of a broader study on talent management and career progression. We asked participants to share their experiences within academia and to reflect on the barriers and opportunities they encountered throughout their academic journey. For this chapter, we analysed in particular how talent development was experienced by different groups.

Results

Our discourse analysis showed that there was very little emphasis on talent development in academia, let alone, strategic talent development starting with an assessment of the university's core business drivers (Garavan et al., 2012; Haskins & Shaffer, 2010). Instead, the analysis revealed that the focus in talent management in this university mainly lies on the assessment of talents via performance assessments to segment the workforce in a less and more talented group, with the latter receiving tenure or other promotions. This practice is commonly labelled as workforce differentiation (Collings & Mellahi, 2009; Huselid & Becker, 2011). Although most respondents agreed that in theory there is ample room for (self-initiated) talent development in the job, they indicated that the context mainly requires employees to showcase, instead of develop, their superior abilities in comparison to others.

The respondents indicated that there are three general mechanisms through which they develop their talents: (1) development via self-initiated enrolment in certain courses or programmes; (2) development stemming from the guidance, feedback and advice of individual supervisors, mentors and/or coaches; and (3) development via role modelling. So, both more formal and informal learning was considered to be part of their development. Interestingly, those developmental

routes are not equally effective for or available to all the studied focus groups and do seem to differ based on gender and career stage.

First, analysing the gender dimension in talent development, women academics indicated that they lack role models which hinder their development and that the well-intended advice provided by men supervisors and mentors is not necessarily effective for women.

But I do think that having a female mentor is very useful too, because usually, when I need advice, I as a woman and not as a man need advice. Because I have noticed that all the advice from men works for them but not for me [...] For instance, if I look at men, how they teach and I try to follow their advice, students evaluate me differently than a man that is teaching. And if I follow the advice from a woman, students appreciate what I am doing. (Participant 3, women assistant/associate professors' group)

Second, analysing the career stage dimension in talent development shows that the emphasis on performance instead of development becomes more pronounced when progressing throughout the career. While PhD students indicated they were offered support to invest in their talent development and felt they could voice their developmental needs and wants, this experience was not shared by employees functioning as assistant, associate or full professor. From assistant professor level onwards, the respondents indicated that the focus in their job was increasingly placed on demonstrating excellence, leading them to refrain from voicing their developmental needs and wants and to hide areas for development to not show any signs of weakness. Mainly, the assistant and associate professors frequently used metaphors referring to the battlefield (e.g. fight, rat race, enemies) – in which surviving, fighting and winning are the main tasks – to describe their own career experiences. This further demonstrates the dominant focus on competition and performance instead of development as stated by the following respondent:

Or the other political things and fighting for space. With that I don't want to have to do anything with. Well, probably I will have to do something, at some point. (Participant 4; men assistant/associate professors' group)

Several respondents indicated that the high-pressure context in which competition is encouraged leaves little room and time for investing in one's own talent development. The emphasis is on efficiently producing papers instead of thoroughly developing one's talent. This focus not only creates negative consequences in terms of individual talent development but also in terms of the value of the scientific contributions being made as articulated by a full professor:

You are rushing from one, to the next, to the next, to the next, there is a lot of pressure. In the system now there is no room for contemplation [...] You go from conference to paper, to the next

and next and next. All very productive, all nice. But there is something that's not good. And I think in the long run the system won't be so innovative and creative as we praise ourselves to be. With all these grants and all these A+[publications]. There is a suffocation going on and I fully agree that for young people it's extremely hard. You get in the rat race from day 1 minus one. (Participant 4, men full professors' group)

The dominant focus on competition and productivity was heavily criticized by the full professors' group as they were convinced that neglecting broad talent development – which requires time and contemplation – reduced the quality of academic output. More so, they indicated that in such high-pressure competitive environment, employees tend to solely invest in talent development that directly results into performance improvements in the areas most valued by the institution and that are considered instrumental to promotion (i.e. publishing articles and attaining funding), leading to the homogenization of the talents that academic staff develop. These talents might not necessarily align with the talents academic staff intrinsically wants to develop or make use of. Many respondents, and this across the different focus groups, stated that the talents that are currently valued by the institution are rather narrow and do not represent the full range of tasks that need to be conducted in their position (e.g. impact, service-related tasks, teaching-related tasks), in line with criticism on exclusive talent development (Garavan et al., 2021; Yost & Chang, 2009). One respondent explicitly mentioned that being result-oriented and resilient are the most valued talents in this highly competitive context and that this leads to the underdevelopment and underappreciation of other much-needed talents in academia.

Yeah, but I think it's a system pressure, because if you are starting [an academic career] you know you need to publish in an A journal, something I have never heard during my thesis, then you know the pressure is on. But I think our performance should be evaluated a little bit differently. For instance, I also think that teaching is very important, but now with the system we have currently, of course you spend more time doing research because this is how your performance gets evaluated. Of course, you also get feedback from your students who evaluate you, but in the end even if you have this great teaching feedback but you do not have published, it doesn't help you much. (Participant 2, women PhD students' group)

Next to a focus on a narrow set of talents, the current institutional environment in academia encourages individuals to develop and showcase talents that are beneficial for their own individual career instead of for the collective they are functioning in. The following respondent even expressed that focussing on one's contribution to the team can backfire in terms of individual career progression. Especially women continue to focus on their team contribution and – as also

previously shown (Lund & Tienari, 2019; Makarem et al., 2019) – tend to engage in less strategic, less rewarded behaviour.

I see so many female staff coming and making this very nice and lovely mistake and thinking I am a member of a team now, I should serve the team. And if there is something to do, why don't I help. And I see all the male colleagues who pretend to be nice but just are egoistic for their own course. And at the end the same people who applaud you that you are doing the job will tell you, I am very sorry but you do not meet the criteria. And this is totally structural. And I have seen it all the time. The only thing I can do is when I see this happening, I try to warn people be careful, this is a trap. The trap is that for four years you are the nicest colleague but in year 5, I am telling you, I am very sorry but the numbers are not good enough, you know, Pete is so much better than you [...] so I see all those career paths, and what we are really nurturing is the focused, egocentric career, network of course, but my network for my purpose. I am totally focused on my publications, I just have to do other services so that I do not really become a bad guy. But that is all they do, and those people make careers. (Participant 4, men full professors' group)

As such, the current reward system in academia encourages a talent development approach that is individually centred with limited attention paid to how talented teams can be developed. According to [Benschop and Brouns \(2003\)](#), this reflects the so-called Olympus image of science in which employees strive for excellence in solitude to become the celebrated heroes on top. This dominant individualized approach provides limited room to develop talents that are connected to knowledge exchange and contribute to public accountability, social responsibility and transparency as reflected in an alternative Agora image of science. The Agora model has the potential to value and develop scientific achievements and talents more broadly, including the more collective ones women scientist demonstrate more frequently ([Benschop & Brouns, 2003](#)).

While new initiatives in which universities are promoting collective development and team science are being set up, the current non-formalized and individualized approach to talent development in academia might hinder progress towards the goal of team science. Accordingly, the senior full professors indicated that the academic context has changed drastically over the last decades favouring individual contributions and competition based on publications – a central element in the Olympus model – over incremental development and societal impact.

[...] it changed [academia] a lot from 34 years ago. I feel sorry for the people [that currently are competing in academia]. We have these tenure tracks now and so on, and we look at things like how many funds someone can get into the university and we give assignments. Things that are imposed on people that were

never imposed on me. The institutional context of science it has changed a lot [...].

I remember in the 60's 70's there was this understanding [...]. If somebody that everybody knew was brilliant, would get children [refers in this context to women], everybody also accepted that for a while, the publication rate was going down. Nobody was interested in that anyway, because if you were a very good scholar before that, and indeed in this case a friend of mine became a professor after the babies grew up and her career took off again. Anyway, the publication pressure in the humanities led to an enormous overproduction of mediocre articles because to get their jobs they have to publish and it's on the most idiotic topics [...]. (Participant 1, men full professors' group)

Multiple respondents indicated that to optimize talent development, we need to rethink the current academic context and collectively question the (neoliberal) logics and patterns that have been normalized and institutionalized in academia.

I think the question for me is more like okay if we do not agree with that [narrow focus on individual publications and grants and not on development], what do we do in our daily practice to actually reinforce all those patterns. I am not saying it is easy, and I am not saying I am doing it but I find myself constantly between those things. I am in the logic but then I say wait a minute, I make the rules myself because I could just tell people, no I am not going to sit in that committee to look at 60 grants in one hour, I am not doing that because I think that is useless. (Participant 5, men full professors' group)

Discussion

Even though there is not much literature on talent development, let alone talent development in the context of higher education, the broader literature on talent management suggests that talent development may be one of the core aspects of talent management (Hedayati Mehdiabadi & Li, 2016). Developing high-potential employees and growing future leaders are the most commonly mentioned aims of talent management and the most widely used talent management activities are all directed at talent development (CIPD, 2015). Therefore, research on talent development in the context of higher education is sorely needed. In the empirical part of this chapter, we offered a contextualized analysis of talent development in higher education and especially focussed on how different group of employees experience talent development. Research on experiences of talent development is highly needed, as talent initiatives are often not experienced the way they are intended, leading to unintended consequences (McDonnell et al., 2021).

In theory, ample opportunities for talent development, both in a more formal and informal way, were available at the studied university. In practice, respondents indicated that there was limited systematic and strategic attention paid to talent development. They perceived talent development to be rather narrow and indicated that the routes through which talents are mainly developed (e.g. role modelling, mentoring and career guidance) are not equally effective for all groups of employees (e.g. women).

We showed that understanding the current competitive context is essential to unravel how talent development is being experienced in academia. In general, neoliberal assumptions (Bal & Dóci, 2018; Makarem et al., 2019) heavily underlie the talent development practices in our studied university and were further promoted and enforced by the university by widely adopting individualized and competitive systems, leaving limited room and time for inclusive talent development and for supporting individuals in assuming responsibility for their own talent development (Barlow, 2006). To understand more closely how talent development is experienced in such a competitive context, we looked at how gender and career stage shapes one's experiences.

First, our discourse analysis shed some light on how gender shapes how participants experience current talent development practices. More specifically, we found that the lack of female role models had a negative impact on the talent development of female staff because advice provided by male supervisors is not necessarily effective for females. This is in line with studies showing that females and males are evaluated differently in academia, based on widely ingrained stereotypes and gender norms (Beddoes & Schimpf, 2018; Bleijenbergh et al., 2012). There is, for example, a gender bias in student evaluations of teaching; whereas evaluations of male teachers are mostly based on their subject knowledge, female teachers are mostly assessed on their service to students and relatability (Sigurdottir et al., 2022). Women are thus, contrary to men, expected to be more communal and less self-interested. These gender norms create a double-bind for women functioning in a competitive environment. On the one hand, displaying competitive talents might not be rewarded for women as this violates gender norms. On the other hand, displaying communal talents will also not be rewarded for women as these talents do not align with the talents the environment has come to associate with excellence and merit (Beddoes & Schimpf, 2018). These gender norms affect the talents women academics develop and display. In our study, we found that women tend to focus less on developing strategic behaviours and more on serving the team they work in. Currently, the latter talents are undervalued in the competitive environment of academia. This underlines the importance of making criteria for promotion more based on individual qualities and diversity instead of striving for uniform criteria (Van Woerkom, 2020). To get tenure at a Dutch university and make promotion academics need to excel in research, teaching, management and creating impact in society. However, these qualities do not necessarily need to be combined within one person because academics usually collaborate in teams or departments. By acknowledging and valuing different talents related to the work in academia, including the talent to help colleagues and serve the team, universities can encourage individuals to develop and showcase talents that are

not just beneficial for their own individual career but also for the collective they are functioning in as described in the Agora image of academia (Benschop & Brouns, 2003).

Second, our findings shed light on how career stages shapes how participants experience current talent development practices. Our finding that the emphasis on performance instead of development becomes more pronounced when progressing throughout the career is in line with findings from Thunnissen (2016) who found that universities differentiate between talent development approaches for junior and senior academic talents. For the academic talents at the start of their career, an inclusive and more development-oriented approach was utilized; conversely, an exclusive and more performance-oriented approach was utilized for senior academic talents (Thunnissen, 2016). The non-junior staff, and mainly assistant and associate professors, felt pressured to showcase the narrow talents that were valued by the institution and to demonstrate that they outperformed others in those areas. This could potentially dismiss the talents employees more intrinsically want to develop, which is a commonly articulated critique on exclusive talent development approaches (Garavan et al., 2021; Yost & Chang, 2009). Our finding that career development was strongly framed in terms of competition with coworkers might indicate that universities have created a climate in which academics give more priority to performance goals compared to learning goals. Whereas individuals with performance approach goals are mostly concerned with comparing their own performance with that of their peers and demonstrating high performance to others, individuals who have learning goals intent to develop their competencies, knowledge or skills and interpret challenging tasks as an opportunity for learning (Dweck, 1990). Previous studies have shown that teachers who adopt a learning goal orientation tend to seek more feedback from others (Chughtai & Buckley, 2010; Runhaar et al., 2010) and invest more in their professional development (Runhaar et al., 2010), whereas performance-goal orientations are unrelated to learning (Payne et al., 2007). By allowing for more diversity in the criteria for promotion and by creating different career paths for academics with different types of talents, talent development will become less prone to comparison and competition with peers and more based on the unique talents of individuals. This will have a positive impact on talent development, since several studies have shown that people show their steepest development curves when the theme of development is aligned to their personal strengths (Hiemstra & Van Yperen, 2015; Meyers et al., 2015).

The contextualized analysis we offered showed the limitations of the current approach to talent development and provided us with guidance on how to further optimize talent development within the context of higher education. More specifically, we can conclude that (1) there is a lack of systematic and strategic attention to talent development in academia; (2) the opportunities for talent development are dependent on the opportunities given by individual supervisors, mentors and/or coaches and are not driven by formally developed policies and programmes; (3) the opportunities for talent development are not equal for all, with women experiencing less opportunities; (4) the competitive context and the focus on excellent performance leads employees to refrain from voicing and acting

upon their developmental needs and wants; (5) more room for voicing and acting upon developmental needs and wants is given in the beginning of the career; and (6) there is a homogenization of talents developed in academia as there is limited time and reward for developing talents that do not directly contribute to individual career advancement and scientific quality as narrowly defined (i.e. number of publications) by the institution.

In this chapter, we identified the competitive and individualized environment as a context factor that shapes how talent management is conceptualized, implemented and experienced in academia. In the studied institution talent is believed to be evidenced by outperforming others, and this in narrowly defined areas one has come to associate with scientific excellence, such as publications records and funding applications (Bleijenbergh et al., 2012). According to our participants, this results in a performance-centred, instead of a development-centred, approach to talent management, where the development of competitive talent is rewarded, and the development of communal talent is not. Such a non-inclusive approach to talent development is believed to not only have negative outcomes for individual talent development – as employees feel pushed towards showcasing certain talents and neglecting others – but also undermines the quality of the scientific and societal contributions universities are able to make. It is paradoxical that in an organization that has generating and exchanging knowledge as its core mission, so little attention is given to (inclusive) talent development. We propose that opening up the criteria for promotion can stimulate the development of a wider range of talents (Van Woerkom, 2020) and can help institutions in higher education to make the much-needed transition from an Olympus towards an Agora image of science (Benschop & Brouns, 2003). Recently, efforts have been made in higher education in terms of recognizing and rewarding a broader range of talents. Future research would do well to study these initiatives more closely and map the outcomes they generate in terms of individual talent development, the career progression of certain groups (e.g. women academics) and the societal value of the generated knowledge.

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Chapter 8

The Worth of a Talent? Pay Inequality in Universities

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Abstract

Little research is devoted to how salary allocation processes interfere with gender inequality in talent development in universities. Administrative data from a university indicated a substantial salary gap between men and women academics, which partially could be explained by the unequal distribution of men and women in the academic job levels after acquiring a PhD, from lecturer to full professor, with men being overrepresented in the higher job levels, as well as in the more senior positions within each job level. We demonstrated how a lack of transparency, consistency and accountability can disqualify apparent fair, merit-based salary decisions and result in biased gender differences in job and salary levels. This chapter reflects on how salary decisions matter for the recognition of talent and should be an integral part of talent management.

Keywords: Gender pay gap; gender (in)equality in academia; pay allocation biases; transparency and accountability in decision-making policies and processes; performance criteria; case study

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Introduction

Centuries ago, according to the New Testament, Jesus told the story about a master and servants, as an allegory for God and Gods people. The master gave Talents to three servants, which at that time was a currency that represented a significant monetary value (Mattheüs 25:14–30). One talent represented the value of the abilities of a person and having multiple talents meant that a person was very resourceful, but also rich. The master instructed the servants to invest their talent wisely during his absence. One had five, one two, one servant only had one talent. The servant with just one was afraid of losing this single talent and kept it hidden until the master returned. The other two used their talents to invest and had their talents grow. As the story evolves, investing the resources to make the talents grow was highly appreciated by the master. Just keeping the talent save resulted in reprimand. Another reading of the story could be that allocating more talents makes growing them easier.

Although nowadays the word ‘talent’ has lost its immediate monetary meaning, it still represents a valuable resource that individuals and organizations use to invest in growth and performance. Organizations use pay as an expression of the value of human capital, the added value that a person brings to the organization in terms of knowledge, skills and drive (Weiss, 1995). Following the logic of the talent in the allegory of the master and servant in the Bible, talents should reflect the value of the servants’ abilities. Yet, in real life, how abilities are valued in monetary value is substantially affected by bias (Joshi et al., 2015). Moreover, higher pay reflects social status of employees (Angermüller, 2017). Social status, the subjective ascription of societal potential of individuals (Harkness, 2014), is known to be subject to stereotype bias (Fiske et al., 2016). Hence, we should be critical about unintended consequences of pay allocation decisions, as consequences may accumulate in many aspects of an individual’s career. Inequalities in the salary allocation stemming from non-performance-related criteria can hamper diverse talented employees to grasp the opportunities to build their careers (e.g. Ravlin & Thomas, 2005). Gender bias is one of them: meta analytic findings across occupations demonstrate a persistent pay gap between men and women doing the same tasks or professions that is unrelated to performance differences (Hoff, 2021; Joshi et al., 2015; Schneider et al., 2022).

Salary and Status in Academia

Pay refers to the total amount of income workers receive in return for their efforts, including salaries, bonuses and monetary reimbursements. Salary, the monthly base wage payment, often makes up a large proportion of pay. Evaluation systems applied to jobs, markets and individuals guide the distribution

of salaries across the organization, such that the salary system is competitive and economically viable, on the one hand, and fair and motivating to employees, on the other hand (Bloom, 2004). Salary systems can disperse salaries over multiple levels. An employee's ranking in a dispersed salary systems signals 'the employee's worth' (Bloom, 2008); it becomes indicative of an individual's status in the organization, wherein higher status is associated with higher ascribed performance.

In academia, salary systems with detailed job classifications are very common. Moreover, salary levels are connected to status revealing and reproducing job titles, such as 'assistant', 'associate' and 'full' professor or 'junior' and 'senior' lecturer or researcher (Angermuller, 2017). The underlying assumption is that a full professor is ranked as such, because of their 'talent', that is, excellent performance through various competencies such as analytical skills (critical top-knowledge, analytical and thinking skills), academic skills (drive to innovate and initiate) and social capital skills (networking, collaborating and communicating) (Thunnissen et al., 2021). Hence, universities present themselves as meritocratic institutions, where the result of decision-making in careers of academics is believed to be grounded in objective measures of merit, that is, talent (van den Brink & Benschop, 2012; van der Lee & Ellemers, 2018). However, research shows that having a higher ranked title (e.g. full professor) actually results in more resources for success such as more opportunities for grant acquisition, funding resources for research and conferences, visibility, etc. (Clavero & Galligan, 2021; Harzing et al., 2018; Zuckerman, 2001). Thus, salary-level allocation in academia has major consequences for the ability, motivation and opportunity (cf. Jiang et al., 2012) for individual academics to perform and develop their career. Existing gender-informed biases in the allocation of salary in academia can therefore hinder the careers of talented women.

To date, research on gendered policies and practice in salary allocation in higher education is scarce. This chapter aims to answer the question how pay allocation processes lead to salary differences between men and women in higher education, and how these differences contribute or hinder career development of talent in higher educations. We do so by presenting a case study on the salary process, policy and practice in a Dutch university using data from a project on gender salary inequality instigated by the executive board of Tilburg university (see organization report, van Engen et al., 2019). Understanding these processes supported the university in developing interventions to reduce gender salary inequality and creating more transparency and accountability in the allocation of pay.

This chapter is structured as follows: First, we summarize the literature on gender inequality in universities. We also elaborate on the fallacies of different salary allocation systems and how these unintendedly reinforce gender inequality. Subsequently, we present the findings of a case study on gender salary differences at Tilburg university. We end this chapter with recommendations for higher education institutions in tightening the gap and for promoting fair opportunities for women talent in higher education.

Gender Inequality in Academia

Since several decades as many women as men graduate from universities, but the gender representation across university ranks is still skewed in favour of men. Women are underrepresented in high status and high-paid roles in academia, with the chance of men of becoming (associate) professor being more than twice as large as women with equal performance on research, in age and in discipline (Brower & James, 2020). Gender inequality shows in more domains across academic career stages, including in the division of temporary and tenured positions, teaching and administrative load, promotions to higher ranks and in the distribution of grants (Harzing et al., 2018; Winslow & Davis, 2016). Since overt gender discrimination has become uncommon, explanations for these inequalities lie more in subtle biases and stereotypes that influence individual behaviour, evaluations and interactions, as well as institutionalized policy and practice (Winslow & Davis, 2016; Woodhams et al., 2022).

Stereotypes about gender and science are strong and persistent (Carli et al., 2016). When asked about the ideal scientist, people spontaneously mention agentic (male) characteristics. When women, who are stereotypically associated with communal characteristics, are compared to the implicit agentic standards associated with science, they risk being viewed as less competent. For example, a review on gender bias within the discipline of economics and management. Harzing et al. (2018) reported evidence for gender bias in various aspects of evaluations of research, education and management (e.g. in citations, in the representation in editorial boards, in grant income, in task allocation such as ‘academic housework’, in tenure and promotion decisions). In addition, research on course evaluations showed a negative bias against women academics in student evaluations of lecturers (Mengel et al., 2019) and in performance evaluations by supervisors (King, 2008). In blinded evaluation processes, including peer reviews and grant proposals, there are no distinctions between the quality of the academic work performed by women and men, while other studies indicate that research proposals submitted by women to national grant schemes are evaluated worse than those submitted by men (van den Besselaar & Sandström, 2016; van der Lee & Ellemers, 2015). These findings hint that in circumstances where the gender of academics is salient, bias can disadvantage decisions about women. There seems to be a double standard where women have the challenge to overcome bias to be successful in an agentic job, and risk being penalized for showing non-gender confirmative behaviour (Rudman & Glick, 2001).

Despite research evidence for stereotype-based gender bias in relation to careers, in universities, there tends to be a strong belief in meritocracy, the idea that the distribution of jobs along the academic career ladder is a mere reflection of objective performance (Nielsen, 2016a; Śliwa & Johansson, 2014). Universities are believed to be meritocratic institutions, where policies and practice for sustaining decisions about academic careers are grounded in objective measures (van den Brink & Benschop, 2012; van der Lee & Ellemers, 2018). However, meritocratic beliefs that inform pay allocation procedures can sustain rather than change gender inequality in universities, as we will explain in the next section.

Salary Systems and Inequality

Salary differences between men and women doing similar work in academia are persistent (Bailey et al., 2016; Freund et al., 2016) and mostly attributable to institutional rather than personal characteristics (Woodhams et al., 2022). Salary systems and practices in academic institutions roughly rely on three decision systems: one based on labour market competition, one based on tournament and one based on merit.

In *labour market-based salary systems*, top talents at the job market are offered a higher salary in negotiations with the underlying reason to keep them away from competitors. For example, university scouts scan for top academic talent in international prestigious conferences and make them a market-based job offer (van Engen et al., 2019). Such competition can have a dampening effect on women's salaries, especially in cases where the room for negotiation is not made explicit, as women are more reluctant to engage in job competitions where salary negotiation is ambiguous (Leibbrandt & List, 2015). Apart from the obstacles to job entry caused by competition-based systems, research shows that those hired on these premises do not outperform peers and tend to have a more short-term orientation which can even be harmful to the organization (Lokin, 2018).

In the *tournament model*, the salary system stimulates competition between employees to qualify for a few higher ranked positions that have substantially higher rewards than the levels below. The theory behind such tournament is that higher salaries in the top are justified because these motivate employees in lower echelons to outperform their peers (Gerhart & Rynes, 2003). The tournament model is advocated especially in contexts with professionals such as academics because it circumvents the need to closely monitor workers. However, tournament models have notorious side effects in that they can lead to social group dominance – at the expense of less represented groups, for example, women, which will demotivate those with less dominant status.

Although competition-based salary systems such as market- or tournament-based systems dominate in some fields of academia, most universities use merit-based salary systems. *Merit-based systems* build on meritocratic beliefs that hold that the best performers receive the highest rewards (Nielsen, 2016b). Salary is intended to be determined based on objective criteria, which are meant to eliminate subconscious prejudice in decision-making (Abraham, 2017; Adam Cobb, 2016; Castilla, 2012). Although it is generally assumed that merit-based reward leads to less inequality than labour market competition and tournament-based rewards (Adam Cobb, 2016; Castilla & Benard, 2010; Nishii et al., 2018), research shows that formalized systems in themselves do not offer protection and can even increase inequalities with the introduction of meritocratic systems (Abraham, 2017; Castilla, 2015; Nielsen, 2016a; Śliwa & Johansson, 2014).

There are several reasons why merit, as expressed in apparent objective criteria, is sensitive to gender inequality. First, in procedures where decision-makers have some discretion, bias is likely to affect their decisions (Castilla, 2015). When managers are given the opportunity to deviate from the procedures by making exceptions at their own discretion inequality is often the (unintended) result

(Dencker, 2008). One explanation is that without monitoring and transparency, formalized systems ensure that salary decisions are not called into question: not by the employees but especially not by decision-makers. Rather, strict and formal procedures for salary decisions invoke system justification beliefs: the feeling that decisions in the system are fair because the system is fair. Decision-makers are not challenged to evaluate their own assumptions, because of the assumption (Abraham, 2017; Castilla, 2015). Making exceptions also opens the door for informal negotiations, in which men are more likely to engage in than women (Brooks & Schweitzer, 2011). This illustrates how confidence in the system leads to biases remaining unnoticed.

A second problem of merit-based formalization of criteria is that many of the criteria that determine the performance of academic staff are shown to be subject to bias (see, for instance, review by Harzing et al., 2018). Rather than being meritocratic, salary allocation criteria this way reinforce existing gender stereotypes. Take, for example, a practice like counting the number of publications as an indicator of merit. Longitudinal research by King (2008), for instance, demonstrates that both the actual number of and relative contribution to publications are overestimated for men academics and underestimated for women, particularly mothers. These estimations by supervisors subsequently weigh relatively strong in career opportunities offered (King, 2008). Moreover, the selection of criteria that are not gender sensitive can (re)produce structural inequalities as well accumulate the effect of gender bias. This underlines how the many faceted sources of gender bias interfere with merit criteria evaluations and warrant inequal opportunities for the development of women in academia.

Finally, efforts to make decision-makers in academia aware of the existence of bias and its cumulative disadvantageous effects on women's careers often lead to resistance, denial and even anger (Handley et al., 2015; van den Brink & Benschop, 2012). However, when efforts to de-bias the decision-making process are successful, more women are hired and promoted (Devine et al., 2017; van den Brink & Benschop, 2012).

Within universities, the belief in meritocracy is dominant (van der Lee & Ellemers, 2018), and even those using labour market competition and tournament models incorporate many aspects of merit-based decision-making. Confident as they are about the value of meritocracy, it proves hard to convince academics about the evidence of gender bias in their institutions (Nielsen, 2016b). It is persuasive to believe that those who are successful in academia are so because they have more merit (i.e. worth, superior quality) than those who are not successful – that is, an exclusive orientation towards talent. One assumes that everyone has an equal chance to be successful regardless of their gender, race, class or other non-merit factors (Castilla & Benard, 2010), but reward allocation and performance evaluation practices that appear meritocratic often result in a skewed distribution of outcomes, regardless of the actual distribution of merit (Joshi et al., 2015). The next section presents a case study on salary differences and salary allocation processes in at Tilburg University, a Dutch medium-sized university in the Netherlands.

Case Study: Pay Inequality in a Dutch University

Tilburg university houses five schools (Economics and Management, Law, Social and Behavioural Sciences, Humanities and Theology). At the time of this research (2015–2018), the Executive Board promoted diversity and inclusion as one of the three top priorities of its formal mission. The university had a roadmap for Equality, a task force working on the execution of the roadmap and an equality committee. Part of the roadmap was developing an intervention to reduce the gender pay inequality in the university. Two studies were executed: (1) a study examining gender differences in pay allocation; and (2) examining formal and informal processes of hiring, selection and promotion to explain pay allocation and gender differences herein.

Study 1: Gender Differences in Salary Allocation

The first study mapped the size of salary differences between men and women, the extent to which the differences in salary can be explained by differences in age- and work-related variables. Next, we analysed how large the salary differences were *within* different types of jobs (e.g. assistant, associate, and full professor).

Data were obtained from the university's personnel information system (salary, position and position level, contract hours, employment status (temporary/tenured), years on the job, years of service, starting salary, data retrieved December 2015) and the research information system (scientific publications, average number of peer-reviewed journal articles, book chapters and books between 2012 and December 2015). The population for the analyses were all academic staff formally receiving a salary from the university. Not included were academics paid by third parties (e.g. the Dutch Research Council). Furthermore, PhD candidates were not included as they receive a set salary (and we indeed found no salary difference between women and men).

The salary scale and the salary step within a scale were used as an indicator of salary allocation. All analyses used the full-time gross monthly salary equivalent of these scales (part-time functions are transformed to full-time gross monthly salary). The type of job and the level within a job were based on the Dutch university job classification (UJC) system, which distinguishes between assistant professor, associate professor, full professor, lecturer and researcher. Different salary levels exist within each of these job types, for example, for the positions assistant professor, associate professor and full professor, a distinction is made between senior level (indicating high-level competencies) and starting level (indicating start-level competencies). Further, we coded for employment contract (temporary or tenured) and the part-time factor (between 0.1 and 1.0 FTE). Work experience is expressed as the number of years an employee has worked in the current position. Finally, the publication history of each person was calculated using the average number of peer-reviewed scientific books, chapters and articles per year calculated over four years (2012–2015). Note that the data represent the entire population of the organization (not a sample), hence differences in salary are actual differences.

Fig. 8.1 summarizes the gender division across the job categories. It shows that women form a small majority among PhD candidates and researchers. However, in the other jobs, men are in the majority, especially in the higher positions. Particularly striking is the difference within the seniority positions within in higher scientific positions. In the associate and full professor jobs, men dominate the senior positions (indicating high-level competencies, with higher salaries), while women mostly occupy the starting-level positions (indicating start-level competencies, with lower salaries). A similar pattern is visible in lecturer and researcher jobs: more men employed in the highest and more women in the lowest job category.

On average, men are slightly older and have slightly more years of service and tenure on the job and more often have a tenured job compared to women. There are no differences in the average number of working hours (about 32 hours per week). More than half of the men and half of the women are full-time employees. Roughly one-third of the men and women have smaller part-time jobs. Large part-time jobs are more common among women than men. On average across all positions, men have 2.3 publications per year; women have 2.1 publications. On average, women in the positions of lecturer, researcher and associate professor have more publications compared to men; in all other positions, men have on average more publications, although the differences are small. Noteworthy is that academics who are parents have slightly more publications than academics without children.

On average, women assistant, associate and full professors earn a gross full-time monthly salary of 5.328 Euro across all jobs, while men earn on average 6.509 Euro (18% difference). This is largely due to the distribution of men and women across the various jobs. When we take the position of the staff into account (assistant, associate and full professor), the salary difference is 403 Euro.

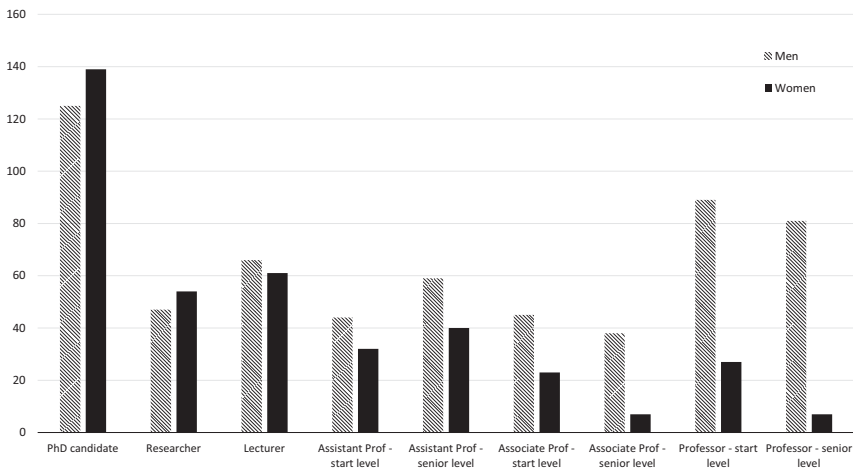


Fig. 8.1. Number of Women and Men Across Different Positions (and Job Levels).

Fig. 8.2 highlights that the gender salary differences for start and senior assistant, associate and full professor levels become more substantial in higher positions. Age appears to be an important explanatory factor for the remaining pay gap. However, if we correct for age and position, the salary difference remains 255 Euro per month. Importantly, in all age categories, men earn more than women. This pattern is similar for lecturers (gender difference of 126 Euro, 13.2% difference) yet not for researchers (98 Euro, 2.6% difference).

Other contractual arrangements also impact pay differences. Professors and researchers on a temporary appointment earn less compared to professors with a permanent appointment (corrected for gender, age, part-time factor, years of employment, average number of publications). This difference accounts for both genders but is larger for women than for men. We also see a part-time penalty, especially for professors in large part-time jobs (0.6–0.8 FTE) as compared to full-time professors. Again, this penalty is larger for women than for men. Finally, the more publications men and women employees have, the more they earn (corrected for age, years on the job, part-time factor and permanent/temporary), although this difference is not large in any of the jobs categories.

Overall, the first study shows a convincing pattern of gender inequality in salary allocation in the university, wherein women structurally earn less than men in comparable positions. Not only do men more frequently occupy the higher ranks in the organization and the senior position within those ranks, also their rewards within these ranks are higher.

In study 2, we explore reasons that explain gender inequality in salary allocations by examining how decisions on pay levels are made.

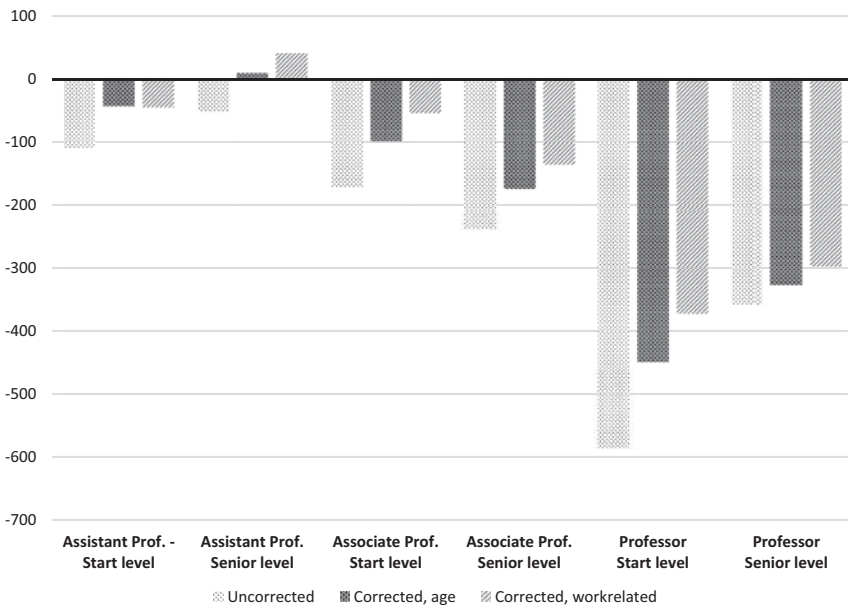


Fig. 8.2. Salary Differences Women–Man Per Job Level.

Study 2: Processes, Policies, and Practices of Hiring, Selection and Promotion

The second study sets out to examine the processes, policies and practice in the university that play a role in salary allocation and how these are related to salary inequality. We are interested in the criteria that govern salary allocations, as these criteria reflect what knowledge, behaviours and skills ('talents') are formally rewarded. Furthermore, we are interested in whether and how these criteria are formalized (policies) and used (practice) by the different stakeholders in the salary allocation process by different stakeholders. We first examined the views of various parties involved in the process of allocating the salary of new hires: the employee himself/herself, the manager involved and the human resource (HR) advisor involved. We used data from an online survey stocktaking criteria used for salary allocations in cases of new hires. Second, we interviewed deans, directors and HR advisors of the five schools in the university about the policies and practice of recruitment, selection, allocation of salary scale and level and promotion decision-making.

Salary Allocation of New Hires

For stocktaking criteria used for new hires, a questionnaire was sent to all newly hired academics in 2014 and 2015 and to the HR managers and supervisors who were involved in the salary allocation process for these new hires. Respondents were asked to indicate criteria used during the hiring process to determine salary scale and level of a new hire; first by open recall followed by a list of 35 potential criteria, based on previous research into criteria that play a role in selection, promotion and salary in academia (van Engen et al., 2019). Furthermore, respondents were asked to indicate what salary scale and level was first offered and what the final salary scale and level was that they accepted.

The cases included all newly appointed academic employees (assistant professors, associate professors and full professors) hired in two consecutive years (2014 and 2015). Of the 40 new appointments (15 women, 25 men) in 2014–2015, 17 employees completed the questionnaire (11 men, 6 women, 43%). HR advisors completed 37 questionnaires regarding new appointments (90%) and managers completed 29 questionnaires regarding new appointments (71%). For 12 cases (8 men and 4 women new hires), questionnaires were completed by all three parties involved: the employee, the manager and the HR employee.

Respondents generally found it difficult to *spontaneously* recall criteria that determined the salary allocation. 'Experience' was mentioned most often. 'Last-earned salary' was mentioned spontaneously by HR advisors, men new hires and managers of men new hires, however not by women new hires and managers of women new hires. When respondents ranked the importance of the *checklist* of 35 salary allocation criteria, new hires, HR advisors and managers indicated that 'last-earned salary' and the 'University Job Classification profile (UJC)' were the most used criteria. Managers referred more often to the UJC than HR advisors do and more often to education and research competencies than new hires and HR advisors do. Fairness towards colleagues in the group of the new hire is

mentioned relatively often by HR advisors and managers, however never by new hires themselves. Furthermore, new hires, HR advisors and managers differed in ranking the importance of certain criteria used for determining the salary. Two findings are striking when comparing the 12 complete files. First, in about half of the cases new hires, managers and HR advisors had different recollections of the salary and step which was initially offered and which salary was finally agreed upon. When the initial and final offer differed, the final offer was always higher (three men, two women). Second, employees, managers and HR advisors generally differed regarding the criteria they indicated to have played a role in determining the pay allocation for the new hire.

Summarized, although it is difficult to draw conclusions about the extent to which there are gender biases in the criteria used in salary allocation based on the small numbers and the limited responses, the *lack of awareness and transparency* of the criteria, the *lack of uniformity in the application* of the criteria and the *lack of consistency between the actors* (employee, manager and HR advisor) in assessing the importance of criteria in salary allocation is telling. Research shows that a lack of awareness and transparency of salary criteria and a lack of accountability before, during and after the determination, application and monitoring of the salary allocation criteria are the root causes for salary differentiation in new appointments and promotions (e.g. [Bailey et al., 2016](#); [Bamberger, 2021](#); Castilla, 2008, 2012, 2015).

Policies Versus Practice: Decision-maker Perspectives

Nine semi-structured interviews were held with deans, directors and responsible HR advisors. Deans (four men, one woman) and directors (two women, three men) of a school were interviewed simultaneously. Four interviews were held with the responsible HR advisors (one man, three women). In the School of Economics, the HR advisor did not play a role in the salary allocation, so only the dean and director were interviewed. The interviewees were first asked to describe the policies and practice of recruitment, selection, allocation of salary scale and level, evaluation and promotion decision-making. Subsequently, the interviewees were presented with the gender pay gap in their school at the time of the interview and asked to reflect on it. Following the analyses, the interviewees were presented the analyses of the interviews ('member check') and invited to suggest possible policies to overcome the pay gap in their school. Both the interviews and the responses following the member check were used in the analyses.

All interviewees stressed that the UJC system for allocating salary scales and levels is imperative for establishing the salary allocation. Yet, there are large differences between the schools in how decisions regarding the allocation to salary levels of employees are practised and who is ultimately responsible for the scaling process. Below we discuss the criteria that interviewees mentioned for the salary allocation process, followed by a discussion of negotiation practice and decision-making responsibilities.

When asked which criteria are of major importance for assistant – and full professors and how they are applied, interviewees mentioned the following criteria

within all schools: research capacities (publications and impact of journals), educational capacities (experience, development and educational assessments) and administrative qualities. It is striking that none of the schools has a formalized system for assessing the indicators for level of performance on criteria, nor for the way the relative importance of these criteria is weighted. In most interviews, the respondents indicate that the ‘total picture’ is taken into consideration. Research about selection procedures for panel evaluations for grants of the European Research Council panels (ERC) showed that non-systematic application of the criteria leads to discrimination against women candidates (Schiffbaenker et al., 2022). Three ‘biases’ play a role in discrimination towards women candidates: ‘double standards’ (different weighting of women and men on the same criterion), ‘halo effects’ (a good assessment on one of the criteria ‘contaminates’ the assessments of the other criteria) and ‘homosocial reproduction’ (selectors recognize quality sooner in people who resemble them). Since the selection procedures for ERC grants is much more formalized and structured than the salary allocation process examined in the case study, bias likely explains part of the salary gap in the university.

Within most schools (the school of Economics and Management is an exception), the scaling of a new candidate is essentially based on two criteria, namely a candidate’s *last-earned salary* and *years of relevant work experience*. When interviewees mentioned last-earned salary as the criterion for salary allocation, they indicated that in principle, new employees receive a higher salary in comparison to their salary at their previous employer. In most cases, this is a salary that is one salary step higher in the university salary table than the earlier salary (this could be the same job, a job level higher or a higher position). Reports by the Netherlands Institute for Human Rights show that the last-earned salary can unintentionally lead to inexplicable differences between employees. Moreover, alignment with the last-earned salary can result in the perpetuation of salary differences between men and women on the labour market (see, e.g., Equal Treatment Commission March 4, 2008, 2008-23, under 3.11).

Some interviewees indicated that in previous years, deviations from the principle of taking the last-earned salary as a start level for salary allocation were common when new hires worked in another sector of the labour market with higher salary levels. For instance, in the interview with the dean and director of the Law school, the dean explains the high gender pay gap by referring to the salary of the (men) employees that previously had a career in a legal profession (e.g. as lawyer, judge).

Dean Law School: ‘This has to do with a bargaining position, since people in the legal profession often have a high salary, which gives them a good bargaining position’.

Director Law School: ‘Yes, those [people from the legal profession] negotiate a few additional steps, but I think the policy of the School has been tightened in recent years’.

As the last-earned salary of these employees was substantially higher, new hires were allocated to a higher salary level and step than their academic experience would warrant. Interestingly, the pay gap was not replenished with alternative compensation options in the form of a temporary allowance or bonus (which is the formal policy regulation in the UJC) but compensated in the allocation to a higher salary position and level. Most interviewees indicated that these practices happened in the past but that these no longer exist.

For the criterion years of relevant work experience, different rules were applied across schools. Some schools apply a broad interpretation of work experience, whereby experience ‘in practice’ is also considered:

Dean Theology: ‘Then it may be that someone, although not having worked as an assistant professor before, will still be able to become a senior assistant professor in terms of positions in his career’.

Other Schools apply a narrower interpretation of work experience, for example, only experience as an academic at another institute is considered.

Although the schools’ interviewees strive and stress to handle the assessment and weighting of criteria carefully and consistently, interviews showed that the systematic and practical implementation of these criteria is a matter of concern. These results resonate with the study described above: the transparent, consistent and systematic application of criteria for scaling is an exception rather than the standard. The moment non-academic work experience is taken into consideration in the salary allocation, there is in fact a deviation from the formal policy from the UJC system. These so-called non-neutral standards form a high risk for bias. Earlier research into pay inequality at universities of applied sciences, for example, showed that non-neutral standards are not only more frequently used in the classification of men than women (i.e. experience is considered more relevant) but also seem to weigh more heavily in the salary-level allocation of men than of women (Netherlands Institute for Human Rights, 2011, 2012, 2016).

In the School of Economics and Management, the hiring and salary allocation process of new academic staff differs substantially from all other schools. Here department chairs annually offer jobs at conferences that function as job markets. The dean and director describe the process as follows: Three to four staff members from a department of the school, so-called search committees, head out to scout for future colleagues, as do the competing universities. These search committees receive about 100 files of potential candidates in advance:

Dean School of Economics and Management: ‘You can really compare it, I think, and Management: with a football transfer market, with bargaining going on. You can reasonably estimate where candidates stand on this market of supply and demand as an employer’.

Candidates use offers from other universities and business schools in the bargaining process (which can be factual or bluff offers). The assigned worth of a candidate is to a large extent based on the reputation of the university where the candidate received their PhD, as well as the reputation of the candidate's supervisor and network. Accordingly, a certain degree of speculation plays a role in the process of scaling that trickles down in the salary offer of both men and women.

In general, research shows that in situations for which selection is based on the market model (relative status of candidates in a 'market') and is less procedurally embedded, gender bias is lurking (Vinkenburg et al., 2014). This may start as early as selecting of the potential list of candidates. Following the job interviews at conferences, potential candidates are invited to present their work, at what time salary negotiations start simultaneously. Thus, negotiating is part of the salary allocation process at this school. Research shows that men negotiate more often than women, and women more often than men avoid salary negotiations (Liebbrandt & List, 2015). The dean is indeed aware of this:

Dean of Economics and Management: 'Women can also negotiate, however, the question is whether they do it, women do it less, I think'.

Research shows that gender differences in the initiation of negotiation are smaller when there is less situational ambiguity in the appropriateness of negotiation (Kugler et al., 2018; Liebbrandt & List, 2015), as is the case in the school. Yet, the outcomes of the negotiation process tend to favour men candidates (Mazei et al., 2015). Women who do negotiate experience negative consequences (backlash) (Amanatullah & Morris, 2010). Negotiating secondary benefits is also a point of attention here. For example, research into the allocation of research budgets to full professors when they are appointed to German universities showed that men, on average, demand higher budgets and get granted a higher percentage of what they asked for compared to women (Hofmeister & Hahman, 2009). Furthermore, business schools in the Netherlands compete for women talent, 'driving up the price of women academics', according to the dean and director, resulting in higher salary offers. Indeed, when comparing the pay gap of the different schools in the university, this school has a relatively low pay inequality. Hence, the practice of recruiting, selecting and negotiating in this school both may simultaneously reinforce and diminish the gender pay gap.

In the other schools, negotiating is not part of the formal procedure of hiring. The interviewed deans, directors and HR advisors of the other schools indicated that there is little to no room for negotiation.

Dean Humanities: 'I think that we, in our School, are currently fairly tight in that, there is little room for negotiation here'.

At the same time, interviewees of the other schools mention 'exceptions' and give examples of concrete negotiations on (future) salaries.

- Dean Social Sciences: 'People all differ in all sorts of respects'.(.) you can always deal with that a little bit in a flexible manner'.
- Director of Humanities: 'What do we do with such a case? Especially if you feel that there is a risk that someone will leave, while you would like to secure that person'.

Finally, schools differed substantially in *who* is designated to allocate the salary level and who has decision-making authority. For full professors in all schools, it is the joined responsibility of the dean and the director of the schools to decide on the final salary that is offered. There are differences between schools in whether there is formal room for negotiations. For assistant and associate professor levels, the formal role for allocation of salary levels and the decision-making responsibility differs substantially per school. In some schools, the decision-making responsibility for the allocation for salary level and promotions lies with the managing director of the school, whereas in others, it is the HR advisor, the direct supervisor (chair of the department) or both the HR advisor together with the supervisor in making decisions on salary allocation.

In summary, it is clear from the interviews with the deans, directors and HR advisors of the schools that there are major differences regarding which criteria are used and how these are applied, whether there is the room for negotiation and who is involved in the salary allocation process and who has final responsibility for decisions on salary. Although all schools indicate the use of the UJC, in practice how it is used in processes of hiring and promotion is far from uniform. One possible explanation is the large difference in career opportunities for academics in different disciplines. The labour market is far more competitive for academics in Law or Economics, resulting in more pressure to offer fast promotion tracks for these academics than for academics with a background in the Humanities and Theology. These academics simply have fewer alternatives for jobs than those in Economics and Law and to a lesser degree those in the Social Sciences. Another explanation are mimetic mechanisms (Boselie et al., 2003) within disciplines between universities in hiring and promotion practices. For instance, the 'market mechanism' that we found in the school of Economics and Management is quite typical for the discipline worldwide.

Finally, the lack of transparency of salary allocation policies and the absence of accountability in salary allocation practice makes schools vulnerable for biases in the process of salary allocation. All schools had little or no monitoring of structural inequalities and actual salary differences between women and men. Such an oversight is necessary for diminishing structural inequalities.

Discussion

The purpose of salary systems is to distribute salaries in some systematic way that excellent performance is rewarded, being it compared to market, based on a performance tournament or using merit criteria. In this chapter, we discussed how

agentic (masculine) stereotypes of excellence in academia interfere with salary allocation processes and outcomes of academics, causing biased gender differences in job and salary levels. No matter their salary system, academic institutions place a strong belief in merit and objective measures in their salary systems. However, we demonstrated by using data from a university how a lack of transparency, consistency and accountability can disqualify apparent fair, merit-based salary decisions and result in a substantial gender salary gap and an overrepresentation of men in higher job levels. The findings hold implications for the conceptualization of talent in higher education, for the implementation of talent management and for the equal opportunities and representation of women.

First, although talent refers to excellent performance through a palette of analytic, academic and social competencies (Thunissen et al., 2021), and stakeholders in the case university also mentioned weighing research, education and administrative performance in salary decisions, in practice allocation procedures proved susceptible to bias. Implicitly, the stereotype of excellence in academia emphasizes agentic qualities, in accordance with ‘think talent-think male’ research (Festing et al., 2015). While gender bias in talent management has been exposed previously (e.g. Daubner-Siva et al., 2017; Festing et al., 2015), there is a lack of research connecting the social context of salary allocations with career decisions and career opportunities, indicative of a blind spot in talent management as well as salary dispersion research.

Second, the findings about salary- and job-level decisions in the university resonate with research on the often informal and implicit practice of talent management. Likewise, a lack of consistency between actors in talent management is also apparent in salary decisions. Both in talent management and salary allocation and policies, decisions are often unknown or even kept secret from employees. Reasons for not being transparent about talent status include a fear of arrogant behaviours by those selected in a talent pool, and the risk of towering expectations and likely breaches (Khoreva et al., 2019). Salary secrecy may relate to social taboos or a fear for conflict over salaries with employees. In both cases, secrecy disguises unclear procedures to justify outcome inequalities. Although research indicates some benefits in salary secrecy for employee performance (Bamberger, 2021), it is also known to reinforce gender wage inequalities (Castilla, 2015). Another parallel between salary allocation and talent management concerns fairness issues because both result in a differential allocation of resources to employees. By ensuring procedural, informational and interpersonal justice in the procedures and communication with employees, organizations could reduce perceptions of unfairness (Gelens et al., 2013).

Third, the gender salary gap and a skewed gender distribution across academic ranks is indicative of unequal career opportunities of men and women academics after acquiring their PhD. Because the assumption of merit is dominant in academia, a professor title and the adhering salary levels are seen as a token (‘the talent’) of the human capital of individual academics. With women lagging in the higher and senior job levels, their token human capital to secure a network, grant or other resources is also perceived of lower worth than that of men. In a study on peer assessment of talent status, Nijs et al. (2022) demonstrate the importance of

Table 8.1. Policy Interventions to Prevent Salary Inequality.

<i>Transparency and consistency</i>		
Process transparency	Use of formal process flowchart for new hires	<ul style="list-style-type: none"> • Develop salary allocation process flow system • Designate responsibility for sustaining system at university and school levels • Clarity in timeline of salary allocation steps • Clarity in negotiation bandwidth
	Formal process flowchart for promotions	<ul style="list-style-type: none"> • Develop promotion steps process flow system • Designate responsibility for sustaining promotion system at university and school levels • Continuous communication to inform all stakeholders about steps in promotion and subsequent salary allocation • Clarity in timeline of different steps for promotion
Process consistency	Clear and measurable criteria for salary-scale allocation	<ul style="list-style-type: none"> • Formulation of SMART criteria • Formulate clear specification for evaluation of each criterion • Analyse criteria for possible gender bias
	Criteria for allocation are used in a consistent way	<ul style="list-style-type: none"> • Fixed weight per criteria per job position, established in advance of selection • Fixed order in which criteria are weighted • Evaluate each candidate on a criterion, before moving to the next criterion
	Awareness to sustaining changes in salary allocation processes and criteria	<ul style="list-style-type: none"> • Communicate salary process flow system to all stakeholders and make publicly available • Create public documentation of criteria and specifications and make available for organizational members • Organize training system for all decision-makers

(Continued)

Table 8.1. (Continued)

<i>Transparency and consistency</i>		
Result transparency	Clarity in salary allocation	<ul style="list-style-type: none"> • Bi-annual direct supervisors annually communicate the salary allocation (position and level) of team members • Map work experience to allocated salary level within job positions in organizational units
	(Bi-)annual scan of salary inequality	<ul style="list-style-type: none"> • Report (changes in) pay gap and actions taken to reduce pay gap • Establish an independent complaint procedure for addressing inequalities in salary allocation
<i>Accountability</i>		
Process accountability	Gender awareness in promotion decision-making	<ul style="list-style-type: none"> • Clarity and motivation for choice in promotion committee members, gender awareness being one of the selection criteria for committee members • Allocation of (trained) member of promotion committee specifically for safeguarding gender sensitivity • Equal representation of women and men in decision-making bodies related to hiring, selection, promotion and pay allocation
Result accountability	Auditing and monitoring	<ul style="list-style-type: none"> • Audit (every 2–3 years) of gender pay gap in management reports of schools and the university • Monitor use of salary and remuneration system • Make use of external bodies (e.g. Human Rights Committee) to audit salary allocation process and pay gap • Communicate pay gap and progress publicly

signalling cues for talent recognition. Future research could examine the signalling effects of salary allocation for the organization of status in universities, which is visible through academic positions from PhD to professor ([Angermuller, 2017](#)).

As public institutions, universities have a moral and societal task in reducing gender inequalities in talent management. The findings support several

interventions to prevent salary inequalities mentioned in the literature, including improving the transparency of the criteria and salary allocation policies, increasing the uniformity in the application of the criteria and policies and ensuring accountability to advance consistency in use (Bamberger, 2021). The literature further stresses the importance of representation of minority groups in policymaking and decision-making (Adam Cobb, 2016) and ensuring adherence to legal regulations (O'Reilly et al., 2015). Table 8.1 provides an overview of practical policy interventions based on the findings in the case study and literature that together should prevent salary inequality in an evidence-based and sustainable way. The table displays interventions for improving transparency, consistency and accountability in universities. As can be seen from the findings of the case study, salary inequality is a multilayered phenomenon, hence interventions for prevention should be targeted at individual behaviour of employees, department management and school and university policy and practice and should focus both on improving process and result. Tilburg University adjusted their policies based on most of the suggestions in the table. Apart from focussing on transparency, consistency and accountability of procedures, effort was taken to repair differences in salary on a case-by-case basis, using work experience as the key indicator. Fig. 8.3 illustrates how responsibilities concerning salary equality are embedded in the hierarchical structures of the university (van Engen et al., 2019).

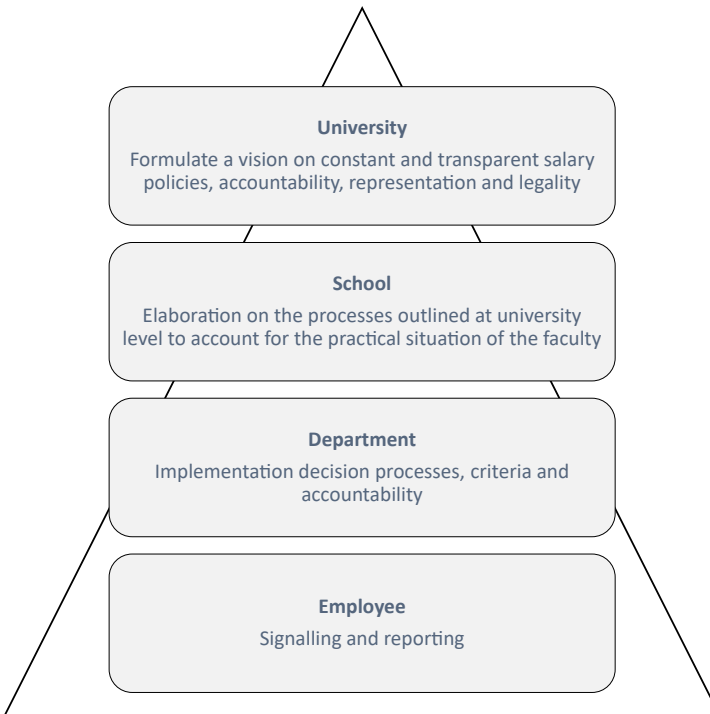


Fig. 8.3. Hierarchy of Responsibilities to Prevent Salary Inequality in Universities.

In this chapter, we built a bridge between salary inequalities and talent management. We plead that future research and practice include salary allocation as an integral part of talent management. This integration aligns with current trends in reward and recognition in universities, which aims to diversify the talent profile of academics beyond grants, publications and student evaluations. As demonstrated, ignoring salary allocation policy and practice creates unintended inequalities that will hamper the opportunities of diverse employees to use their talents.

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Chapter 9

Collaborative Innovation in Academia: In Search for Coalitions and Strategic Alliances for HRM Transformation

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Abstract

Worldwide academia is going through a major transformation because of Open Science and Recognition and Rewards movements that are linked to big societal challenges such as climate change, digitalization, growing inequality, migration, political instability, democracies under threat and combinations of these challenges. The transformations affect the human resource management (HRM) and talent management of universities. The main focus of this chapter is on collaborative innovation and the way universities participate in coalitions and strategic alliances on national and international levels. These platforms not only discuss the transformations and support the academic changes but also act as talent pools and talent exchange. This chapter provides an overview of the current state of affairs with respect to Open Science and Recognition and Rewards in academia. Next, a theoretical foundation is presented on the concepts of collaborative innovation, coopetition and HRM innovation in general. The leaders or leading organizations in the HRM innovation models often can't make it happen on their own, in particular in highly institutionalized contexts such as academia. The legitimacy of transformations requires coalitions of the willing and therefore strategic alliances on different levels. The coalitions in academia can also contribute to academic talent management through

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sectoral transformations (see Recognition and Rewards) and through the way these coalitions operate.

Keywords: Collaborative innovation; cooptation; talent management; recognition and rewards; Open Science; academia

Introduction

The goal of this chapter is to deframe and unwrap the nature of collaborations, alliances and cooperation in higher education, in particular linked to human resource management (HRM) transformations such as the worldwide Recognition and Rewards movement in academia. Collaborative innovation is a concept used for describing and studying organizational cooperation in often complex, dynamic and highly competitive environments. Knowledge exchange, employee rotation and joint investments in employee development can be part of this phenomenon that has also entered academia. In addition, it is relevant to take into account the motives for cooperation that are built on gaining social legitimacy, in particular, in public sector and semi-public sector environments such as health care and education.

The Declaration on Research Assessment (DORA), for example, was developed in 2012 during the Annual Meeting of the American Society for Cell Biology in San Francisco. In 10 years' time, DORA has become the symbol for academic changes and has grown towards a global network of all scholarly disciplines and all key stakeholders including funders, publishers, professional societies, institutions and researchers. The objective of the DORA is to improve the ways in which researchers and the outputs of scholarly research are evaluated, therefore directly affecting HRM policies and practices for talent development. 24,449 individuals and organizations in 165 countries have signed DORA to date (January 2024). It is an example of collaborative innovation of individuals and institutions in academia with the aim:

- To change the sector.
- To change organizations including universities, funders and governments.
- To change employees working in academia, in particular, with respect to the evaluation of research and research output.

This chapter is devoted to coalitions and strategic alliances that focus on HRM (Boxall & Purcell, 2016) transformations in academia. The type of coalitions and alliances that will be covered is also known as collaborative innovation and cooptation. Cooperation and collaboration aimed at higher purposes can even cover organizations working in a competitive environment such as universities that compete on talented students, talented workers and funding (Bacon et al., 2020). The concepts of talent and talent management (both part of the broader concept of HRM) are both subject and object in this chapter on collaborative innovation.

The Recognition and Rewards transformation focusses on the search for a new balance in the academic employment relationships, making it an object to study. The cooperations themselves, however, also highlight the concept of talent as subject in terms of human beings that are actors in the process of cooperation. The shaping of university cooperation is therefore intertwined with talents and talent management, in some cases even enabling talent management including knowledge and employee exchange. Although academic cooperation is often an institutional and strategic issue, the nature of cooperation is human behaviour, a people activity.

This chapter starts with a short overview of academic cooperations of the past and the present followed by setting the stage of academia in transition. Next is a theoretical overview focussed on the key concepts of collaborative innovation and competition. In addition, there is a section on leaders and laggards in innovation to explain underlying mechanisms and principles of cooperation and innovation. Typical coalitions and alliances in academia, including concrete examples, will be covered next to get a better understanding of the ambitions and the nature of these forms of university cooperation. Finally, the link between collaborative innovation and talent management in academia will be presented.

Setting the Stage: Academic Cooperation

There is a long-standing tradition of university cooperation. League of European Research Universities (LERU) is an example of an alliance of 23 universities advocating for the promotion of basic research at European research universities. LERU aims at furthering politicians', policymakers' and opinion leaders' understanding of the important role and activities of research-intensive universities. To pursue its goals effectively, LERU also maintains contacts with institutions around the world that contribute to science policymaking and research funding. Other examples of university networks and cooperations are as follows:

- The Coimbra Group, a network of strong European universities that seeks cooperation around strategic themes and for new forms of exchange and global engagement.
- International Association of Universities (IAU), a global association of diverse higher education institutions, promoting and advancing a dynamic leadership role for higher education in society by providing expert trends and analysis, publications and portals, advisory services, peer-to-peer learning, events and global advocacy.
- European University Association (EUA), a 'centre of excellence' in higher education and research.

These university networks were built for different purposes including research and education knowledge exchange, increasing bargaining power towards national governments and international governmental bodies such as the European Union (EU). Cooperation, alliances and networks in academia are therefore not completely new. However, DORA is an example of a new type of collaboration aimed

at a sectoral change and organizational innovation. If we want to deframe and unwrap the nature of new types of academic collaboration linked to HRM and talent management in higher education, we first need more background information on contemporary academia in line with the book chapter by de Haan et al. (2024) in this book.

Big societal challenges such as climate change, growing inequality, digitalization, ageing populations and worldwide political instability call for an open scientific approach in both research and teaching: Open Science. In an open approach, there is room for public engagement, education is at least partly publicly available, data and findings are open access and research is not just focussed on scientific publications in so-called high-ranked journals. This Open Science approach also requires a different recognition and rewards of academic activities, not just focussed on research, the individual employee and one-dimensional performance outcomes such as the number of publications, the h-index, the JIF, grants and prizes. Instead Open Science and the (new) Recognition and Rewards focus on multiple dimensions (education, research, impact and patient care), team spirit (the collective), academic leadership and multidimensional outcomes (VSNU et al., 2019).

Radical sectoral and organizational changes such as a transformation towards Open Science and an alternative recognition and rewards in academia are not easy, obvious and automatic. These large changes often require some kind of crisis for developing a sense of urgency in combination with leadership, vision and a coalition of the willing. Academic fraud cases (data fabrication, data manipulation and plagiarism) led to a number of incidents and academic crisis showing there was simply too much at stake for individuals to misbehave for meeting up the outcome standards for excellent performance. The Stapel data fabrication case in the Netherlands is an example of an incident that had a huge impact on Social Sciences and academia in general. The publication and research grant successes in this particular case showed the vulnerability of the academic system of recognition and rewards. In response, there was more attention for compliance and replication study relevance. This was the starting point for others to raise awareness of a necessary change as formulated in DORA (2012). DORA is an example of a statement (declaration) towards a new vision on research evaluation. Other initiatives followed in the years to come (e.g. the VSNU et al., 2019, position paper), initiatives that can be labelled under the heading of collaborative innovation. Many individuals and institutions have become aware that universities have to go back to the crossroads and take an alternative route. In summary, there was and is a burning platform (sense of urgency), and there are initiatives (new platforms and alliances) such as DORA that pick up these challenges in a joint effort to make sectoral changes happen.

Theoretical Framework Part 1: Collaborative Innovation and Coopetition

When actors of different organizations get together to create some kind of innovation of products, services, networks, people management and/or knowledge

exchange, it can be called collaborative innovation. Participating organizations can have different backgrounds, operating in completely different sectors (Bommert, 2010). Torfing (2018, p. 1) provides the following definition for collaborative innovation in the public sector context:

Collaborative innovation is a distinctive approach to public innovation that both eschews the idea that innovation results from the heroic efforts of great individuals who operate in a stimulating environment and receive support from sponsors and champions, and the idea that positive and negative incentives combined with a new focus on performance measurement will greatly stimulate innovation in the public sector.

The author argues that

Collaborative strategies facilitate the exchange of knowledge, competences and ideas between relevant and affected actors and thus stimulate processes of mutual learning that may improve the understanding of the problem or challenge at hand and extend the range of creative ideas about how to solve it. (Torfing, 2018, p. 1)

In other words, there is an intention (strategy) aimed at some kind of ultimate goal (improvement) that is related to understand a problem or challenge and solve it. The individuals (heroic efforts of great individuals) act on behalf of their organizations and therefore implicitly represent human capital (talents) and enablers of social capital through network, relationship and collaboration building.

There are multiple examples of public–private collaborative innovation. The Brainport region of the city of Eindhoven in the Netherlands including Philips, ASML, Eindhoven University, Fontys University of Applied Sciences, multiple small and medium enterprises and the local government of Eindhoven closely work together and have created an innovative and attractive working and living environment in a region that used to have high unemployment rates in the 1970s and 1980s. There is often a major challenge (sense of urgency) that cannot easily be solved by an individual or a single organization. The challenges are the starting point for getting other organizations on board who are also confronted with the major challenge. Each organization can contribute an essential piece of the (new) puzzle, and the whole is more than the sum of its parts.

A specific form of collaborative innovation is so-called co-competition in which competitors get together in a cooperation, often because the major challenges all single organizations are facing can't be solved by an individual organization (Bacon et al., 2020). In some cases, the research and developments costs for technological innovation are simply too high. An example are the laboratories (e.g. connected to Leuven University in Belgium) that develop small chips and organic chips for computers and electronic equipment. In other cases, there is a need for social legitimacy for an innovation that can only be obtained with a full support of the majority of organizations in a sector. Co-competition can also be

the basis for sharing knowledge and experiences to jointly compete with other countries. [Van den Broek et al. \(2018\)](#) study a specific form of HRM coopetition in hospitals. In this empirical study, the focus is on a talent pool of nurses who are working in four different hospitals that operate in the same region in the south of the Netherlands. This is a coopetition example of organizational cooperation of hospitals that compete on both clients and employees (including nurses), because their common challenges (to attract and retain highly qualified and motivated workers) cannot be solved by each individual organization. Apparently, their common major organizational and HRM challenge of attracting and retaining nursing staff was too difficult to solve by each single hospital. They decided to start working together on the theme and came up with a joint talent pool. From a micro economic perspective, this is fascinating, because competitors for certain resources (the nurses that represent the human resources of these organizations) get together and start cooperating on managing these (scarce, valuable, difficult to imitate and difficult to replace) resources ([Shaw, 2021](#)). One of the big incentives for all four participating hospitals was the observation that more and more nurses intended to leave the health-care sector for work in other 'better' organizations. That tendency of leaving the sector was problematic for all hospitals leading to an increased competition on the nurses that stayed. A similar development can be observed in academia where employees suffer from work pressure, and the competition between workers has moved towards unhealthy proportions and high risks for academic fraud, for example, for getting stuff published.

Coopetition is a more intense form of collaborative innovation because in the case of coopetition, the cooperation involves direct competitors on resources (e.g. financial and human resources) that could be a source for competitive advantage. The strategic choice for organizational involvement in coopetition is theoretically based on notions that the direct competition on resources (see also Chapter 5 of this book) is of lesser importance than the higher purposes of cooperation to achieve a stronger organizational position and sustained competitive advantage. Part of the achieved organizational advantage may lie in the social legitimacy that is gained through a collective approach. According to the strategic balance theory, organizations seek sustained competitive advantage through structural above-average organizational performance in combination with social legitimacy that is in line with the population's social legitimacy ([Deephouse, 1999](#)). Collaborative innovation and coopetition echoes the general idea of 'together we are strong' and therefore less vulnerable.

Forms of collaborative innovation and coopetition have emerged in academia over the last 10 years ([Hartley et al., 2013](#)). The type of cooperation in academia can have many different forms, ranging from alliances to networks: nationally and internationally; research, education or policy focussed; temporarily linked to, for example, a research project or structurally (e.g. the LERU network). Both collaborative innovation and coopetition, as will be discussed later in this chapter, have played an important role in building coalitions and strategic alliances aimed at Open Science and the Recognition and Rewards transformation. There are signs of temporarily and permanent employee exchanges through the Recognition and Rewards alliances that have emerged the last couple of years.

Theoretical Framework Part 2: Leaders, Laggards and Legitimacy

Paauwe and Boselie (2005) presented a conceptual framework for HRM innovation combining institutional theory and innovation approaches. From an institutional perspective, organizations become more similar (so-called isomorphism) because of micro economic mechanisms (imitation on the basis of best practices and successful products/services) and institutional mechanisms. Institutional mechanisms consist of coercive mechanisms (legislation, societal norms and values, procedures, etc.), normative mechanisms (professional norms and values, professional associations, etc.) and mimetic mechanisms (imitation on the basis of uncertainty and social legitimacy) (DiMaggio & Powell, 1983).

Innovation approaches, in particular, Rogers (1995) and Mirvis (1997), provide insights into the diffusion and adoption of innovations in organizations. Rogers (1995) makes a distinction between innovators (venturesome), early adopters (respect), early majority (deliberate), late majority (sceptical) and laggards (traditional). Mirvis (1997) distinguishes leaders, fast followers, slow followers and laggards. Paauwe and Boselie (2005) argue the following:

- Innovators (leaders) are often high-risk taking, show pro-active behaviour, want to stay ahead of competition, are subject to possible high returns, but can also suffer possible loss.
- Early adopters and early majority (fast followers) are balanced risk takers, want to achieve competitive advantage and move forward and are subject to satisfying returns.
- Late majority and laggards (slow followers and laggards) try to avoid competitive disadvantage and go with the flow, avoid risk taking and are driven by social pressure (social legitimacy, reputation and fairness).

For an innovation to be successful and broadly applied in, for example, a sector or population, a certain critical mass of organizations that apply the innovation is required. This is where innovators, early adopters and part of the early majority play a crucial role. It is difficult to predict the tipping point (number of organizations required for a critical mass) in any innovation, but it is likely that between 15% and 40% application of an innovation within a sector or population will lead to a broad application of the innovation in all the other organizations. From an institutional perspective (DiMaggio & Powell, 1983) and a legitimacy perspective (Suchman, 1995) 'the others' have to adopt to avoid organizational legitimacy issues and risks of negative effects on the corporate reputation.

If there are enough higher education institutes getting involved in the Open Science and Recognition and Rewards transformation (read innovation), all other organizations will have to follow. And this is where coalitions and strategic alliances can play an important role, not just for reaching a critical mass of organizations involved but to apply institutional mechanisms (coercive, normative and mimetic) to get all the other organizations on board.

The declarations made by DORA, Coalition for Advancing Research Assessment (COARA) and the VSNU et al. (2019) can be considered normative

mechanisms that stem from professional associations, coalitions of the willing and strategic alliances. Some of the core values and new principles are already adopted by national governments, the European Union and research funders in line with the coercive mechanisms presented by [DiMaggio and Powell \(1983\)](#). There are first indications of the emergence of mimetic mechanisms (individuals and universities that under scribe the Open Science and Recognition and Rewards transformation) triggered by the fact that so many other individuals and institutes are doing it. The scepticism remains, but in a rather different form, for example, stating ‘I am supporting Open Science and the Recognition and Rewards transformation, but ...’. When the most critical opponents are making these kinds of statements, it could be an indication that the tipping point has been reached, and there is a critical mass for further innovation and transformation. That in itself, however, is absolutely no guarantee for effective implementation and internalization of the Open Science and Recognition and Rewards transformation. It is just another step forward. Here, we can find a link to the concept of legitimacy.

Organizational legitimacy can be defined as ‘a generalized perception or assumption that actions of an entity are desirable, proper, or appropriate within a socially constructed system of norms, values, beliefs, and definitions’ ([Suchman, 1995](#), p. 574). The Open Science movement and the Recognition and Rewards transformation represent sector-wide, national and international dynamics that put pressures on organizations – universities and other organizations in the higher education population such as research funders, the national governments and the European Union – to meet or adopt legitimacy expectations set at sectoral and societal levels. Gaining legitimacy is relevant for a successful transformation. Collaborative innovation and cooptation through coalitions and strategic alliances can be highly effective and necessary in a highly institutionalized higher education context.

[Suchman \(1995\)](#) makes a distinction between different types of legitimacy. Pragmatic legitimacy mainly rests on self-interested calculations of an organization’s most immediate audiences. Universities applying this type of pragmatic legitimacy are probably not the leaders and innovators in Open Science and the Recognition and Rewards transformation, but their involvement can be important for creating a critical mass necessary for a broad transition of the whole sector. Moral legitimacy builds on the question of whether a given activity is the right thing to do and not on judgements about whether a given activity benefits the evaluator. Moral considerations play an important role in the Open Science and Recognition and Rewards transformation, for example, directly related to transparency, open access, public engagement and the search for the right balance between research and teaching. Cognitive legitimacy is based on the acceptance of the organization as necessary or inevitable based on some taken-for-granted cultural account. It does not involve evaluation on moral grounds. Cognitive legitimacy can be broadly defined as how well organizations execute their activities from their stakeholder’s point of view ([Suchman, 1995](#)). A lot of the early Open Science and Recognition and Rewards debates are strongly related to the search for moral legitimacy (‘why?’). The cognitive legitimacy is much more functionalistic, for example, focussed on ‘see what happens if we do not transform, employees will walk away’.

A mixture of pragmatic, moral and cognitive legitimacy will emerge in Open Science and Recognition and Rewards transformations. Organizational legitimacy, however, is necessary for successful and effective changes of a sector and organization. Without legitimacy no sustained transformation. This is where coalitions and strategic alliances can play a significant role on moral issues (the right thing to do), good practices and best principles that link to cognitive legitimacy and also pragmatic issues to get sceptic people and organizations on board just because they are aware that not participating in any coalition or alliance can be even more harmful for the reputation of the individual and institute. If you can't beat them, join them.

Coalitions and Strategic Alliances in Academia

From a broad perspective, there are multiple forms of academic cooperation at different levels. On an individual and team level, there are research project cooperations across institutes and universities, for example, funded by national and international funding agencies such as the European Union. On a national level, there is university cooperation on, for example, collective bargaining agreements that cover employment working conditions. Another example of cooperation across university borders relates to professional associations that are linked to different academic disciplines, each having their own conferences, journals and professional development. Finally, both research and education accreditation often lead to joint efforts of different universities and therefore some kind of institutional cooperation. These forms of university cooperation, both temporarily and structurally, lead to knowledge and worker exchange in combination with an increasing chance of employee mobility through the connections that are being made.

For a better understanding of the motives of cooperation, we can look at existing and emerging coalitions and alliances, in particular one linked to the [VSNU et al. \(2019\)](#) position paper in the Netherlands and one with an international-focussed called COARA. In 2019, five Dutch institutes – VSNU (employers' association Dutch universities), NWO (research funder), ZonMW (health care and medical research funder), NFU (employers' association Dutch academic hospitals) and KNAW (Royal Dutch Academy – presented a position paper with the title 'Room for Everyone's Talent' ([VSNU et al., 2019](#))). The cooperation between these five institutes can be considered a coalition and strategic alliance between five key players in Dutch academia.

In the [VSNU et al. \(2019\)](#) position paper, it is stated that the necessary transformation calls for a system of recognition and rewards of academics and research that:

- Enables the diversification and vitalization of career paths, thereby promoting excellence in each of the key areas.
- Acknowledges the independence and individual qualities and ambitions of academics as well as recognizing team performances.
- Emphasizes quality of work over quantitative results (such as number of publications)
- Encourages all aspects of Open Science.
- Encourages high-quality academic leadership.

The position paper marks the start of a transition on a national and university level. The Dutch transition is now led by the UNL (formerly known as VSNU) and its Recognition and Rewards project team that organizes events such as dialogue sessions, an annual Recognition and Rewards festival, and supports the national platform Recognition and Rewards. The national platform Recognition and Rewards has representatives of all the Dutch universities, both local Recognition and Rewards chairs and local HRM professionals, who meet on a regular basis to exchange experiences, ideas and knowledge. Every Dutch university has committed itself to the core values and principles of the Recognition and Rewards position paper (2019). The national platform Recognition and Rewards itself is another example of collaborative innovation and cooptation. The visions of each Dutch university on Recognition and Rewards are shared, and good practices are exchanged. This national alliance also creates social legitimacy towards the academic communities given the involvement of the five major institutes and all the Dutch universities.

The burning platform for the 2019 position paper was the perceived urgency for a sectoral change that was picked up by some academic leaders such as Rianne Letschert, who is now the President of Maastricht University. ‘Leading by example’ is an important principle for agenda setting and gaining legitimacy for change. Letschert is not just one of the recognition and rewards initiators but also a leading administrator of a university who is implementing the change in her own Maastricht University. Dialogues and discussions of national institute leaders (VSNU, KNAW, NWO, NFI and ZonMW) were the basis for a position paper that was presented on a national conference where all the Dutch universities and institutes were invited. For some, joining the movement was perhaps based on cognitive social legitimacy (a strong belief in doing the right thing); for others, joining the movement might have been on the basis of pragmatic social legitimacy (join because others are involved as well). The fact that the initial movement was supported by all the relevant Dutch institutes and all the Dutch universities was a strong signal towards the Dutch academic community and the basis for a national coalition and Recognition and Rewards network that can be labelled collaborative innovation.

The COARA is an international coalition that drafted an agreement on reforming research assessment in January 2022. More than 350 organizations from over 40 countries were involved. Organizations involved included public and private research funders, universities, research centres, institutes and infrastructures, associations and alliances thereof, national and regional authorities, accreditation and evaluation agencies, learned societies and associations of researchers and other relevant organizations, representing a broad diversity of views and perspectives. COARA builds on 10 commitments:

- Recognize the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.
- Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.

- Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of journal impact factor (JIF) and *h*-index.
- Avoid the use of rankings of research organizations in research assessment.
- Commit resources to reforming research assessment as is needed to achieve the organizational changes committed to.
- Review and develop research assessment criteria, tools and processes.
- Raise awareness of research assessment reform and provide transparent communication, guidance and training on assessment criteria and processes as well as their use.
- Exchange practices and experiences to enable mutual learning within and beyond the coalition.
- Communicate progress made on adherence to the principles and implementation of the commitments.
- Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research and make data openly available for evidence gathering and research.

Although COARA is mainly aimed at research assessment in academia, it is a good example of a coalition and strategic alliance according to collaborative innovation principles for a transformation towards Open Science and an alternative Recognition and Rewards in academia. The ‘C’ in COARA literally refers to the concept of coalition, more specifically the coalition of the willing. The implicitly signals that those who do not sign are unwilling or unable to make the necessary changes. This is a key element in social legitimacy for major changes and with a critical mass of innovators a potentially source for a change of a whole sector or society. Resistance to the coalition of the willing or non-participation in coalitions of the willing could have a negative impact on the social legitimacy of a university and damage the corporate image. In contrast, active participation in a coalition of the willing could be a form of employer branding, a key for attracting and retaining qualified and motivated personnel.

Membership of an alliance such as COARA or the signing of a declaration of, for example, the DORA manifest does not automatically imply that the organization is actually embracing and implementing the underlying Recognition and Rewards principles. Membership and signing a declaration are, however, important symbolic and institutional actions that have meaning for creating sectoral and organizational change. It is something that can be used in debates and to hold leaders accountable for in the organizational change process.

Interface Between Coalitions and Strategic Alliances in Academia

Alliances and coalitions operate on different levels, and within universities, there are also multiple levels that affect the shaping of Open Science and Recognition and Rewards. But there is more to it than a multilevel approach and perspective.

The different levels interact and strengthen or weaken each other. University representatives, linked to Open Science and Recognition and Rewards, are often member of multiple coalitions and strategic alliances. They incorporate not only human capital in terms of knowledge, skills and abilities (KSAs) related to the alliances themes but also social capital through their social networks and acquaintances. These university representatives can be seen as ambassadors of their university, their country and specific themes. Participation in coalitions can be a source of knowledge exchange, lobbying organizational and national interests, mutual learning and agenda setting at national and international levels.

DORA and COARA on an international level and the [VSNU et al. \(2019\)](#) position paper initiative on a Dutch national level are not operating in isolation. First, there are many more initiatives of strategic alliances and coalitions aimed at Open Science and alternative Recognition and Rewards. In some case, existing networks and alliances are used and dedicated to Open Science and the Recognition and Rewards transformation. CHARM-EU (Challenge-driven, Accessible, Research-based, Mobile, European University) is an alliance of European universities, co-funded by the Erasmus + Programme, consisting of the University of Barcelona (coordinator), Trinity College Dublin, Utrecht University, the University of Montpellier, Eötvös Loránd University Budapest, Åbo Akademi University, Julius-Maximilians-University Würzburg and the Ruhr West University of Applied Sciences. CHARM-EU works together to design and create a new university model to become a world example of good practice to increase the quality, international competitiveness and attractiveness of the European Higher Education landscape. TORCH (Transforming Open Responsible Research and Innovation through CHARM) is a project funded by the European Union under the Horizon 2020 programme which aims to develop a common Research & Innovation (R&I) agenda for the European universities initiative. TORCH aims to achieve this main goal through the consolidation of CHARM-EU's vision and mission based on transdisciplinarity and interculturality to solve complex societal challenges and by reinforcing teaching and research strategies as part of the Vision 2030 developed by the European Commission. The TORCH project is part of CHARM-EU, which in itself is a strategic alliance that also focusses on Open Science and Recognition and Rewards as an example of the many coalitions and alliances that co-exist.

Second, both individuals and institutes participate in multiple coalitions and alliances. Just to give a couple of concrete examples. Professor Rianne Letschert is President of Maastricht University, but she is also one of the founders of the [VSNU et al. \(2019\)](#) position paper on 'Room for Everyone's Talent'. Since December 2022, Letschert is also Chair of COARA, the international coalition of the willing on alternative research assessment. She is an example of a person who is heavily involved in multiple alliances and coalitions creating connectivity between the different networks and forms of collaborative innovations on Open Science and Recognition and Rewards. Utrecht University is an institute that is actively involved in multiple coalitions including DORA, COARA, CHARM-EU, TORCH and the national platform Recognition and Rewards. From Utrecht University, there are multiple chairs who are connected to each of the alliances

and coalitions. Professor Frank Miedema, for example, is Chair of Open Science at Utrecht University and actively involved in CHARM-EU and TORCH. Professor Paul Boselie and Dr Stans de Haas are the two Recognition and Rewards chairs at Utrecht University and in their role involved in the national platform Recognition and Rewards. Connections on individual and institute levels between different coalitions and strategic alliances create potential positive synergistic effects. These positive synergistic mechanisms are what Delery (1998) calls ‘powerful connections’ in strategic HRM. The idea behind a powerful connection is that the whole is more than the sum of its parts because separate elements strengthen each other.

Finally, visibility of university representatives in the networks and alliances not only strengthens an organization’s position but can also lead to free publicity for a university or country that is transforming. The exposure of the Dutch Recognition and Rewards transformation since 2019 through representatives has been beneficial to the universities involved and the Netherlands as academic environment. There is, of course, a risk involved of negative impact on universities and a country if the transformation turns out to be bad for individuals and the organization. The basic idea is that together we bake a huge pie with different alliance partners and people from different universities. When the pie is ready, there is plenty of room for everybody to get a piece of the pie (room for competition on, e.g., students, employees and resources). The unwilling or those who decide not to participate run the risk of a negative impact on social legitimacy and costs (not benefiting from the innovations made or lessons learned). See the section on leaders and laggards in the theoretical part of this chapter.

Shaping Talent Management Through Collaborative Innovation

Several of the coalitions and strategic alliances mentioned in this chapter, in particular, COARA and the Dutch national Recognition and Rewards platform, apply some kind of inclusive talent management approach (Thunnissen et al., 2013) not only in the models presented but also in the way the coalitions and strategic alliances are open for a broad category of employee groups to get involved in the transformation process. In the VSNU et al. (2019) position paper ‘Room for Everyone’s Talent’, the emphasis is not just on diversification through a variety of profiles and accents in careers and positions but also on an open invitation for early career academics and academic support staff to get involved in the change process. The annual Dutch Recognition and Rewards Festival, organized by the national platform Recognition and Rewards, offers a podium for everybody to not only participate in the different workshops but also organize the workshops. ‘Room for Everyone’s Talent’ is not alone an aim in itself but also embedded in the transformation itself, a way of making explicit: practice what you preach.

There are lots of ‘untapped resources’ within universities, people who are willing and able to get involved in coalitions and strategic alliances. This requires a different approach, because universities have a tendency to send the ‘usual suspects’ (mostly senior staff with prior experience in networks and alliances)

to represent an institute. The right mix between ‘usual suspects’ and ‘untapped resources’ could also imply unique approaches and insights from those with lots of prior experience and those who are eager to contribute to necessary transformations. According to the Harvard model in HRM, employee influence and employee involvement are considered the most powerful HRM domains for affecting employee attitudes and behaviours (Beer et al., 2015).

The coalitions and strategic alliances mentioned in this chapter (DORA, COARA, CHARM-EU and the Dutch national platform Recognition and Rewards) have not only led to knowledge exchange but also cooperation across organizational boundaries and the exchange of employees. New formed local, national and international teams linked to the coalitions and alliances create new ways of working for those involved. The technological developments in combination with the Covid-19 online experiences have made it much easier to work in national and international teams without the need for travelling all the time. These teams often consist of employees with different backgrounds and a variety of functions. The Open Science and Recognition and Rewards focus of the coalitions and alliances have also contributed to the development of specific KSAs for those involved. Specific examples are open access officers, FAIR (Findable, Accessible, Interoperable and Reusable) data and software officers, and public engagement officers. There are multiple examples of Open Science and Recognition and Rewards teams where members moved from one institute to another institute, for example:

- An open access officer from a Dutch university moved to a senior Open Science position in another university.
- An Open Science programme manager of a Dutch university took a temporarily part-time secondment at the Dutch Ministry of Higher Education on Open Science.
- An open access officer from a Dutch university transferred to the Dutch research funder NWO for a senior position in Open Science and open access.

The examples are unintended, meaning there is not a talent management strategy for employee exchange. This, however, could be the next step in some of the coalition and strategic alliances in line with the study by Van Den Broek et al. (2018) on a talent pool of four hospitals (intended talent exchange). Human capital through KSAs and social capital through networks and cooperation can be a source of innovation, transformation and competitive advantage for those involved (Wright et al., 2001). Intended employee mobility similar to the talent pool of nurses studies by Van den Broek et al. (2018) could be a next step in the coalitions and network of academia. The exchange of human resources through external mobility can be beneficial for the organizations involved (e.g. knowledge exchange) and the individual employee (e.g. strengthening sustainable employability for those involved). In that sense, ‘open science’ also implies more employee exchange between academic institutes and also academia and society.

When we look more closely to the type of cooperation linked to the open science and Recognition and Rewards transformation, more specifically with respect

to the talent factor, we may have to conclude that there is little or no cooptation on talents comparable to the study by [Van Den Broek et al. \(2018\)](#). The talent exchange is still very much linked to specific individuals and their own initiatives. In other words, the cooperation facilitate talent mobility but is not directly aimed at some kind of joint talent pool and collective talent exchange. That could, however, be the next phase in the transformation process.

Conclusion

The HRM transformations described in this chapter refer to the Open Science and the Recognition and Rewards movement in academia. Coalitions and strategic alliances can play an important role in the transformation process. The people of different organizations and institutes involved in the coalitions and alliances can be considered human resources and talents that form the basis for exchange and connectivity. This form of talent exchange is relevant for the networks, the organizations and the individuals involved in terms of both organizational learning and individual learning. The nature of the human capital and social capital exchange can be considered talents as objects ([Thunnissen et al., 2013](#)). The exchange of KSAs through coalitions and strategic alliances is part of the talent as object of talent management in higher education. Collaborative innovation or cooptation in academia can have different shapes that can be studied in future research, for example:

- The intended exchange of human resource (talent mobility) for knowledge exchange and employee sustainable employability purposes; employee mobility.
- Joint training and development programmes on, for example, Recognition and Rewards transformation or on leadership development; employee development.
- The formation of joint tasks forces for organizational learning and development as a form of temporarily project management; teamwork.
- Joint coaching and mentoring programmes in which coaches and mentors of one university are linked to an employee of another university; coaching and mentoring.

In summary, collaborative innovation and cooptation can involve employees (human resources), knowledge, skills and HRM practices such as joint training and development.

Collaborative innovation should not be underestimated in highly institutionalized contexts such as higher education and comparable public sector organizations. Future research in this area could be aimed at, for example, the effectiveness of coalitions and strategic alliances for HRM transformations. Another theme for future research could focus on co-evolution, in particular how individual organizations can affect a sector or population and the other way around. Finally, experiments could be developed for actual talent exchange between participating organizations, similar to the talent pool described in the study by [Van den Broek et al. \(2018\)](#).

In a balanced approach to HRM, the goals are not simply to increase employee mobility, joint training and development, new forms of cooperation (teamwork) or employee support through coaching and mentoring. Instead, a balanced approach in HRM focusses on optimizing organizational effectiveness, employee well-being and societal well-being (Beer et al., 2015). It is important to acknowledge that there are always strategic tensions between these three ultimate goals. High employee mobility through human resource exchange can be beneficial for the sustainable employability of the individual employees while at the same time putting pressure on the organizational continuity, for example, with respect to research and education productivity and services delivered.

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Chapter 10

Conclusion, Discussion and Recommendations

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Abstract

This final chapter of this book highlights and critically discusses some specific issues concerning talent management in the context of higher education raised in the chapters of this book. It recapitulates the transition higher education is going through. This transition started decades ago but was boosted by the movements of Open Science and Recognition and Rewards. It leads to a reorientation on the conceptualization of academic performance and subsequently also on the meaning of talent and talent management in academia. It points to a shift from an exclusive and performance orientation on talent, to an inclusive, developmental approach to talent management or a hybrid form. Yet, Thunnissen and Boselie state that there is a talent crisis in academia, and this crisis urges the need for more innovative ways of developing and implementing talent management practices. This chapter ends with some recommendations for further talent management research and practice.

Keywords: Talent; talent management; higher education; university; agency; inclusive talent management

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Introduction

The contribution of higher education institutes is to provide high-quality academic education and to conduct high-quality scientific research, both with the aim to contribute to a strong knowledge society and to contribute to the resolving of big societal issues. These tasks are built on the efforts of people, that is, staff members – both academic and support staff – involved in education, research and societal impact (Kummeling et al., 2023). Academic performance and impact therefore depend heavily on the way higher education institutes identify, appreciate, develop and use of talent. In this book, we aimed to shed a light on talent management in the context of higher education. It gave an overview of how talent is defined in higher education, the implementation of talent management practices, how this is perceived by employees and its impact on academic performance, embedded in a multilevel and multi-actor view on the organizational context. It is this context that is highly subject to change, and therefore, we believe that the time has come to transform the talent management approach in academia. In this final chapter of this book, we will highlight and discuss some specific issues concerning talent management in the context of higher education raised in the chapters of this book. We will also present some recommendations for further talent management research and practice.

Academia in Transformation

We will start by discussing the specific context of higher education. Not only because the talent management literature has been criticized for lacking contextual awareness but especially because the organizational context in higher education is undergoing major changes, and these developments may have a significant impact on the definition of talent and on talent management. The dominant exclusive approach regarding talent in academia is deeply rooted in the origin of higher education. The first universities in Europe were established in the 11th century, and many of them evolved from the medieval cathedral schools. The first universities were staffed and attended by the elite and were schools for the privileged clergy and the nobility (Schippers, 2024). Around the late 18th century, the modern university arose, and universities were organized like Berlin's Humboldt University in which freedom and autonomy in finding new knowledge and deepening the understanding of the world were key values. It was, however, important to keep the outside world at a distance in order to protect the autonomy and independence of the scientist and scientific work. Like the medieval universities, the modern universities were only open for the select few. The baby boom after the Second World War was the starting point of a transformation in academia. In Chapter 2, Joop Schippers (2024) points at three major developments during the last couple of decades, all contributing to the opening of the university for society. First, it started with growth: on the one hand, growth in the number of students studying in higher education and, related to that, the growth of academic staff and, on the other hand, the growing need for higher educated people on the labour market. This led to the transition from a small-scale elite institution to broad training (and research) institute. Second, the socialization and democratization

of higher education since the mid-1960s is an important development. It started as a reaction to all kinds of student and staff protests regarding the control over higher education and resulted in increasing agency of various internal and external stakeholders in academia. Third, in later periods, government and administrative staff of universities started intervening in higher education with interventions based on New Public Management (Bryson et al., 2014), aiming to professionalize the institutes and their way of working and organizing. Although politicians in many countries see higher education as a ‘merit good’ which benefits the individual and society at large (Schipper, 2024), the governmental departments and administrators involved in higher education also found it important to provide this common good ‘product’ in a more efficient and effective way. The input–output attention with an emphasis on performance became dominant through what is sometimes called ‘managerialism’ (in line with New Public Management principles) and was denounced by critics (Deem, 2001; Teelken, 2012) for its misfit and impact on the core business of academia, being human development in terms of knowledge creation through research and knowledge sharing through teaching. Interestingly, instead of enhancing the contribution of higher education to society, Schipper (2024) argues that the professionalization led to a new form of distance between higher education and society, creating a world of procedures and funding streams that is hard to follow for an outsider. Moreover, the increasing importance of efficiency and operational excellence stimulated competition between scientists and institutes, which became embedded in systems, policies and structures and with a quite narrow focus on, in particular, research activities.

Chapter 2 also presents the rise of a fourth change: the recent movement of Open Science. This movement is triggered by both the needs and wishes of modern scientists to contribute to the big societal issues our society is confronted with, and the public demands to open up academia, to share the state-of-the-art knowledge with society and even to collaborate with society in developing new knowledge. De Haan et al. (2024) call this movement in Chapter 4 a transformative force, a paradigm shift as it emphasizes the importance of transparency and societal engagement as a core element of the academic process. It is a call for universities and academic staff to open up for society: not only to contribute to understanding the world around us by doing excellent research, like in the historic Humboldt university model, but also to take an explicit position in that society and to be actively involved in that world and in changing and improving it. De Haan et al. (2024) state that this movement may also represent a shift from ‘productification’ (publications, citations, impact factors, research grants, prizes and rankings) to ‘humanization’ (development and involvement of employees, students and other stakeholders inside and outside higher education), opening the door to good employership and healthy work conditions for everybody working and being involved in academia including students.

Although the Open Science movement is still relatively young (mid-2010s), the changes – at least in Europe – already seem to be irreversible. This may be due to the fact that the Open Science movement is embraced by and boosted by two powerful stakeholder groups. On the one hand, the policymaking and policy implementing bodies, such as governmental departments and national and

European funding organizations; organizations that played a significant role in adopting and implementing the aforementioned New Public Management principles, now have formulated new principles for open science and recognition and rewards and are developing new policies for funding in correspondence to those new principles. On the other hand, the movement comes from science itself: groups of academics, united, for example, in COARA and DORA, urging the need to reform academia. According to [DiMaggio and Powell's \(1983\)](#) new institutional theory, these two stakeholder group actions represent coercive mechanisms (in particular new governmental rules and procedures) and professional mechanisms through networks and coalitions of professionals. The combination of coercive and normative mechanisms is most likely not only contributing to isomorphism (homogeneity) of the higher education sector on open science and recognition and rewards but potentially also activates the third institutional mechanism defined by [DiMaggio and Powell \(1983\)](#) – mimetic mechanisms – meaning imitation as a result of uncertainty and fashion. Apparently, there is a momentum for institutional change towards open science, whereby the coercive, normative and mimetic mechanisms all seem to push to unity and shared commitment to open science. Several chapters in this book show the increasing resistance against the dominant focus on competition and performance (e.g. Chapters 5 and 7). We also see that higher education institutes as employers – the innovators, as [Boselie \(2024\)](#) calls them in Chapter 9 – are joining forces themselves, for example, in the Higher Education Leadership Initiative for Open Science and take first steps in cooperating on the human capital issues in academia. Nonetheless, there are also academics who have concerns regarding the Open Science movement ([Poot & Mulder, 2021](#); [Scienceguide, 2021](#); [Singh Chawla, 2021](#)). They fear the loss of academic freedom and independence in cooperating with stakeholders, the weakening of the competitive position of their university in the long term and the potential negative effect of broadening up performance goals on the careers of young academics. As [Schippers \(2024\)](#) states in Chapter 2, all these developments create tensions between the old traditions and the new demands put on higher education by society. [Thunnissen and Buttiens \(2017\)](#) published an article on the influence of institutional logics on talent management in the public sector. They found that academic talent management was subject to two major logics: the market-managerial logic related to New Public Management and the professional or science logic grounded in the academic traditions and academic community. The strategic tensions between the market-managerial logic and the professional logic have been described by [Scott \(2013\)](#) in his classic book on institutional theory. The potential tensions between the two logics are common in many public sector organizations in which professionals are employed such as hospitals, primary schools, secondary schools and military services. The Open Science movement could hint to the rise of a third logic: a 'social institution' or 'public service logic' representing the urge of academics and higher institutes to contribute to society ([Mountford & Cai, 2023](#); [Petrescu, 2019](#); [Upton & Warshaw, 2017](#)). This potential third logic (social institution or public service logic) increases the higher education complexity in times of transformations and will have an impact on talent and talent management.

Revaluation of Academic Performance

Moreover, the three logics (market-managerial, professional and social institution or public service logic) can be related to a multidimensional performance approach that acknowledges organizational goals, employee goals and societal goals. In Chapter 1, we mentioned the Harvard model of Beer et al. (2015, 1984) with its multi-stakeholder perspective on performance, highlighting the equal importance of employee, organizational and societal well-being as outcomes of talent management. As de Haan et al. (2024) position in Chapter 3, the Open Science movement is a reaction to the narrow definition of academic performance (with its accent on research excellence) and the lack of consideration for societal well-being. De Haan et al. (2024) call up for rethinking on the question on ‘what a university is for’. The Open Science movement may – at least in the higher education institutes that embrace the Open Science movement – lead to an expansion of the perception of academic performance, in which both research excellence (referring to organizational effectiveness) and impact (referring to societal well-being) are seen as performance outcomes. This still leaves employee well-being underexposed. Nonetheless, the Open Science movement and the steps taken regarding Recognition and Rewards are perceived by, in particular, early career academics as an improvement and a chance to improve the well-being of academic staff as well as a possibility to give room to more talents than the current accent on research excellence. There is, as we will argue later, a long way to go regarding the strengthening of employee well-being. Employee attraction and retention of highly motivated and qualified workers in higher education (both academic and support staff) is one of the major strategic challenges of universities worldwide, a theme that is even further challenged by contemporary labour market shortages due to demographic developments.

In Chapter 4, Kramer and Bosman (2024) discussed the impact of the Open Science movement on the debates on academic performance and, in particular, on performance assessment. Excellence and performance in higher education, both on the level of the individual academic and on the level of research groups or universities (e.g. the ranking lists), was and still is based on being the best in research. This subjective view on talent and performance is, as multiple chapters show, implicitly present in the mindset and behaviour of academics, academic managers and policymakers but also institutionalized in systems and procedures. The assessment of academic performance was also based on research criteria, and, as Kramer and Bosman (2024) point out, the use of a limited set of proxy indicators can lead to perverse incentives and side-effects. First, previous research shows that being excellent in research, visible in publications in high-impact journals and in acquiring research funds, became the core pillar for an academic career, and determined whether or not to get a tenure or a promotion (van Arensbergen et al., 2014; Van Balen et al., 2012; van den Besselaar & Sandström, 2015). In other words, research excellence opens the gate to a career in academia. As a result, scholars who excel in other areas such as education, leadership, professional performance or impact do not feel recognized for their efforts put in those activities, experience obstacles in their career progression or even decide to pursue a career outside

academia where they are able to deliver the societal contribution they aspire (see the chapter of Teelken et al.). Second, the increased funding of research based on external funds and the scarcity of academic positions has shaped a highly competitive work environment, in which individual performance is considered more important than the performance and contribution of the collective. It is, as the succeeding chapters of this book point out, this competitive work climate that is harmful for the well-being of many, in particular early career academics. Third, the premise was that research excellence was easy to ground in objective and good to measure criteria that would enhance a fair and equal treatment during selection and promotion processes. Yet, as [Kramer and Bosman \(2024\)](#) indicate, the used indicators are often not fit for the purpose and therefore do not contribute at all to creating fairness and justice. Hence, the popular journal impact factor (JIF) and the *h*-index are not suitable for HRM and therefore talent management activities (in particular recruitment and selection, performance appraisal and promotion) in higher education.

The call for rethinking on the question on ‘what a university is for’ ([de Haan et al., 2024](#)) leads to broadening of the assessment of performance, that is, including other aspects that are relevant in achieving performance, but also to deepening the assessment, in using performance assessments as a tool for strengthening learning and development on individual, team and organizational levels ([Kramer & Bosman, 2024](#)). Moreover, Kramer and Bosman also make a plea for giving voice to the people being assessed and to involve them in the assessment. This implies that the funding agencies and the top researchers currently involved in the peer assessments will have less control – you might even question if they have adequately represented the interests of the entire academic community or just of a small group, causing, what [Jensen and Meckling \(1976\)](#) call a ‘agency conflicts’ – while the early career academics and others involved in the broad spectrum of academic work will acquire more room and agency in defining and evaluating academic performance. Hence, the Open Science movement is building on a multiple stakeholder approach that acknowledges both internal and external stakeholders. This is in contrast to the aforementioned New Public Management developments, which implicitly incorporate corporate enterprise principles that emerged in the private sector in the 1970s and 1980s, including the shareholder approach proposed by [Jensen and Meckling \(1976\)](#) in what is known as Agency Theory. As a side note: the global financial crisis that emerged in 2008 with the fall of Lehmann Brothers led to an evaluation of the dominant shareholder model built on Agency Theory principles and a renewed focus on stakeholder approaches such as the Harvard model from the 1980s (see, e.g., [Beer et al., 2015](#)). In this book, Kramer and Bosman also plea for this renewed focus in academia. Both the learning culture and the agency have implications for the implementation of talent management in academia.

Broadening the Meaning of Talent

Several chapters (e.g. Chapters 4, 7 and 8) illustrate that most of the performance measures are based on criteria that fit just a small group of employees in higher

education: the male academic, with an excellent track record on research. This brings us to the topic of the definition of talent. In Chapter 1, we already mentioned that universities have an exclusive and performance-based talent management approach, with a narrow focus on the best performers in research. This is affirmed by all chapters in the book. Also, the preference for proven talent (Thunnissen & Van Arensbergen, 2015) or ‘merit’ (Van Engen & Kroon, 2024) above potential has been mentioned before. This book affirms that talent management in academia, with its accent on talent selection (Björkman et al., 2022; Nijs et al., 2024; Thunnissen, 2016), is mainly aimed at work force differentiation – identifying the talents from the non-talents – and only the selective few (read ‘happy few’) who display excellent performance are afforded with a tenure. Staff gets getting permanent contracts later and later in their academic career, resulting in talent pools at multiple levels (PhD, postdoc, assistant and associate professor level) in which those involved experience insecurity and increased pressure to perform.

However, this book also shows a new perspective on the conceptualization of talent in higher education. Despite the fact that the university has become more diverse in student population and in staff (although migrant populations are still underrepresented; (Schippers, 2024)), the implicit definition of talent in academia is still: ‘think talent, think male’ (Festing et al., 2015; Van Engen & Kroon, 2024). This is embedded in formal performance criteria and, in particular, in the actual implementation of the procedures and practices regarding talent identification, development and promotion, as is shown in Chapters 7 and 8 (Nijs et al., 2024; Van Engen & Kroon, 2024). Although the male dominance in the conceptualization of talent has been mentioned before (Daubner-Siva et al., 2017; Festing et al., 2015), it is an underexposed topic in talent management research.

Another contribution of this book is that it illustrates that the meaning of talent in a sector of industry can be subject to change due to developments in the institutional context. The chapters in this book, some more explicit and some more implicit, show that the exclusive, performance talent management approach in academia is starting to show cracks. The external developments and movements identified in this book call for a more balanced or hybrid approach to talent management in which the exclusive and the inclusive approach co-exist. There are several arguments for embracing the inclusive approach. In the first place, the broadening academic performance beyond the scope of research excellence entails the appreciation of multiple talents relevant to achieve the multiple performance domains of a university, such as the talents essential for high-quality education, professional performance and societal impact. It is harsh to note that currently – as the chapter of Teelken et al. (2024) shows – the academics who want to make a contribution to society are the ones leaving academia because their talents are not recognized and rewarded. More importantly, the inclusive approach gives room to a shift from assessing and developing talent at an individual level to a team-based talent approach. As Kramer and Bosman (2024) point out, it is not possible for one person to excel in all the performance domains, so therefore, it is important to have all the skills and knowledge present in the team. In the recognition and rewards transformation team, science and team spirit are central. The contribution to the team atmosphere or culture and to team performance

is considered essential in contrast to the past individual output focus. In higher education, contemporary employees are active in multiple teams that cover joint teaching, research and impact activities. In addition, both foregoing points imply a shift in focus from talents coming from the academic staff, to including support staff as well as the subject of a talent management approach in academia. In higher education, there is a gap between academic and support staff that needs to be bridged given the nature of contemporary academic work that requires cooperation and team spirit of everybody involved. Finally, the inclusive approach is more human-centred and focussed on increasing employee well-being, which is a concern for particular groups of employees.

The recent developments also provide arguments for maintaining the exclusive approach, in addition to the inclusive approach. [Collings and Mellahi's \(2009\)](#) argue that the starting point of talent management is the identification of the key positions that are crucial for the competitive position and performance of the organization and subsequently supply these positions with people having the best qualities to fulfil that position. One could argue that broadening up the scope of academic performance beyond research excellence also implies that there are key positions that are crucial in achieving the collective ambitions in education, leadership, professional performance and impact, such as a full professorship on education or on professional performance. 'Filling up the talent pipeline' for these positions by proactively selecting and developing the best performers in their area can be relevant. Also, the positions that enable the transition set in motion by the Open Science and Recognition and Reward movements can be seen as key positions. Think, for example, on the Open Science coordinator in the organization or the role that is crucial in the innovative collaboration with other higher education institutes; the innovators and leaders who are able to survive in the dynamics of inter-organizational collaboration and/or who crucial in obtaining a critical mass in applying the innovation ([Boselie, 2023](#)). Finally, the 'best in class', defined in terms of full-professor position and research excellence, is not automatically a good academic leader. Leadership selection and development are essential and therefore a specific area of exclusive talent management in higher education. The Recognition and Rewards movement emphasizes the growing importance of both team spirit and leadership. Talent development of managers and leaders in academia requires personal development, organizational skills (e.g. leading a group of employees) and strategic capabilities (e.g. developing a new strategy for a group).

The Talent Crisis in Academia

The very small and exclusive interpretation of talent in academia is the breeding ground for a talent crisis in higher education. Finding proof of this is an important scientific contribution of this book, but from a human point of view, it is a major worry. The absence of a strategic talent management system is a concern. First, the focus is on a select bundle of talent management practices: the identification and selection of talent, on the one hand, and the assessment of performance of the academics in the 'talent pool', on the other hand. Although human development is a core activity of higher education, for the staff, there is

no intended talent development strategy (Nijs et al., 2024), leaving staff to rely on their own development efforts. Talent development for academic employees is mainly based on an unstructured and informal approach, in which the collegial system of academic peers plays a major role (role modelling, mentoring, peer feedback). Moreover, even in talent development, the main focus is on improving research performance. Second, multiple chapters (Kramer & Bosman, 2024; Van Beuningen, 2024; Van Engen & Kroon, 2024) show a lack of consistency and uniformity in the implementation of the talent management practices and policies (referring to the ‘actual practices’ of in the human resource management (HRM) value chain of Wright & Nishii, 2013). There are a lack of awareness and transparency, a lack of uniformity in the application and a lack of consistency between the various actors, which all leads to inequality and unequal opportunities. This is particularly detrimental for employees. However, third, it also creates a homogeneous workforce with little diversity which can be, in the long run, disadvantageous for the organization. Diversity in itself is high on the agenda in higher education, but in practice probably one of the most challenging workforce themes as highlighted by Kummeling et al. (2023). Indeed, almost no one opposes to diversity in academia, but the actual implementation is far from the ideal balanced situation. This is a big challenge for talent management in academia, not only with respect to contributing to more diversity but also to being aware that some talent management interventions might work against further diversity due to unintentional negative effects. In a recent publication by Leonelli (2023) on the Philosophy of Open Science, the author warns for the (unintended) risks of Open Science policies potentially reinforcing conservatism, discrimination, commodification and inequality. Despite the good intentions of Open Science, the efforts put into it, in particular, in the context of talent management in higher education, can work against higher purposes of public value creation. Leonelli (2023) therefore makes strong pleas for the quest for reliable and responsible open science practices including a deep understanding of local knowledge and their social context. From an HRM perspective, this links to the pleas for avoiding mimicry and copy-and-paste approaches between organizations (DiMaggio & Powell, 1983) and to invest in contextual approaches, because context matters, and to carefully handle the tension between contextual approaches and general equality principles.

Above all, alarming are the poor working conditions of early career academics. The review study by De Boeck et al. (2018) on employee reactions to talent management showed that despite the fact that many studies find evidence for positive reactions to talent management (by the talents), several studies also show that identification as talent carries significant risks, for instance, that employees who are identified feel under strong pressure to meet high-performance standards. The research presented in this book demonstrates that the high-performance work system with an emphasis on performance appraisal, promotion opportunities and performance-related pay through research success (publications, citations, impact scores and prizes as indicators for promotion) has become dominant and has overthrown employee involvement, autonomy and development in higher education. Hence, multiple chapters show that the negative effects prevail in the context of higher education, for both the talents and the non-talents. The dysfunctional effects of

an exclusive talent management approach (Anlesinya & Amponsah-Tawiah, 2020; Kwon & Jang, 2022) mentioned in Chapter 1 can also be observed in academia and lead to ethical issues. Chapter 6 (Teelken et al., 2024) and, in particular, Chapter 5 (Van Beuningen, 2024) point at the loneliness, the uncertainty, the lack of support, the pressure felt to perform extra-role behaviour in order to be able to continue to work in academia and the stress and burn-out symptoms young scholars experience due to a mismatch between demands and resources. The basic human needs to have autonomy, to be able to relate to and collaborate with others and the recognition and appreciation for one's skills and competence (Ryan & Deci, 2000) are at risk. Chapters 6 and 7 show inequality based on gender and systems that do not offer equal opportunities to all. Moreover, the study by Nijs et al. (2024) illustrates that the competitive work context prevents people from speaking out about their own development needs and acting accordingly. This indicates at the lack of a safe learning climate, while there is a great need to learn from each other and to improve quality (Chapter 4). All this leads to lower engagement, employee turnover and even, as Van Beuningen argues in Chapter 5, a mental health crisis in the early career stage. These findings at least urge the need to do more in-depth research on employee reactions to exclusive talent management approaches, including both the talents and the employees who have not been labelled as talents.

In both cases, the critical question can be asked whether good quality of employment, dignity and the enabling of dignified work are considered in the talent management approach in academia (Blustein et al., 2023; Burchell et al., 2014). The term 'decent work' is often used in the context of low-paid jobs at the bottom of the labour market, but the chapters (and the previous studies cited by the authors) hint at serious problems. The notion of 'the good employer' putting the well-being of the individual employee in terms of employment security, payment and development central, a notion that particularly fits the public sector (Boselie & Thunnissen, 2017), is not being respected in the universities under study in the book chapters. In our view, this argues for also considering employee well-being as an equal outcome in talent management policies at universities and designing talent management practices aimed at achieving that goal. This would imply including a broad spectrum of practices and activities aimed at enhancing development, engagement, job enrichment and job design, a learning culture, etc. This is an aspect of inclusion and diversity that is underdeveloped in HRM and talent management in higher education. See also the plea made by Leonelli (2023) on inclusion and diversity.

Room for Innovative Talent Management Practices

This book shows that talent management in academia is not a rational and linear process. The role of HRM in talent management is marginal, as talent management in universities is mostly the responsibility of the scientific community. In particular, middle and line managers play an important role in the implementation of talent management practices (Björkman et al., 2022; Thunnissen, 2016; Van den Brink et al., 2013), and as we may have observed in previous and current research, they are susceptible to subjective actions and behaviours in implementing talent management practices. The question arises whether this argues for

more structured and aligned talent management policies, procedures and systems, as depicted in the HRM (Wright & Nishii, 2013) or talent management value chain (Boselie & Thunnissen, 2017) presented in Chapter 1. Or do the dynamic times and the talent crisis in academia call up for more innovative approaches in developing and implementing talent management practices?

This book offers several opportunities for innovation in the talent management approach in higher education. The innovation in the conceptualization of talent has been mentioned before: the shift from the exclusive to a balanced (inclusive and exclusive) approach; from an individual- to a team-based perspective; from a performance-oriented to a development-based approach. An important contribution of this book is that ‘agency’ (Jensen & Meckling, 1976) might also be an innovative viewpoint in implementing talent management in the context of higher education. Instead of HR, management or the top scholars deciding on what talents should or should not do, the staff involved gets a say in what is important and what will be the practices and activities to achieve that. Trullen et al. (2020) have developed a cross-disciplinary view of HRM implementation that shows the dynamic and iterative nature of HRM implementation. This approach gives room to both agency and the dynamic context of higher education. Unlike in the Wright and Nishii’s (2013) linear model, Trullen et al. see HRM implementation as a dynamic process, in which practices keep evolving during an iterative implementation process, being modified and refined to be used more effectively. They also state that multiple actors with different (multidisciplinary) backgrounds need to be involved at the same time – including line management and employees – and that these actors actively interact with each other, devoting time and effort to move the practice in their desired direction (Trullen et al., 2020). It needs further exploration, in research and in practice, to find out if, how and how well, the active involvement of multiple actors indeed helps to increase the desired agency of academic staff and in addressing employee outcomes. According to the aforementioned Harvard model, employee influence (employee involvement, autonomy and opportunity to participate) is the most powerful HRM domain (Beer et al., 2015). This is also acknowledged in other theoretical frameworks such as the well-known AMO model* (Appelbaum et al., 2001) in HRM and the job demands–job resources model (Bakker & Demerouti, 2018) in Health Psychology. Employee influence in combination with teamwork and team spirit as suggested by the Recognition and Rewards movement could be the next step towards a more open approach to talent management in higher education.

In addition, the question can be raised whether the responsibility for talent management goes beyond the responsibility of a single higher education institute in its role as an employer. The Open Science movement has been criticized because of its potential negative effects on the careers of early career scientists: what may be tolerated or even stimulated in one organization might be rejected by another academic employer. Chapter 9 shows that there are innovative coalitions and that

*AMO stands for employee abilities, employee motivation and employee opportunity to participate

cooperation exists, yet collaboration on human capital innovation is still in its infancy. Mainly policymaking bodies have the intention to collaborate, and even though their policies affect the academic careers, the talents are not hired by them. At the university level, there are alliances, but not yet cooperation in attracting, developing and retaining talent. Nonetheless, inter-organizational collaboration on talent management is an innovative approach and needs to be explored further in both practice and research. The Open Science movement could lead to an Open organization talent approach in which employees cross organizational boundaries including structural and strategic workforce exchange. This type of talent exchange can build on existing forms of (inter)national fellowships, although the existing fellowships are still mainly individualistic, research focussed and strongly linked to personal (often privileged) networks. Yet, institutional incentives such as the Dutch NWO Rubicon grants for postdoc researchers to do research projects at a university outside the Netherlands could be the basis for talent exchange on multiple domains including teaching and public engagement activities.

Future Research Directions

As mentioned in the introduction section, this book is focussed on higher education in Europe, in general, and in some chapters, in specific, on higher education institutes in the Netherlands. Although we believe that the Open Science movement is for universities worldwide a major force for transformation, we do think that the European institutional context differs from, for example, the United States or the Asian region. We therefore think that for a clearer and complete picture of talent management in higher education, more research in other countries and regions is required.

We are also aware that this book is focussed on a specific set of institutes in higher education, that is, the universities providing higher *academic* education. As Schippers pointed out in Chapter 1, in many countries, also institutes for higher *vocational* education exist (e.g. the Fachhochschule or Universities of Applied Science). In part, the developments ascribed in this book also apply for them. Although they have also been subject of New Public Management principles, this did not result in the prominence of research excellence. Providing high-quality and yet affordable education was their core business. In numerous European countries, many of these institutes are now transforming from an educational institute to a knowledge institute, as they have also picked up research (and currently also Lifelong Learning) as a primary task. Often, the systems and practices at the academic universities are taken as an example to organize the research activities at the higher vocational institutes. This book has shown that it is important to exercise restraint in imitating the hard performance-oriented approach to research excellence, because of its perverse effects on the work climate, the careers of researchers and, subsequently, on employee well-being. Our advice to higher vocational institutes is to learn from the lessons of the academic institutes but to walk their unique own path on increasing societal impact via education, research and lifelong learning. However, what works best and for whom in higher vocational education is hard to tell. Research on HRM and talent management

for staff members of higher vocational institutes is even scarcer than research on this subject in academia. It would be worthy to do more research in this specific set of organizations within higher education, since this will help higher vocational institute to address the issues they are confronted with.

The chapters in the book address the way the highly dynamic environment and the transformational changes universities are confronted with affect the talent management approach in academia. The mainstream talent management literature has a rather static view on the talent management process (Thunnissen et al., 2013; Thunnissen & Gallardo-Gallardo, 2017). More research on talent management in highly dynamic contexts is required. In particular, multilevel and longitudinal research might be helpful to explore if and how talent management changes and develops over time.

In Chapter 9, Paul Boselie explored how employers in ‘the war for talent’ start to unite and collaborate with each other, in order to change the talent management system at a sectoral level. This inter-organizational collaboration and ‘Open Organization talent approach’ is ground-breaking, especially in a context that can be characterized as highly competitive. We echo the aforementioned recommendation and stress the need for more research on inter-organizational collaboration and cooperation in talent management.

This book has illustrated some important issues regarding the ethics in talent management in such a highly competitive and exclusive work environment. Given this issue, we were delighted to take notice of an increase of research on ethics and talent management (Anlesinya et al., 2019; Anlesinya & Amponsah-Tawiah, 2020; Kwon & Jang, 2022), yet considering the issues addressed in this book, more research on this topic is required. Since many of the current publications are conceptual papers, we specifically call up for more empirical research on ethics and fairness and justice issues, in particular in relation to employee outcomes.

In the past, a considerable amount of academic research on talent management has been devoted to the identification and attraction of talent (Thunnissen & Gallardo-Gallardo, 2019). In practice, we see a trend from ‘buying talent’ to ‘making talent’ via talent development. Even though scholars have picked up the trend, the number of publications on talent development as well as on talent and career development is still limited (Gallardo-Gallardo & Thunnissen, 2022). More research on this matter is necessary.

Recommendations for Practice

Throughout this book, several recommendations for practice have been given. In conclusion, they can be summarized as follows:

- We advise the institutes that adhere the Open Science movement to contribute to a shift from an exclusive performance-oriented approach to talent to a combination of an exclusive and inclusive approach. In the inclusive approach, the talents underneath the TRIPLE model (this stands for: Team, Research, Impact, Professional performance, Leadership, Education) can provide guidance for broadening the scope. When adopting a team-based approach, it is important to develop and implement practices at strengthening the outcomes

on the team level and not just the individual outcomes. The TRIPLE model and the Open Science movement may also help to identify the key positions in the organization, which is relevant in the more exclusive talent approach.

- Not measuring performance – even in the broad sense of open science – but strengthening the quality of work regarding education, research, professional performance and societal impact and creating a learning climate should be the core principle of performance evaluations and quality systems. This may help in tearing down the highly competitive performance culture. Also, role models may be relevant in this case. Moreover, when measuring performance, we suggest the application of ‘meaningful metrics’ that are linked to (1) the specific context (often the discipline) and (2) the strategic choices made by the institute in terms of ambitions and goals and to use metrics that are developed in cooperation with the ones involved in the activities.
- This book shows a shift from the dominance of organizational well-being (organizational effectiveness) to including societal well-being as an outcome of talent management in academia. Yet, over the past decades, employee well-being has been under severe pressure. We therefore urge to explicitly add employee well-being as a goal of the Open Science and Recognition and Rewards movements. Recognition and Rewards already integrated the concept of meaningful work, yet the book chapters show that more steps need to be taken in order to secure quality of work and a decent work environment; also job security, work–life balance, connection with colleagues and offering development and learning opportunities to everyone need to be integrated into the ideas of Open Science and Recognition and Rewards.
- We also urge to investigate whether the inclusive approach is really that inclusive and gives room to the selection and development of the ‘not-so-usual suspects’, such as females and employees with a migrant background.
- The Open Science transformation is a bottom-up movement, with a lot of scholars actively engaged and committed. When it comes to developing and implementing new talent management practices, it is also worthy to actively involve them and to let them interact in pilots. With ‘them’, we mean both the innovators and the critics, as this may also be a way to increase mutual understanding.
- Our final recommendation is to follow up the first steps taken on the innovative coalitions and cooptation in Open Science and Recognition and Rewards. It might be a way to solve some of the critical issues in the transformation. It is also very innovative for competitors on the academic labour market to collaborate on human capital issue. In this way, universities will set an example for other employers.

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